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USAID SOUTH AFRICA SO5 DATA QUALITY ASSESSMENT

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by

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Acronyms

ADS	Automated Directive System
Agrilinks	Agribusiness Linkages
CEOE	Commodity Employment Opportunity Equivalents
COP	Chief of Party
COTR	Contracting Officer Technical Representative
DQA	Data Quality Assessment
ECI	Ebony Consulting International
FINCA	Foundation for International Community Assistance
GAPP	GEAR Agricultural Privatization Project
GOSA	Government of South Africa
HDEs	Historically Disadvantaged Enterprises
HIV/AIDS	Human Immune-deficiency Virus/Auto Immune Deficiency Syndrome
IEC	Information, Education, Communication
IR	Intermediate Result
ISO	International Organization for Standardization
IT	Information Technology
OF	Organizational Framework
PDI	Previously Disadvantaged Individual
PMP	Performance Monitoring Plan
PWC	Pricewaterhouse & Coopers

SAIBL	South African International Business Linkages
SEMED	Sustainable Employment and Micro-Enterprises Development
SMME	Small, Medium, and Micro-Enterprises
SO	Strategic Objective
SO5	Strategic Objective Five: Increased Market Driven Employment Opportunities
SOW	Scope of Work
TIPS	Performance Monitoring and Evaluation Guidelines for Indicators and Data Quality
USAID	United States Agency for International Development

1. Executive Summary

Over one month, the three-person Assessment Team (Team) conducted a broadly-defined Data Quality Assessment (DQA) for USAID/South Africa's Strategic Objective 5 programme. The DQA comprised two main parts: (an analysis of indicator quality (found in section 5) and an analysis of the data quality processes in place for each partner (found in section 4). This is a slight deviation from the standard DQA approach – in that the portion of this DQA that evaluates data quality has as its focus the capacity of the partners to manage, collect and report on SO5 indicator data, rather than an evaluation of the data in terms of the indicator definitions contained in the USAID Performance Monitoring Plan (PMP). The reasons for this approach are as follows:

- First, the generally broad and weak definitions contained in the USAID/SO5 PMP -- a fact borne out in this exercise – prompted the SO5 partners to adopt their own operational definitions consistent with both their regular operations and the broad USAID PMP framework. As a result, there are more than 5 different definitions being used for nearly every indicator assessed for this DQA. The data collected for each of these definitions are significantly different from each other in their statistical natures, thereby precluding their aggregation at a higher level (i.e. by USAID).

- Second, the lack of common partner definitions for each indicator drove the Team's methodological approach for the DQA – as it wasn't possible to aggregate the DQA findings from each partner into a single DQA finding for an indicator, because of the varying definitions. Therefore, a DQA was completed for each partner organization independently from the others – with the results representing the quality of the individual partners' systems for ensuring data quality, rather than the overall quality of the indicator data.

  Thus, each partners' indicator definitions were evaluated against the established USAID criteria for data quality, and the resulting assessment focuses on each partners' capacity to collect and report on quality SO5 data, including strengths and vulnerabilities in the partner's data quality management systems, and recommendations to address non-conformities and vulnerabilities (see Section 4).

All the partners were highly supportive of the Team, and provided excellent cooperation. They were also positive with regard to the Team's recommendations for improvements within their data quality systems. While each data quality analysis is unique to the respective implementing partner, and no evidence was found at audit to suggest that the figures being reported were not true, several findings apply across the board to all partners, as follows:

- Most partners have excellent quality management systems for the collection of data that is directly linked to their operations (i.e. primary data) thereby ensuring data validity and reliability of primary data.
- However, some weaknesses were noted in all partners:
  - Data reported are not consistently backed by an audit trail.
  - Margins of error within the data, as related to inherent measurement and transcription error at partner level, are not established.
  - Secondary and tertiary data are not confirmed as valid and reliable by either the partners or USAID.
  - The aggregation of data of dissimilar statistical natures, at both partner and USAID levels, reduces the validity of reported results.

Section 5 of this report contains an assessment of *indicator* quality that includes analyses of both the existing performance indicators as well as proposals for indicator modifications. The team's judgment of the quality of the individual SO5 indicators was conducted independently from the DQAs, but incorporates partners' general observations on quality issues for each indicator. The major findings related to indicator quality include:

- The majority of performance indicators as defined by USAID are poor in terms of their fundamental directness, objectivity and adequacy; therefore, it is impractical to reconcile the different definitions currently being used by partners given the fundamental weakness of the initial indicator. Rather a substitute indicator altogether is recommended in most cases.

- Some performance indicators require partners to collect data that is not part of their normal partner operations – thereby leading to a poor "fit" between partner programmes and the indicator data being reported.
- An additional performance indicator reflective of increased access to markets is required.

Section 6 of the report provides observations on the relationships among the indicators and on the strategic objective. An Organizational Framework (OF) presents the linkages within the SO5 program in terms of inputs, activities, outputs, outcomes and impacts. The OF clarifies the source of some of the problems encountered by partners in reporting on performance indicators. For example, the rationale is given for why current partners should not be responsible for performance–level reporting against the SO5 SO but could continue to report employment as a data point. This is principally because the creation of employment opportunities does not drive the partners' business growth strategies. Hence, performance data collected at this level by partners is not closely linked to their normal operations, which lowers the validity and reliability of the reported data. Additionally, the OF points out that input-level measures, such as training and HIV/AIDS, are inappropriately used as performance measures and suggestions are made to redress this problem.

Accordingly, given the partners' difficulties and costs of more accurately and reliably measuring employment impact of their programs, an alternative OF is proposed that puts less responsibility on the partners for reporting on employment, and rather suggests that an external survey be conducted every two years to measure the employment effects of the partners' programs. The external survey would necessarily require a control group against which the partners' performance could be compared, and in this regard, some of the tradeoffs for different methodologies are proffered.

SO5 may ultimately determine that a multi-year impact survey designed to capture program impacts on at least a few of the partner client groups is impractical. If this is the case, there is the option of modifying the SO to reflect business/agribusiness growth as the SO itself, while concurrently collecting information on employment but not as an "auditable" performance indicator. In fact, the Team strongly encourages USAID to review the current results framework in light of both the complexities of gathering data on employment and the strong influence of exogenous variables on employment, such as the political framework, regulatory environment, and government administrative capacity.
A third option, but least desirable in the opinion of the Team, would be to continue with the status quo, but make significant changes in the way the partners measure employment. This will require the partners to expend considerably more effort and would probably demand additional resources for each of them.

In summary, while the DQA identified several non-conformities and vulnerabilities for each of the USAID key partners, overall, their data collection and reporting systems were determined to be sound. Most of the identified problems were classified as minor, rather than major, signifying that the concerns can be readily corrected.

On the other hand, the Team was concerned by the low quality of several of the performance indicators contained in the USAID PMP. It is the Team's belief that this, more than any other factor, has contributed to confusion among the partners and USAID about indicator and data quality issues.

Perhaps one of the lessons coming out of this exercise is that there is a high risk associated with low indicator quality -- in that it may mask a good understanding of both good and poor data quality management systems.

2. Background to SO5 Data Quality Assessment

The U.S. Agency for International Development (USAID) requires that all program performance data presented in USAID Mission Annual Reports is valid, complete, accurate and consistent with management needs. In support of this requirement, USAID policy (ADS 203) requires that a Data Quality Assessment (DQA) be performed when establishing indicators that are to be reported on in Annual Reports. Data quality must be reassessed as needed, but no less than once every three years. In accordance with Solicitation No. 0093-1102-SOL-MES, performance of a DQA for USAID/SA's Strategic Objective No. 5 (SO5), "Increased Market-Driven Employment Opportunities", was the major purpose of this exercise. Importantly, this DQA was defined broadly to also include an assessment of the quality of SO5 performance indicators. Revision of the SO and its associated framework lay outside the requirements of this exercise.

Therefore, the primary objective of this DQA was to assess both the quality of SO5 indicators and the quality of the data collected and reported on by individual implementing partners. It is expected that this assessment will support the SO5 team in its efforts to strengthen their Performance Monitoring Plan (PMP). In response to the above referenced solicitation, a three person Team was mobilized over a period of approximately one month to carry out the work. In developing the methodology (described in the following section) for this DQA, the Team was guided principally by:

- ADS 203 (Assessment and Learning);
- Pricewaterhouse Coopers (PWC) "Performance Management Toolkit";
- Performance Monitoring and Evaluation (TIPS) Guidelines for Indicator and Data Quality; and
- ISO/DIS 19011 Guidelines for Quality and/or Environmental Management Systems Auditing.

On April 3, 2003, USAID/SA briefed the Team on the rationale and context for undertaking the assessment and clarified and/or confirmed the parameters of the DQA. As a result, three clarifications to the DQA Scope of Work were made, as follows:

- Only the six key performance indicators identified in the Scope of Work (SOW) were to be covered by the assessment, namely:
    - Employment Opportunities Created in the SMME and Agribusiness Sectors
    - Number of Completed Business Transactions
    - Value of Completed Business Transactions
    - Value of Finance Accessed
    - Entrepreneurs/Firms Receiving Training
    - Number of Beneficiaries Receiving HIV/AIDS Information/Training
- The assessment would be limited to the five major partners, namely:
    - Agribusiness Linkages (Agrilinks)
    - South African International Business Linkages (SAIBL)
    - Sustainable Employment Micro-enterprise Development (SEMED)
    - Foundation for International Community Assistance (FINCA)
    - GEAR Agricultural Privatization Project (GAPP)
- Guidance for biotechnology indicators would not be required.

3. Methodological Approach

3.1. Introduction

Due to the nature of the SOW, the Team believed that there was a need to assess data quality in conjunction with an evaluation of the quality of the indicators due to their inherent relationship. Regarding the indicator assessment, the Team initially developed a spreadsheet tool to guide separate focus group discussions with each partner for the purpose of identifying the issues/problems associated with each indicator (Appendix A). Information from the focus groups was analyzed in accordance with the ADS 203 indicator quality criteria, with results presented for each indicator in section 5. This section of the final report titled, "Performance Indicator Quality Assessment," addresses the definitional and data limitation issues that are of such importance in this DQA. The relationships and interdependencies amongst the indicators are addressed in section 6.

The Team's approach to assessing the quality of data collected and reported on by the individual partners was based on the internationally recognized International Organization for Standardization (ISO 19011) "Guidelines for Quality and/or Environmental Management Systems Auditing". This involved a standard data verification process on site that was administered by the Team. The approach required that partners complete the Data Quality Assessment Checklist (Appendix B: Worksheet 7) prior to the on-site visit. All partners received the worksheet electronically and were notified of the requirement to complete it. The Team then reviewed the information presented in the checksheet and performed the verification process of the data in accordance with the ISO 19011 guidelines[1]. The results of the validation process allowed the Team to assess each organization's capacity to collect and report on SO5 indicator data, and to point out strengths and vulnerabilities in the partners' data systems. This information is contained in summary form in section 4 of the report titled, "Data Quality Assessment." (Appendices C-G contain the full analyses supporting these summary findings).

The methodology was explained to the USAID staff at a meeting held at their offices in Pretoria on the afternoon of Friday the 11th of April where the Team addressed issues and concerns pertaining to the approach.

3.2. Work Plan

Attached is the work plan and calendar (Appendix H) containing the key benchmarks and corresponding Team responsibilities for this exercise. The following provides a brief chronological description of the activities conducted:

a. Preliminary review of the DQA documentation (ADS guidelines, TIPS, PWC Toolkit, etc), and preliminary discussion with USAID/Washington personnel to identify priority issues & concerns.

b. Initial consultations with mission personnel to:

- Review the overall scope of work for the SO5 DQA, as well as the current SO5 Performance Monitoring Plan;
- Clarify the set of indicators to be covered; and
- Discuss mission and bureau issues/concerns about indicators and data quality.

c. Preparation of a performance indicator spreadsheet tool to:

- Guide focus group discussions with partners about indicator quality issues, and
- Provide the information source for indicator quality assessment tables on each indicator.

d. Intensive follow-up consultations with implementing partners to:

- Gather the information for completing the Performance Indicator Spreadsheet Matrix. Once completed, the Team prepared the indicator quality assessments for each indicator which

[1] See section 3.3 for methodology.

address the criteria contained in the "Performance Indicator Quality Assessment (Appendix I: Worksheet 5); and,

- Conduct a validation exercise of data quality with each partner based on the information contained in Data Quality Assessment Worksheet # 7 using the ISO 19011 audit guidelines method.

e. Drafting of the various sections of the report in accordance with the time frame contained in the attached work plan calendar.

3.3. Data Quality Assessment Methodology

The DQA was based on the comparison of the audit evidence provided by the individual partners with the quality criteria for data, as set out in worksheet 7. The quality criteria examined were validity (V), reliability (R), timeliness (T), precision (P), and integrity (I). In essence, the purpose of the DQA audit was to establish whether there are any significant areas of strength or concern in each of the partners' ability to manage data to the highest level of validity and accuracy. In part, because of the relatively broad indicators contained in the PMP, as well as the great variation in the nature of the partners' activities and operations, the audit was based on the definitions used by the partners themselves. This formed the most appropriate method to test their data quality management systems.

The audit technique was based on a sampling of evidence, which was required to be both valid and verifiable, to determine whether the partner met or was able to meet the set quality criteria. As a sampling technique was used, as is standard audit practice, it is not possible to confirm with 100% accuracy whether the partner meets all the criteria, in every circumstance, and thus the audit has some inherent limitations. Multiple techniques were used during audit to gather and verify information including observation, interview, document review and data review.

Audit findings are the results of the evaluation of the collected audit evidence against the audit criteria and were defined as follows:

a. A **NON-CONFORMITY** was declared when the audit evidence showed that there had been non-fulfillment of a criterion. Such non-conformities were classified as **MINOR** or **MAJOR** and result in a lowering of scores for the criterion.

- A **minor non-conformity** indicated a failure to meet a required data quality criterion. Despite this failure the overall data quality characteristic e.g. validity, could still be achieved.
- A **major non-conformity** indicated a failure to meet a required data quality criterion. This failure prevented the achievement of the overall data quality characteristic.

b. An **OBSERVATION** was noted when a **STRENGTH** or **VULNERABILITY** was noted in the partner's data quality system, which importantly, was not a non-conformity.

- **Strengths** are identified with the purpose of giving positive feedback, which allows for a partner to focus on those areas of operation, which may be less effective and efficient.
- **Vulnerabilities** are identified with the express purpose of giving the partner information on areas, which if not managed, may in the future result in a criterion not being fulfilled. They are an indication of risk and extremely useful for internal management use. Vulnerabilities do not affect the scores assigned for achievement of criteria.

c. Achievement of the criteria by the partners was scored in order to give an overall assessment of the partners' conformance to the data quality requirements. The scoring rubric was as follows:

- Three (3): Indicating that the partner met the criterion in its stated form, even if vulnerabilities were noted for the criterion.
- Two (2): indicating that a minor non-conformity had been identified.
- One (1): Indicating that a major non-conformity had been identified.

The results of the DQA, per quality attribute, are averaged over the number of required criterion. The results are presented as a nominal scale between one (1) and three (3) where one (1) indicates

an absolute failure to achieve the required attribute and three (3) indicates that ideal data quality is achieved, even in the face of identified vulnerabilities.

It is essential for the reader to note that the scores given are an indication of relationship between conformance-level requirements and actual practice. It is thus possible for a partner to achieve a high score for the conformance of their practice to their own definition, even when there are significant vulnerabilities in their systems.

Furthermore as a high score can be achieved against a poor definition, the issue that this DQA measures is: "*Is a partner able to define, implement and measure their practices for data quality and manage and improve them consistently?*"

4. Data Quality Assessments

The results and recommendations associated with the Data Quality Assessment (DQA) verification audits for each of the partner organizations, per performance indicator, are given in the tables below. Given the relatively broad and weak definitions of the indicators provided by USAID[2], the partners have all adopted varying definitions consistent with their own internal operations. While all partner definitions remained within the broad framework of the USAID PMP, there is, in effect, no common definition for the indicators in practice. Moreover, the team made no attempt to reconcile the varying definitions for a single indicator, because of the basic weaknesses of some indicators as defined by USAID. Instead, alternative indicators are proposed in section 5 to substitute for those weak indicators currently in use.

Therefore, the methodology for the DQA is based on comparing the individual partners' indicator definitions against the USAID standards for data quality.

By assessing the data quality associated with each indicator, per partner, this DQA has evaluated the ability of each of the partners to meet the USAID basic data quality requirements. The complete DQA analyses in support of the findings are attached in Appendices C to G.

For each partner the results of the DQA, per quality attribute, are presented as a nominal scale between one (1) and three (3) where one (1) indicates an absolute failure to achieve the required quality attribute and three (3) indicates that ideal data quality is achieved[3].

4.1. Agribusiness Linkages II (Agrilinks)

The details of the DQA results for the four (4) indicators on which Agrilinks reports are given in sections 4.1.1 to 4.1.4 below. These indicators are:

- Employment Opportunities Created
- Number and Value of Completed Business Transactions
- Value of Finance Accessed
- Number of Entrepreneurs Receiving Training

Agrilinks has extensive access to primary data due to the size and nature of its interface with its clients. The management of data quality is given significant priority. An excellent IT-based business intelligence framework enables the partner to meet its stated objectives in terms of the partner's definitions of the indicators. In addition, the transparency of the data quality management system, and the stringency with which it is applied, allows for easy verification and validation of the data collected and manipulated as part of their normal activities. The human resource management component of the system is backed by a strong code of discipline, which is strictly applied, and which reduces the risk of false reporting.

The vulnerabilities within the Agrilinks data quality management system are related to the sources and reliability of secondary and tertiary data that it requires for input into some data manipulations. The uncontrollable factors within these data sources and the difficulties associated with the acceptability of these sources limit an otherwise tightly managed system.

4.1.1. AGRILINKS DQA: Employment Opportunities Created

Result:	Increased Market Driven Employment Opportunities									
Indicator:	Number of Market Driven Employment Opportunities Created									
Score[4]:	**V**	2.8	**R**	3	**T**	3	**P**	2	**I**	3

[2] A fact borne out in the analysis of indicator quality, section 5.
[3] See methodology, section 3, for details.
[4] Validity (V), reliability (R), timeliness (T), precision (P), and integrity (I)

Data Limitations (Non-conformities):	
Non-conformity 1:	The relationship between the indicator and the result is logical but subject to significant uncontrollable factors. The vulnerability lies in relation to the secondary and tertiary sources of data required for the extrapolation. The non-conformity is classified as MINOR.
Non-conformity 2:	The specific acceptable level of error within the calculation of employment opportunities has not been set. This limits the identification of potential negative trends in terms of data quality and the timely correction and prevention thereof. The non-conformity is classified as MINOR.
Strengths and Vulnerabilities:	
Strength 1:	The primary data that is used to measure transaction value, and that is used as an input into the extrapolation instrument, is collected directly by the partner and is well controlled, documented and accurate.
Vulnerability 1:	The validity and reliability of the secondary and tertiary data that is contained in the "Enterprise Budgets" from which the CEOE is derived is not under the direct control of the partner and is not subject to the same level of data quality vigor as the primary data collected by the partner. The inclusion of the CEOE values in the extrapolation formulae reduces their statistical validity and reliability.
Vulnerability 2:	The survey methodology used for the establishment of current market wages offers vulnerability in that the validity and reliability of the survey tool has not been established. Secondly, any use of wage structures lower than the legal level may reduce external/political acceptability of the result.
Vulnerability 3:	The exclusion of data due to a missing CEOE value may result in under-representation of data within the total population. This results in an unknown under-reporting bias and margin of error.
Vulnerability 4:	Timeliness is at risk should the updated data associated with the "Enterprise Budgets" not be generated or distributed by the secondary source. This is a factor over which the partner has no current direct control.
Vulnerability 5	No independent reviews have taken place to date leaving the system open to criticism.
Recommendations:	
R1.	If this partner is to continue to report on employment then a definition of "employment opportunity" which allows for the reduction of the vulnerabilities offered by the secondary and tertiary data is essential. This will need to be made at the USAID level and must take due note of the nature of that primary data over which the partner has control.
R2.	All secondary and tertiary data sources must be valid and consistent across the data population for which they are going to be used. Ratification of such validity and consistency must be sought when such sources are not widely used.
R3.	Should wage based-data be included then this should be based on the minimum legal wage within the context to which the wage is being applied.
R4.	Should CEOE values continue to be used then these must be established across all provinces for all commodities reported on, using the same tested valid and reliable methodology.

R5.	In order to minimize risk associated with an external source of secondary and tertiary data, the partner will need to proactively establish whether the third party intends to continue to update and distribute the required data.
R6.	It is essential that the concept of margin of error be explored in more depth. Attention should be paid not only to "margin of error" in terms of the difference desired in the indicator being measured but also in the accuracy of the technique itself. In the case of a lack of empirical evidence to set such error limits anecdotal evidence suffices until a trend analysis is conducted.
R7.	Any extrapolation formula, which is not necessarily part of currently accepted economic dogma, should be peer reviewed in order to allow for a higher degree of general acceptability prior to institution and/or continued use.

4.1.2. AGRILINKS DQA: Number and Value of Completed Business Transactions

Result:	Increased Commercial Viability of Existing Small and Medium Agribusinesses									
Indicator:	Number and Value of Business Transactions									
Score:	**V**	3	**R**	3	**T**	3	**P**	2.6	**I**	3

Data Limitations (Non-conformities):

Non-conformity 1:	The effect of the exchange rate and time of calculation of exchange is not taken into account in the determination of error. Classification of non-conformity is MINOR.

Strengths and Vulnerabilities:

Strength 1:	The nature of the activity provides an excellent direct source of primary data.
Strength 2:	The Activity Reports allow for an accurate measure of the currency of the data put into the IT system. This ensures that the partner has a tight system of internal management control and is able to quickly identify the "out-of-control" data, thus reducing risk of collecting stale primary data.
Strength 3:	The fact that not only does the partner have a strong disciplinary code with regards the inappropriate manipulation of data, but also actively implements the system, ensure that such inappropriate behavior will not be tolerated.
Vulnerability 1:	The logical link between the activity and measurement is at risk due to the breadth of the USAID definition and the partner's application thereof.
Vulnerability 2:	The lack of a specific internal audit trail that demonstrates when and how spot checks are and were made leaves the partner open to risk should action need to be taken on the basis of the results of such checks.
Vulnerability 3:	No independent reviews have taken place to date leaving the system open to criticism. Risk associated with this vulnerability is offset by the strength noted above.

Recommendations:	
R1.	USAID must clearly delineate the definition of a transaction so as to ensure that the partner is best able to make use of primary data to which they have access and over which they have direct control.
R2.	A specific internal audit trail is required to demonstrate that any non-conformities that arise in the system are noted, corrected and prevented.
R3.	The target for acceptable margin of error must be adjusted to be reflective of potential error resulting from exchange rate changes and time of reporting versus data input, particularly if an increase in foreign transactions is anticipated.

4.1.3. AGRILINKS DQA: Value of Finance Accessed

Result:	Increased Small and Medium Agribusiness Access to Finance									
Indicator:	Number and value of Finance Accessed by Entities									
Score:	**V**	3	**R**	3	**T**	3	**P**	3	**I**	3

Data Limitations (Non-conformities):	
Nil	
Strengths and Vulnerabilities:	
Strength 1:	The fact that not only does the partner have a strong disciplinary code with regards the inappropriate manipulation of data, but also actively implements the system, ensures that such inappropriate behavior will not be tolerated.
Vulnerability 1:	The lack of a specific internal audit trail that demonstrates when and how spot checks are and were made leaves the partner open to risk should action need to be taken on the basis of the results of such checks.
Vulnerability 2:	The specific acceptable level of error for the reporting of financed access has not been set. This limits the identification of potential negative trends in terms of data quality and the timely correction and prevention thereof.
Vulnerability 3:	No independent reviews have taken place to date leaving the system open to criticism. Risk associated with this vulnerability is offset by the strength 1 noted above.
Recommendations:	
R1.	A specific internal audit trail is required to demonstrate that non-conformities that may arise in the system are noted, corrected and prevented.
R2.	It is essential that the concept of margin of error be explored in more depth for all of the partner's current data practices. Attention should be paid not only to "margin of error" in terms of the difference desired in the indicator being measured but also in the accuracy of the technique itself. In the case of a lack of empirical evidence to set such error limits anecdotal evidence suffices until a trend analysis is conducted.

4.1.4. AGRILINKS DQA: Number of Entrepreneurs Receiving Training

Result:	Enhanced Small and Medium Agribusiness Capacity to Respond to Market Opportunities									
Indicator:	Number of Entrepreneurs who Receive Business Training									
Score:	**V**	2.7	**R**	3	**T**	3	**P**	3	**I**	3

Data Limitations (Non-conformities):

Non-conformity 1:	The ambiguity within the definition of training reduces the logical relationship and introduces some minor uncontrollable factors. The definition used for training by the partner is open to interpretation by the data gatherers and thus data included cannot always be attributed to singular discrete variables (e.g. formal interventions versus mentoring). The uncontrollable factors are not significant and can be easily rectified. The non-conformity is classified as MINOR.
Non-conformity 2:	It is not possible to define the total population in terms of the current data available and thus representativeness of data cannot be audited. This results from not all activities, which could be considered to be of a "training" nature, being included in either the activity reports or the training registers. The non-conformity is classified as MINOR.

Strengths and Vulnerabilities:

Vulnerability 1:	The lack of any specific data collected or available, which indicates how many persons do not fill in the registration form at all, may lead to an underreporting bias in the data reported to USAID.
Vulnerability 2:	Transcription error potential exists when register not completed in full or in line with generally accepted terms. For example when "sex" is filled in as "G" rather than "M" or "F'.
Vulnerability 3:	The lack of a specific internal audit trail that demonstrates when and how spot checks are and were made leaves the partner open to risk should action need to be taken on the basis of the results of such checks.
Vulnerability 4:	The specific acceptable level of error has not been set. This limits the identification of potential negative trends in terms of data quality and the timely correction and prevention thereof.

Recommendations:

R1.	The term "curriculum" has specific meaning in the South African context and would be best explained and if necessary replaced with something that reflects the predominance of the mentoring function carried out by this partner.
R2.	Field officers need to ensure that registration forms are completed in full at the time of the training intervention.
R3.	Field officers require additional guidance as to what specific interventions constitute training and when/how formal versus informal training sessions need to be reported on.
R4.	A specific internal audit trail is required to demonstrate that non-conformities in the system are noted, corrected and prevented.

R5.	Attention should be paid not only to "margin of error" in terms of the difference desired in the indicator being measured but also in the accuracy of the technique itself. In the case of a lack of empirical evidence to set such error limits anecdotal evidence suffices until a trend analysis is conducted.

4.2. South African International Business Linkages (SAIBL)

SAIBL's overall goal is to contribute to the structural transformation of the South African economy. Its main focus is on increasing the number of business transactions by, and with, Historically Disadvantaged Enterprises (HDEs). SAIBL's underlying purpose is to empower HDEs and thus ultimately increase employment in that sector of the economy.

SAIBL only began reporting on the employment indicator starting April 1, 2001, although the project began in October 1998. They do not report on jobs preserved but only on net jobs created that are attributable to SAIBL support. The internal system for capturing, manipulating, and reporting data is sound.

All of SAIBL's data is self-reported from the client, and this in itself represents a significant vulnerability for the entire data set, since none of the source data is confirmed or verified by the project team. The SAIBL project management team believes that all the data is accurate based on (i) their knowledge of each client, (ii) the high level of trust between the project staff and the client which minimizes any incentives for over or under-estimating the data requested, as well as (iii) their own internal review each quarter of all the data provided by the client and their querying (verbal inquiry) of large variances in data from what is expected.

SAIBL should consider a mechanism for verifying or confirming the data it receives through a sample survey of clients' records every year or two.

4.2.1. SAIBL DQA: Employment Opportunities Created

Result:	Increased Market Driven Employment Opportunities									
Indicator:	Net Change in Employees									
Score:	**V**	2.7	**R**	2.6	**T**	3	**P**	2	**I**	2.7

Data Limitations (Non-conformities):

Non-conformity 1:	The primary data is based on a single self-reported subjective measurement and based on the clients' perceptions of employment created attributed to SAIBL efforts. The data is dependent on the willingness of the client to report. The reported figures may not reflect actual employment created. There is no cross-check by SAIBL staff to verify data being reported by clients except when reported figures vary considerably from what SAIBL staff expect based on their knowledge and understanding of the company and its performance. When cases are cross-checked they are always cross-checked by phone. Thus final data numbers cannot be fully assured. There are therefore significant factors related to the measurement of this indicator, which are outside the control of the partner. These factors are related to subjectivity in client reporting. The non-conformity is classified as MAJOR.
Non-conformity 2:	There are no documented procedures for data collection, capturing, cleaning, analysis, or reporting, nor for quality assessment or the review of data quality. Classification of this non-conformity is MINOR.
Non-conformity 3:	The margin of error within the client self-reporting system is not defined nor established and thus inherent error is not measured. Inherent error in the data will be related to the ratio of reported level of employment to actual levels of employment. Classification of

	this non-conformity is MINOR.
Strengths and Vulnerabilities:	
Vulnerability 1:	The primary data does not specifically request the client to report on full-time jobs vs. other types of jobs. There is a risk that the client is including all types of jobs in a single figure. The inherent resultant bias is thus not known.
Vulnerability 2:	There is no written evidence in the project of the independent review of the data conducted by USAID.
Recommendations:	
R1.	If at all possible, random on-site spot checks of clients' employment source data should be done on a regular basis in order to verify the data being submitted.
R2.	The quarterly form requesting client data should be updated to disaggregate between part-time, and full-time employees at the company.
R3.	The documentation of the data handling procedures is required.
R4.	Calculation of the margin of error should reflect the variance between the actual and reported numbers of persons employed.
R5.	Some form of documentary evidence should support all internal audits and external reviews. The formation of an audit trail in respect of activities, which demonstrate the ability of the partner to identify, correct and prevent errors, is essential.

4.2.2. SAIBL DQA: Number and Value of Completed Business Transactions

Result:	More Rapid Growth of Existing SMMEs and Increased Viability of Small and Medium Agribusinesses									
Indicator:	Number and Value of Business Transactions Completed									
Score:	**V**	2.7	**R**	2.6	**T**	3	**P**	2.2	**I**	2.7
Data Limitations (Non-conformities):										
Non-conformity 1:	The data is dependent on the willingness of the client to report. No documentation is required to substantiate the values that are indicated in the clients' reports. Accordingly, the reported figures may not reflect actual value of transactions that can be attributed to SAIBL efforts. There is no cross-check by SAIBL staff to verify data being reported by clients except when reported figures vary considerably from what SAIBL staff expect based on their in-depth knowledge and understanding of the company and its performance as well as the information contained in TAMIS about SAIBL TA/training to the company. When cases are cross-checked they are always cross-checked by phone. SAIBL believes that the final data is credible because the level of trust between the project and clients is very high, and there is no incentive for the client to under- or over-report. Nevertheless, given these shortcomings, final data numbers cannot be fully assured. The non-conformity is MAJOR.									

Non-conformity 2:	The formulae for calculating the indicator changed in recent years, with the inclusion of additional types of deals that could be attributed to SAIBL efforts. This results in an unknown reporting bias that reduces the validity of the cumulative totals. Another formula issue concerns the rate of exchange applied each quarter since this has been up to SAIBL's discretion. The non-conformity is classified as MINOR.
Non-conformity 3:	There are no documented procedures for data collection, capturing, cleaning, analysis, or reporting, nor for quality assessment or the review thereof. Classification of this non-conformity is MINOR.
Non-conformity 4:	The margin of error is not defined nor established and thus inherent error is not measured. Inherent error in the data will be related to the ratio of reported value of transactions to actual values of transactions. Classification of this non-conformity is MINOR.
Strengths and Vulnerabilities:	
Vulnerability 1:	There is no written evidence in the project of the independent review of the data conducted by USAID.
Recommendations:	
R1.	If possible random on-site spot checks of clients' source transaction contracts should be done on a regular basis to verify the data being submitted.
R2.	Transaction value should be reported in Rands in order to reduce inter-partner error resulting from exchange rate differences.
R3.	Documentation of the project's data collection and handling procedures is required.
R4.	Calculation of the margin of error should include the variance between the actual and reported values of transactions.
R5.	Some form of documentary evidence should support all internal audits and external reviews. The formation of an audit trail in respect of activities, which demonstrate the ability of the partner to identify, correct and prevent errors, is essential.

4.2.3. SAIBL DQA: Value of Finance Accessed

Result:	More Rapid Growth of Existing SMMEs and Increased Viability of Small and Medium Agribusinesses									
Indicator:	Entities Accessing Finance and Value of Finance Accessed									
Score:	**V**	3	**R**	2.5	**T**	3	**P**	2.2	**I**	3

Data Limitations (Non-conformities):	
Non-conformity 1:	There are no documented procedures for data collection, capturing, cleaning, analysis, or reporting, nor for quality assessment or the review of data quality. Classification of this non-conformity is MINOR.

Non-conformity 2:	The margin of error is not defined nor established and thus inherent error is not measured. Inherent error in the data will be related to the value of actual finance accessed versus that reported. Classification of this non-conformity is MINOR.
Strengths and Vulnerabilities:	
Vulnerability 1:	Data depends on the willingness of the client to share the financial transaction documentation once the transaction is completed. There is no requirement that the client shares the documentation, and this may lead to omissions in the data set. The project staff believe their knowledge of the clients' businesses mitigate against loss of data.
Vulnerability 2:	There is no written evidence in the project of the independent review of the data conducted by USAID.
Recommendations:	
R1.	Documentation of the project's data collection and handling procedures is required.
R2.	Calculation of the margin of error should include the variance between actual figures and those submitted to SAIBL by clients.
R3.	Some form of documentary evidence should support all internal audits and external reviews. The formation of an audit trail for all reported activities, which demonstrate the ability of the partner to identify, correct and prevent errors, is essential.

4.2.4. SAIBL DQA: Number of Entrepreneurs/Firms Receiving Training

Result:	More Rapid Growth of Existing SMMEs and Increased Viability of Small and Medium Agribusinesses									
Indicator:	Number of Persons Trained									
Score:	**V**	2.7	**R**	2.4	**T**	3	**P**	2	**I**	3

Data Limitations (Non-conformities):	
Non-conformity 1:	There are no <u>formal</u> procedures for ensuring that data is complete. Cross-checking is done by the project officer at the end of each quarter, but double data entry does not ensure that missing data is tracked. Classification of this non-conformity is MINOR.
Non-conformity 2:	There are no documented procedures for data collection, capturing, cleaning, analysis, or reporting, nor for quality assessment or the review thereof. Classification of this non-conformity is MINOR.
Non-conformity 3:	The margin of error is not defined nor established and thus inherent error is not measured. Inherent error in the data will be related to the ratio of reported number of persons trained to actual numbers of persons trained. However, given that payment of the contractor is based on signed attendance registered, classification of this non-conformity is MINOR.

Strengths and Vulnerabilities:	
Strength 1.	The original request for assistance form and contract to the trainer includes the intended number of people to be trained. During the training, participants must sign the register to confirm their attendance. There is no additional payment to the trainer if more people attend the training. This reduces the risk of non-reported information.
Vulnerability 1.	If fewer people attend than were originally intended, ECI says that they may reduce the contractors' payment. This potential threat represents a disincentive for providing truthful information.
Vulnerability 2:	There is no written evidence in the project of the independent review of the data conducted by USAID.
Recommendations:	
R1.	A documented procedure for ensuring data completeness and cross checks during the data entry stage would reduce risk associated with missing data.
R2.	Documentation of the project's data collection and handling procedures is essential.
R3.	Some form of documentary evidence should support all internal audits and external reviews. The formation of an audit trail in respect of activities, which demonstrate the ability of the partner to identify, correct and prevent errors, is essential.

4.3. Sustainable Employment Micro-enterprise Development (SEMED)

SEMED is backed by an excellent, well-documented data collection/capturing/handling system. The system allows for the partner to meet its stated objectives in terms of the definitions applied by the partner to the various indicators. The results of the DQA are thus similar for each of the indicators assessed and there is much overlap between recommendations for the various indicators.

The definitions for several of the indicators underwent a change in 2002, and the data collected now is dissimilar to data collected pre-2002. Data is largely collected by field staff that all have performance targets to reach. This presents a vulnerability to the quality of the data, although SEMED has introduced cross checks (counter-signatures, accompanying documentation, spot checks by senior staff, etc.) to minimize the risk of an upward bias. However, not all of these cross checks are auditable. All data is captured and processed at the project's main office. Despite the growth of the project into new provinces, there is no plan to centralize data capturing to the provincial level as it is recognized by the project staff that this may introduce problems for quality control.

4.3.1. SEMED DQA: Number of Market-driven Employment Opportunities Created

Result:	Increased Market Driven Employment Opportunities									
Indicator:	Number of Market-driven Employment Opportunities Created									
Score:	**V**	3	**R**	3	**T**	3	**P**	2.2	**I**	3
Data Limitations (Non-conformities):										
Non-conformity 1:	The margin of error is not defined nor established and thus inherent error within SEMED's system is not measured. Inherent error in the data will be related to the ratio of reported level of employment to actual levels of employment and/or inherent system									

	error. Classification of this non-conformity is MINOR.
Strengths and Vulnerabilities:	
Strength 1:	SEMED has a strong disciplinary code with regards to the inappropriate manipulation of data. Disciplinary measures are enforced strictly.
Strength 2:	Whilst data collection methods and instruments have changed since the beginning of data collection, all changes to the system are traceable and logged on the system at the time of change.
Vulnerability 1:	The primary data is generated by project staff whose own performance targets include data collected for this indicator. Thus, potential bias is upwards. There is no field-level cross check, although the instrument MUST be countersigned "as correct" by a representative of the company.
Vulnerability 2:	The lack of a specific audit trail that demonstrates when and how spot checks are and were made leaves the SEMED open to risk should action be needed on the basis of such checks.
Vulnerability 3:	There has been no independent review of the data leaving the system open to criticism.
Recommendations:	
R1.	Where possible occasional random on-site spot checks of clients' employment data should be done on a regular basis to verify the data being submitted.
R2.	An audit trail pertaining to the spot checks is required.
R3.	Calculation of the margin of error should include an analysis of inherent systems error as well as reporting errors.

4.3.2. SEMED DQA: Number and Value of Business Transactions

Result:	More Rapid Growth of Existing SMMEs									
Indicator:	Number and Value of Business Transactions									
Score:	**V**	3	**R**	3	**T**	3	**P**	2	**I**	3
Data Limitations (Non-conformities):										
Non-conformity 1:	The margin of error inherent within the system (reported versus non-reported data) is not defined nor established and thus inherent error is not measured. The specific acceptable level of error has not been set. This limits the identification of potential negative trends in terms of data quality and the timely correction and prevention thereof. Calculation of the margin of error would necessitate an investigation of the existence of non-reported data. Classification of this non-conformity is MINOR.									
Strengths and Vulnerabilities:										
Strength 1:	SEMED has a strong disciplinary code with regards to the inappropriate manipulation of data. Disciplinary measures are enforced strictly.									
Vulnerability 1:	The primary data is generated by project staff whose own performance targets include									

	data collected for this indicator. Thus, potential bias is upwards. However, this is greatly minimized by the requirement of accompanying legal documentation to substantiate the value being recorded on the form. This requirement is very difficult to "create" or "forge".
Vulnerability 2:	A potential acceptability issue relates to the practice of counting a transaction twice when it involves two SEMED SMME clients.
Vulnerability 3:	The lack of a specific audit trail that demonstrates when and how spot checks are and were made leaves the SEMED open to risk should action be needed on the basis of such checks.
Vulnerability 4:	There has been no independent review of the data leaving the system open to criticism.
Recommendations:	
R1.	An audit trail pertaining to the spot checks is required.

4.3.3. SEMED DQA: Value of Finance Accessed

Result:	More Rapid Growth of Existing SMMEs									
Indicator:	Value of Finance Accessed									
Score:	**V**	3	**R**	3	**T**	3	**P**	2	**I**	3

Data Limitations (Non-conformities):	
Non-conformity 1:	The margin of error, in terms of non-reported transactions or exchange rate errors, is not defined nor established and thus inherent error is not measured. The specific acceptable level of error has not been set. This limits the identification of potential negative trends in terms of data quality and the timely correction and prevention thereof. Calculation of the margin of error would necessitate an investigation of the existence of non-reported data. Classification of this non-conformity is MINOR.
Strengths and Vulnerabilities:	
Strength 1:	SEMED has a strong disciplinary code with regards to the inappropriate manipulation of data. Disciplinary measures are enforced strictly.
Vulnerability 1:	The primary data is generated by project staff whose own performance targets include data collected for this indicator. Thus, potential bias is upwards. However, this is greatly minimized by the requirement of accompanying legal documentation to substantiate the value being recorded on the form. This requirement is very difficult to "create" or "forge".
Vulnerability 2:	The lack of a specific audit trail that demonstrates when and how spot checks are and were made leaves the SEMED open to risk should action be needed on the basis of such checks.
Vulnerability 3:	There has been no independent review of the data leaving the system open to criticism

Recommendations:	
R1.	An audit trail pertaining to the spot checks is required.

4.3.4. SEMED DQA: Number of Entrepreneurs who Receive Business Training

Result:	More Rapid Growth of Existing SMMEs									
Indicator:	Number of Entrepreneurs who receive Business Training									
Score:	**V**	3	**R**	3	**T**	3	**P**	2	**I**	3

Data Limitations (Non-conformities):	
Non-conformity 1:	The margin of error is not defined nor established and thus inherent error is not measured. The specific acceptable level of error has not been set. This limits the identification of potential negative trends in terms of data quality and the timely correction and prevention thereof. Inherent error in the data will be related to the ratio of reported number of persons trained to actual numbers of persons trained. Classification of this non-conformity is MINOR.

Strengths and Vulnerabilities:	
Strength 1:	SEMED has a strong disciplinary code with regards to the inappropriate manipulation of data. Disciplinary measures are enforced strictly.
Vulnerability 1:	The primary data is generated by project staff whose own performance targets include data collected for this indicator. Thus, potential bias is upwards. However, this is greatly minimized by the requirement of countersignatures by the trainees to substantiate the information recorded on the form.
Vulnerability 2:	The lack of a specific audit trail that demonstrates when and how spot checks are and were made leaves the SEMED open to risk should action be needed on the basis of such checks.
Vulnerability 3:	There has been no independent review of the data; this leaves the system open to criticism.

Recommendations:	
R1.	Occasional random checks of clients' training records should be done to verify the data being submitted.
R2.	An audit trail pertaining to the spot checks is required.
R3.	Calculation of the margin of error should include an analysis of actual numbers of persons trained versus numbers reported.

4.4. Foundation for International Community Assistance (FINCA)

The primary function of FINCA is the approval and disbursement of small loans to micro and survivalist enterprises that are run by women. As FINCA's financial systems are open to regular in depth scrutiny, the audit trail pertaining to the number and value of loans (finance) accessed is good and hence data quality pertaining to primary data collected as part of their normal operations is good.

The vulnerable data reported by FINCA pertains to that data which they must collect outside of their normal functions and which they must then manipulate in order to report on the "Value of Transactions" and "Employment Opportunities Created". In both cases use has been made of a survey, which has not been demonstrated to be either valid or reliable.

FINCA will require significant technical support related to data collection and reporting for any indicator, which is not within their current normal business operation. In addition the current set of indicators on which FINCA report, and the methods for calculating them form part of the contractual agreement with USAID and which, in interests of data quality, may require revision.

4.4.1. FINCA DQA: Jobs Created

Result:	Increased Market Driven Employment Opportunities									
Indicator:	Jobs Created									
Score:	**V**	2.4	**R**	2.3	**T**	3	**P**	2	**I**	1.6

Data Limitations (Non-conformities):

Non-conformity 1:	The formula used depends on two separate data sets: 1) number of new clients from the program's primary data, and 2) # of new employees per new client which is a fixed variable derived from the results of a snap survey conducted in 2002. The use of the fixed variable from the survey offers vulnerability in that the validity and reliability of the survey methodology (including sampling frame, sampling approach, and instrument) is not established. Moreover, relevance of snap survey results over the long-term, given changing economic conditions, is not established. Low validity results in the classification of this non-conformity as MAJOR.
Non-conformity 2:	Because the data point from the snap survey is based on a convenience sampling, results are not generalisable to the entire FINCA population. Classification of this non-conformity as MINOR.
Non-conformity 3:	Field staff were given financial remuneration for each survey instrument completed. This combined with the fact that instrument omitted items related to respondent details, or respondent signature, calls into question the reliability and objectivity of the results. Classification of this non-conformity is MAJOR
Non-conformity 4	Bar the flow charts, there are no other documented (written) procedures for data collection, capturing, cleaning, analysis, or reporting, nor for quality assessment or the review thereof. Classification of this non-conformity is MINOR.
Non-conformity 5:	The margin of error is not defined nor established and thus inherent error is not measured. Inherent error in the data will be related to the ratio of records excluded due to missing data. Classification of this non-conformity is MINOR.

Strengths and Vulnerabilities:	
Vulnerability 1:	The snap survey instrument did not request respondent details and respondent's signature, so no confirmation of data is possible.
Vulnerability 2:	No definitions for employees, but although are self-explanatory, the risk for subjectivity still exists.
Vulnerability 3:	There is no audit trail of the transcription process. Accordingly, quality of data capturing cannot be established.
Recommendations:	
R1.	Conduct the snap survey on an annual basis with significant modifications in the sampling framework, and instrument design.
R2.	Establish an audit trail for the snap survey data collection, capturing, and handling processes.
R3.	Ensure that any data collection process is free from the subjectivity that results from undue financial gain.
R4.	The documentation of the data handling procedures is required.
R5.	Calculation of the margin of error for all normal operations is essential in order to identify activities, which become non-conformant and introduce vulnerability.

4.4.2. FINCA DQA: Value of Business Transactions

Result:	More Rapid Growth of Existing SMMEs									
Indicator:	Value of Business Transactions									
Score:	**V**	1.8	**R**	2	**T**	3	**P**	2	**I**	1.6
Data Limitations (Non-conformities):										
Non-conformity 1:	The formula used depends on three separate data sets: 1) number of new clients from the program's primary data, 2) # of new employees per new client which is a fixed variable derived from the results of a snap survey conducted in 2002, and 3) margin and turnover rates for various business activities (derived from an extremely small sample of random interviews held each February in the Durban FINCA office). The use of the fixed variable from the two surveys offers vulnerability in that the validity and reliability of the surveys' methodologies (including sampling frame, sampling approach, and instrument) are not established. Moreover, relevance of the survey results over the long-term, given changing economic conditions, is not established. Low validity results in the classification of this non-conformity as MAJOR.									
Non-conformity 2:	Because the data points from the surveys are based on convenience sampling, results are not generalisable to the entire FINCA population. Classification of this non-conformity as MINOR.									
Non-conformity 3:	Lack of an instrument for random interviews results in no demonstrable validity,									

	reliability, consistency or integrity of data. Classification of this non-conformity as MAJOR.
Non-conformity 4:	Field staff were given financial remuneration for each survey instrument completed. This combined with the fact that instrument omitted items related to respondent details, or respondent signature, calls into question the reliability and objectivity of the results. Classification of this non-conformity is MAJOR.
Non-conformity 5	Bar the flow charts, there are no other documented (written) procedures for data collection, capturing, cleaning, analysis, or reporting, nor for quality assessment or the review thereof. Classification of this non-conformity is MINOR.
Non-conformity 6:	The margin of error is not defined nor established and thus inherent error is not measured. Inherent error in the data will be related to the ratio of records excluded due to missing data. Classification of this non-conformity is MINOR.
Strengths and Vulnerabilities:	
Vulnerability 1:	The SNAP Survey instrument did not request respondent details and respondent's signature, so no confirmation of data is possible.
Vulnerability 2:	No definitions for employees are given in the survey, and although these are self-explanatory, the risk for subjectivity still exists.
Vulnerability 3:	There is no audit trail of the transcription process. Accordingly, quality of data capturing cannot be established.
Recommendations:	
R1.	Conduct the surveys on an annual basis with significant modifications in the sampling framework, and instrument design.
R2.	Establish an audit trail for the surveys' data collection, capturing, and handling processes.
R3.	Ensure that any data collection process is free from the subjectivity that results from financial gain.
R4.	The documentation of the data handling procedures is required.
R5.	Calculation of the margin of error for all reported activities is required in order to identify activities that may become non-conformant and/or introduce vulnerabilities.

4.4.3. FINCA DQA: Value of Finance Accessed

Result:	More Rapid Growth of Existing SMMEs									
Indicator:	Value of Finance Accessed									
Score:	**V**	3	**R**	3	**T**	3	**P**	3	**I**	3

Data Limitations (Non-conformities):	
No non-conformities raised.	
Strengths and Vulnerabilities:	
Vulnerability 1:	There is a possible acceptability issue: no attribution is being made to USAID vs. other donors. 100% of the value is reported as attributable to USAID as well as other donors.
Vulnerability 2:	The lack of a specific audit trail that demonstrates when and how spot checks are and were made leaves the FINCA open to risk should action be needed on the basis of such checks.
Recommendations:	
R1.	Guidance must be sought from USAID as to whether it is acceptable to report 100% of value when there is more than one donor.
R1.	Documentation of the batch spot-checking process is required.

4.5. GEAR Agricultural Privatization Project (GAPP)

The GAPP project is based on the participation of the partner in privatization deals. From a data quality perspective this limits the access of the partner to a great deal of the primary data that would, in normal circumstances, ensure valid and reliable reporting. The DQA was performed in relation to:

- Employment Opportunities Created
- Number of Completed Business Transactions
- Value of Completed Business Transactions

The greatest difficulties encountered by this partner in terms of data quality are related to the mixing of various time-dependant data types, and then reporting these as an aggregated value. In addition there is a limited audit trail to verify or validate the reported figures. Guidance in terms of a more clear requirement of the reporting of transactions that reflects the prospective nature of much of this partner's work is required from USAID. As is the case with all partners, this partner should not be reporting on employment, at the performance indicator level (impact level), as the data to which the partner has access in this regard, could be not be shown to be either valid or reliable.

4.5.1. GAPP DQA: Employment Opportunities Created

Result:	Increased Market Driven Employment Opportunities									
Indicator:	Employment Opportunities Created in the SMME and Agribusiness Sectors									
Score:	**V**	2.7	**R**	2.6	**T**	3	**P**	1.6	**I**	2.6
Data Limitations (Non-conformities):										
Non-conformity 1:	Activity based on participation in privatization, hence the poor direct link between this activity and the measurement required for reporting purposes. The poor link results in									

	low validity of the reported results. The non-conformity is classified as MAJOR.
Non-conformity 2:	There are no documented procedures for the collection, cleaning, analysis, or reporting, nor for quality assessment of data or the review thereof. Classification of non-conformity is MINOR.
Non-conformity 3:	The margin of error between reported employment figures and actual or sustained/created employment numbers is not defined nor established and thus inherent error not measured. Non-conformity classified as MINOR.
Non-conformity 4:	Subjectivity inherent in the collection and establishment of the primary employment data. Non-conformity classified as MINOR.

Strengths and Vulnerabilities:

Strength 1:	Focus of program on privatization, not job-creation, reduces risk of "padded" data. The concept of employment is thus a useful tool for management decisions without being the driver for achievement of reporting numbers.
Vulnerability 1:	The primary data is collected on the basis of limited subjective measurement, which is based on the business case. The figures reported do not always appear in the business plans and thus are not always auditable. This reduces the possibility of detecting and correcting errors. Final data numbers can thus not be guaranteed.
Vulnerability 2:	The employment data reported are not based on any manipulation but are a reflection of information gathered related to the transaction. The data gathered does not reflect the same discreet variable and thus consistency of validity is not possible to demonstrate.
Vulnerability 3:	The subjective nature of this data means that the measurement of inherent bias is not always possible. At present the risk is managed by reducing the inter-observer variability as the COP reports all the data.
Vulnerability 4:	The fact that no specific analysis has been undertaken to date to assess the existence of any data quality problems means that inherent unidentified risks may exist.
Vulnerability 5:	The inherent prospective nature of the data means that much of the data is predicative rather than actual. This results in the inherent risk of the value of data changing as time passes (transactions are either concluded or abandoned).

Recommendations:

R1.	This partner should not be reporting on this indicator if the current indicator definition stays the same due to the nature of the partner's operations. Should the partner continue to report on this indicator then the following recommendations given in this report must be met if data quality is to be considered reasonable for extrapolation purposes.
R2.	An audit trail pertaining to all transactions should be created which allows for the identification of the primary/secondary source of the data and which is traceable and consistent over time.
R3.	A specific rubric for the inclusion and exclusion criteria for what constitutes an "employment opportunity" is essential if this partner is to manage the vulnerability presented by the predictive nature of many of the employment opportunities data reported.
R4.	The documentation of the data quality processes and procedures, as well as the documentation of the quality requirements/rubrics for each procedure is required.

R5.	A specific analysis of the strengths and vulnerabilities of current data quality processes and procedures of GAPP, taking into account the current and future requirements of USAID, is suggested so that GAPP can highlight any inherent data limitations and thus allow for both GAPP and USAID to manage these.

4.5.2. GAPP DQA: Number of Completed Business Transactions

Result:	More Rapid Growth of Existing SMMEs									
Indicator:	Number of Completed Business Transactions									
Score:	**V**	2.9	**R**	2.6	**T**	3	**P**	2.3	**I**	2.6

Data Limitations (Non-conformities):

Non-conformity 1:	The nature of definition does not reflect the operational differences within the data. Hence the difference between the prospective and actual numbers is not clear. This may lead to an overestimation if some previously reported transactions are abandoned. Classification of non-conformity is MINOR.
Non-conformity 2:	There are no documented procedures for the collection, cleaning, analysis, reporting, and quality assessment of data and or the review thereof. Classification of non-conformity is MINOR.
Non-conformity 3:	The margin of error is not defined nor established and thus inherent error not measured. Inherent error in this data will be related to those transactions abandoned or concluded successfully. Non-conformity classified as MINOR.
Non-conformity 4:	Subjectivity is inherent in the collection and establishment of the primary employment data. Non-conformity classified as MINOR.

Strengths and Vulnerabilities:

Vulnerability 1:	There is an absence of any specific records related to those transactions that the partner participated in and subsequently abandoned.
Vulnerability 2:	The absence of a documented rubric for deciding when to abandon a transaction places the issue of consistency at risk should a failure in succession planning result in a different data manager interpreting the issue differently. This places objectivity at risk.
Vulnerability 3:	The fact that no specific analysis has been undertaken to date to assess the existence of any data quality problems means that inherent unidentified risks may exist.
Vulnerability 4:	The inherent prospective nature of the data means that much of the data is predicative rather than actual. The aggregation of current transactions as well as transactions successfully concluded vs. bids lost means that the characteristic of time-related data accuracy is not addressed.

Recommendations:

R1.	An audit trail pertaining to all transactions should be created which allows for tracking of transactions entered into, transactions abandoned, transactions lost and transactions

	successfully concluded. This will allow for disaggregating of the prospective and retrospective natures inherent within the current data.
R2.	The documentation of the data quality processes and procedures, as well as the documentation of the quality requirements/rubrics for each procedure is required.
R3.	A specific analysis of the strengths and vulnerabilities of current data quality processes and procedures of GAPP, taking into account the current and future requirements of USAID, is suggested so that GAPP can highlight any inherent data limitations and thus allow for both GAPP and USAID to manage these.
R4.	The margin of error should include the ratio-analysis of transactions participated in as related to transactions won. The partner must determine what constitutes an acceptable error within the framework of the partner's principal company as well as in relation to economic evidence for the sector in question. This may be on the basis of empirical data.

4.5.3. GAPP DQA: Value of Completed Business Transactions

Result:	More Rapid Growth of Existing SMMEs									
Indicator:	Value of Business Transactions Completed									
Score:	**V**	2.8	**R**	2.6	**T**	3	**P**	2.3	**I**	2.6

Data Limitations (Non-conformities):

Non-conformity 1:	The nature of the definition used does not reflect the operational differences within the data. Hence the difference between the prospective and actual numbers is not clear. Over-reporting may be present if USAID wishes to only know the number and value successfully completed privatizations. This is due to all transactions that are currently being participated in being reported on. Classification of non-conformity is MINOR.
Non-conformity 2:	The data presented are not reflective of the same input method on a consistent basis as the reported figure is adjusted if the "transaction won" value is less or greater than the original predicted value. Updated values are consistently converted to USD on the day of reporting. The non-conformity results from the variance in the exchange rate that the time factor will make in the reported value using this method of calculation and recalculation from different input data. The non-conformity is classified as MINOR.
Non-conformity 3:	There are no documented procedures for the collection, cleaning, analysis, or reporting, nor for quality assessment of data or the review thereof. Classification of non-conformity is MINOR.
Non-conformity 4:	The margin of error is not defined nor established and thus inherent error not measured. Inherent error in this data will be related to the ratio of predicted transaction value to actual transaction value for those transactions won. Non-conformity classified as MINOR.
Non-conformity 5:	Subjectivity is inherent in the collection and establishment of the primary employment data. Non-conformity classified as MINOR.

Strengths and Vulnerabilities:

Strength 1:	The data is reflective of "live" transactions and their predicted value if the outcome is

	successful. This allows for a simple monitoring system for those transactions that the partner is currently involved in as well as those that have been brought to some form of conclusion, regardless of whether the transaction was won or lost.
Strength 2:	The contract entered into between the partner and USAID is of such a nature as to ensure that there would be no undue gain achieved by the partner should reporting not be an accurate reflection of the data. This is due to the contract being participation based and not transaction numbers or value dependent.
Vulnerability 1:	There is an absence of any specific records related to those transactions that the partner participated in and subsequently abandoned. The partner has still spent time and effort on these transactions and the absence of the data leads to an underestimation of the total participatory nature of the interactions that the partner has had with the clients.
Vulnerability 2:	The lack of a documented audit trail makes verification of the accuracy and validity of the final numbers presented difficult. The business plans per se do not consistently contain the information the partner is reporting on, hence the difficulty with verification.
Vulnerability 3:	The absence of a documented rubric for deciding when to abandon a transaction places the issue of consistency at risk should a failure in succession planning mean that a different data manager interprets the issue differently. This places objectivity at risk.
Vulnerability 4:	The fact that no specific analysis has been undertaken to date to assess the existence of any data quality problems means that inherent unidentified risks may exist.
Vulnerability 5:	The inherent prospective nature of the data means that much of the data is predicative rather than actual. The aggregation of current transactions as well as transactions won and lost means that the characteristic of time-related data accuracy is not addressed.
Recommendations:	
R1.	An audit trail pertaining to all transactions should be created which allows for tracking the value of all transactions entered into, transactions abandoned, transactions lost and transactions successfully concluded. This will allow for disaggregating of the prospective and retrospective natures inherent within the current data.
R2.	Reporting of data should be the actual SA Rand value as contained within the acquisition bid (sales contract) to reduce the bias created in the conversion to USD with fluctuating exchange rates.
R3.	Data reported in terms of value should be disaggregated into predicted value versus actual value of sale should transaction be won. USAID should not aggregate prospective values with actual values.
R4.	The documentation of the data quality processes and procedures, as well as the documentation of the quality requirements/rubrics for each procedure is required.
R5.	A specific analysis of the strengths and vulnerabilities of current data quality processes and procedures of GAPP, taking into account the current and future requirements of USAID, is suggested so that GAPP can highlight any inherent data limitations and thus allow for both GAPP and USAID to manage these.
R6.	The margin of error should include the ratio-analysis of the predicted to actual value of transactions won. The partner must determine what constitutes an acceptable error within the framework of the partner's principal company as well as in relation to economic evidence for the sector in question. This may be on the basis of empirical data.

5. Performance Indicator Quality Assessment

The six SO5 performance indicators that are the subject of this exercise are assessed below against four indicator quality characteristics, namely - directness, objectivity, practicality, and adequacy. In each case, the results of the qualitative research are given together with a discussion of data quality issues. In addition, recommendations related to each specific indicator are made for such areas as: proposed indicator definition, rationale, frequency of data collection, methodology, responsibility for data collection, target, and data limitations. Section 5.6 provides this information for the one new indicator proposed in this DQA. Section 6 contains an assessment of the inter-relationships between the indicators and observations on the SO.

5.1. Employment Opportunities Created (SO Level)

Directness:	**Poor**	***Objectivity:***	**Poor**	***Practicality:***	**Poor**	***Adequacy:***	**Poor**
DIRECTNESS							
Poor. Each of five partners perceives the indicator differently and has adopted their own working definition – one that is suitable to their respective operations. One partner uses actual full-time jobs of the enterprise; another uses prospective employment based on sales contracts; another extrapolates sustainable full-time employment opportunities based on a minimum wage model, and still another uses a complex formula based on variables derived from surveys that are not representative. Partner use of varying definitions reflects the great diversity in partner clients, implementation strategies and activity-objectives. Partner and USAID discussions suggest there is an underlying assumption that a linear relationship exists between market opportunities and jobs created with an emphasis on long-term sustainability of all jobs created (through use of cumulative totals). Such an emphasis raises confusion over how to capture the seasonal and short-term nature of agricultural employment in particular. Moreover, most partners are not collecting employment data as primary data, but are depending on secondary data (or complex manipulations of primary data using variables derived from secondary data), which impacts on the quality of the data reported for this indicator, under its current broad definition. In addition directness is not achieved when concepts of attribution are applied differently by the partners. Overall, indicator does not closely track the impact intended.							
OBJECTIVITY							
Poor. All participating partners, including some USAID staff, have difficulty-reaching consensus on what constitutes an “employment opportunity.” As noted above, the adoption of multiple operating definitions is indicative of the multidimensional nature of this indicator. Therefore, this indicator has a high degree of subjectivity.							
PRACTICALITY							
Poor. Practicality is dependent on the ability of partners to collect the requisite primary data with the highest degree of validity and reliability possible in terms of their normal program operations. As most partners are working on an extrapolation basis, due to the high cost of collecting valid, reliable employment data in their primary form, practicality is precluded. Moreover, the diversity of definitions employed by partners mitigates against the possibility of currently collecting data in a uniform manner for aggregation at the USAID level with due validity.							
ADEQUACY							
Poor. As currently defined the indicator assumes that a job created, immediately after a partner intervention, is retained over the long-term (through a cumulative mathematical process) and is purely attributable to that intervention. Caution should be exercised in extrapolating longitudinal effects from cross-sectional data, which is not tracked subsequently over a period of time.							

DATA QUALITY ISSUES

Primary data collected by partners as part of their normal operations is on the whole of high quality. However, when secondary and tertiary data is required from outside the partners' direct operational control (such as employment data and Enterprise Budgets), the reliability of such data and/or variables are not routinely controllable (i.e. tested, accepted and auditable). Similarly important is the temporal problem where cross-sectional data is not subsequently tracked over reasonable time periods, but is nonetheless often used to infer long-term impacts. In addition, in the case of one partner, the use of statistical tables, and an extrapolation formula that are not based on accepted economic theory, make the assessment of the validity of reported data problematic.

RECOMMENDATIONS

Proposed Indicator:

Growth in Net Employment

Definition:

Difference between baseline numbers of jobs plus/minus number of jobs existent at pre-determined reporting intervals. A job (inclusive of contractors) is defined as a remunerated activity disaggregated by:

- SMMEs (excluding the agricultural sector) and Agribusinesses;
- Full-time (more than 24 hours per week)
- Part-time (24 hours or less per week)
- Permanent (greater than 3 months continuous employment)
- Temporary (3 months or less continuous employment)
- SIC Code

Rationale:

The disaggregation noted above reflects the importance of seasonal and short-term employment in the labor market for SMMEs and agribusinesses. The adoption of full-time-equivalent (FTE) would result in aggregation inaccuracies greater than the anticipated measurable change (based on the difference between ordinal and nominal data types). In addition the use of a data manipulation tool is eliminated thus reducing risk associated with data sourced from outside the normal operations of the partner.

Frequency of Data Collection (New and current partners):

(1) Baseline data to be collected at the inception of each activity in the program with any new partner; (2) Thereafter, frequency to be synchronized to reflect the height of employment season (e.g. harvest time) and low employment season (e.g. middle of growing season) repeated bi-annually.

Methodology:

Ideal methodology would involve a random sample of SO5 partner clients, extrapolated to the full partner client base, and compared to an acceptable and relevant reference population. An alternative approach would be to establish a control group from which comparisons could be made to a random sample of SO5 partner clients. See "Data Limitations", below, for a discussion of tradeoffs. Using the definition given above, it is recommended that current partners collect data at the input level, as apposed to the performance indicator level.

Responsibility for Data Collection:

Data to be collected at two levels, namely:
(1) Active partners to collect input data that is congruent with their normal operations and for which they can assure data quality. Thus not all partners will be able to collect all the primary data required at each measurement cycle.
(2) An external contractor for bi-annual survey should be tasked to use the data points collected by the partners in addition to the input data they collect for a control/reference population. The external contractor should also be tasked with the evaluation of current secondary and tertiary data for their applicability and validity across sectors, be they economic or geographical.

Target:

Ideally, positive change compared to the reference population. Alternatively, positive change compared to control group.

Data Limitations:

While the high priority that GOSA places on programs to address unemployment is recognized, important data issues will attend any indicator measuring employment-type impacts. As explained below in Section 6, this problem is particularly severe when current partners are tasked with reporting on employment impacts. This is because the collection of this data falls outside the parameters of their ongoing business growth strategies and operational activities. It is also understood that the cyclical nature of employment means that current partners will not be able to capture all the varieties of employment at each and every measurement. The use of this data as input data to the greater survey in the form of a data point reduces the risks related to measurement error (bias) within the sample taken.

The approach proposed by the Team, in which a new partner is tasked with implementing a multi-year impact survey, also has difficulties. The most serious issue relates to practicality since there is a high cost to implementing any methodology that will provide valid and reliable employment information.

The ideal methodology in the technical sense would involve establishing a reference population, but the cost is high. The cost could be reduced to the extent that secondary data is available (e.g. Labor Force Survey, the Survey of Employment, and the annual October Household Survey). However, while the validity of these tools has not been evaluated in the course of this assessment, partners have shared their concern about the reliability and acceptability of these surveys. An alternative methodology involving a control group would be less expensive, and would still test the causal link between the SO and IR. The disadvantage of this approach is that it may not reliably capture the influence of exogenous factors on employment. Such factors (e.g. the political, regulatory and administrative environment) may have a stronger influence on employment than the interventions of the partners.

5.2. Number and Value of Business Transactions Completed (IRs 5.1 & 5.2)

Directness:	Poor	*Objectivity:*	Poor	*Practicality:*	High	*Adequacy:*	Poor

DIRECTNESS

Poor. Indicator of SMME and Agribusiness growth is perceived to represent a "basket" of transaction types (finance accessed, sales, asset transfers, joint ventures, etc.) reflecting virtually any form of business arrangement regardless of the strength of a particular transaction's relation to enterprise growth. For example, within the same reporting interval, one partner equates transactions to realized sales; two others to the value of any type of contract (i.e., loan, sales, joint equity, privatization, etc.); and another to the "number and value of acquisitions' representing the exchange of assets from public to private sector. In other words, some forms of business transactions more closely track business growth than others, but as this indicator is currently defined, all types are given the same weight.

OBJECTIVITY

Poor. Because the indicator is multidimensional in how it is defined by USAID and measured by the partners – i.e. it measures more than one phenomenon. This is reflected (1) in the subjective nature with which partners decide what constitutes or does not constitute a transaction; and (2) the bi-directional and/or uni-directional nature (e.g. counting both sides – buyer and seller, of a transaction).

PRACTICALITY

Indicator is practical in that the information is primary data that can be collected on a timely basis at reasonable cost. Moreover, measurement of the indicator reflects the normal internal operations of the partners and is useful in informing their management decisions.

ADEQUACY

Due to the multi-dimensional nature of the indicator as currently defined and its high level of aggregation both by partners and USAID, it is not an adequate measure of progress toward a result.
RECOMMENDATIONS
Proposed Indicator: Value of Sales
Definition: Any reported sale must be supported by some form of contract, which provides a documented audit trail for each specific sale, where the sale was facilitated by a partner. The sales contract between seller and buyer can only be counted once. Data will be disaggregated by: number of sales contracts; value of sales contracts; number of PDI sellers; number of PDI buyer enterprises; number of women sellers and women buyers (where women own a minimum of 50% of the enterprise); and the markets accessed by partners. Numbers reported are not to be cumulative but specific to the period of reporting to allow for trend analysis. Figures can be aggregated at USAID level. Definition of Facilitation by a partner: Any substantive intervention to a client that results in a contract, including giving advice about targets of opportunity, improving the productive capacity of a firm, introducing sellers to buyers, etc.
Rationale: Sales are a direct indicator of market activity/business growth. Moreover, sales contracts facilitated by partners provide a reliable measure of attribution. Partners concur that the indicator is an acceptable performance indicator in the context of their own operations. The figures resulting from the measurement of this indicator can be measured against national growth statistics in similar sectors/sub-sectors. Indicator helps describe the dynamics in the market place in that it shows the relationship not only between the number of deals and value of deals, but also of the relationships between new markets and sales trends.
Frequency of Data Collection: Ongoing collection by partners.
Methodology: Extraction and transcription from document review.
Target: Increase in value of sales contracted.
Data Limitations: There is an exclusion factor in that retail sales not directly facilitated by partners are not reported on. This creates an under-reporting bias. Another limitation is the access by partners to auditable documentation from clients on sales.

5.3. Value of Finance Accessed[5] (IRS 5.1.3 & 5.2.3)

Directness:	**High**	***Objectivity:***	**Medium**	***Practicality:***	**High**	***Adequacy:***	**Medium**
DIRECTNESS							
Good indicator of directness as it closely tracks the intended results.							
OBJECTIVITY							
Indicator is not ideal due to its multi-dimensional nature, as the USAID definition comprises both equity transactions and other finance transactions in one indicator. However, this concern is partly mitigated by the fact that the inherent characteristics of the variables are similar.							

[5] The USAID PMP states that the words "accessed" and "leveraged" are equivalent.

PRACTICALITY
Indicator is very practical as it is primary data collected at low cost by partners as part of their normal operations.
ADEQUACY
Indicator is adequate given that it is sufficient to capture progress against the intended result. Caution must be exercised in any aggregation of a multi-dimensional indicator (objectivity above).
RECOMMENDATIONS
Indicator: Unchanged
Intermediate Result: Suggest replacing the word "capital" in the statement of intermediate result with "financial". Rationale for change is that the accepted business definition of "capital" is where the effect on the enterprise is long-term (at least over one year). This would exclude short-term financing instruments.
Definition of Indicator: Value of partner-facilitated finance accessed. Recommend that data be disaggregated into four categories: (a) equity finance; (b) private sector debt; (c) 3) parastatal and public sector debt; and (d) other finance accessed (such as supplier credits or financing, either in-kind or in-cash, and other forms of finance). Within category (d) any and all other finance accessed is acceptable as long as the transactions are supported by auditable documentation, which clearly indicates the financial value in Rands. In partner reporting, the value of supplier credit must be indicated separately. Numbers reported are not to be cumulative but specific to the period of reporting to allow for trend analysis. Figures can be aggregated at USAID level. Pre-existing finance accessed may not be reported, but only the net increase as a result of the intervention. Double reporting is thus nor allowed.
Frequency of Data Collection: Ongoing collection by partners.
Methodology: Extraction and transcription from document review.
Target: Increase in value of finance accessed.
Data Limitations: Access of primary data related to financial values. Underreporting on supplier credit, as clients may be unable or unwilling to provide the supporting documentation.

5.4. Number of Entrepreneurs/Firms Receiving Training (IRS 5.1.2 & 5.2.2)

Directness:	**Poor**	***Objectivity:***	**Poor**	***Practicality:***	**High**	***Adequacy:***	**Medium**
DIRECTNESS							
Poor. The data collected in terms of this indicator measure inputs (i.e. training delivered) and cannot be directly related to the achievement of the result (i.e. capacity of firms). The USAID definition of the indicator also combines two units of measure (individuals and firms) and therefore contributes to multidimensionality of the value. Training is not acceptable as a measure of capacity because it fails to measure the outcome (i.e. capacity) of the input (i.e. training), and it does not reflect any changes resulting from the input (i.e. changes in learning such as changes in i.e. knowledge, skills, or attitudes; or some change in overall SMME performance – other than those already being measured by the programme).							
OBJECTIVITY							
The absence of a formal definition, which clearly states inclusionary and exclusionary factors, has left this							

indicator open to subjective definition by partners. The definitions vary from measuring formal workshop or classroom training, while others include on-the-job training, mentoring, and technical assistance, while others include mass media exposure. Moreover, some partners report only on training delivered to the business owner whilst others include every person who benefited from the "training".
PRACTICALITY
Despite its other limitations, the counting of heads and hours is practical and achievable but does not reflect any result of a process.
ADEQUACY
This is an adequate measure of input but not a measure of any result (i.e. output, outcome, or impact).
RECOMMENDATIONS
Abandon training as a performance indicator, but continue to require it from the partners as a data collection point in which the information provided by partners to USAID clearly defines the specific types of training provided.
Data Point Definition: Individual (people not firms) hours of training disaggregated by type (formal training such as registered skills program/learnerships, mentoring/technical assistance, mass media exposure, other) and by gender.
Rationale: Removal of training as an indicator is based on the fact that it is not a direct measure of the result. Keeping it as a data point assists USAID in reporting on training to USAID/Washington, as well as assisting in describing the causal relationship between project/program inputs to outputs and ultimate outcomes/impacts.
Frequency of Data Collection: Ongoing**.**
Methodology: Extraction and transcription from document review and activity reports from field staff.
Target: None, since this is a data collection point and not an indicator. Training is an underpinning factor of the sustained success of all partner activities.
Data Limitations: High margins of error are characteristic of this type of data should accurate primary records, such as training registers, not be fully completed and/or not accurately reflect the time spent in training.

5.5. Number of Beneficiaries Receiving HIV/AIDS Information/Training (IRS 5.1 & 5.2)

Directness:	**Poor**	***Objectivity:***	**Poor**	***Practicality:***	**Medium**	***Adequacy:***	**Poor**
DIRECTNESS							
Poor. The data collected in terms of this indicator measure inputs (i.e. information and commodities delivered) and is not linked to any specific result of the SO5 program. Neither the definition nor the unit of measure is specified in any USAID documents. Delivery of HIV/AIDS information/commodities also fails to reflect any measure of output (e.g. succession plans developed, or changes in learning -- knowledge, skills, or attitudes), or outcome (i.e. behavior change) resulting from the input. Neither USAID nor the partners consider this indicator auditable.							
OBJECTIVITY							
Poor. The absence of a formal definition, which clearly states inclusionary and exclusionary factors, has left this indicator open to subjective definition by partners. The definitions vary from measuring condom distribution to firms, to discussions on succession planning, to delivery of general HIV/AIDS prevention information. Some							

partners measure only the business owner while others include every person who benefited from the "information".
PRACTICALITY
Despite its other limitations, the counting of heads and hours and boxes of condoms is practical and achievable but not as a reflection of a result of a process.
ADEQUACY
Poor. This is a very limited measure of input and furthermore is not a measure of any identified SO5 results (output, outcome, or impact).
RECOMMENDATIONS
Continue to encourage partners to report on condoms distributed to firms, and numbers of recipient person-hours spent on HIV/AIDS IEC (information, education and communication) if it forms part of their normal project operations. Use the information as a data point in which the information provided by partners to USAID clearly defines the specific HIV/AIDS activities.
Data Point Definition: Individual (person - not firm) person hours of IEC delivered disaggregated by IEC message type (e.g. /AIDS prevention, HIV/AIDS care/support, and succession planning) and by gender.
Rationale: Removal of HIV/AIDS indicator is based on the fact that it is not a direct measure of any SO5 result. Keeping it as a data point assists USAID in reporting on HIV/AIDS related activities, as well as assisting in encouraging good business practice in the South African context.
Frequency of Data Collection: Ongoing.
Methodology: Activity reports from field staff.
Target: None, since a data collection point and not an indicator.
Data limitations: Under the current programme structure, 100% reporting within the population may not occur due to resistance and other social/business factors and thus may result in under-reporting. Should the activity or data sought be outside the normal scope of the partners operations then caution will need to be exercised with regards reliability of data reported. However, if HIV/AIDS specific funding is provided to partners with conditions on reporting, then limitations will be lessened considerably.

5.6. Proposed additional indicator for Sub-IRs 5.1.2 & 5.2.2- "…capacity to respond to market opportunities"

RECOMMENDATION
Proposed Indicator: Market access initiatives
Definition: Defined as any initiative that enabled, improved or resulted in increased access to a market.

Inclusion Factors:

Provided an audit trail exists, any of the following can be included:

- Adoption of a new technology or process, which contributes to an increase in sales value (e.g. increased production, improved quality of production, new production).
- Reduction of an inhibitory factor within the value chain and/or value system which allows for an increase in sales (e.g. local policy change, labor relations issues, business linkages, business support services)

The SO5 Team may want to consider a disaggregation into a select number of categories (e.g., firm-level technology and/or processes, business services and policy.

Rationale:

The "access' concept works well in business environments where there is potential for market growth as apposed to environments where the preferred strategy may focus on acquiring market share. The advantage of an indicator related to improved market access is that such an approach helps ensure that partner interventions are consistent with market-driven strategies.

Frequency of Data Collection:
Ongoing.

Methodology:

Activity reports backed by supporting audit trail. Reported by means of a qualitative narrative that describes the nature and result of the initiative. The use of 'success stories' is recommended.

Unit of Measure:

-. Number of initiatives successfully resulting in increased access to a market.

Target:

. To be set per partner based on their capacity to undertake access initiatives.

Data Limitations:

Although the indicator is a fairly good direct performance measure of the sub-IR it is broad and thus will have inherent data biases. However, its value in assessing the trends in sales that are attributable to market access outweighs the inherent bias.

6. The Strategic Objective and Performance Indicator Relationships

6.1. Organizational Framework (OF) Description

In assessing both indicator and data quality, the Team considered the development model embodied in the SO5 strategic framework, and the relationships between the various levels of interactions, such as impacts, outcomes, outputs, activities and inputs. Knowledge of the model and these relationships helped to clarify the characteristics of the indicators, the nature of the data being collected by partners, and partner reporting responsibilities. An Organizational Framework (OF) is used to present this information. The OF is simply another way of representing the SO5 results framework, albeit one that is "stretched" to include the full results "chain" embodied in the SO (inputs, activities, outputs, outcomes and impacts). The respective chain levels correspond to the results framework, as follows:

- Impact level corresponds to the SO
- Outcome level corresponds to IRs
- Output level corresponds to partner performance indicators
- Activity level corresponds to operational activities of implementing partners
- Inputs correspond to important partner data collection items or "data points" that relate to inputs rather than outputs

In addition, the OF is divided into two broad categories: the external environment (influenced by factors outside partner control) and internal environment (the local environment in which program partners operate). Partner data collection and reporting responsibilities are represented by blue ovals.

For comparative purposes, two OFs are presented. Figure 1 represents the current situation, while Figure 2 reflects the Team's recommendations.

6.2. Current Indicator Relationships - OF

Figure 1 represents the current situation and highlights some inappropriate relationships. For example, it shows that partners are currently responsible for collecting and reporting on a performance indicator at the impact (SO) level in the external environment – namely employment opportunities. This places an enormous reporting burden on partners, in part, because the SO is at a relatively "high" or "macro" level while the normal operations of the partners are limited to improving performance at the enterprise-level or within a "micro-economic" context.

In point of fact, the creation of employment opportunities does not "drive" the strategies of the implementing partners. (For example, a partner could recommend that a firm adopt a technology to improve the processing of a beverage, which may reduce labor and but lead to an expanded market and growing sales.) Employment changes will largely be a function of the labor/capital ratio of the client businesses and the overall policy and economic environment. From the SO5 results framework, the Team understands employment to be a desired long-term positive spin-off of the growth of the businesses with which partners interact. The main point here is that because the data currently collected to measure SO-level impact is not a result of partners' normal strategies or operations, the data collected for this purpose may not be valid or reliable.

In a similar vein, given the SO's "location" in the external environment, there are substantial forces outside the control of partners that exert influence on the achievement of the SO (e.g. political landscape, regulatory environment, and administrative practices), which further makes partner-level measurement and reporting on progress at this level problematic. Finally, there is enormous diversity among partner activities -- reflecting significantly different target client groups, implementation approaches, and activity-level objectives. These differences, together with the other issues noted above, create doubts about the validity of aggregating partner data at the impact level, which in turn contributes to problems of acceptability. For all these reasons, it is inappropriate for current partners to be responsible for performance reporting at the SO indicator level.

Figure 1 also shows that input-level measures (training and HIV/AIDS Awareness) are inappropriately being used as performance indicators at the output level. As input-level indicators, they are poor measures of change in the desired result and tell USAID little about what difference the inputs are making.

Figure 1. Current Organizational Framework for Strategic Objective Five

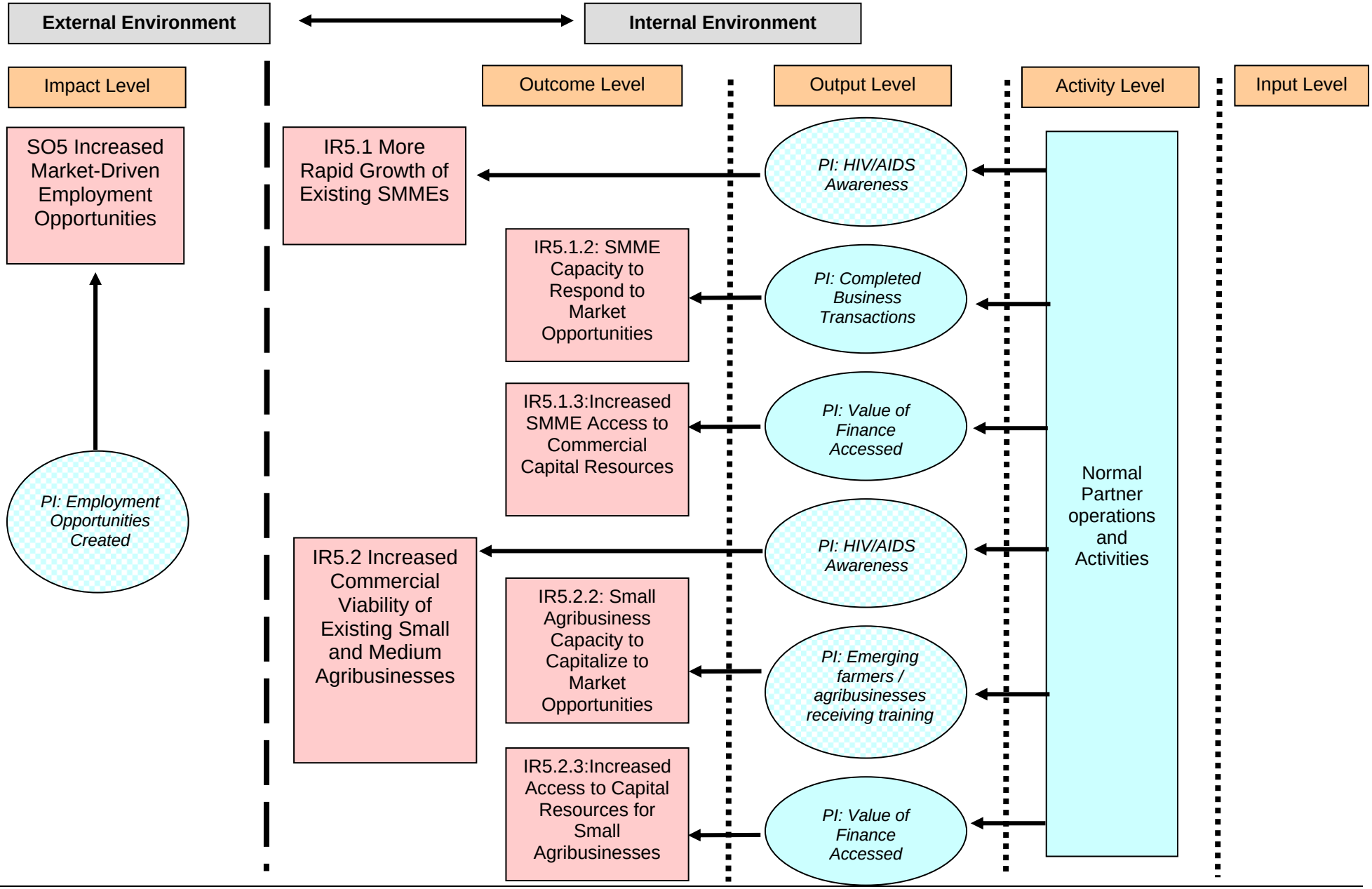
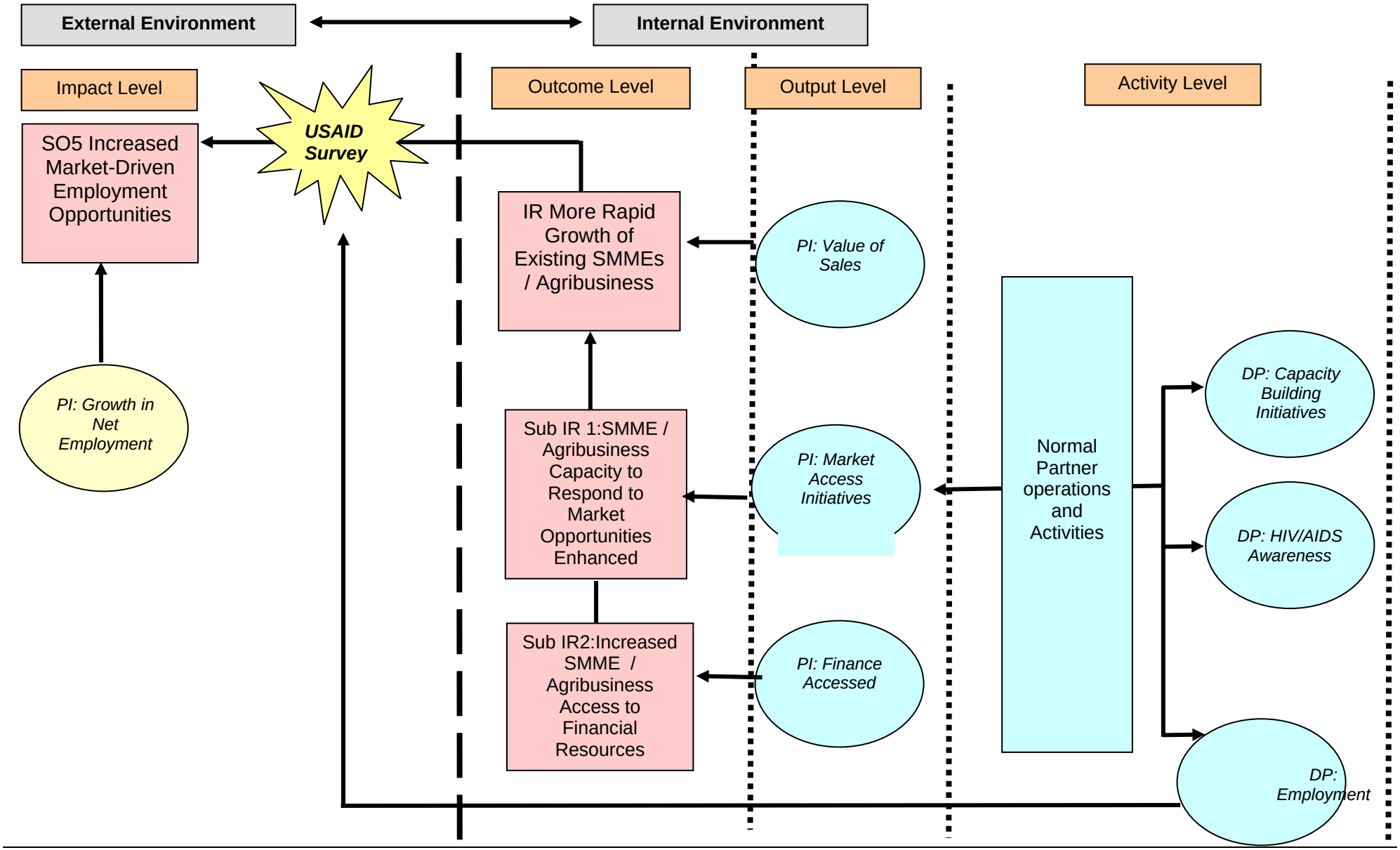


Figure 2. Proposed Organizational Framework for Strategic Objective Five



6.3. Proposed Indicator Relationships - OF

Under the proposed OF (Figure 2), current partners are responsible for reporting on indicators that measure performance against output and outcome-level results in the internal environment where partners have a managerial interest. It is recommend that the framework be simplified by use of a single IR that captures the essence of the strategies used in achieving the SO and which embodies the focus on the small and medium enterprise and which acknowledges that, as a disaggregation, a large number of these will be agribusinesses.

A single IR-level performance indicator is proposed: "Value of Sales". Three sub-IR-level performance indicators are proposed: (a) Value of Finance Accessed, (b) Increased Market Access, (c) Capacity to Capitalise on Market Opportunities. Partner performance-level reporting should be limited to these, or similar, outcome-level performance indicators.

The proposed OF shows training, HIV/AIDS Awareness, and employment data generated by the existing partners at the activity level – not as results, but as data points for contributing to other measures of programme activity. While not indicators of results, these data items are valuable sources of information corresponding to the intermediate (and sub-) results, and the SO (in the case of employment). They are measures of inputs into a process rather than measures of the "result" of a process.

As explained below, the employment data will serve as an input for surveys conducted at the SO–level to measure overall program impact.

6.4. Measuring Achievement of the Strategic Objective

Achievement of the SO depends on the strength of the link (relationship) between the intermediate result (IR) and the SO (i.e. the link between Increased growth of existing SMMEs and Agribusinesses and Increased Market-Driven Employment Opportunities).

For the reasons discussed in the two sections above, measurement of SO achievement should be undertaken by USAID itself or through a separate contractor/partner on the basis of a comprehensive multi-year program of impact surveys (see yellow star in Figure 2), rather than continue to be the partners' responsibility.

Data inputs for such an employment survey could be derived from a combination of two broad sources: (i) partner and program level data, and (ii) data sources from the external environment. Presently, USAID/SA is considering a proposal for an impact-level survey, but as the Team understands it, the scope of that survey is presently limited to the efforts of only one of five partners (and within it, two of many sub-sectors) and, as such, may not be the most appropriate tool itself to adequately capture the impacts of the broader program.

It is important for USAID to articulate what exactly it wants to measure in terms of SO-level impacts, as this will help determine the type of survey methodology to employ, and by definition, the cost. For example, a survey that involves a control group can assess the quality of the causal link between the SO and the IRs (e.g. Are partner clients creating more employment than the control group?). However, such a methodology may not reliably take into account exogenous factors that heavily influence achievement of the SO (e.g. political environment, regulatory framework, and government administrative competency). If USAID desires to ensure that such factors are taken into account in a statistically valid manner, it may need to employ a more costly reference-based methodology. Such an approach will permit USAID to confirm/validate/refute SO level results as well as to identify and segregate the impact of exogenous factors, and the extent to which partner programs are overcoming constraints that can potentially overwhelm the impacts they have made. A reference population methodology is the ideal approach for determining whether or not the partner activities are having a reasonably significant impact on the SO.

If USAID ultimately concludes that a survey to answer the question of "significant impact" is not practical due to costs, then there is a second option of modifying the SO to reflect business/agribusiness growth, while concurrently collecting information on employment but not as an "auditable" performance indicator. In fact, the Team strongly encourages USAID to review the current results framework in light of the strong influence of exogenous variables on employment.
A third option is to maintain the status quo, but this is not without cost – serious limitations in the employment data being provided by partners will require significant resources to remedy. Such an option is not recommended by the Team.

7. Recommendations

7.1. Data Quality Assessment Level

7.1.1. Partner Level

While, on the whole, the partners' quality management systems for ensuring data validity and reliability are sound, several data quality problems (non-conformities and vulnerabilities) were identified for each particular partner. Specific recommendations for individual partners in this regard are contained in section 4, above. The following provides a list of cross-cutting recommendations/issues that must be addressed by all partners:

a. Partners need to improve the documentation of their procedures for the collection, collation and management of data;

b. All primary data collected, collated, manipulated and reported on must be supported by a verifiable audit trail.

c. Margins of error must be calculated by each partner for the indicators reported on. This will indicate the expected versus accepted error rate of the indicator being measured. Practically this will mean that partners must be able to establish the measurement error (bias) associated with the technique used for data collection (e.g. non-response rates, positive and negative bias in questionnaires/surveys, incorrect data etc) as well as the transcription and mathematical errors (e.g. exchange rate error over time) that are inherent within their systems. This is essential if partners are reporting on indicators where any form of net increase is desired;

d. Should the partner use any form of secondary and or tertiary data, then the partner must be able to indicate the general level of acceptability of such data as well as give an indication that such data has been verified as both valid and reliable (e.g. published peer review, national usage, etc.).

e. All partners should develop a quality plan that clearly indicates how they will address the recommendations contained in their respective DQAs. Quality plans, by nature, include an analysis of conforming requirements, risk and impact of failures in conformance, corrective and preventative actions and methods for improvement, as well as the audit of actions taken. Such quality plans are drawn up within the context of the normal operations of the partner.

7.1.2. USAID Level

a. USAID should ensure that, wherever possible, the data reporting requirements contained in agreements signed with partners are consistent with the nature of the normal operational activity of the partners. This will help ensure that partners have the ability to provide valid and reliable primary data. The practice of requiring partners to make complex manipulations to data, which involve the use of secondary and tertiary data, should be discouraged and if at all possible discontinued due to the significant uncontrollable factors that are introduced.

b. Partners must be supplied with a standardized template for the reporting of data to USAID, which clearly delineates any required aggregations or desegregations on the behalf of the partner. Such a template must also show which data is related to performance monitoring and which data is being reported merely as a data point.

c. All partners should be requested to report all financial figures in SA Rands so as to enable easier verification of data submitted by the partner. The conversion of the values reported to USD should only take place following any aggregations that can be validly be made and be reflective of the average rate for the reporting period. The inherent bias in the value must be declared particularly when large rate fluctuations have occurred.

d. Any aggregations made by USAID of data supplied by partners must be on the basis of using similar data (discrete variables, nominal or ordinal). The practice of aggregating data of different statistical natures must cease if the results reported are to be considered valid.

e. USAID will need to monitor the implementation of data quality plans of partners as well as ensure that all non-conformities identified during the course of this DQA are duly closed out.

7.2. Performance Indicator Quality Assessment Recommendations

Section 5, above, contains a detailed and comprehensive analyses of the quality of the performance indicators under SO5, including among other things, proposed definitions, rationale and data limitations for all proposed indicator modifications. The following list is a summary of the recommendations contained in that section of the report.

a. With regard to performance level reporting at the SO level:

- Current partners should not be responsible for reporting on the SO-level performance indicator "Employment Opportunities Created." Rather, measurement of impact at the SO-level should be the responsibility of a new partner tasked with conducting bi-annual impact surveys. Partners should continue to report employment data, as a data point, and that is congruent with the recommended definition, and that would serve as valuable input information for the impact surveys.

- With regard to the above recommendation that a separate USAID partner be tasked with measuring impacts at the SO level, USAID should examine various methodological approaches to seek the best fit between the desired result and the practicality of the method. At a minimum, any methodology selected should be able to take into account exogenous variables influencing employment (e.g. policy, regulations) in a reliable manner.

- Should USAID ultimately conclude that an impact survey designed to capture the overall impacts of the SO5 program is not practical, it should consider the option of modifying the SO so as to reflect SMME/agribusiness growth, while concurrently collecting information on employment but not as an "auditable" performance indicator.

- Alternatively, if USAID wishes, against the teams recommendations, to maintain the status quo, additional resources should be given to each of the partners indicated in section 7.3 that should be required to report on employment, so that they can remedy the various vulnerabilities, non-conformities, and weaknesses in the quality of their current data systems associated with this indicator.

b. Current SO-level performance indicator should be replaced by a new indicator: "Growth in Net Employment".

c. Current IR-level performance indicator "Completed Business Transactions' should be replaced by a new indicator: Value of Sales.

d. Current sub-IR indicator "Value of Finance Accessed" should remain unchanged but data should be disaggregated into four categories: (a) equity finance; (b) private sector debt; (c) 3) parastatal and public sector debt; and (d) other finance accessed (such as supplier credits or financing, either in-kind or in-cash, and other forms of finance).

e. Word "capital" in sub-IR "Increased SMME/Agribusiness access to capital resources" should be replaced with the word "financial."

f. Abandon "Emerging Farmers/Agribusinesses receiving training" as a performance indicator, but continue to require that partners report on training as a data collection point disaggregated by type of training.

g. Abandon "HIV/AIDS Awareness' as a performance indicator, but continue to encourage partners to report on condoms distributed to firms and numbers of recipient persons-hours spent on HIV/AIDS IEC (information, education, and communication). Use the information as a data point in which the information provided by partners defines the specific HIV/AIDS activities.

h. Under sub-IR "SMME/Agribusiness capacity to capitalize on market opportunities' include a new indicator: Market access initiatives. Indicator would measure the number of initiatives successfully resulting in increased access to a market. Reporting would include a qualitative narrative that describes the nature and result of the initiatives.

i. USAID must undertake an initiative to follow-up with the current partners in terms of reaching finality on the proposed indicators, including the definitions, as well as agreement on the reporting mechanisms and targets for each indicator. In reaching such finality, USAID must give voice to the suggestions of its partners for definitions that link both the SO and their ability, through their own operations, to offer initiatives and data that are sound, practical and measurable.

7.3. Suggested Partner Reporting Matrix

In light of the recommended changes to the indicators and in the interests of ensuring optimal data quality the following partner matrix for reporting is suggested. The matrix is based on those indicators and data points for which the current partners are able to report on with the highest degree of data quality and which are appropriate to their normal operations. In addition the vulnerabilities associated with secondary and tertiary data are minimized in this matrix.

		Agrilinks	**SAIBL**	**SEMED**	**FINCA**	**GAPP**
Indicator	Value of Sales	✓	✓	✓		✓
	Market Access Initiatives	✓	✓	✓		
	Finance Accessed	✓	✓	✓	✓	✓
Data Point	Capacity Building Initiatives	✓	✓	✓	✓	
	HIV/AIDS Awareness	✓	✓	✓	✓	✓
	Employment	✓	✓	✓		

RESULT LEVEL:	*SO5 Increased Market-Driven Employment Opportunities*							
INDICATOR:	Employment Opportunities Created in the SMME and Agribusiness Sectors							
Partner	Definition Perceived by Partner	Definition Used by Partner	Suitability of Indicator to Organization	Issues Associated with the Definition of the Indicator	Issues Associated with Measurement of Indicator	Recommendations for Improvement of Indicator	Reporting Issues	Notes
SAIBL	An employment opportunity is equated to a 'full time' job.	Reporting on full time jobs existent at time of reporting is based on the net and thus is inclusive of jobs lost (reduction made). Each employer defines the term 'full time'. Definitions not necessarily based on DTI or DOL definitions. Reporting figure based on a cross sectional analysis measured on a quarterly basis.	Suitable in terms of measuring aggregate trend if done on a quarterly basis. Allows for SAIBL to monitor clients regularly due to their measurement system. Employment per se is not a key issue for SAIBL in operational issues.	PAL 1: Original standard definition. PAL definition not disaggregated at present and excludes seasonal labor. Different definition for employment opportunities between concept of jobs versus employment movement versus employment nature.	Companies report on employees at time of report. Not always possible to report on direct linkage between job creation and employment sustained. Subcontracting employees not consistently reported on. Companies do not always report on all employees due to S	Disaggregate definition in terms of nature of different employment sectors.		Link between job and interaction from SAIBL cannot always be directly linked. The keeping of companies viable has an indirect result on the keeping of jobs. Level of confidence not established due to difficulty in defining employment opportunity. No incentive for client to misreport on employment numbers noted by SAIBL.

RESULT LEVEL:	*SO5 Increased Market-Driven Employment Opportunities*							
INDICATOR:	Employment Opportunities Created in the SMME and Agribusiness Sectors							
Partner	Definition Perceived by Partner	Definition Used by Partner	Suitability of Indicator to Organization	Issues Associated with the Definition of the Indicator	Issues Associated with Measurement of Indicator	Recommendations for Improvement of Indicator	Reporting Issues	Notes
SEMED	The sustainability of employment is viewed as the critical determination of an employment opportunity. Not viewed as 'jobs'.	Full time employment for at least one year with the use of a pro-rata calculation basis. Definition for measurement supplied by partner to employers. Only that which can be related to the specific intervention by SEMED, is counted, at the time of the intervention. Both employment opportunities sustained and, since December 2002, employment created, are measured.	Allows for SEMED to track change in the employment figures within the client's organization limited to specific interventions. SEMED believes their definition suitable due to the nature of the business opportunities that their clients are engaged in where they work on longer term business as apposed to short term contract business.	Measure between actual and potential measured by a pro-rata basis. Definitional difficulties with 'sustained' versus 'sustainability'.	Employment change attributable to SEMED due to small size of organizations being worked with and the nature of the intervention. Difficulty with the issue of longitudinal versus cross sectional reporting versus intervention specific measurement.	Does not calculate the net number of jobs. There should be a longer term measure to qualitatively allow for USAID to measure long term effect. Conservative measure due to pro rata adjustment to the full time concept.		Set a baseline for numbers of employees at beginning of intervention. No double counting of jobs. Client fills in source data form, no incentive for client to falsify information

RESULT LEVEL:	*SO5 Increased Market-Driven Employment Opportunities*							
INDICATOR:	Employment Opportunities Created in the SMME and Agribusiness Sectors							
Partner	Definition Perceived by Partner	Definition Used by Partner	Suitability of Indicator to Organization	Issues Associated with the Definition of the Indicator	Issues Associated with Measurement of Indicator	Recommendations for Improvement of Indicator	Reporting Issues	Notes
AGRILINK	Agrilinks does not perceive an opportunity to equate to a 'job'.	Sustainable full time employment for one person at market based minimum monthly agriculture wage over a one year period. Only includes direct agribusiness not incidental business. Measures potential based on net profit not actual number of employees, calculation includes pro-rata adjustment.	Employment opportunity indicator unsuitable because of nature of employment in the agrisector (seasonal plus part time workers).	The main problem is: What is the definition of employment opportunities? Job creation is different to employment opportunity. SA Government policy and reality mix in terms of jobs versus employment opportunity. None of this looks at employment maintained.	The difficulty is that an extrapolated calculation was needed to quantify the concept of an employment opportunity. There is an associated difficulty with the nature of seasonal work in the agrisector. The cost associated with alteration of the method and the inclusion of additional data can preclude alteration. There are significant cost implications for the measurement of this indicator. There is no national reliable secondary data source of statistics in this sector.	Job creation indicators need to be separated from employment opportunities as they are definitionally different. Perhaps would have been better to have an indicator which looks at increased participation rather than employment opportunity.		Different to SEMED as it is possible to count jobs in the SEMED project. Calculation system allows for estimation of direct attribution. The institution of minimum wages will result in lower numbers of formal jobs with an increase in mechanization. Increased profitability increases the potential for employment but not necassarily jobs. This should be based on wealth creation rather than on employment at result level.
GAPP	Employment opportunity equated to numbers of jobs.	Existing business: No. of currently employed individuals whose jobs will be sustained and number of new jobs planned for as in business plan. Defunct and greenfield businesses: No. of jobs planned for business.	Indicator has suitability to the drive and desired effects of privatization. This is essential at the business decision level for the partner.	Difficulty to produce convincing economic argument for privatization to produce or sustain jobs. The definition asks for projective data. There will always be a net lag between projected and actual for this form of indicator.	Source is secondary data from Business Plans. The level at which the data is collected against the data will be the determinant of the level of integrity of the data.	Shareholders created is an indicator of potential wealth which indirectly reflects a potential employment opportunity. Indicator becomes measurable through review of legal documentation.		Indicator should be reflective of knock-on effects of forward and reverse linkages in terms of the privatization drive. Cogniscence must be taken of the SA government policy pressures (multigovernment) regarding employment.

RESULT LEVEL:	*SO5 Increased Market-Driven Employment Opportunities*							
INDICATOR:	Employment Opportunities Created in the SMME and Agribusiness Sectors							
Partner	Definition Perceived by Partner	Definition Used by Partner	Suitability of Indicator to Organization	Issues Associated with the Definition of the Indicator	Issues Associated with Measurement of Indicator	Recommendations for Improvement of Indicator	Reporting Issues	Notes
FINCA	Employment opportunities can equate to full time jobs. Full time perceived as the 40 to 50 hours per week.	Count jobs as stipulated by persons in full time employ, including the owner, within the business both before and after the loan was granted.	The indicator speaks to the mission rather the operational issues but is useful in the marketing of the programme.	Clients define the term 'full time employment'. Job may have connotations of working for someone else.	Measured on the basis of client opinion of a full time employment. Translational issues may change the perceptions of the definitions. Measured on a survey basis where sample is considered as representative of the population. Survey conducted once to date	More regular sectoral analysis of employment with specific illustrative narratives. The use of a more qualitative approach would enable the essence of the impact of the programme to be reported on. This would aid in the reduction of subjective interpretat		Due to length of hours worked the measurement probably underestimates the pro rata number of jobs.
TEAM								

RESULT LEVEL:	*IR5.1 More Rapid Growth of Existing SMME's, & IR5.2 Increased Commercial Viability of Existing Small and Medium Agribusinesses*							
INDICATOR:	Number of Completed Business Transactions							
Partner	Definition Perceived by Partner	Definition Used by Partner	Suitability of Indicator to Organization	Issues Associated with the Definition of the Indicator	Issues Associated with Measurement of Indicator	Recommendations for Improvement of Indicator	Reporting Issues	Notes
SAIBL	Transactions perceived as 'sales' but could perceivably be based on any form of business transaction.	Business transactions being those that take place between a historically disadvantaged supplier and a corporation, parastatal or government department. Defined on the basis of 'sales'. Sales defined as the revenue generated as reflected by the income stat	Growth indicated by number of transactions as reflected by income generated.	Evaluation of definition is made at a more macro-level to reduce the risk of increased invalidity created by inaccurate measurement at the micro-level.	Clients differentiate between attributable versus unattributable cause and effect. The concept is moved to the more macro level. Most data here is anecdotal rather than quantitative. SA constitution protects the confidentiality of information in financia	Distortion in indicator needs measurement for reduction purposes. This would be better reported as an anecdotal business case study rather than a quantitative data analysis.		Linkage between employment opportunities and number of transactions is indirect rather than direct. Reporting on the basis of direct attribution to USAID funding. Both direct and indirect based on single aggregate number. SAIBL does not disaggregate betwe
SEMED	Viewed to be on signing of a contract between the two business parties.	Actual number of contracts entered into. Aggregation of lower order transaction numbers	Highly suitable as a disaggregated indicator due to difference in the nature of business transactions entered into by SMMEs.	How long is a transaction? Interdependance between number and value absolute.	Number does not reflect the size of the transactions as it is possible for a single transaction to be of huge value.	Narrative should reflect the qualitative nature of the quantitative figures and thus should therefore reflect that opportunistic transactions occur.		

RESULT LEVEL:	*IR5.1 More Rapid Growth of Existing SMME's, & IR5.2 Increased Commercial Viability of Existing Small and Medium Agribusinesses*							
INDICATOR:	Number of Completed Business Transactions							
Partner	Definition Perceived by Partner	Definition Used by Partner	Suitability of Indicator to Organization	Issues Associated with the Definition of the Indicator	Issues Associated with Measurement of Indicator	Recommendations for Improvement of Indicator	Reporting Issues	Notes
AGRILINK	Measure of the total number of 'contracts' entered into with small and medium businesses.	Each individual side of the transaction is counted and it is thus possible to have multiple transactions with one party involved on one side of the deal. With the exception of the futures a transaction is only considered concluded when money changes hand	Counting on the basis of the difference between the parties.	Does not capture what Agrilinks is actually doing and achieving. The definition of agriculture and agribusiness is not standard. There is a problem with the definitions originally supplied by USAID including what is a transaction.	Double counting for both sides of the transaction occurs. Economists would count the interaction as a single transaction. Agrilinks count the number of entities involved / assisted in a transaction. Vendor roles used as source data during auctions. This r	An attached narrative explaining the nature of the transactions and the evolving nature of the project would help.		The matrix of commodities to entities is not standard or understood consistently. This goes to the definition of an agribusiness. The data is more relevant at different levels of the scheme. Honoring of contracts would become an issue if sales were to be
GAPP	A transaction is perceived to be existent when the state has made a decision to dispose of land and/or an agribusiness and is taking steps to do so.	Actual number of transactions where assistance has been given to a historically disadvantaged group.	Nature of transaction reported in live-time bid rather than in projected or actual turnover suitable for framework the partner works in.	When is a transaction considered to be completed? In privatization some transactions can last over 4 years. Definition of privatization associated with this indicator very broad.	Number based on verbal agreement rather than legal documentary evidence of a concluded transaction.	A more specific reporting framework for the point in the transaction at which the transaction is reported as a number.		The associated narrative gives the indication for selection of transactions which the partner will take through as far as they are capacitated to do so.
FINCA	Transaction being the draw down of a loan.	Completed transaction takes place at the draw down of the loan as the full draw down is usually made.	Matches the function of FINCA.	No issues.	No issues as 100% draw down happens.	Nil.		Nil.

RESULT LEVEL:	*IR5.1 More Rapid Growth of Existing SMME's, & IR5.2 Increased Commercial Viability of Existing Small and Medium Agribusinesses*							
INDICATOR:	Number of Completed Business Transactions							
Partner	Definition Perceived by Partner	Definition Used by Partner	Suitability of Indicator to Organization	Issues Associated with the Definition of the Indicator	Issues Associated with Measurement of Indicator	Recommendations for Improvement of Indicator	Reporting Issues	Notes
TEAM								

RESULT LEVEL:	*IR5.1 More Rapid Growth of Existing SMME's, & IR5.2 Increased Commercial Viability of Existing Small and Medium Agribusinesses*							
INDICATOR:	Value of Completed Business Transactions							
Partner	Definition Perceived by Partner	Definition Used by Partner	Suitability of Indicator to Organization	Issues Associated with the Definition of the Indicator	Issues Associated with Measurement of Indicator	Recommendations for Improvement of Indicator	Reporting Issues	Notes
SAIBL	Transactions perceived as 'sales' but could perceivably be based on any form of business transaction.	In addition to 'sales' revenue value calculated to be inclusive of all investments in historically disadvantaged businesses by way of share capital, loan capital, fixed assets, overdraft facilities and finance secured.						
SEMED	Perceived to be the value of the signed contract.	Value of contracts signed and entered into must be directly attributable to intervention for them to be included in counting. Values aggregated and thus cumulative value is inclusive of all forms of transactions.	Highly suitable as a disaggregated indicator due to difference in the nature of business transactions entered into by SMMEs.	The definition of a business transaction non-specific. How long is a business transaction?	Main problems related to reporting of financial figures outside those of the direct contract gained. Confidentiality issues paramount. Longitudinal reporting of these figures problematic if not attached to a specific intervention. Default value not indica	Sales contracts would be a better indicator of growth in its disaggregated form where income is attributable to a specific contract gained at the contract. Defaulters would be a useful longitudinal notation or data point.		Duration of a business contract variable depending on the nature of the intervention. Some relationships will be long term others are very short and just included the introduction to a new market.

RESULT LEVEL:	*IR5.1 More Rapid Growth of Existing SMME's, & IR5.2 Increased Commercial Viability of Existing Small and Medium Agribusinesses*							
INDICATOR:	Value of Completed Business Transactions							
Partner	Definition Perceived by Partner	Definition Used by Partner	Suitability of Indicator to Organization	Issues Associated with the Definition of the Indicator	Issues Associated with Measurement of Indicator	Recommendations for Improvement of Indicator	Reporting Issues	Notes
AGRILINK	Perceived to be the value of the signed contract.	Value of contracts signed and entered into must be directly attributable to intervention for them to be included in counting. Values aggregated and thus cumulative value is inclusive of all forms of transactions.		Should not be in dollars as it measures bi-dimensionality of measure when a foreign currency is used.	Integrity of data compromised when dollar extrapolations made.	Eliminate dollars component due to non-stabilized factors.		The most important to Agribusiness is direct sales on forward contracts.
GAPP	Total financial value of the 'acquisition' at time of offer.	Rand value of acquisition translated into ASD on day the value is established. Acquisition price is inclusive of financing (So that value becomes reflective of acquisition price where bid plus financing balance each other over the extended period of trans	Allows for Partner to allow for a transaction to occur over an extended period of time. This indicator is of secondary importance for internal management partner decisions but is considered specifically when the level of financing required precludes the t	The complexity of the time frame over which a transaction takes place. Difference between bid aquisition value and realized acquisition value.	The exchange rate conversion reduces timeliness of indicator when eventually reported through to USAID. Fluctuations and increases in financing required for transaction due to length of transaction time.	Specific definition for 'Value' related to transaction time and exchange rate.		It would be possible to do an analysis of the pre-and post privatization turnover of the agribusinesses interacted with. On this the gain for expenditure could be assessed.
FINCA	Measure of sales value per rand spent.	Extrapolation from random client interview by sector served, which includes weighting value related to markup and turnover.	Value of default useful for risk management but not for viability of business, as default may well be a function of attitude.	Value of transaction completed simple if based on loans only but to extrapolate this to the values of business transactions within the clients businesses must be done on the basis of a calculated extrapolation.	Random survey based (on interview technique). Exchange rate calculated at the time of reporting per quarter.	Report in rands.		Nil.

RESULT LEVEL:	*IR5.1 More Rapid Growth of Existing SMME's, & IR5.2 Increased Commercial Viability of Existing Small and Medium Agribusinesses*							
INDICATOR:	Value of Completed Business Transactions							
Partner	Definition Perceived by Partner	Definition Used by Partner	Suitability of Indicator to Organization	Issues Associated with the Definition of the Indicator	Issues Associated with Measurement of Indicator	Recommendations for Improvement of Indicator	Reporting Issues	Notes
TEAM								

RESULT LEVEL:	*IR5.1.1 SMME Capacity to Respond to Market Opportunities, & IR5.2.2 Small Agribusiness Capacity to Capitalize on Market Opportunities*							
INDICATOR:	Entrepreneurs / Firms Receiving Training							
Partner	Definition Perceived by Partner	Definition Used by Partner	Suitability of Indicator to Organization	Issues Associated with the Definition of the Indicator	Issues Associated with Measurement of Indicator	Recommendations for Improvement of Indicator	Reporting Issues	Notes
SAIBL	Perceived as capacity development where a transaction should be able to occur as a result of the intervention.	Technology transfer defined separately to technical assistance and training. Technology transfer must be demonstrated as to have changed a production, standard and/or operation business practice.	Firms partnership in training based on number of firms that have had some of form line item assistance. TAF funded assistance reported separatly.	Counting dependant on the nature of the business. Difficulty with the definition of training. Mixed denominators are being used in the calculations for reporting purposes. Definition needs to be attached to the capacity to create a transaction.	Fundamental difficulty with the term training in terms of SA legislation. Difficulty in measuring what constitutes a technology transfer and how to attach a numerical value to this. Found it impossible to measure the outcomes in terms of this indicator.	Tease out skills development and information dissemination. This is not a good indicator as it measures the input as apposed the output. Change to technology transfer which can be demonstrated to allow for a change in a business practice which improves gr		Disaggregated data collection due to SAIBL business nature. TAF funded events separate because those are the ones where you wish to create the transaction. This is an input capacity indicator. Accreditation of some form is a requirement.
SEMED	Perceived as inclusive of any form of media, mentoring or training exposure available to or offered to entrepreneurs.	Defined as the disaggregations of number of entrepreneurs trained and number of hours spent in business training. Calculated for each person as well as for the mass media effort.						

RESULT LEVEL:	*IR5.1.1 SMME Capacity to Respond to Market Opportunities, & IR5.2.2 Small Agribusiness Capacity to Capitalize on Market Opportunities*							
INDICATOR:	Entrepreneurs / Firms Receiving Training							
Partner	Definition Perceived by Partner	Definition Used by Partner	Suitability of Indicator to Organization	Issues Associated with the Definition of the Indicator	Issues Associated with Measurement of Indicator	Recommendations for Improvement of Indicator	Reporting Issues	Notes
AGRILINK	Any form of interaction where knowledge or skills transfer is aimed at.	Defined as the count of individuals as apposed to agribusinesses. Inclusive of mentoring. Measure of both numbers exposed and total hours of exposure.	This indicator allows for internal management of the project in terms as where and when people are spending their time. There is however a need for a need to see mentoring encouraged.	Definition of entrepenuer. A specific definition of what should be counted is needed. The indicator itself is weak.	Minimal as primary data records available.	Measure the profitable product line by the measurement of value added.		Two sources of training: formal (especially grantees such as ARC) and mentoring. Linkage officer may have a one on one training session.
GAPP	Not reported on.							
FINCA	Not reported on.							A 4-session formation training of up to 3.5 hours per session is undertaken currently for all groups/individuals. An assessor (internal) reviews the readiness of the individual for loan purposes. Data available in terms of outcome, training conducted and
TEAM								

RESULT LEVEL:	*IR5.1.3 Increased SMMEs Access to Capital Resources, & IR5.2.3 Increased Access to Capital for Small Agribusinesses*							
INDICATOR:	Value of Finance Accessed							
Partner	Definition Perceived by Partner	Definition Used by Partner	Suitability of Indicator to Organization	Issues Associated with the Definition of the Indicator	Issues Associated with Measurement of Indicator	Recommendations for Improvement of Indicator	Reporting Issues	Notes
SAIBL	Perceived to be purely on the basis of enabling the access.	Equity, investments by USA or SA companies, joint ventures, finance by the bank, grants (private and state).	Due to the nature of funding not all funding accessed is being used at once. Access is a suitable indicator as apposed to finance transferred.	Value not included when information not in written form. The milestone needs clearer definition of access as apposed to leveraged. Specific definition of the term of access is required. Additional credit accessed is not reported on yet in the SAIBL system	Measurement based on signed agreement but if transaction not realized then amount deducted. Deductions usually occur when there is a default by a party.	Base on signature, not on transfer of funds. Notation on percentage defaulters recommended for trend analysis.		Default has occurred three times to the value of $25m plus $4.9m. 7% of total transactions, but 30% of equity transactions. No need to report on the default if it does not add to the value of the indicator as a predicator.
SEMED	This is perceived as a dissagregation of transaction value.	Defined as value as at signing of contract for access not realization or drawdown figures. Inclusive of credit raised.	Highly suitable as SMMEs have historically had little access to finance, credit etc	Straight forward.	Straight forward.			This is a fundamental indicator for the growth of access.
AGRILINK	This is perceived as a dissagregation of transaction value.	Defined as value as at signing of contract for access not realization or drawdown figures. Inclusive of credit raised.	Partner only gets involved when client unable to get access. Essential in land transactions.	Capital sourced.	Must be consistency of capital versus finance. Should be finance.			Not as much access still to formal finance for forward contracts. Access to finance is not primary focus of Agrilink.
GAPP	Not reported on specifically.							Would be able to report on the indicator on the basis of the disaggregation of the projected acquisition value reported on.

RESULT LEVEL:	*IR5.1.3 Increased SMMEs Access to Capital Resources, & IR5.2.3 Increased Access to Capital for Small Agribusinesses*							
INDICATOR:	Value of Finance Accessed							
Partner	Definition Perceived by Partner	Definition Used by Partner	Suitability of Indicator to Organization	Issues Associated with the Definition of the Indicator	Issues Associated with Measurement of Indicator	Recommendations for Improvement of Indicator	Reporting Issues	Notes
FINCA	Perceived to be value of actual loan granted.	Value of drawdown from loan, usually 100% of loan amount.	Reflects the function of FINCA.	Nil	Nil	Nil		Direct measure of access realized.
TEAM								

RESULT LEVEL:	None							
INDICATOR:	Number of Beneficiaries Receiving HIV/AIDS Information/Training							
Partner	Definition Perceived by Partner	Definition Used by Partner	Suitability of Indicator to Organization	Issues Associated with the Definition of the Indicator	Issues Associated with Measurement of Indicator	Recommendations for Improvement of Indicator	Reporting Issues	Notes
SAIBL	Not reported.	Not reporting as not part of current contract. Are currently doing a survey in 25 of the companies at the moment to develop a model for SMME companies.				Marked reluctance to become involve in any form of HIV/AIDS activity unless it were aimed at behavioral change. Due cogniscence must be given to the sensitivities of the clients the partners work with. Clear focus that their core business in this project		
SEMED	Not reporting as not part of current contract. Are measuring though due to impact of HIV on SMMEs.	HIV/ AIDS information rather than counseling. Distribution of condoms, distribution of awareness materials. Highly suitable indicator due to impact of HIV on SMMEs. Specific definition would need to be given to get a better measure of this as a potential				Any indicator on HIV AIDS is of use due to the effect of the disease. Business advisor giving good business advice should be including the HIV/AIDS issue.		
AGRILINK	Reporting on number of condoms actually distributed by SEMED as well as number of individual contacts.	Based HIV/ AIDS information rather than counseling. Distribution of condoms, distribution of awareness materials. Officers take boxes of condoms out as well as brochures etc. At moment probably no more than 1-5% of time spent.				Should not be the focus of linkages officers activities when out in field.		
GAPP	Not reported.	This has become a due diligence issue and in many cases a due diligence requirement (Agrichecks in particular).				Succession planning considered for larger transactions planning in tandem with business. Would consider inclusion of workplace programmes dependant on nature of agribusiness and transaction.		

RESULT LEVEL:	None							
INDICATOR:	Number of Beneficiaries Receiving HIV/AIDS Information/Training							
Partner	Definition Perceived by Partner	Definition Used by Partner	Suitability of Indicator to Organization	Issues Associated with the Definition of the Indicator	Issues Associated with Measurement of Indicator	Recommendations for Improvement of Indicator	Reporting Issues	Notes
FINCA	Not reported.	The small group structure would allow for access to the groups (weekly meeting). This would however be logistically a little complex as the amount on the regular agendas is already a great deal and thus this might overburden the standard agendas. Could be				The distribution of information etc related to HIV/AIDS would need to be built into the normal business meetings held with the clients. Any HIV/AIDS programme must take cogniscence of the dangers in creating suspicion amongst the clients when this issue i		

Assessment Team

Mr. D. Himelfarb (Team leader)

Dr PA Richards

Ms MP Selvaggio

APPENDIX B: PWC WORKSHEET 7

Submitted to:

USAID

By

Megatech

And

Khulisa Management Services (Pty) Ltd

Solicitation Number 0093-1102-SOL-MES

6 May 2003

WORKSHEET 7: DATA QUALITY ASSESSMENT CHECKLIST

Refer to this checklist when the team conducts both initial and periodic data quality assessments. The full list does not have to be completed — the team may wish to identify the most critical data quality issues for formal or informal assessment.

Strategic Objective:

Intermediate Result (if applicable):

Performance indicator:

Data source(s):

Partner or contractor who provided the data (if applicable):

Year or period for which the data are being reported:

Is this indicator reported in the R4 Report? *(circle one)* YES NO

Date(s) of assessment:

Location(s) of assessment:

Assessment team members:

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SO team leader approval: _____Date_____

Mission director or delegate approval: _____Date_____

Copies to: _____

Comments: _____

1. VALIDITY—Do the data adequately represent performance?			
Face Validity	**Yes**	**No**	**Comments**
➢ Is there a solid, logical relation between the activity or program and what is being measured, or are there significant uncontrollable factors?	❑	❑	
Measurement Error			
Sampling Error (only applies when the data source is a survey)			
➢ Were samples representative?	❑	❑	
➢ Were the questions in the survey/questionnaire clear, direct, easy to understand?	❑	❑	
➢ If the instrument was self-reporting were adequate instructions provided?	❑	❑	
➢ Were response rates sufficiently large?	❑	❑	
➢ Has non-response rate been followed up?	❑	❑	
Non Sampling Error			
➢ Is the data collection instrument well designed?	❑	❑	
➢ Were there incentives for respondents to give incomplete or untruthful information?	❑	❑	
➢ Are definitions for data to be collected operationally precise?	❑	❑	
➢ Are enumerators well trained? How were they trained? Were they insiders or outsiders? Was there any quality control in the selection process?	❑	❑	
➢ Were there efforts to reduce the potential for personal bias by enumerators?	❑	❑	
Transcription Error			

1. VALIDITY—Do the data adequately represent performance?			
	Yes	**No**	**Comments**
➢ What is the data transcription process? Is there potential for error?	❑	❑	
➢ Are steps being taken to limit transcription error? (e.g., double keying of data for large surveys, electronic edit checking program to clean data, random checks of partner data entered by supervisors)	❑	❑	
➢ Have data errors been tracked to their original source and mistakes corrected?	❑	❑	
If raw data need to be manipulated to produce the data required for the indicator:			
➢ Are the correct formulae being applied?	❑	❑	
➢ Are the same formulae applied consistently from year to year, site to site, data source to data source (if data from multiple sources need to be aggregated)?	❑	❑	
➢ Have procedures for dealing with missing data been correctly applied?	❑	❑	
➢ Are final numbers reported accurate? (E.g., does a number reported as a "total" actually add up?)	❑	❑	
Representativeness of Data			
➢ Is the sample from which the data are drawn representative of the population served by the activity?	❑	❑	
➢ Did all units of the population have an equal chance of being selected for the sample?	❑	❑	
➢ Is the sampling frame (i.e., the list of units in the target population) up to date?	❑	❑	

1. VALIDITY—Do the data adequately represent performance?			
	Yes	**No**	**Comments**
Comprehensive? Mutually exclusive (for geographic frames)			
➢ Is the sample of adequate size?	❑	❑	
➢ Are the data complete? (i.e., have all data points been recorded?)	❑	❑	
Recommendations for improvement:			

2. RELIABILITY—Are data collection processes stable and consistent over time?			
	Yes	**No**	**Comments**
Consistency			
➢ Is a consistent data collection process used from year to year, location to location, data source to data source (if data come from different sources)?	❑	❑	
➢ Is the same instrument used to collect data from year to year, location to location? If data come from different sources are the instruments similar enough that the reliability of the data are not compromised?	❑	❑	
➢ Is the same sampling method used from year to year, location to location, data source to data source?	❑	❑	
Internal quality control			

2. RELIABILITY—Are data collection processes stable and consistent over time?			
	Yes	**No**	**Comments**
➢ Are there procedures to ensure that data are free of significant error and that bias is not introduced?	❑	❑	
➢ Are there procedures in place for periodic review of data collection, maintenance, and processing?	❑	❑	
➢ Do these procedures provide for periodic sampling and quality assessment of data?	❑	❑	
Transparency			
➢ Are data collection, cleaning, analysis, reporting, and quality assessment procedures documented in writing?	❑	❑	
➢ Are data problems at each level reported to the next level?	❑	❑	
➢ Are data quality problems clearly described in final reports?	❑	❑	
Recommendations for improvement:			

3. TIMELINESS—Are data collected frequently and are they current?			
	Yes	**No**	**Comments**
Frequency			
➢ Are data available on a frequent enough basis to inform program management decisions?	❑	❑	
➢ Is a regularized schedule of	❑	❑	

3. TIMELINESS—Are data collected frequently and are they current?			
	Yes	**No**	**Comments**
data collection in place to meet program management needs?			
Currency			
➢ Are the data reported in a given timeframe the most current practically available?	❑	❑	
➢ Are data from within the policy period of interest? (i.e., are data from a point in time after intervention has begun?)	❑	❑	
➢ Are the data reported as soon as possible after collection?	❑	❑	
➢ Is the date of collection clearly identified in the report?	❑	❑	
Recommendations for improvement:			

4. PRECISION—Do the data have an acceptable margin of error?			
	Yes	**No**	**Comments**
➢ Is the margin of error less than the expected change being measured?	❑	❑	
➢ Is the margin of error is acceptable given the likely management decisions to be affected? (consider the consequences of the program or policy decisions based on the data)	❑	❑	
➢ Have targets been set for the acceptable margin of error?	❑	❑	
➢ Has the margin of error been reported along with the data?	❑	❑	
➢ Would an increase in the degree of accuracy be more costly than the increased	❑	❑	

4. PRECISION—Do the data have an acceptable margin of error?			
	Yes	**No**	**Comments**
value of the information?			
Recommendations for improvement:			

5. INTEGRITY—Are data are free of manipulation?			
	Yes	**No**	**Comments**
➢ Are mechanisms in place to reduce the possibility that data are manipulated for political or personal reasons?	❑	❑	
➢ Is there objectivity and independence in key data collection, management, and assessment procedures?	❑	❑	
➢ Has there been independent review?	❑	❑	
➢ If data is from a secondary source, is USAID management confident in the credibility of the data?	❑	❑	
Recommendations for improvement:			

For indicators for which no recent relevant data are available
If no recent relevant data are available for this indicator, why not?
What concrete actions are now being undertaken to collect and report this data as soon

as possible?
On what date will data be reported?

WORKSHEET 7: DATA QUALITY ASSESSMENT CHECKLIST (AGRILINK II)

Check-sheet 1 of 4

Refer to this checklist when the SO team conducts both initial and periodic data quality assessments. The full list does not have to be completed—the SO team may wish to identify the most critical data quality issues for formal or informal assessment.

Strategic Objective:
SO5: Increased Market-driven Employment Opportunities

Intermediate Result (if applicable):
Not applicable

Performance indicator:
Number of Market-driven Employment Opportunities Created

Data source(s):
EM&I/AGRILINK II Project Staff

Partner or contractor who provided the data:
Enterprise Management and Innovation (EM&I), The AGRILINK II Project

Year or period for which the data are being reported:
Monthly, Quarterly, Annually for FY'02 – FY'06

Is this indicator reported in the R4 Report? YES

Date(s) of assessment: April 3 –29, 2003

Location(s) of assessment: EM&I Offices, Woodmead, Johannesburg

Assessment team members: Mr D Himelfarb, Ms M Selvaggio, Dr PA Richards

Partner Representatives: Kristy Cook (Co-Deputy Chief-of-Party), Allan Brown (Performance Monitoring and Evaluation Specialist), Jean McKenzie (Reporting Systems Manager), Amy Schmulian (Agricultural Information Specialist)

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SO team leader approval:

X_____Date_____

Mission director or delegate approval:

X_____Date_____

Copies to:
_____

Comments: _____

_____

_____

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_____

1. VALIDITY—Do the data adequately represent performance? [Average score = 2.8]				
Face Validity	**Yes**	**No**	**Score**	**Comments**
➢ Is there a solid, logical relation between the activity or program and what is being measured, or are there significant uncontrollable factors?	❑	**X**	**2**	See note: ***Non-conformity 1.*** Whilst the relationship is logical (measure of opportunities) there are significant factors, which the partner has no control over.
Measurement Error				
Sampling Error (only applies when the data source is a survey)		**N/A**		Extrapolations made on 100% of transactions using seller value.
➢ Were samples representative?	❑	❑	**N/A**	Not applicable.
➢ Were the questions in the survey/questionnaire clear, direct, easy to understand?	❑	❑	**N/A**	Not applicable.
➢ If the instrument was self-reporting were adequate instructions provided?	❑	❑	**N/A**	Not applicable.
➢ Were response rates sufficiently large?	❑	❑	**N/A**	Not applicable.
➢ Has non-response rate been followed up?	❑	❑	**N/A**	Not applicable.
Non Sampling Error				
➢ Is the data collection instrument well designed?	**X**	❑	**3**	See notes: ***Vulnerabilities 1 & 2 and Strength 1.*** The instrument is well designed in so far as the input data is based on instruments used for other indicators, along with an Instrument for Coefficient of Employment Opportunities (CEOE). Copies of instruments included in PMP: COEO p. 14; MIR p. 23. The acceptability of the instrument presents the vulnerability.
➢ Were there incentives for respondents to give incomplete or untruthful information?	❑	❑	**N/A**	No information gathered from new primary sources. High level of dependency on integrity of information in secondary and tertiary sources.
➢ Are definitions for data to be collected operationally precise?	❑	❑	**N/A**	Definitions contained within PMP reflective of operational environment of partner.
➢ Are enumerators well trained? How were they trained? Were they insiders or outsiders? Was there any quality control in the selection process?	❑	❑	**N/A**	No specific enumerators used for this activity due to IT based extrapolation.
➢ Were there efforts to reduce the potential for personal bias by enumerators?	❑	❑	**N/A**	No specific enumerators used for this activity due to IT based extrapolation.
Transcription Error				
➢ What is the data transcription process? Is there potential for error?	**X**	❑	**3**	The primary data collected with regards to transaction values is already within the IT system. However the manual entry of the CEOE values allows for transcription errors. These were noted at audit when the background database was reviewed for consistency.

1. VALIDITY—Do the data adequately represent performance? [Average score = 2.8]				
	Yes	**No**	**Score**	**Comments**
➢ Are steps being taken to limit transcription error? (e.g., double keying of data for large surveys, electronic edit checking program to clean data, random checks of partner data entered by supervisors)	**X**	❑	**3**	Self-auditing of accuracy by manager of input data as well as some computer generated background data quality checks to eliminate double entry.
➢ Have data errors been tracked to their original source and mistakes corrected?	**X**	❑	**3**	See above. Log demonstrates ability to perform this function.
➢ If raw data need to be manipulated to produce the data required for the indicator:	**X**	❑		Manipulation based on extrapolation formulae created by partner.
➢ Are the correct formulae being applied?	❑	❑	**?**	Whilst the correct formula are imbedded in the data instrument and the database system (aggregation), it is not possible to determine at audit whether the formula is correct in terms of what it aims to calculate.
➢ Are the same formulae applied consistently from year to year, site-to-site, data source to data source (if data from multiple sources need to be aggregated)?	**X**	❑	**3**	Formulae are imbedded in the database system – these formulae have been checked and protected by password authority.
➢ Have procedures for dealing with missing data been correctly applied?	**X**	❑	**3**	Only in so far as the normal management of the database. However if the CEOE is missing (missing data point) then the data is not reported.
➢ Are final numbers reported accurate? (E.g., does a number reported as a "total" actually add up?)	**X**	**X**	**3**	Yes in so far as the IT based calculation will produce a consistent and reliable results. Not in so far as the errors of transcription of CEOE values will affect the ultimate reported figures. These may be either under-calculated or over-calculated.
Representativeness of Data				
➢ Is the sample from which the data are drawn representative of the population served by the activity?	**X**	❑	**3**	Yes in so far as the sample is the population minus those for which the CEOE value is absent. See note: ***Vulnerability 3.*** The exclusion of data due to a missing data point may result in under-representation.
➢ Did all units of the population have an equal chance of being selected for the sample?	❑	**X**	**?**	At audit CEOE transcription errors and CEOE variances were noted for commodities fence poles, cattle and cabbage.
➢ Is the sampling frame (i.e., the list of units in the target population) up to date? Comprehensive? Mutually exclusive (for geographic frames)	❑	**X**	**?**	Unknown. As above.
➢ Is the sample of adequate size?	❑	❑	**?**	Cannot be measured, as size of excluded population is not determined. Thus could not be measured at audit.

1. VALIDITY—Do the data adequately represent performance? Average score = 2.8]				
	Yes	**No**	**Score**	**Comments**
➢ Are the data complete? (i.e., have all data points been recorded?)	❑	**X**	**?**	See note: ***Vulnerability 3.*** The exclusion of data due to a missing data point may result in under-representation.

Strengths and Vulnerabilities:
One non-conformity, one strength and three vulnerabilities are noted:

Non-conformity 1: ***The relationship between the indicator and the result is logical but subject to significant uncontrollable factors. The vulnerability lies in relation to the secondary and tertiary sources of data required for the extrapolation. The non-conformity is classified as MINOR.***

Strength 1: ***The primary data, in terms of the measure of transaction value, and that is used as an input into the extrapolation instrument is collected directly by the partner and is well controlled, documented and accurate.***

Vulnerability 1: ***The validity and reliability of the secondary and tertiary data that is contained in the 'Enterprise Budgets' from which the CEOE is derived is not under the direct control of the partner and is not subject to the same level of data quality vigor as the primary data collected by the partner. The inclusion of the CEOE values in the extrapolation formulae reduces their statistical validity and reliability.***

Vulnerability 2: ***The survey methodology used for the establishment of current market wage paid offers vulnerability in that the validity and reliability of the survey tool must be established. Secondly any use of wage structures lower than the legal level may reduce external/political acceptability of the result.***

Vulnerability 3: ***The exclusion of data due to a missing CEOE value may result in under-representation of data within the total population. This results in an unknown under-reporting bias and margin of error.***

Recommendations for improvement:
R1. If this partner is to continue to report on employment then a definition of 'employment opportunity' which allows for the reduction of the vulnerabilities offered by the secondary and tertiary data is essential. This will need to be made at USAID level and must take due note of the nature of that primary data over which the partner has control.
R2. All secondary and tertiary data sources must be valid and consistent across the data population for which they are going to be used. Ratification of such validity and consistency must be sought when such sources are not widely used.
R3. Should wage base-data be included then this should be based on the minimum legal wage within the context to which the wage is being applied.
R4. Should CEOE values continue to be used then these must be established across all provinces for all commodities reported on, using the same tested valid and reliable methodology.

2. RELIABILITY—Are data collection processes stable and consistent over time? [Average score = 3]				
	Yes	**No**	**Score**	**Comments**
Consistency				
➢ Is a consistent data collection process used from year to year, location-to-location, data source to data source (if data come from different sources)?	**X**	❑	**3**	See 5.2A; for coefficients, data is collected from secondary sources or from AGRILINK II staff. These methods are consistently applied from year to year. Sources may vary by location as

2. RELIABILITY—Are data collection processes stable and consistent over time? [Average score = 3]				
	Yes	**No**	**Score**	**Comments**
				secondary data is not available in all provinces.
➢ Is the same instrument used to collect data from year to year, location to location? If data come from different sources are the instruments similar enough that the reliability of the data are not compromised?	**X**	❑	**3**	Same instrument is used.
➢ Is the same sampling method used from year to year, location to location, data source to data source?	❑	❑	**N/A**	No sampling. 100% population used.
Internal quality control				
➢ Are there procedures to ensure that data are free of significant error and that bias is not introduced?	**X**	**X**	**3**	Yes in that standard procedures applied for the collection of all primary data under the control of this partner. No in that secondary and tertiary data are not under the control of the partner. See not: ***Vulnerability 1.***
➢ Are there procedures in place for periodic review of data collection, maintenance, and processing?	**X**	❑	**3**	Yes for primary data. Reporting Systems Manager conducts bimonthly review of provincial office electronic and paper files; PMP Specialist and Co-Deputy COP review database system and conduct spot checks bimonthly to ensure reliability.
➢ Do these procedures provide for periodic sampling and quality assessment of data?	**X**	**X**	**3**	Spot checks provide for periodic sampling; site visits also assess quality. Spot checks related to secondary and tertiary data sources not possible.
Transparency				
➢ Are data collection, cleaning, analysis, reporting, and quality assessment procedures documented in writing?	**X**	❑	**3**	See PMP for data collection procedures and analysis. There is no specific "cleaning" – review is conducted by Reporting System Manager on the basis of the PMP and when there is a question, discussion is held with PMP Specialist and Co-Deputy COP. A memo is drafted to the file upon the resolution of any reporting issues.
➢ Are data problems at each level reported to the next level?	**X**	❑	**3**	Provincial level reports issues to Head Quarters and vice-versa. Communications seen at audit.
➢ Are data quality problems clearly described in final reports?	❑	❑	**N/A**	No data quality problems per se reported to date. Source of data is provided for the specific CEOE. Additional notes can be provided for estimates.
Recommendations for improvement: See Recommendations R2, R3 and R4.				

3. TIMELINESS—Are data collected frequently and are they current? [Average score = 3]				
	Yes	**No**	**Score**	**Comments**
Frequency				
➢ Are data available on a frequent enough basis to inform program management decisions?	**X**	❑	**3**	See note: ***Vulnerability 4.*** Dependency exists in terms of receiving updated 'Enterprise Budgets'. Data are available on a weekly (at minimum monthly) basis, which is more than sufficient for project management decision-making.
➢ Is a regularized schedule of data collection in place to meet program management needs?	**X**	❑	**3**	See above.
Currency				
➢ Are the data reported in a given timeframe the most current practically available?	**X**	❑	**3**	See above.
➢ Are data from within the policy period of interest? (i.e., are data from a point in time after intervention has begun?)	**X**	❑	**3**	See above.
➢ Are the data reported as soon as possible after collection?	**X**	❑	**3**	Transaction data collected continuously. For CEOE data, there may be a delay with a new product as officers are informed that additional data is necessary to calculate the CEOE. Data are still available on a quarterly basis.
➢ Is the date of collection clearly identified in the report?	**X**	❑	**3**	Period of collection is clearly identified in reports, e.g. monthly, quarterly, and cumulative.

Strengths and Vulnerabilities:
One vulnerability is noted:

Vulnerability 4: ***Timeliness is at risk should the updated data associated with the 'Enterprise budgets' not be generated or distributed by the secondary source. This is a factor over which the partner has no current direct control.***

Recommendations for improvement:
R5. In order to minimize risk associated with an external source of secondary and tertiary data, the partner will need to proactively establish whether the third party intends to continue to update and distribute the required data.

4. PRECISION—Do the data have an acceptable margin of error? [Average score = 2]				
	Yes	**No**	**Score**	**Comments**
➢ Is the margin of error less than the expected change being measured?	❑	❑	**?**	See note: ***Vulnerability 3.*** The margin of error could not be established at audit as the total number of excluded transactions due to missing CEOE values is not known. Transcription errors and derivation errors for CEOE values unknown.

4. PRECISION—Do the data have an acceptable margin of error? [Average score = 2]				
	Yes	**No**	**Score**	**Comments**
➢ Is the margin of error is acceptable given the likely management decisions to be affected? (consider the consequences of the program or policy decisions based on the data)	❑	❑	**?**	See note: ***Vulnerability 3.*** The margin of error could not be established at audit as the total number of excluded transactions due to missing CEOE values is not known.
➢ Have targets been set for the acceptable margin of error?	❑	**X**	**2**	See note: ***Non-conformity 2.*** Acceptable margin of error not yet set.
➢ Has the margin of error been reported along with the data?	❑	**X**	**2**	See note: ***Non-conformity 2.*** Acceptable margin of error not yet set.
➢ Would an increase in the degree of accuracy be more costly than the increased value of the information?	❑	❑	**?**	Not possible to assess until extent of population representation established.

Strengths and Vulnerabilities:
One non-conformity is noted:

Non-conformity 2: ***The specific acceptable level of error has not been set. This limits the identification of potential negative trends in terms of data quality and the timely correction and prevention thereof. The non-conformity is classified as MINOR.***

Recommendations for improvement:
R6. It is essential that the concept of margin of error be explored in more depth. Attention should be paid not only to "margin of error" in terms of the difference desired in the indicator been measured but also in the accuracy of the technique itself. In the case of a lack of empirical evidence to set such error limits anecdotal evidence suffices until a trend analysis is conducted.

5. INTEGRITY—Are data are free of manipulation? [Average score = 3]				
	Yes	**No**	**Score**	**Comments**
➢ Are mechanisms in place to reduce the possibility that data are manipulated for political or personal reasons?	**X**	❑	**3**	Yes in so far as the partner is able to control the source of primary data but not in so far as the partner has any control over secondary and tertiary sources of data.
➢ Is there objectivity and independence in key data collection, management, and assessment procedures?	❑	**X**	**3**	See note: ***Vulnerability 2.*** Current method for establishing wages subjective.
➢ Has there been independent review?	❑	**X**	**3**	See note: ***Vulnerability 5.***There has been a minimum of three meetings with USAID/South Africa mission staff, as well as with USAID/Washington staff to discuss the Indicator, but no formal review.
➢ If data is from a secondary source, is USAID management confident in the credibility of the data?	❑	❑	**3**	The secondary data originates from Department of Agriculture publications, considered reliable by AGRILINK II Project staff. Concern within USAID exists as to the acceptability of this data.

5. INTEGRITY—Are data are free of manipulation? [Average score = 3]				
	Yes	**No**	**Score**	**Comments**

Strengths and Vulnerabilities:
One vulnerability is noted:

Vulnerability 5 ***No independent reviews have taken place to date leaving the system open to criticism.***

Recommendations for improvement:
R7. Any extrapolation formula, which is not part of currently accepted economic dogma should be peer reviewed in order to allow for a higher degree of general acceptability prior to institution and / or continued use.

For indicators for which no recent relevant data are available
If no recent relevant data are available for this indicator, why not? **There has not been an effort to update the CEOEs for FY'02 within the IT system or from the secondary source, until a decision is taken by USAID/South Africa to proceed with this indicator.**
What concrete actions are now being undertaken to collect and report this data as soon as possible? **Not Applicable**
On what date will data be reported? **Not applicable**

WORKSHEET 7: DATA QUALITY ASSESSMENT CHECKLIST (AGRILINK II)

Check-sheet 2 of 4

Refer to this checklist when the SO team conducts both initial and periodic data quality assessments. The full list does not have to be completed—the SO team may wish to identify the most critical data quality issues for formal or informal assessment.

Strategic Objective:
SO5: Increased Market-driven employment opportunities

Intermediate Result:
IR 5.2 Increased Commercial Viability of Existing Small and Medium Agribusinesses

Performance indicator:
5.2A Number of Business Transactions AND 5.2B Value of Business Transactions

Data source(s):
EM&I/AGRILINK II Project Staff

Partner or contractor who provided the data:
Enterprise Management and Innovation (EM&I), The AGRILINK II Project

Year or period for which the data are being reported:
Monthly, Quarterly, Annually for FY'02 – FY'06

Is this indicator reported in the R4 Report: YES

Date(s) of assessment: April 3 –29, 2003

Location(s) of assessment: EM&I Offices, Woodmead, Johannesburg

Assessment team members: Mr D Himelfarb, Ms M Selvaggio, Dr PA Richards

Partner Representatives: Kristy Cook (Co-Deputy Chief-of-Party), Allan Brown (Performance Monitoring and Evaluation Specialist), Jean McKenzie (Reporting Systems Manager), Amy Schmulian (Agricultural Information Specialist)

For Office Use Only

SO team leader approval:

X_____Date_____

Mission director or delegate approval:

X_____Date_____

Copies to:
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Comments: _____

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1. VALIDITY—Do the data adequately represent performance? [Average Score = 3]				
Face Validity	**Yes**	**No**	**Score**	**Comments**
➢ Is there a solid, logical relation between the activity or program and what is being measured, or are there significant uncontrollable factors?	**X**	❑	**3**	See note: ***Vulnerability 1***. The logical link between the activity and measurement is at risk due to the breadth of the USAID definition and the partner's application thereof. See note: ***Strength 1.*** The nature of the activity provides an excellent direct source of primary data.
Measurement Error				
Sampling Error (only applies when the data source is a survey)				Not applicable.
➢ Were samples representative?	❑	❑	**N/A**	
➢ Were the questions in the survey/questionnaire clear, direct, easy to understand?	❑	❑	**N/A**	
➢ If the instrument was self-reporting were adequate instructions provided?	❑	❑	**N/A**	
➢ Were response rates sufficiently large?	❑	❑	**N/A**	
➢ Has non-response rate been followed up?	❑	❑	**N/A**	
Non Sampling Error				
➢ Is the data collection instrument well designed?	**X**	❑	**3**	Very well designed and field-tested. Copies of instrument included in PMP; MIR p. 23; FAR p. 45
➢ Were there incentives for respondents to give incomplete or untruthful information?	**X**	❑	**3**	Bias upward given staff performance targets, but all instruments MUST be substantiated by external, objective documentation. This documentation is extremely difficult to "create" or "forge". Disciplinary proceeding preclude gain from false positives.
➢ Are definitions for data to be collected operationally precise?	**X**	❑	**3**	All definitions are included in the PMP – internally consistent and complete.
➢ Are enumerators well trained? How were they trained? Were they insiders or outsiders? Was there any quality control in the selection process?	**X**	❑	**3**	Project officers (inside "enumerators") are provided with initial and repeat training – every document is reviewed and feedback is provided on a weekly basis by Reporting Systems Manager. Quality control is in the hiring process – computer literacy and minimum educational background.
➢ Were there efforts to reduce the potential for personal bias by enumerators?	**X**	❑	**3**	Supporting documentation minimizes the potential for personal bias; checks on validity of documentation conducted by Reporting Systems Manager and Supervisors. Sound disciplinary procedure for false positives.

1. VALIDITY—Do the data adequately represent performance? [Average Score = 3]				
	Yes	**No**	**Score**	**Comments**
Transcription Error				
➢ What is the data transcription process? Is there potential for error?	**X**	❑	**3**	Transcription error from Officer to Reporting Systems Manager is limited by the need for substantiating documentation. The transcription error by hand-entry of data into database by Reporting Systems Manager is minimized by filters, cross-checks etc. See below. Sampling of MIR and FAR demonstrates 100% accuracy. Only 1 of 5 training registers demonstrated a single transcription error (would have resulted in an under-reporting – not statistically significant).
➢ Are steps being taken to limit transcription error? (e.g., double keying of data for large surveys, electronic edit checking program to clean data, random checks of partner data entered by supervisors)	**X**	❑	**3**	Filters are used to limit transcription error, e.g. a filter has been added to the Date input box prompting the user to enter the date in the correct format. This filter limits the day/month/year transposing of the data; forms automatically open on next record so cannot overwrite data. In addition, error checks are also performed prior to generating reporting data – filtering and searching for outliers, anomalies, etc. for 7 columns.
➢ Have data errors been tracked to their original source and mistakes corrected?	**X**	❑	**3**	A Log has been created to record all errors and changes, sources of errors or reasons for the changes, and corrections to the database to ensure an historical record of ANY changes in the data. Log seen at audit. Pending file seen at audit.
➢ If raw data need to be manipulated to produce the data required for the indicator:	**X**	❑		See below.
➢ Are the correct formulae being applied?	**X**	❑	**3**	Formulae are imbedded in the database system – these formulae have been checked. Hard copies of data reviewed at audit, no calculation errors noted in sample reviewed.
➢ Are the same formulae applied consistently from year to year, site-to-site, data source to data source (if data from multiple sources need to be aggregated)?	**X**	❑	**3**	Formulae are imbedded in the database system – changes to IT system traceable.
➢ Have procedures for dealing with missing data been correctly applied?	**X**	❑	**3**	There are crosschecks between Provincial submission of data and Head Quarter data input to ensure that “transactions” are not “missed”. There are database checks for empty cells. Pending file seen at audit.
➢ Are final numbers reported accurate? (E.g., does a number reported as a “total” actually add up?)	**X**	❑	**3**	Rounding error of Rand amounts exists but is minimal. SQL background calculation reviewed as well as Access Report Request seen. Final numbers composite from background calculation. Minimal risk.
Representativeness of Data				
➢ Is the sample from which the data are drawn representative of the population served by the activity?	**X**	❑	**3**	The Sample is the Population (100%).

1. VALIDITY—Do the data adequately represent performance? [Average Score = 3]				
	Yes	**No**	**Score**	**Comments**
➢ Did all units of the population have an equal chance of being selected for the sample?	**X**	❑	**3**	The Sample is the Population (100%).
➢ Is the sampling frame (i.e., the list of units in the target population) up to date? Comprehensive? Mutually exclusive (for geographic frames)	**X**	❑	**3**	The Sample is the Population (100%).
➢ Is the sample of adequate size?	**X**	❑	**3**	The Sample is the Population (100%).
➢ Are the data complete? (i.e., have all data points been recorded?)	**X**	❑	**3**	All data complete prior to data input. Pending system used for incomplete data. BI system does not allow for input of incomplete data.

Strengths and Vulnerabilities:
One vulnerability is noted:

Strength 1: ***The nature of the activity provides an excellent direct source of primary data.***

Vulnerability 1: ***The logical link between the activity and measurement is at risk due to the breadth of the USAID definition and the partner's application thereof.***

Recommendations for improvement:
R1. USAID must clearly delineate the definition of a transaction so as to ensure that the partner is best able to make use of primary data to which they have access and over which they have direct control.

2. RELIABILITY—Are data collection processes stable and consistent over time? [Average score = 3]				
	Yes	**No**	**Score**	**Comments**
Consistency				
➢ Is a consistent data collection process used from year to year, location to location, data source to data source (if data come from different sources)?	**X**	❑	**3**	All changes to collection methodology traceable over time and logged in read-only templates for data collection documentation.
➢ Is the same instrument used to collect data from year to year, location to location? If data come from different sources are the instruments similar enough that the reliability of the data are not compromised?	**X**	❑	**3**	Minor changes have been made to instruments – these changes are made at head quarters to "read-only" documents, and are reported on page 56 in Performance Monitoring Plan
➢ Is the same sampling method used from year to year, location to location, data source to data source?	❑	❑	**N/A**	No sampling, 100% reporting.
Internal quality control				
➢ Are there procedures to ensure that data are free of significant error and that bias is not introduced?	**X**	❑	**3**	Yes. See above. See also notation on filters. HR management procedures ensure correct skills set acquired and reduce risk of false positive reporting.

2. RELIABILITY—Are data collection processes stable and consistent over time? [Average score = 3]				
	Yes	**No**	**Score**	**Comments**
➢ Are there procedures in place for periodic review of data collection, maintenance, and processing?	**X**	❑	**3**	Yes. Reporting Systems Manager conducts bimonthly review of provincial office electronic and paper files; PMP Specialist and Co-Deputy COP review database system and conduct spot checks bimonthly to ensure reliability. Minutes of meetings seen
➢ Do these procedures provide for periodic sampling and quality assessment of data?	**X**	❑	**3**	See note: ***Vulnerability 2***. No specific internal audit trail (Records of a disciplinary hearing demonstrate that spot checks have happened). Spot checks provide for periodic sampling; site visits also assess quality.
Transparency				
➢ Are data collection, cleaning, analysis, reporting, and quality assessment procedures documented in writing?	**X**	❑	**3**	See PMP for data collection procedures and analysis. There is no specific "cleaning" – review is conducted by Reporting System Manager on the basis of the PMP and when there is a question, discussion is held with PMP Specialist and Co-Deputy COP. A memo is drafted to the file upon the resolution of any reporting issues.
➢ Are data problems at each level reported to the next level?	**X**	❑	**3**	Provincial level reports issues to head quarters and vice-versa. Minutes of meetings seen at audit as well as emails indicating communications in this regard both up and down the line.
➢ Are data quality problems clearly described in final reports?	**X**	❑	**3**	Data quality is not a problem once all checks have been performed. Data quality is reviewed and where problematic is not included. Comments on difficulties encountered, particularly with regards the indicators, have been stated in the reports submitted.

Strengths and Vulnerabilities:
One vulnerability is noted:

Vulnerability 2: ***The lack of a specific internal audit trail that demonstrates when and how spot checks are and were made leaves the partner open to risk should action need to be taken on the basis of the results of such checks.***

Recommendations for improvement:
R2. A specific internal audit trail is required to demonstrate that non-conformities in the system are noted, corrected and prevented.

3. TIMELINESS—Are data collected frequently and are they current? [Average score = 3]				
	Yes	**No**	**Score**	**Comments**
Frequency				
➢ Are data available on a frequent enough basis to inform program management decisions?	**X**	❑	**3**	Data are available on a weekly (at minimum monthly) basis, which is more than sufficient for project management decision-making. Activity reports seen.

3. TIMELINESS—Are data collected frequently and are they current? [Average score = 3]				
	Yes	**No**	**Score**	**Comments**
➢ Is a regularized schedule of data collection in place to meet program management needs?	**X**	❑	**3**	See above. Activity reports seen.
Currency				
➢ Are the data reported in a given timeframe the most current practically available?	**X**	❑	**3**	See note: ***Strength 2***. Activity reports allow for measure of currency of data put into the IT system. Data are available on a weekly (at minimum monthly) basis, which is more than sufficient for project management decision-making. Activity reports seen.
➢ Are data from within the policy period of interest? (i.e., are data from a point in time after intervention has begun?)	**X**	❑	**3**	See above. Activity reports seen.
➢ Are the data reported as soon as possible after collection?	**X**	❑	**3**	There is at most a one-two week delay in reporting data by provincial officers. Depending on the nature of the transaction, there may be a delay in order to obtain the supporting documentation, so the reported date may differ from the date of "sales contract", etc. All data are only entered into data system once supporting documentation is complete and quality standards are met.
➢ Is the date of collection clearly identified in the report?	**X**		**3**	Period of collection is clearly identified in reports, e.g. monthly, quarterly, and cumulative.

Strengths and Vulnerabilities:
One strength is noted:

Strength 2: ***The Activity Reports allow for an accurate measure of the currency of the data put into the IT system. This ensures that the partner has a tight system of internal management control and is able to quickly identify the 'out-of-control' data, thus reducing risk of collecting stale primary data.***

4. PRECISION—Do the data have an acceptable margin of error? [Average score = 2.6]				
	Yes	**No**	**Score**	**Comments**
➢ Is the margin of error less than the expected change being measured?	**X**	❑	**3**	Margin of error in value likely to be less than .01% as IT system allows for rounding off to the SA Rand value. Only area of vulnerability is associated with foreign currency transactions. 0% margin of error in transaction number as all transactions reported in accordance with partner definition.
➢ Is the margin of error is acceptable given the likely management decisions to be affected?	**X**	❑	**3**	As above.
➢ Have targets been set for the acceptable margin of error?	❑	**X**	**2**	See note: ***Non-conformity 1***. The effects of the exchange rate not taken into account in margin of error.

4. PRECISION—Do the data have an acceptable margin of error? [Average score = 2.6]				
	Yes	**No**	**Score**	**Comments**
➢ Has the margin of error been reported along with the data?	❑	**X**	**2**	See note: ***Non-conformity 1***. The effects of the exchange rate not taken into account in margin of error.
➢ Would an increase in the degree of accuracy be more costly than the increased value of the information?	❑	**X**	**3**	Adjustment easily made.

Strengths and Vulnerabilities:
One non-conformity is raised with regards to data precision:

Non-conformity 1: ***The effect of the exchange rate and time of calculation of exchange is not taken into account in the determination of error. Classification of non-conformity is MINOR.***

Recommendations for improvement:
R3. The target for acceptable margin of error must be adjusted to be reflective of potential error resulting from exchange rate changes and time of reporting versus data input, particularly if an increase in foreign transactions is anticipated.

5. INTEGRITY—Are data are free of manipulation? [Average score = 3]				
	Yes	**No**	**Score**	**Comments**
➢ Are mechanisms in place to reduce the possibility that data are manipulated for political or personal reasons?	**X**	❑	**3**	See note: ***Strength 3***. An active system of internal discipline reduces risk. Access to the database system is limited to two employees (Reporting Systems Manager and Agricultural Information Specialist (by password), both of whom have limited incentive to manipulate data. Individual data records have extremely high integrity, and all aggregate data are dependent on aggregation of individual data records. The data is interpreted and reported by a third person.
➢ Is there objectivity and independence in key data collection, management, and assessment procedures?	**X**	❑	**3**	There is independence in that separate individuals are involved in collection, management and assessment (see above).
➢ Has there been independent review?	❑	**X**	**3**	See note: ***Vulnerability 3***. No independent reviews to date.
➢ If data is from a secondary source, is USAID management confident in the credibility of the data?	❑	❑	**N/A**	No secondary data relied upon (only exception is limited grantee data for training and HIV/AIDS reporting).

Strengths and Vulnerabilities:
One strength and one vulnerability are noted:

Strength 3: ***The fact that not only does the partner have a strong disciplinary code with regards the inappropriate manipulation of data, but also actively implements the system, ensure that such inappropriate behavior will not be tolerated.***

5. INTEGRITY—Are data are free of manipulation? [Average score = 3]				
	Yes	**No**	**Score**	**Comments**
Vulnerability 3: ***No independent reviews to have taken place to date leaving the system open to criticism. Risk associated with this vulnerability is offset by the strength noted above.***				
Recommendations for improvement: See Recommendation R2.				

For indicators for which no recent relevant data are available
If no recent relevant data are available for this indicator, why not? **Not Applicable**
What concrete actions are now being undertaken to collect and report this data as soon as possible? **Not Applicable**
On what date will data be reported? **Not Applicable**

WORKSHEET 7: DATA QUALITY ASSESSMENT CHECKLIST (AGRILINK II)

Check-sheet 3 of 4

Refer to this checklist when the SO team conducts both initial and periodic data quality assessments. The full list does not have to be completed—the SO team may wish to identify the most critical data quality issues for formal or informal assessment.

Strategic Objective:
SO5: Increased Market-driven Employment Opportunities

Intermediate Result:
IR 5.2.3 Increased Small & Medium Agribusiness Access to Finance

Performance indicator:
5.2.3A/B Number and Value of Finance Accessed by Entities

Data source(s):
EM&I/AGRILINK II Project Staff

Partner or contractor who provided the data:
Enterprise Management and Innovation (EM&I), The AGRILINK II Project

Year or period for which the data are being reported:
Monthly, Quarterly, Annually for FY'02 – FY'06

Is this indicator reported in the R4 Report? YES

Date(s) of assessment: April 3-29, 2003

Location(s) of assessment: EM&I Offices, Woodmead, Johannesburg

Assessment team members: Mr D Himelfarb, Ms M Selvaggio, Dr PA Richards

Partner Representatives: Kristy Cook (Co-Deputy Chief-of-Party), Allan Brown (Performance Monitoring and Evaluation Specialist), Jean McKenzie (Reporting Systems Manager), Amy Schmulian (Agricultural Information Specialist)

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SO team leader approval:

X_____Date_____

Mission director or delegate approval:

X_____Date_____

Copies to:
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Comments: _____

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1. VALIDITY—Do the data adequately represent performance? [Average score = 3]				
Face Validity	**Yes**	**No**	**Score**	**Comments**
➢ Is there a solid, logical relation between the activity or program and what is being measured, or are there significant uncontrollable factors?	**X**	❑	**3**	Direct relationship – actual grant or loan document, or letter from bank, etc. is source of information; very limited uncontrollable factors
Measurement Error				
Sampling Error (only applies when the data source is a survey)			**N/A**	No sampling, 100% of population included.
➢ Were samples representative?	❑	❑	**N/A**	
➢ Were the questions in the survey/questionnaire clear, direct, easy to understand?	❑	❑	**N/A**	
➢ If the instrument was self-reporting were adequate instructions provided?	❑	❑	**N/A**	
➢ Were response rates sufficiently large?	❑	❑	**N/A**	
➢ Has non-response rate been followed up?	❑	❑	**N/A**	
Non Sampling Error				
➢ Is the data collection instrument well designed?	**X**	❑	**3**	Very well designed and field-tested. Copies of instrument included in PMP: FAR p. 45
➢ Were there incentives for respondents to give incomplete or untruthful information?	**X**	❑	**3**	Bias upward given staff performance targets, but all instruments MUST be substantiated by external, objective documentation. This documentation is extremely difficult to "create" or "forge". HR disciplinary code applied strictly to prevent false positives.
➢ Are definitions for data to be collected operationally precise?	**X**	❑	**3**	All definitions are included in the PMP – internally consistent and complete.
➢ Are enumerators well trained? How were they trained? Were they insiders or outsiders? Was there any quality control in the selection process?	**X**	❑	**3**	Project officers (inside "enumerators") are provided with initial and repeat training – every document is reviewed and feedback is provided on a weekly basis by Reporting Systems Manager. Quality control is in the hiring process – computer literacy and minimum educational background.
➢ Were there efforts to reduce the potential for personal bias by enumerators?	**X**	❑	**3**	Supporting documentation minimizes the potential for personal bias; checks on validity of documentation conducted by Reporting Systems Manager and Supervisors.
Transcription Error				
➢ What is the data transcription process? Is there potential for error?	**X**	❑	**3**	Transcription error from Officer to Reporting Systems Manager is limited by the need for substantiating documentation. The transcription error by hand-entry of data into database by Reporting Systems Manager is minimized by filters, cross-checks etc. See below. No errors noted on audited samples.

1. VALIDITY—Do the data adequately represent performance? [Average score = 3]				
	Yes	**No**	**Score**	**Comments**
➢ Are steps being taken to limit transcription error? (e.g., double keying of data for large surveys, electronic edit checking program to clean data, random checks of partner data entered by supervisors)	**X**	❑	**3**	Filters are used to limit transcription error, e.g. a filter has been added to the Date input box prompting the user to enter the date in the correct format. This filter limits the day/month/year transposing of the data; forms automatically open on next record so cannot overwrite data. In addition, error checks are also performed prior to generating reporting data – filtering and searching for outliers, anomalies, etc. for 7 columns.
➢ Have data errors been tracked to their original source and mistakes corrected?	**X**	❑	**3**	A Log has been created to record all errors and changes, sources of errors or reasons for the changes, and corrections to the database to ensure an historical record of ANY changes in the data. Error log seen at audit. Statistically insignificant.
➢ If raw data need to be manipulated to produce the data required for the indicator:	**X**	❑		
➢ Are the correct formulae being applied?	**X**	❑	**3**	Formulae are imbedded in the database system – changes to IT system traceable.
➢ Are the same formulae applied consistently from year to year, site to site, data source to data source (if data from multiple sources need to be aggregated)?	**X**	❑	**3**	Formulae are imbedded in the database system – these formulae have been checked and protected by password authority.
➢ Have procedures for dealing with missing data been correctly applied?	**X**	❑	**3**	There are cross-checks between Provincial submission of data and Head Quarter data input to ensure that "transactions" are not "missed". There are database checks for empty cells.
➢ Are final numbers reported accurate? (E.g., does a number reported as a "total" actually add up?)	**X**	❑	**3**	Rounding error of Rand amounts exists but is minimal.
Representativeness of Data				
➢ Is the sample from which the data are drawn representative of the population served by the activity?	**X**	❑	**3**	The sample is the population (100%).
➢ Did all units of the population have an equal chance of being selected for the sample?	**X**	❑	**3**	The sample is the population (100%).
➢ Is the sampling frame (i.e., the list of units in the target population) up to date? Comprehensive? Mutually exclusive (for geographic frames)	**X**	❑	**3**	The sample is the population (100%).
➢ Is the sample of adequate size?	**X**	❑	**3**	The sample is the population (100%).
➢ Are the data complete? (i.e., have all data points been recorded?)	**X**	❑	**3**	No evidence at audit to suggest that data is not complete.

1. VALIDITY—Do the data adequately represent performance? [Average score = 3]				
	Yes	**No**	**Score**	**Comments**
Recommendations for improvement: Nil. This system is backed by an excellent Business Intelligence Framework, which enables the partner to meet its stated objectives in terms of the definitions applied to the indicator by the partner.				

2. RELIABILITY—Are data collection processes stable and consistent over time? [Average score = 3]				
	Yes	**No**	**Score**	**Comments**
Consistency				
➢ Is a consistent data collection process used from year to year, location to location, data source to data source (if data come from different sources)?	**X**	❑	**3**	All changes to the system are traceable and logged on the IT system at the time of change. Emails demonstrate that consistency is maintained by ensuring that all data collectors are aware of any change at the time the change is enacted. Training is given if so required.
➢ Is the same instrument used to collect data from year to year, location to location? If data come from different sources are the instruments similar enough that the reliability of the data are not compromised?	**X**	❑	**3**	Minor changes have been made to instruments – these changes are made at head quarters to "read-only" documents, and are reported on page 56 in Performance Monitoring Plan. Read only system checked and confirmed at audit.
➢ Is the same sampling method used from year to year, location to location, data source to data source?	❑	❑	**N/A**	No sampling.
Internal quality control				
➢ Are there procedures to ensure that data are free of significant error and that bias is not introduced?	**X**	❑	**3**	See note: ***Strength 1.*** Disciplinary measures enforced strictly. See also filters, HR management and procedures.
➢ Are there procedures in place for periodic review of data collection, maintenance, and processing?	**X**	❑	**3**	Reporting Systems Manager conducts bimonthly review of provincial office electronic and paper files; PMP Specialist and Co-Deputy COP review database system and conduct spot checks bimonthly to ensure reliability.
➢ Do these procedures provide for periodic sampling and quality assessment of data?	**X**	❑	**3**	See note: ***Vulnerability 1.*** No specific internal audit trail pertaining to spot checks. Spot checks provide for periodic sampling; site visits also assess quality.
Transparency				
➢ Are data collection, cleaning, analysis, reporting, and quality assessment procedures documented in writing?	**X**	❑	**3**	See PMP for data collection procedures and analysis. There is no specific "cleaning" – review is conducted by Reporting System Manager on the basis of the PMP and when there is a question, discussion is held with PMP Specialist and Co-Deputy COP. A memo is drafted to the file upon the resolution of any reporting issues.

2. RELIABILITY—Are data collection processes stable and consistent over time? [Average score = 3]				
	Yes	**No**	**Score**	**Comments**
➢ Are data problems at each level reported to the next level?	**X**	❑		Provincial level reports issues to head quarters and vice-versa. Emails indicating bi-directional reporting noted at audit.
➢ Are data quality problems clearly described in final reports?	❑	❑	**3**	Data quality is not a problem once all checks have been performed. Data quality is reviewed and where problematic is not included.

Strengths and Vulnerabilities:
One strength and one vulnerability are noted:

Strength 1: ***The fact that not only does the partner have a strong disciplinary code with regards the inappropriate manipulation of data, but also actively implements the system, ensures that such inappropriate behavior will not be tolerated.***

Vulnerability 1: ***The lack of a specific internal audit trail that demonstrates when and how spot checks are and were made leaves the partner open to risk should action need to be taken on the basis of the results of such checks.***

Recommendations for improvement:
R1. A specific internal audit trail is required to demonstrate that non-conformities in the system are noted, corrected and prevented.

3. TIMELINESS—Are data collected frequently and are they current? [Average score = 3]				
	Yes	**No**	**Score**	**Comments**
Frequency				
➢ Are data available on a frequent enough basis to inform program management decisions?	**X**	❑	**3**	Data are available on a weekly (at minimum monthly) basis, which is more than sufficient for project management decision-making.
➢ Is a regularized schedule of data collection in place to meet program management needs?	**X**	❑	**3**	See above.
Currency				
➢ Are the data reported in a given timeframe the most current practically available?	**X**	❑	**3**	Data reported in given time frame with at most a 1 to 2 week lag.
➢ Are data from within the policy period of interest? (i.e., are data from a point in time after intervention has begun?)	**X**	❑	**3**	Only current data reported. Stale data excluded by nature of filters.
➢ Are the data reported as soon as possible after collection?	**X**	❑	**3**	There is at most a one-two week delay in reporting data by provincial officers. Depending on the nature of the transaction, there may be a delay in order to obtain the supporting documentation, so the reported date may differ from the date of "sales contract", etc. All data are only entered into data system once supporting documentation is complete and quality standards are met.

3. TIMELINESS—Are data collected frequently and are they current? [Average score = 3]				
	Yes	**No**	**Score**	**Comments**
➢ Is the date of collection clearly identified in the report?	**X**		**3**	Period of collection is clearly identified in reports, e.g. monthly, quarterly, and cumulative.

Recommendations for improvement:
Nil noted.

4. PRECISION—Do the data have an acceptable margin of error? [Average score = 3]				
	Yes	**No**	**Score**	**Comments**
➢ Is the margin of error less than the expected change being measured?	**X**	❑	**3**	Maximum error in finance figures attributable to rounding (.01%)
➢ Is the margin of error is acceptable given the likely management decisions to be affected? (consider the consequences of the program or policy decisions based on the data)	**X**	❑	**3**	As above.
➢ Have targets been set for the acceptable margin of error?	❑	**X**	**3**	See note ***Vulnerability 2.*** Acceptable margin of error not yet set
➢ Has the margin of error been reported along with the data?	❑	**X**	**3**	See note ***Vulnerability 2.*** Acceptable margin of error not yet set
➢ Would an increase in the degree of accuracy be more costly than the increased value of the information?	❑	**X**	**3**	Negligible additional cost.

Strengths and Vulnerabilities:
One vulnerability is noted:

Vulnerability 2: ***The specific acceptable level of error has not been set. This limits the identification of potential negative trends in terms of data quality and the timely correction and prevention thereof.***

Recommendations for improvement:
R2. It is essential that the concept of margin of error be explored in more depth. Attention should be paid not only to "margin of error" in terms of the difference desired in the indicator been measured but also in the accuracy of the technique itself. In the case of a lack of empirical evidence to set such error limits anecdotal evidence suffices until a trend analysis is conducted.

5. INTEGRITY—Are data are free of manipulation? [Average score = 3]				
	Yes	**No**	**Score**	**Comments**
➢ Are mechanisms in place to reduce the possibility that data are manipulated for political or personal reasons?	**X**	❑	**3**	Access to the database system is limited to two employees (Reporting Systems Manager and Agricultural Information Specialist(by password), both of whom have limited incentive to manipulate data. Individual data records have extremely

5. INTEGRITY—Are data are free of manipulation? [Average score = 3]				
	Yes	**No**	**Score**	**Comments**
				high integrity, and all aggregate data are dependent on aggregation of individual data records. The data is interpreted and reported by a third person.
➢ Is there objectivity and independence in key data collection, management, and assessment procedures?	**X**	❑	**3**	There is independence in that separate individuals are involved in collection, management and assessment (see above).
➢ Has there been independent review?	❑	**X**	**3**	See note: ***Vulnerability 3***. No independent reviews to date.
➢ If data is from a secondary source, is USAID management confident in the credibility of the data?	❑	❑	**N/A**	No secondary data relied upon (only exception is limited grantee data for training and HIV/AIDS reporting).

Strengths and Vulnerabilities:
One vulnerability is noted:

Vulnerability 3: ***No independent reviews to have taken place to date leaving the system open to criticism. Risk associated with this vulnerability is offset by the strength 1 noted above.***

Recommendations for improvement:
See Recommendation R1.

For indicators for which no recent relevant data are available
If no recent relevant data are available for this indicator, why not? **Not Applicable**
What concrete actions are now being undertaken to collect and report this data as soon as possible? **Not Applicable**
On what date will data be reported? **Not Applicable**

WORKSHEET 7: DATA QUALITY ASSESSMENT CHECKLIST (AGRILINK II)

Check-sheet 4 of 4

Refer to this checklist when the SO team conducts both initial and periodic data quality assessments. The full list does not have to be completed—the SO team may wish to identify the most critical data quality issues for formal or informal assessment.

Strategic Objective:
SO5: Increased Market-driven Employment Opportunities

Intermediate Result:
IR 5.2.2 Enhanced Small & Medium Agribusiness Capacity to Respond to Markets

Performance indicator:
5.2.2A Number of Entrepreneurs who Receive Business Training

Data source(s):
EM&I/AGRILINK II Project Staff

Partner or contractor who provided the data:
Enterprise Management and Innovation (EM&I), The AGRILINK II Project

Year or period for which the data are being reported:
Monthly, Quarterly, Annually for FY'02 – FY'06

Is this indicator reported in the R4 Report? YES

Date(s) of assessment: April 3 –29, 2003

Location(s) of assessment: EM&I Offices, Woodmead, Johannesburg

Assessment team members: Mr D Himelfarb, Ms M Selvaggio, Dr PA Richards

Partner Representatives: Kristy Cook (Co-Deputy Chief-of-Party), Allan Brown (Performance Monitoring and Evaluation Specialist), Jean McKenzie (Reporting Systems Manager), Amy Schmulian (Agricultural Information Specialist)

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SO team leader approval:

X_____Date_____

Mission director or delegate approval:

X_____Date_____

Copies to:
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Comments: _____

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1. VALIDITY—Do the data adequately represent performance? [Average score = 2.7]				
Face Validity	**Yes**	**No**	**Score**	**Comments**
➢ Is there a solid, logical relation between the activity or program and what is being measured, or are there significant uncontrollable factors?	**X**	❑	**2**	See note ***Non-conformity 1.*** The ambiguity within the definition of training reduces the logical relationship and introduces some minor uncontrollable factors.
Measurement Error				
Sampling Error (only applies when the data source is a survey)				Although this is not based on a survey in the pure sense it is dependant on the submission of the registration forms by the field officers, which are not always fully completed. Thus the measure is not reflective of the whole population 'trained' by the partner.
➢ Were samples representative?	**X**	❑	**3**	Total registered population included in data analysis.
➢ Were the questions in the survey/questionnaire clear, direct, easy to understand?	**X**	❑	**3**	'Sex' not always completed by delegates. No evidence at audit to suggest reason for non-completion.
➢ If the instrument was self-reporting were adequate instructions provided?	**X**	❑	**3**	Self-explanatory registration forms.
➢ Were response rates sufficiently large?	**X**	❑	**3**	Some registration forms seen at audit were not fully completed (minimal). See note: ***Vulnerability 1.*** No data collected or available, which indicates how many persons do not fill in the registration form.
➢ Has non-response rate been followed up?	❑	**X**	**3**	See note: ***Vulnerability 1.*** Cost outweighs benefit.
Non Sampling Error				
➢ Is the data collection instrument well designed?	**X**	❑	**3**	Very well designed and field-tested. Copies of instrument included in PMP; TRs p. 33-34. Registration form self explanatory.
➢ Were there incentives for respondents to give incomplete or untruthful information?	**X**	❑	**3**	Bias upward given staff performance targets, but all instruments MUST be substantiated by external, objective documentation. This documentation is extremely difficult to "create" or "forge". Disciplinary code actively applied to prevent false positives.
➢ Are definitions for data to be collected operationally precise?	❑	**X**	**2**	See note ***Non-conformity 1.*** The internal definition used for training is of such a nature that ambiguity exists. Definitions are included in the Agrilink PMP.
➢ Are enumerators well trained? How were they trained? Were they insiders or outsiders? Was there any quality control in the selection process?	**X**	❑	**3**	Project officers (inside "enumerators") are provided with initial and repeat training – every document is reviewed and feedback is provided on a weekly basis by Reporting Systems Manager. Quality control is in the hiring process – computer literacy and minimum educational background.

1. VALIDITY—Do the data adequately represent performance? [Average score = 2.7]				
	Yes	**No**	**Score**	**Comments**
➢ Were there efforts to reduce the potential for personal bias by enumerators?	**X**	❑	**3**	Supporting documentation minimizes the potential for personal bias; checks on validity of documentation conducted by Reporting Systems Manager and Supervisors. Strict disciplinary system.
Transcription Error				
➢ What is the data transcription process? Is there potential for error?	❑	**X**	**3**	Transcription error from Officer to Reporting Systems Manager is limited by the need for substantiating documentation. The transcription error by hand-entry of data into database by Reporting Systems Manager is minimized by filters, cross-checks etc. See note: ***Vulnerability 2.*** Transcription error potential exists when register not completed in full or in line with generally accepted terms.
➢ Are steps being taken to limit transcription error? (e.g., double keying of data for large surveys, electronic edit checking program to clean data, random checks of partner data entered by supervisors)	**X**	❑	**3**	Filters are used to limit transcription error, e.g. a filter has been added to the Date input box prompting the user to enter the date in the correct format. This filter limits the day/month/year transposing of the data; forms automatically open on next record so cannot overwrite data. In addition, error checks are also performed prior to generating reporting data – filtering and searching for outliers, anomalies, etc. for 7 columns.
➢ Have data errors been tracked to their original source and mistakes corrected?	**X**	❑	**3**	A Log has been created to record all errors and changes, sources of errors or reasons for the changes, and corrections to the database to ensure an historical record of ANY changes in the data.
➢ If raw data need to be manipulated to produce the data required for the indicator:	**X**	❑		Minimal manipulation.
➢ Are the correct formulae being applied?	**X**	❑	**3**	Formulae are imbedded in the database system – these formulae have been checked.
➢ Are the same formulae applied consistently from year to year, site to site, data source to data source (if data from multiple sources need to be aggregated)?	**X**	❑	**3**	Formulae are imbedded in the database system – changes to IT system traceable.
➢ Have procedures for dealing with missing data been correctly applied?	**X**	❑	**3**	There are cross-checks between Provincial submission of data and Head Quarter data input to ensure that "transactions" are not "missed". There are database checks for empty cells. Some extrapolation exists for missing gender on registration forms.
➢ Are final numbers reported accurate? (E.g., does a number reported as a "total" actually add up?)	**X**	❑	**3**	Accurate in so far as primary data available.

1. VALIDITY—Do the data adequately represent performance? [Average score = 2.7]				
	Yes	**No**	**Score**	**Comments**
Representativeness of Data				Though sampling was not intended this has happened as the total population is not included.
➢ Is the sample from which the data are drawn representative of the population served by the activity?	❑	**X**	**2**	See note: ***Non-conformity 2.*** It is not possible to define the total population in terms of the current data available and thus representativeness of data cannot be audited.
➢ Did all units of the population have an equal chance of being selected for the sample?	❑	**X**	**2**	See note: ***Non-conformity 2.*** It is not possible to define the total population in terms of the current data available and thus representativeness of data cannot be audited.
➢ Is the sampling frame (i.e., the list of units in the target population) up to date? Comprehensive? Mutually exclusive (for geographic frames)	❑	**X**	**2**	See note: ***Non-conformity 2.*** It is not possible to define the total population in terms of the current data available and thus representativeness of data cannot be audited.
➢ Is the sample of adequate size?	❑	❑		Unknown, see note: ***Non-conformity 2.***
➢ Are the data complete? (i.e., have all data points been recorded?)	❑	❑		Unknown, see note: ***Non-conformity 2.***

Strengths and Vulnerabilities:
Two non-conformities and two vulnerabilities are raised with regards to data validity:

Non-conformity 1: ***The ambiguity within the definition of training reduces the logical relationship and introduces some minor uncontrollable factors. The definition used for training by the partner is open to interpretation by the data gatherers and thus data included cannot be always be attributed to singular discrete variables e.g. formal interventions versus mentoring. The uncontrollable factors are not significant and can be easily rectified. The non-conformity is classified as MINOR.***

Non-conformity 2: ***It is not possible to define the total population in terms of the current data available and thus representativeness of data cannot be audited. This results from not all activities, which could be considered to be of a 'training' nature, being included in either the activity reports or the training registers. The non-conformity is classified as MINOR.***

Vulnerability 1: ***The lack of any specific data collected or available, which indicates how many persons do not fill in the registration form at all, may lead to an underreporting bias in the data reported to USAID.***

Vulnerability 2: ***Transcription error potential exists when register not completed in full or in line with generally accepted terms. For example when 'sex' is filled in as 'G' rather than 'M' or 'F'.***

Recommendations for improvement:
R1. The term 'curriculum' has specific meaning in the South African context and would be best explained and if necessary replaced with something, which reflects the predominance of the mentoring function carried out by this partner.
R2. Field officers need to ensure that registration forms are completed in full at the time of the training intervention.
R3. Field officers require additional guidance as to what specific interventions constitute training and when / how formal versus informal training sessions need to be reported on.

2. RELIABILITY—Are data collection processes stable and consistent over time? [Average score = 3]				
	Yes	**No**	**Score**	**Comments**
Consistency				
➢ Is a consistent data collection process used from year to year, location to location, data source to data source (if data come from different sources)?	**X**	❑	**3**	Process consistent over time, changes to data collection tools traceable.
➢ Is the same instrument used to collect data from year to year, ➢ location to location? If data come from different sources are the instruments similar enough that the reliability of the data are not compromised?	**X**	❑	**3**	Minor changes have been made to instruments – these changes are made at Head Quarters to "Read-only" documents, and are reported on page 56 in Performance Monitoring Plan
➢ Is the same sampling method used from year to year, location to location, data source to data source?	❑	❑	**N/A**	No sampling intended.
Internal quality control				
➢ Are there procedures to ensure that data are free of significant error and that bias is not introduced?	**X**	❑	**3**	Minor changes have been made to instruments – these changes are made at Head Quarters to "Read-only" documents, and are reported on page 56 in Performance Monitoring Plan
➢ Are there procedures in place for periodic review of data collection, maintenance, and processing?	**X**	❑	**3**	Yes. Reporting Systems Manager conducts bimonthly review of provincial office electronic and paper files; PMP Specialist and Co-Deputy COP review database system and conduct spot checks bimonthly to ensure reliability.
➢ Do these procedures provide for periodic sampling and quality assessment of data?	**X**	❑	**3**	See note: ***Vulnerability 3.*** Spot checks provide for periodic sampling; site visits also assess quality.
Transparency				
➢ Are data collection, cleaning, analysis, reporting, and quality assessment procedures documented in writing?	**X**	❑	**3**	See PMP for data collection procedures and analysis. There is no specific "cleaning" – review is conducted by Reporting System Manager on the basis of the PMP and when there is a question, discussion is held with PMP Specialist and Co-Deputy COP. A memo is drafted to the file upon the resolution of any reporting issues.
➢ Are data problems at each level reported to the next level?	**X**	❑	**3**	Provincial level reports issues to Head Quarters and vice-versa. Communications both up and down levels seen at audit.
➢ Are data quality problems clearly described in final reports?	❑	**X**	**3**	Data quality is not a problem once all checks have been performed. Data quality is reviewed and where problematic is not included.

Strengths and Vulnerabilities:
One vulnerability is noted:

Vulnerability 3*: **The lack of a specific internal audit trail that demonstrates when and how spot checks are and were made leaves the partner open to risk should action need to be taken on the basis of the results of such checks.***

2. RELIABILITY—Are data collection processes stable and consistent over time? [Average score = 3]				
	Yes	**No**	**Score**	**Comments**
Recommendations for improvement: R4. A specific internal audit trail is required to demonstrate that non-conformities in the system are noted, corrected and prevented.				

3. TIMELINESS—Are data collected frequently and are they current? [Average score = 3]				
	Yes	**No**	**Score**	**Comments**
Frequency				
➢ Are data available on a frequent enough basis to inform program management decisions?	**X**	❑	**3**	Data are available on a weekly (at minimum monthly) basis, which is more than sufficient for project management decision-making.
➢ Is a regularized schedule of data collection in place to meet program management needs?	**X**	❑	**3**	See above.
Currency				
➢ Are the data reported in a given timeframe the most current practically available?	**X**	❑	**3**	Data are available on a weekly (at minimum monthly) basis.
➢ Are data from within the policy period of interest? (i.e., are data from a point in time after intervention has begun?)	**X**	❑	**3**	See above.
➢ Are the data reported as soon as possible after collection?	**X**	❑	**3**	There is at most a one-two week delay in reporting data by Provincial Officers.
➢ Is the date of collection clearly identified in the report?	**X**	❑	**3**	Period of collection is clearly identified in reports, e.g. monthly, quarterly, and cumulative.
Recommendations for improvement: Nil noted.				

4. PRECISION—Do the data have an acceptable margin of error? [Average score = 3]				
	Yes	**No**	**Score**	**Comments**
➢ Is the margin of error less than the expected change being measured?	**X**	❑	**3**	See note: ***Vulnerability 4.*** Expected change not stated or measured. Audit of training registers indicates that margin of error is no greater than 4%.
➢ Is the margin of error is acceptable given the likely management decisions to be affected? (consider the consequences of the program or policy decisions based on the data)	**X**	❑	**3**	The probable margin of error is acceptable in terms of operational requirements of the partner but cannot be extrapolated to the entire program.
➢ Have targets been set for the acceptable margin of error?	❑	**X**	**3**	See note: ***Vulnerability 4.*** This has not yet been set.
➢ Has the margin of error been reported along with the data?	❑	**X**	**3**	See note: ***Vulnerability 4.*** This has not yet been set.

4. PRECISION—Do the data have an acceptable margin of error? [Average score = 3]				
	Yes	**No**	**Score**	**Comments**
➢ Would an increase in the degree of accuracy be more costly than the increased value of the information?	**X**	❑	**3**	To set a baseline for the acceptable margin of error in the effect of training would not be cost effective at the level of each individual partner.

Strengths and Vulnerabilities:
One vulnerability is noted:

Vulnerability 4: ***The specific acceptable level of error has not been set. This limits the identification of potential negative trends in terms of data quality and the timely correction and prevention thereof.***

Recommendations for improvement:
R5. It is essential that the concept of margin of error be explored in more depth. Attention should be paid not only to "margin of error" in terms of the difference desired in the indicator been measured but also in the accuracy of the technique itself. In the case of a lack of empirical evidence to set such error limits anecdotal evidence suffices until a trend analysis is conducted.

5. INTEGRITY—Are data are free of manipulation? [Average score = 3]				
	Yes	**No**	**Score**	**Comments**
➢ Are mechanisms in place to reduce the possibility that data are manipulated for political or personal reasons?	**X**	❑	**3**	Access to the database system is limited to two employees (Reporting Systems Manager and Agricultural Information Specialist (by password), both of whom have limited incentive to manipulate data. Individual data records have extremely high integrity, and all aggregate data are dependent on aggregation of individual data records. The data is interpreted and reported by a third person.
➢ Is there objectivity and independence in key data collection, management, and assessment procedures?	**X**	❑	**3**	There is independence in that separate individuals are involved in collection, management and assessment (see above).
➢ Has there been independent review?	❑	**X**	**3**	Not to date.
➢ If data is from a secondary source, is USAID management confident in the credibility of the data?	❑	❑	**N/A**	In one instance, a grantee conducts training for the project, so the data is not collected directly by project staff. The grantee (Agricultural Research Council) has funding from other USAID/South Africa sources, so USAID management should have an independent assessment of the organization.

Recommendations for improvement:
Nil noted.

For indicators for which no recent relevant data are available
If no recent relevant data are available for this indicator, why not? **Not Applicable**
What concrete actions are now being undertaken to collect and report this data as soon as possible? **Not Applicable**
On what date will data be reported? **Not Applicable**

WORKSHEET 7: DATA QUALITY ASSESSMENT CHECKLIST (SAIBL)

Check-sheet 1 of 4

Refer to this checklist when the SO team conducts both initial and periodic data quality assessments. The full list does not have to be completed—the SO team may wish to identify the most critical data quality issues for formal or informal assessment.

Strategic Objective:
SO5: Increased Market-driven Employment Opportunities

Intermediate Result (if applicable):
Not applicable

Performance indicator:
Net change in Employees

Data source(s):
Information gathered quarterly from SAIBL clients

Partner or contractor who provided the data:
Ebony Consulting International

Year or period for which the data are being reported:
01 April 2001 to 31 December 2002

Is this indicator reported in the R4 Report? YES

Date(s) of assessment: April 3 –29, 2003

Location(s) of assessment: ECI offices – Woodmead, Johannesburg

Assessment team members: Mr D Himelfarb, Ms M Selvaggio, Dr PA Richards

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SO team leader approval:

X_____Date_____

Mission director or delegate approval:

X_____Date_____

Copies to:
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Comments: _____

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1. VALIDITY—Do the data adequately represent performance? [Average score = 2.9]				
Face Validity	**Yes**	**No**	**Score**	**Comments**
➢ Is there a solid, logical relation between the activity or program and what is being measured, or are there significant uncontrollable factors?	**X**	❑	**1**	See note: ***Non-conformity 1.*** There are significant factors related to the measurement of this indicator, which are outside the control of the partner. These factors are related to subjectivity in client reporting. See note: ***Vulnerability 1****:* The measurements describe the net jobs created (not preserved) that can be attributed to SAIBL support as reported by SAIBL clients willing to complete the report form. There is no cross check by SAIBL staff as to the accuracy of the data.
Measurement Error				
Sampling Error (only applies when the data source is a survey)				
➢ Were samples representative?	❑	❑	**N/A**	Not Applicable – data is primary data collected by ECI and is not based on a sample survey
➢ Were the questions in the survey/questionnaire clear, direct, easy to understand?	❑	❑	**N/A**	As above.
➢ If the instrument was self-reporting were adequate instructions provided?	❑	❑	**N/A**	As above.
➢ Were response rates sufficiently large?	❑	❑	**N/A**	As above.
➢ Has non-response rate been followed up?	❑	❑	**N/A**	As above.
Non Sampling Error				
➢ Is the data collection instrument well designed?	**X**	❑	**3**	Data derived from a standardized form faxed to each client and where the client is asked to indicate increase and decrease in the number of employees from the beginning to the end of the reporting period (quarter) that is directly attributable to SAIBL efforts.
➢ Were there incentives for respondents to give incomplete or untruthful information?	❑	**X**	**3**	No incentives given to clients to report at all should they not wish to.
➢ Are definitions for data to be collected operationally precise?	**X**	❑	**3**	See note: ***Vulnerability 1.*** Data form doesn't distinguish between full-time, part-time, or seasonal employees.
➢ Are enumerators well trained? How were they trained? Were they insiders or outsiders? Was there any quality control in the selection process?	❑	❑	**N/A**	Not Applicable - Data self reported by clients.
➢ Were there efforts to reduce the potential for personal bias by enumerators?	❑	**X**	**3**	See ***Non-conformity note 1.*** Data is self-reported by clients with no on-site verification by SAIBL staff. While the potential for bias exists, there is little or no incentive for clients to report biased data.

1. VALIDITY—Do the data adequately represent performance? [Average score = 2.9]				
Transcription Error	**Yes**	**No**	**Score**	**Comments**
➢ What is the data transcription process? Is there potential for error?	❑	**X**	**3**	Clients fax the data to SAIBL offices and staff manually extract the data and transcribe onto a transaction form. The data is then manually cross-checked by another staff member. At the same time, the same data is extracted and put into the project's MIS. The totals from the MIS and the manually-entered transaction forms are then reconciled. Given the manual cross check and reconciliation, there is little room for error.
➢ Are steps being taken to limit transcription error? (e.g., double keying of data for large surveys, electronic edit checking program to clean data, random checks of partner data entered by supervisors)	**X**	❑	**3**	Per comment above, cross-checks done manually and reconciliation limit transcription errors.
➢ Have data errors been tracked to their original source and mistakes corrected?	**X**	❑	**3**	Per comment above, cross-checks done manually and reconciliation limit transcription errors.
If raw data need to be manipulated to produce the data required for the indicator:				
➢ Are the correct formulae being applied?	**X**	❑	**3**	Net jobs created during the quarter are summed and added to the previous quarters' values to obtain cumulative values overall for the project.
➢ Are the same formulae applied consistently from year to year, site to site, data source to data source ?	**X**	❑	**3**	There has been no change in the formula since SAIBL began reporting.
➢ Have procedures for dealing with missing data been correctly applied?	❑	**X**	**3**	See ***Non-conformity note 1***: There are no procedures for dealing with missing data. Data submission depends on the willingness of the client to report. Clients who are unwilling to report are not included in the data set. Any data which is submitted late (more than 2 weeks following the request for information) is added to the following quarter's report.
➢ Are final numbers reported accurate? (E.g., does a number reported as a "total" actually add up?)	**X**	❑	**3**	Data adds up. There is little room for mathematical errors.
Representativeness of Data				
➢ Is the sample from which the data are drawn representative of the population served by the activity?	❑	❑	**N/A**	Not Applicable: The data is not a sample but is representative of the population to the extent that the majority of active clients (approximately 150 of 170 total clients) report in the quarter.
➢ Did all units of the population have an equal chance of being selected for the sample?	**X**	❑	**3**	All active clients are requested to respond.

1. VALIDITY—Do the data adequately represent performance? [Average score = 2.9]				
	Yes	**No**	**Score**	**Comments**
➢ Is the sampling frame (i.e., the list of units in the target population) up to date? Comprehensive? Mutually exclusive (for geographic frames)	❑	❑	**N/A**	Not Applicable: The data is not a sample but is representative of the population to the extent that the majority of active clients (approximately 150 of 170 total clients) report in the quarter.
➢ Is the sample of adequate size?	**X**	❑	**3**	See ***Non-conformity note 1.*** Data submission depends on the willingness of the client to report.
➢ Are the data complete? (i.e., have all data points been recorded?)	**X**	❑	**3**	See ***Non-conformity note 1.*** Data submission depends on the willingness of the client to report. If the client does not want to report on employment data, there is no requirement to.

Notes on Strengths and Weaknesses

Non-conformity 1: The primary data is based on a single self-reported subjective measurement and based on the clients' perceptions of employment created attributed to SAIBL efforts. The data is dependent on the willingness of the client to report. The reported figures may not reflect actual employment created. There is no cross-check by SAIBL staff to verify data being reported by clients except when reported figures vary considerably from what SAIBL staff expect based on their in-depth knowledge and understanding of the company and its performance. When cases are cross-checked they are always cross-checked by phone. Thus final data numbers cannot be fully assured. There are therefore significant factors related to the measurement of this indicator, which are outside the control of the partner. These factors are related to subjectivity in client reporting. The non-conformity is classified as **MAJOR.**

Vulnerability 1: The primary data does not specifically request the client to report on full-time jobs vs other types of jobs. There is a risk that the client is including all types of jobs in a single figure. The inherent resultant bias is thus not known.

Recommendations:

R1. Random on-site spot checks of clients' employment source data should be done on a regular basis in order to verify the data being submitted.

R2. The quarterly form requesting client data should be updated to disaggregate between part-time, and full-time employees at the company.

2. RELIABILITY—Are data collection processes stable and consistent over time? [Average score = 2.6]				
	Yes	**No**	**Score**	**Comments**
Consistency				
➢ Is a consistent data collection process used from year to year, location to location, data source to data source (if data come from different sources)?	**X**	❑	**3**	No changes have been made in the manner in which the data has been collected since data collection began.

➢ Is the same instrument used to collect data from year to year, location to location? If data come from different sources are the instruments similar enough that the reliability of the data are not compromised?	**X**	❑	**3**	The *quarterly company information form* is the instrument used since data collection began in April 2001.
➢ Is the same sampling method used from year to year, location to location, data source to data source?	❑	❑	**N/A**	No sampling
Internal quality control				
➢ Are there procedures to ensure that data are free of significant error and that bias is not introduced?	**X**	❑	**3**	Each quarter when the data is submitted by the clients, double data entry (manually on the transaction sheets and again into the project MIS) allows for cross-checks and reconciliation of data.
➢ Are there procedures in place for periodic review of data collection, maintenance, and processing?	❑	**X**	**2**	See note: ***Non-conformity 2.*** There are no written or documented procedures for data collection, maintenance, and processing. However, partner reports that decisions to change any part of the process are recorded in the minutes of weekly meetings.
➢ Do these procedures provide for periodic sampling and quality assessment of data?	❑	❑	**N/A**	Per note above, no written procedures exist
Transparency				
➢ Are data collection, cleaning, analysis, reporting, and quality assessment procedures documented in writing?	❑	**X**	**2**	See note: ***Non-conformity 2.*** There are no written procedures for data collection, maintenance, and processing.
➢ Are data problems at each level reported to the next level?	❑	❑	**N/A**	Not Applicable – no hierarchy of reporting. Data quality problems are not a problem once all the checks have been performed.
➢ Are data quality problems clearly described in final reports?	❑	❑	**N/A**	Not Applicable – no hierarchy of reporting. Data quality problems are not a problem once all the checks have been performed.

Notes on Strengths and Weaknesses

Non-conformity 2: There are no documented procedures for data collection, capturing, cleaning, analysis, or reporting, nor for quality assessment or the review of data quality. Classification of this non-conformity is **MINOR.**

Recommendations:

R3. The documentation of the data handling procedures is required.

3. TIMELINESS—Are data collected frequently and are they current? [Average score = 3]

	Yes	No	Score	Comments
Frequency				
➢ Are data available on a	**X**	❑	**3**	Data collected on a quarterly basis.

frequent enough basis to inform program management decisions?				
➢ Is a regularized schedule of data collection in place to meet program management needs?	**X**	❑	**3**	Data collected on a quarterly basis.
Currency				
➢ Are the data reported in a given timeframe the most current practically available?	**X**	❑	**3**	Data is collected and reported for a fixed time frame (past quarter) with no more than a 2 week time lag. Data current in terms of application of definition by partner
➢ Are data from within the policy period of interest? (i.e., are data from a point in time after intervention has begun?)	**X**	❑	**3**	Data have only been collected since April 1, 2001. Data are requested from clients in the week prior to the end of the quarter. Data received within a week following the end of the quarter are then compiled, analyzed, and reported. Data current in terms of application of definition by partner
➢ Are the data reported as soon as possible after collection?	**X**	❑	**3**	Data are processed and reported to USAID within 2 weeks of the reporting period.
➢ Is the date of collection clearly identified in the report?	**X**	❑	**3**	The data request form clearly indicates to the client the period for which the data should be reported. Quarterly reports to USAID contain the employment data for that quarter and the dates for the quarter are clearly specified.

Recommendations for improvement:
None Noted.

4. PRECISION—Do the data have an acceptable margin of error? [Average score = 2]

	Yes	No	Score	Comments
➢ Is the margin of error less than the expected change being measured?	❑	**X**	**2**	See note: ***Non-conformity 3.*** The margin of error is not established and thus inherent error is not measured.
➢ Is the margin of error is acceptable given the likely management decisions to be affected?	❑	❑	**N/A**	As above.
➢ Have targets been set for the acceptable margin of error?	❑	**X**	**2**	As above.
➢ Has the margin of error been reported along with the data?	❑	**X**	**2**	As above.
➢ Would an increase in the degree of accuracy be more costly than the increased value of the information?	**X**	❑	**2**	SABL's response suggests that this would entail an investigation of the employment records of all their clients and hence be too expensive.

Notes on Strengths and Weaknesses

Non-conformity 3: The margin of error within the client self-reporting system is not defined nor established and thus inherent error is not measured. Inherent error in the data will be related to the ratio of reported level of employment to actual levels of employment. Classification of this non-conformity is **MINOR.**

Recommendations:

R4. Calculation of the margin of error should reflect the variance between the actual and reported numbers of persons employed.

5. INTEGRITY—Are data are free of manipulation? [Average score = 2.7]				
	Yes	**No**	**Score**	**Comments**
➢ Are mechanisms in place to reduce the possibility that data are manipulated for political or personal reasons?	**X**	❑	**3**	Any unexpected variance from the data that is expected for that quarter is queried by project staff to obtain confirmation, clarification, or explanation of the employment data provided.
➢ Is there objectivity and independence in key data collection, management, and assessment procedures?	**X**	❑	**2**	See note: ***Non-conformity 1***: Data collection is based on self reported data from clients without objective and independent cross-check. However, there is no indication that there is any incentive for clients to over- or under-declare the employment data provided to SAIBL. On the other hand, data management and assessment procedures involve double data entry, manual cross checks and reconciliation, which confer independence and objectivity.
➢ Has there been independent review?	**X**	❑	**3**	See note: ***Vulnerability 2:*** Mike Klesh of USAID/Pretoria conducted in in-house review of the project's data prior to his departure from USAID. He verbally reported to ECI that they were fully compliant, but this was not provided to ECI in writing.
➢ If data is from a secondary source, is ECI management confident in the credibility of the data?	**X**	❑	**3**	Because of the project staff's in-depth knowledge of the programme, and given the common practice of querying outlier results, ECI management have high levels of confidence in the credibility of the data.

Notes on Strengths and Weaknesses

Vulnerability 2: There is no written evidence in the project of the independent review of the data conducted by USAID.

Recommendations

R5. Some form of documentary evidence should support all internal audits and external reviews. The formation of an audit trail in respect of activities, which demonstrate the ability of the partner to identify, correct and prevent errors is essential.

For indicators for which no recent relevant data are available
If no recent relevant data are available for this indicator, why not? **Not Applicable.**
What concrete actions are now being undertaken to collect and report this data as soon as possible? **Not Applicable.**
On what date will data be reported? **Not Applicable.**

Comments on 1. Face Validity:-

(Including Non conformity 1 and Vulnerability 1:)

We do not agree that non conformity is classified as major. We feel that we do disaggregate between part time and full time employees, as information is requested on a quarterly basis and any part time employees would automatically be excluded from a subsequent report. Due to the relationship between the SAIBL consultants and the client , the consultant as a very good idea of the number of people employed and these would be verified on routine visits. We do not believe that the clients will provide inflated or incorrect employment numbers as these would not influence the assistance given by SAIBL.

Reliability:-

(Non conformity 2.)

We will document procedures for data collection.

Precision:-

(Non conformity 3.)

We have not established a margin of error as we believe the information that comes from the client, comes from the employment records.

Integrity:-

(Vulnerability 2.)

Mike Klesh informed us that the report was submitted to the contracting officer and despite three requests by ourselves to secure such a written copy, it never materialized.

Note: Document discussed with partner and findings left as stated with partner's agreement.

WORKSHEET 7: DATA QUALITY ASSESSMENT CHECKLIST (SAIBL)

Check-sheet 2 of 4

Refer to this checklist when the SO team conducts both initial and periodic data quality assessments. The full list does not have to be completed—the SO team may wish to identify the most critical data quality issues for formal or informal assessment.

Strategic Objective:
SO5: Increased Market-driven Employment Opportunities

Intermediate Result (if applicable):
More rapid Growth of Existing SMMEs and Increased Viability of Small and Medium Agribusinesses

Performance indicator:
Types, Values and Numbers of Business Transactions

Data source(s):
Information gathered quarterly from SAIBL clients

Partner or contractor who provided the data:
Ebony Consulting International

Year or period for which the data are being reported:
01 October 1998 to 31 December 2002

Is this indicator reported in the R4 Report? YES

Date(s) of assessment: April 3 –29, 2003

Location(s) of assessment: ECI offices – Woodmead, Johannesburg

Assessment team members: Mr D Himelfarb, Ms M Selvaggio, Dr PA Richards

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SO team leader approval:

X_____Date_____

Mission director or delegate approval:

X_____Date_____

Copies to:
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Comments: _____

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1. VALIDITY—Do the data adequately represent performance? [Average score = 2.9]				
Face Validity	**Yes**	**No**	**Score**	**Comments**
➢ Is there a solid, logical relation between the activity or program and what is being measured, or are there significant uncontrollable factors?	**X**	❑	**3**	See note: ***Non-conformity note 1.*** The transactions are self-reported by those clients willing to complete the form, and refer to transaction values that can be attributed to SAIBL support. There is no cross check by SAIBL staff as to the accuracy of the data.
Measurement Error				
Sampling Error (only applies when the data source is a survey)				
➢ Were samples representative?	❑	❑	**N/A**	Not Applicable – data is primary data collected by ECI and is not based on a sample survey
➢ Were the questions in the survey/questionnaire clear, direct, easy to understand?	❑	❑	**N/A**	See above.
➢ If the instrument was self-reporting were adequate instructions provided?	❑	❑	**N/A**	See above.
➢ Were response rates sufficiently large?	❑	❑	**N/A**	See above.
➢ Has non-response rate been followed up?	❑	❑	**N/A**	See above.
Non Sampling Error				
➢ Is the data collection instrument well designed?	**X**	❑	**3**	Data derived from a standardized form faxed to each client and where the client is asked to indicate the various types of sales attributable to SAIBL (value of exports, international sales, local sales, etc by type of buyer) from the beginning to the end of the reporting period (quarter).
➢ Were there incentives for respondents to give incomplete or untruthful information?	❑	**X**	**3**	No incentives given to clients to report at all
➢ Are definitions for data to be collected operationally precise?	**X**	❑	**3**	While data form doesn't specifically state the precise definitions of the data required, the fields are clearly understandable.
➢ Are enumerators well trained? How were they trained? Were they insiders or outsiders? Was there any quality control in the selection process?	❑	❑	**N/A**	Not Applicable - Data self reported by clients.
➢ Were there efforts to reduce the potential for personal bias by enumerators?	❑	**X**	**3**	See note: ***Non-conformity 1.*** Data is self-reported by clients with no on-site verification by SAIBL staff. While the potential for bias exists, there is little or no incentive for clients to report biased data.

1. VALIDITY—Do the data adequately represent performance? [Average score = 2.9]				
Transcription Error	**Yes**	**No**	**Score**	**Comments**
➢ What is the data transcription process? Is there potential for error?	❑	**X**	**3**	Clients fax the data to SAIBL offices and staff manually extract the data and transcribe onto a transaction form. The data is then manually cross-checked by another staff member. At the same time, the same data is extracted and put into the project's MIS. The totals from the MIS and the manually-entered transaction forms are then reconciled. Given the manual cross check and reconciliation, there is little room for error.
➢ Are steps being taken to limit transcription error?	**X**	❑	**3**	Per comment above, cross-checks done manually and reconciliation limits transcription errors.
➢ Have data errors been tracked to their original source and mistakes corrected?	**X**	❑	**3**	Per comment above, cross-checks done manually and reconciliation limit transcription errors.
If raw data need to be manipulated to produce the data required for the indicator:				
➢ Are the correct formulae being applied?	**X**	❑	**3**	Value of transactions created during the quarter are summed and added to the previous quarters' values to obtain cumulative values overall for the project
➢ Are the same formulae applied consistently from year to year, site to site, data source to data source (if data from multiple sources need to be aggregated)?	**X**	❑	**2**	See note: ***Non-conformity 2.*** There has been a slight change in the formula. Between 1998-2000SAIBL reported value of transactions that only involved SME deals with US companies based in the USA and/or South Africa as well as deals with entities elsewhere in Africa. In 2000 however, SAIBL was allowed to include values of transactions with non-US companies based in South Africa. IN addition, the rate of exchange applied been up to SAIBL's discretion.
➢ Have procedures for dealing with missing data been correctly applied?	**X**	❑	**3**	See note: ***Non-conformity 3.*** There are no formal procedures for dealing with missing data that may be attributable to the project, but which the client chooses not to report. Moreover, data submission depends entirely on the willingness of the client to report -- clients who are unwilling to report are not included in the data set. However, through TAMIS, ECI tracks all TA and other inputs to the company as well as company-level information, which allows it to track the progress of transactions. This assists in ensuring that transaction information is not missed. Any data that is submitted late (more than 2 weeks following the request for information) is added to the following quarter's report.

1. VALIDITY—Do the data adequately represent performance? [Average score = 2.9]				
	Yes	**No**	**Score**	**Comments**
➢ Are final numbers reported accurate?	**X**	❑	**3**	Data adds up. There is little room for mathematical errors given internal cross checks and reconciliations with TAMIS.
Representativeness of Data				
➢ Is the sample from which the data are drawn representative of the population served by the activity?	❑	❑	**N/A**	Not Applicable: The data is not a sample but is representative of the population to the extent that the majority of active clients (approximately 150 of 170 total clients) report in the quarter.
➢ Did all units of the population have an equal chance of being selected for the sample?	**X**	❑	**3**	All active clients are requested to respond.
➢ Is the sampling frame (i.e., the list of units in the target population) up to date? Comprehensive? Mutually exclusive (for geographic frames)	❑	❑	**N/A**	Not Applicable: The data is not a sample but is representative of the population to the extent that the majority of active clients (approximately 150 of 170 total clients) report in the quarter.
➢ Is the sample of adequate size?	**X**	❑	**3**	See note: ***Non-conformity 1.*** Data submission depends on the willingness of the client to report.
➢ Are the data complete? (i.e., have all data points been recorded?)	**X**	❑	**3**	See note: ***Non-conformity 1.*** Data submission depends on the willingness of the client to report. If the client does not want to report on employment data, there is no requirement

Notes on Strengths and Weaknesses

Non-conformity 1: The data is dependent on the willingness of the client to report. No documentation is required to substantiate the values that are indicated in the clients' reports. Accordingly, the reported figures may not reflect actual value of transactions that can be attributed to SAIBL efforts. There is no cross-check by SAIBL staff to verify data being reported by clients except when reported figures vary considerably from what SAIBL staff expect based on their in-depth knowledge and understanding of the company and its performance as well as the information contained in TAMIS about SAIBL TA/training to the company. When cases are cross-checked they are always cross-checked by phone. SAIBL believes that the final data is credible because the level of trust between the project and clients is very high, and there is no incentive for the client to under- or over-report. Nevertheless, given these shortcomings, final data numbers cannot be fully assured. The non-conformity is **MAJOR.**

Non-conformity 2: The formulae for calculating the indicator changed in recent years, with the inclusion of additional types of deals that could be attributed to SAIBL efforts. This results in an unknown reporting bias that reduces the validity of the cumulative totals. Another formula issue concerns the rate of exchange applied each quarter, since this has been up to SAIBL's discretion. The non-conformity is classified as **MINOR.**

Non-conformity 3: There are no documented procedures for data collection, capturing, cleaning, analysis, reporting, nor for quality assessment or the review thereof. Classification of this non-conformity is **MINOR.**

Recommendations for Improvement:

R1. If possible random on-site spot checks of clients' source transaction contracts should be done on a

regular basis to verify the data being submitted.

R2. Transaction Value should be reported in Rands in order to reduce inter-partner error resulting from exchange rate differences.

R3. Documentation of the project's data collection and handling procedures is required.

2. RELIABILITY—Are data collection processes stable and consistent over time?
[Average score = 2.6]

	Yes	No	Score	Comments
Consistency				
➢ Is a consistent data collection process used from year to year, location to location, data source to data source (if data come from different sources)?	**X**	❑	**3**	Slight changes were made in the data collection form in 2000 -- the baseline year for USAID; however, no substantive changes have been made in the manner in which the data has been collected.
➢ Is the same instrument used to collect data from year to year, location to location? If data come from different sources are the instruments similar enough that the reliability of the data are not compromised?	**X**	❑	**3**	The *quarterly company information form* is the instrument used since data collection began.
➢ Is the same sampling method used from year to year, location to location, data source to data source?	❑	❑	**N/A**	No sampling
Internal quality control				
➢ Are there procedures to ensure that data are free of significant error and that bias is not introduced?	**X**	❑	**3**	Each quarter when the data is submitted by the clients, double data entry (manually on the transaction sheets and again into the project MIS) allows for cross-checks and reconciliation of data.
➢ Are there procedures in place for periodic review of data collection, maintenance, and processing?	❑	**X**	**2**	See note: ***Non-conformity 3.*** There are no written or documented procedures for data collection, maintenance, and processing. However, partner reports that decisions to change any part of the process are recorded in the minutes of weekly meetings.
➢ Do these procedures provide for periodic sampling and quality assessment of data?	❑	❑	**N/A**	Per note above, no written procedures exist
Transparency				
➢ Are data collection, cleaning, analysis, reporting, and quality assessment procedures documented in writing?	❑	**X**	**2**	See ***non-conformity note 3*****:** there are no written procedures for data collection, maintenance, and processing.

➢ Are data problems at each level reported to the next level?	❑	❑	**N/A**	Not Applicable – no hierarchy of reporting. Data quality problems are not a problem once all the checks have been performed.
➢ Are data quality problems clearly described in final reports?	❑	❑	**N/A**	Not Applicable – no hierarchy of reporting. Data quality problems are not a problem once all the checks have been performed.

Recommendations for Improvement:

None Noted

3. TIMELINESS—Are data collected frequently and are they current? [Average score = 3]

	Yes	No	Score	Comments
Frequency				
➢ Are data available on a frequent enough basis to inform program management decisions?	**X**	❑	**3**	Data collected on a quarterly basis.
➢ Is a regularized schedule of data collection in place to meet program management needs?	**X**	❑	**3**	Data collected on a quarterly basis.
Currency				
➢ Are the data reported in a given timeframe the most current practically available?	**X**	❑	**3**	Data is collected and reported for a fixed time frame (past quarter) with no more than a 2 week time lag. Data current in terms of application of definition by partner
➢ Are data from within the policy period of interest? (i.e., are data from a point in time after intervention has begun?)	**X**	❑	**3**	Data are requested from clients in the week prior to the end of the quarter. Data received within a week following the end of the quarter are then compiled, analyzed, and reported. Data current in terms of application of definition by partner
➢ Are the data reported as soon as possible after collection?	**X**	❑	**3**	Data are processed and reported to USAID within 2 weeks of the reporting period.
➢ Is the date of collection clearly identified in the report?	**X**	❑	**3**	The data request form clearly indicates to the client the period for which the data should be reported. Quarterly reports to USAID contain the total transaction value for that quarter and the dates for the quarter are clearly specified.

Recommendations for improvement:
None Noted.

4. PRECISION—Do the data have an acceptable margin of error? [Average score = 2.2]

	Yes	No	Score	Comments
➢ Is the margin of error less than the expected change	❑	**X**	**2**	See note***: Non-conformity 4***. The margin of error is not established and thus inherent error is

	being measured?				not measured.
➢	Is the margin of error is acceptable given the likely management decisions to be affected? (Consider the consequences of the program or policy decisions based on the data)	❑	❑	**N/A**	As above.
➢	Have targets been set for the acceptable margin of error?	❑	❑	**2**	As above.
➢	Has the margin of error been reported along with the data?	❑	❑	**2**	As above.
➢	Would an increase in the degree of accuracy be more costly than the increased value of the information?	❑	**X**	**3**	Minimal change required in order to increase precision.

Notes on Strengths and Weaknesses

Non-conformity 4: The margin of error is not defined nor established and thus inherent error is not measured. Inherent error in the data will be related to the ratio of reported value of transactions to actual values of transactions. Classification of this non-conformity is **MINOR.**

Recommendations for Improvement:

R4. Calculation of the margin of error should include the variance between the actual and reported values of transactions.

5. INTEGRITY—Are data are free of manipulation? [Average score = 2.7]

		Yes	No	Score	Comments
➢	Are mechanisms in place to reduce the possibility that data are manipulated for political or personal reasons?	**X**	❑	**3**	Any unexpected variance from the data that is expected for that quarter is queried by project staff to obtain confirmation, clarification, or explanation of the employment data provided.
➢	Is there objectivity and independence in key data collection, management, and assessment procedures?	**X**	❑	**3**	See note: ***Non conformity 1:*** Data collection is based on self reported data from clients without objective and independent cross-check. However, there is no indication that there is any incentive for clients to over- or under-declare the employment data provided to SAIBL. On the other hand, data management and assessment procedures involve double data entry, manual cross checks and reconciliation, which confer independence and objectivity.
➢	Has there been independent review?	**X**	❑	**2**	See note: ***Vulnerability 1.*** Mike Klesh of USAID/Pretoria conducted in in-house review of the project's data prior to his departure from USAID?. He verbally reported to ECI that they were fully compliant, but this was not provided to ECI in writing.
➢	If data is from a secondary source, is ECI management	**X**	❑	**3**	Because of the project staff's in-depth knowledge of the programme, and given the

confident in the credibility of the data?				common practice of querying outlier results, ECI management have high levels of confidence in the credibility of the data.

Notes on Strengths and weaknesses

Vulnerability 1: There is no written evidence in the project of the independent review of the data conducted by USAID.

Recommendations for Improvement

R5. Some form of documentary evidence should support all internal audits and external reviews. The formation of an audit trail in respect of activities, which demonstrate the ability of the partner to identify, correct and prevent errors, is essential.

For indicators for which no recent relevant data are available
If no recent relevant data are available for this indicator, why not?
Not Applicable
What concrete actions are now being undertaken to collect and report this data as soon as possible?
Not Applicable
On what date will data be reported?
Not Applicable.

Comments on:-Face Validity:-

(Non conformity 1.)

We see that the non conformity is defined as major. We have recently introduced a new form requesting our clients to report ' as a direct result' of SAIBL intervention. Despite this we believe that it is very difficult to differentiate.

(Non conformity 2.)

The average rate of exchange has not been at SAIBL's discretion but as been applicable on the quarter being reported on. SAIBL was allowed to include values of transactions with non US companies in South Africa as well as parastatals and government departments, following an amendment to the co-operative agreement. As a result therefore we differentiate between pre/post amendment transactions. SAIBL staff at the time of the amendment requested the increase from 40million US-Dollars to 200million US-Dollars.

(Non conformity 3.)

We will document the procedures.

Precision:-

(Non conformity 4.)

We do not define a margin of error.

Note: Document discussed with partner and findings left as stated with partner's agreement.

WORKSHEET 7: DATA QUALITY ASSESSMENT CHECKLIST (SAIBL)

Check-sheet 3 of 4

Refer to this checklist when the SO team conducts both initial and periodic data quality assessments. The full list does not have to be completed—the SO team may wish to identify the most critical data quality issues for formal or informal assessment.

Strategic Objective:
SO5: Increased Market-driven Employment Opportunities

Intermediate Result (if applicable):
More rapid Growth of Existing SMMEs and Increased Viability of Small and Medium Agribusinesses

Performance indicator:
Entities Accessing Finance and Value of Finance Accessed

Data source(s):
Information gathered quarterly from SAIBL clients

Partner or contractor who provided the data:
Ebony Consulting International

Year or period for which the data are being reported:
01 October 1998 to 31 December 2002

Is this indicator reported in the R4 Report? YES

Date(s) of assessment: April 3 –29, 2003

Location(s) of assessment: ECI offices – Woodmead, Johannesburg

Assessment team members: Mr D Himelfarb, Ms M Selvaggio, Dr PA Richards

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SO team leader approval:

X_____Date_____

Mission director or delegate approval:

X_____Date_____

Copies to:
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Comments: _____

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1. VALIDITY—Do the data adequately represent performance? [Average score = 3]				
Face Validity	**Yes**	**No**	**Score**	**Comments**
➢ Is there a solid, logical relation between the activity or program and what is being measured, or are there significant uncontrollable factors?	**X**	❑	**3**	The data is based on primary evidence of the activity being measured.
Measurement Error				
Sampling Error (only applies when the data source is a survey)				
➢ Were samples representative?	❑	❑	**N/A**	Not Applicable – data is primary data collected by ECI and is not based on a sample survey
➢ Were the questions in the survey/questionnaire clear, direct, easy to understand?	❑	❑	**N/A**	See above.
➢ If the instrument was self-reporting were adequate instructions provided?	❑	❑	**N/A**	See above.
➢ Were response rates sufficiently large?	❑	❑	**N/A**	See above.
➢ Has non-response rate been followed up?	❑	❑	**N/A**	See above.
Non Sampling Error				
➢ Is the data collection instrument well designed?	**X**	❑	**3**	Data derived from a documentation of actual financial deals (joint ventures, loans, grants) that are facilitated by the SAIBL project.
➢ Were there incentives for respondents to give incomplete or untruthful information?	❑	❑	**N/A**	Not Applicable – see above.
➢ Are definitions for data to be collected operationally precise?	**X**	❑	**3**	The value of the financial deal is derived directly from the legal documents conferring the financing.
➢ Are enumerators well trained? How were they trained? Were they insiders or outsiders? Was there any quality control in the selection process?	❑	❑	**N/A**	Not Applicable
➢ Were there efforts to reduce the potential for personal bias by enumerators?	❑	❑	**N/A**	Not Applicable. Data derived directly from legal documentation.
Transcription Error				
➢ What is the data transcription process? Is there potential for error?	❑	**X**	**3**	The data is extracted directly from the documentation and manually entered into TAMIS. TAMIS-generated reports are then manually cross-checked for omissions or outliers by the COP and occasional spot checks by the Dep COP.
➢ Are steps being taken to limit transcription error?	**X**	❑	**3**	Per above, cross-checks limit transcription errors.

1. VALIDITY—Do the data adequately represent performance? [Average score = 3]				
	Yes	**No**	**Score**	**Comments**
➢ Have data errors been tracked to their original source and mistakes corrected?	**X**	❑	**3**	Per above, cross-checks limit transcription errors.
If raw data need to be manipulated to produce the data required for the indicator:				
➢ Are the correct formulae being applied?	**X**	❑	**3**	Value of transactions created during the quarter are summed and added to the previous quarters' values to obtain cumulative values overall for the project
➢ Are the same formulae applied consistently from year to year, site to site, data source to data source (if data from multiple sources need to be aggregated)?	❑	❑		Not audited.
➢ Have procedures for dealing with missing data been correctly applied?	**X**	❑	**3**	There are no formal procedures for dealing with missing data. However, through TAMIS, ECI tracks all TA and other inputs to the company as well as company-level information, which allows it to track the progress of financial transactions. This assists in ensuring that transaction value information is not missed.
➢ Are final numbers reported accurate? (E.g., does a number reported as a "total" actually add up?)	**X**	❑	**3**	Data adds up. There is little room for mathematical errors given internal cross checks and reconciliations with TAMIS.
Representativeness of Data				
➢ Is the sample from which the data are drawn representative of the population served by the activity?	❑	❑	**N/A**	Not Applicable: The data is not a sample but is representative of the population to the extent that it represents the majority of cases where SAIBL successfully facilitated a financial transaction.
➢ Did all units of the population have an equal chance of being selected for the sample?	❑	❑	**N/A**	Not Applicable: see above.
➢ Is the sampling frame (i.e., the list of units in the target population) up to date? Comprehensive? Mutually exclusive (for geographic frames)	❑	❑	**N/A**	Not Applicable: see above.
➢ Is the sample of adequate size?	❑	❑	**N/A**	Not Applicable: see above.
➢ Are the data complete? (i.e., have all data points been recorded?)	**X**	❑	**3**	See note: ***Vulnerability 1.*** Data submission depends on the willingness of the client to share the financial transaction documents. If the client does not want to report on final transaction result, there is no requirement that he do so

1. VALIDITY—Do the data adequately represent performance? [Average score = 3]				
	Yes	**No**	**Score**	**Comments**

Strengths and Vulnerabilities:
One vulnerability is noted.

Vulnerability 1: ***Data depends on the willingness of the client to share the financial transaction documentation once the transaction is completed. There is no requirement that the client share the documentation, and this may lead to omissions in the data set. However, the project staff's in-depth knowledge of the clients' businesses and the fact that the staff have targets to reach for this indicator mitigate against loss of data.***

Recommendations for improvement:
Nil noted.

2. RELIABILITY—Are data collection processes stable and consistent over time? [Average score = 2.5]				
	Yes	**No**	**Score**	**Comments**
Consistency				
➢ Is a consistent data collection process used from year to year, location to location, data source to data source (if data come from different sources)?	**X**	❑	**3**	No changes noted at audit.
➢ Is the same instrument used to collect data from year to year, location to location? If data come from different sources are the instruments similar enough that the reliability of the data are not compromised?	❑	❑	**N/A**	Not applicable. No instrument used
➢ Is the same sampling method used from year to year, location to location, data source to data source?	❑	❑	**N/A**	Not applicable. No sampling
Internal quality control				
➢ Are there procedures to ensure that data are free of significant error and that bias is not introduced?	**X**	❑	**3**	Data is extracted directly from transaction documentation. Cross-checks of data at the end of each quarter minimizes omissions.
➢ Are there procedures in place for periodic review of data collection, maintenance, and processing?	❑	**X**	**2**	See note: ***Non-conformity 1.*** There are no written or documented procedures for data collection, maintenance, and processing. However, partner reports that decisions to change any part of the process are recorded in the minutes of weekly meetings.
➢ Do these procedures provide for periodic sampling and quality assessment of data?	❑	❑	**N/A**	Per note above, no written procedures exist

2. RELIABILITY—Are data collection processes stable and consistent over time? [Average score = 2.5]				
	Yes	**No**	**Score**	**Comments**
Transparency				
➢ Are data collection, cleaning, analysis, reporting, and quality assessment procedures documented in writing?	❑	**X**	**2**	See note: ***Non-conformity 1.*** There are no written procedures for data collection, maintenance, and processing.
➢ Are data problems at each level reported to the next level?	❑	❑	**N/A**	Not Applicable – no hierarchy of reporting. Data quality problems are not a problem once all the checks have been performed.
➢ Are data quality problems clearly described in final reports?	❑	❑	**N/A**	Not Applicable – no hierarchy of reporting. Data quality problems are not a problem once all the checks have been performed.

Notes on Strengths and Vulnerabilities:

Non-conformity 1: ***There are no documented procedures for data collection, capturing, cleaning, analysis, reported, or quality assessment or the review thereof. Classification of this non-conformity is MINOR.***

Recommendations for improvement:
R1. Documentation of the project's data collection and handling procedures is required.

3. TIMELINESS—Are data collected frequently and are they current? [Average score = 3]				
	Yes	**No**	**Score**	**Comments**
Frequency				
➢ Are data available on a frequent enough basis to inform program management decisions?	**X**	❑	**3**	Data collected on a quarterly basis.
➢ Is a regularized schedule of data collection in place to meet program management needs?	**X**	❑	**3**	Data collected on a quarterly basis.
Currency				
➢ Are the data reported in a given timeframe the most current practically available?	**X**	❑	**3**	Data is collected and reported for a fixed time frame (past quarter) with no more than a 2 week time lag. Data current in terms of application of definition by partner
➢ Are data from within the policy period of interest? (i.e., are data from a point in time after intervention has begun?)	**X**	❑	**3**	Data current in terms of application of definition by partner
➢ Are the data reported as soon as possible after collection?	**X**	❑	**3**	Data are processed and reported to USAID within 2 weeks of the end of the reporting period.

3. TIMELINESS—Are data collected frequently and are they current? [Average score = 3]				
	Yes	**No**	**Score**	**Comments**
➢ Is the date of collection clearly identified in the report?	**X**	❑	**3**	The data request form clearly indicates to the client the period for which the data should be reported. Quarterly reports to USAID contain the total transaction value for that quarter and the dates for the quarter are clearly specified.

Recommendations for improvement:
None Noted.

4. PRECISION—Do the data have an acceptable margin of error? [Average score = 2.2]				
	Yes	**No**	**Score**	**Comments**
➢ Is the margin of error less than the expected change being measured?	❑	❑	**2**	See note: ***Non-conformity 2:*** The margin of error is not established and thus inherent error is not measured.
➢ Is the margin of error is acceptable given the likely management decisions to be affected? (Consider the consequences of the program or policy decisions based on the data)	❑	❑	**N/A**	As above.
➢ Have targets been set for the acceptable margin of error?	❑	❑	**2**	As above.
➢ Has the margin of error been reported along with the data?	❑	❑	**2**	As above.
➢ Would an increase in the degree of accuracy be more costly than the increased value of the information?	**X**	❑	**3**	This could be achieved by a simple change in policy with regards an audit trail.

Strengths and Vulnerabilities:

Non-conformity 2: ***The margin of error is not defined nor established and thus inherent error is not measured. Inherent error in the data will be related to the value of actual finance accessed versus that reported. Classification of this non-conformity is MINOR.***

Recommendations for improvement:

R2. Calculation of the margin of error should include the variance between actual and figures reported to SAIBL by clients.

5. INTEGRITY—Are data are free of manipulation? [Average score = 3]				
	Yes	**No**	**Score**	**Comments**
➢ Are mechanisms in place to reduce the possibility that data are manipulated for political or personal reasons?	**X**	❑	**3**	Any unexpected variance from the data that is expected for that quarter is queried by project staff to obtain confirmation, clarification, or explanation of the employment data provided.
➢ Is there objectivity and independence in key data collection, management, and assessment procedures?	**X**	❑	**3**	Data management and assessment procedures involving evidentiary documentation and cross checks confer independence and objectivity.
➢ Has there been independent review?	**X**	❑	**2**	See note: ***Vulnerability 2.*** Mike Klesh of USAID/Pretoria conducted in in-house review of the project's data prior to his departure from USAID. He verbally reported to ECI that they were fully compliant, but this was not provided to ECI in writing.
➢ If data is from a secondary source, is ECI management confident in the credibility of the data?	**X**	❑	**3**	Because of the project staff's in-depth knowledge of the programme, and given the common practice of querying outlier results, ECI management have high levels of confidence in the credibility of the data.

Notes on Strengths and/or Vulnerabilities:

Non-conformity 3: ***There is no written evidence in the project of the independent review of the data conducted by USAID.***

Recommendations for improvement:

R3. Some form of documentary evidence should support all internal audits and external reviews. The formation of an audit trail in respect of activities, which demonstrate the ability of the partner to identify, correct and prevent errors, is essential.

For indicators for which no recent relevant data are available
If no recent relevant data are available for this indicator, why not? **Not Applicable**
What concrete actions are now being undertaken to collect and report this data as soon as possible? **Not Applicable**
On what date will data be reported? **Not Applicable.**

No Comments.

Note: Document discussed with partner and findings left as stated with partner's agreement.

WORKSHEET 7: DATA QUALITY ASSESSMENT CHECKLIST (SAIBL)

Check-sheet 4 of 4

Refer to this checklist when the SO team conducts both initial and periodic data quality assessments. The full list does not have to be completed—the SO team may wish to identify the most critical data quality issues for formal or informal assessment.

Strategic Objective:
SO5: Increased Market-driven Employment Opportunities

Intermediate Result (if applicable):
More rapid Growth of Existing SMMEs and Increased Viability of Small and Medium Agribusinesses

Performance indicator:
Number of Persons Trained

Data source(s):
Information gathered quarterly from SAIBL clients

Partner or contractor who provided the data:
Ebony Consulting International

Year or period for which the data are being reported:
01 October 1998 to 31 December 2002

Is this indicator reported in the R4 Report? YES

Date(s) of assessment: April 3 –29, 2003

Location(s) of assessment: ECI offices – Woodmead, Johannesburg

Assessment team members: Mr D Himelfarb, Ms M Selvaggio, Dr PA Richards

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SO team leader approval:

X_____Date_____

Mission director or delegate approval:

X_____Date_____

Copies to:
_____

Comments: _____

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1. VALIDITY—Do the data adequately represent performance? [Average score = 2.7]				
Face Validity	**Yes**	**No**	**Score**	**Comments**
➢ Is there a solid, logical relation between the activity or program and what is being measured, or are there significant uncontrollable factors?	**X**	❑	**3**	Data is derived from attendance registers submitted by trainer or training organization as part of payment documentation. No training provided directly by project staff is counted – only training contracted out to an external consultant or organization is counted.
Measurement Error				
Sampling Error (only applies when the data source is a survey)				
➢ Were samples representative?	❑	❑	**N/A**	Not Applicable – data is primary data collected by ECI and is not based on a sample survey
➢ Were the questions in the survey/questionnaire clear, direct, easy to understand?	❑	❑	**N/A**	See above.
➢ If the instrument was self-reporting were adequate instructions provided?	❑	❑	**N/A**	See above.
➢ Were response rates sufficiently large?	❑	❑	**N/A**	See above.
➢ Has non-response rate been followed up?	❑	❑	**N/A**	See above.
Non Sampling Error				
➢ Is the data collection instrument well designed?	**X**	❑	**3**	Data derived from a standardized attendance registration form required for processing payment.
➢ Were there incentives for respondents to give incomplete or untruthful information?	❑	**X**	**3**	See note: ***Strength 1.*** The original *request for assistance form*, contract to the trainer includes the intended number of people to be trained. During the training, participants must sign the register to confirm their attendance. There is no additional payment to the trainer if more people attend the training. See note: ***Vulnerability 1.*** However, if fewer people attend than were originally intended, ECI says that they may reduce the contractors' payment, and that this potential threat represents a disincentive for providing truthful information.
➢ Are definitions for data to be collected operationally precise?	**X**	❑	**3**	While registration form doesn't specifically state the precise definitions of the data required, all fields are clearly understandable.
➢ Are enumerators well trained? How were they trained? Were they insiders or outsiders? Was there any quality control in the selection process?	❑	❑	**N/A**	Not Applicable - Data self reported by contractors and countersigned by participants.
➢ Were there efforts to reduce the potential for personal bias by enumerators?	❑	❑	**N/A**	Not Applicable - Data self reported by contractors and countersigned by participants.

1. VALIDITY—Do the data adequately represent performance? [Average score = 2.7]				
Transcription Error	**Yes**	**No**	**Score**	**Comments**
➢ What is the data transcription process? Is there potential for error?	**X**	❑	**3**	Information on the number of trainees is double entered into TAMIS: from the *request for assistance* form, from the *contract document* issued to the service provider, as well as from the *payment request* submitted by the contractor. The number of trainees is indicated on both. See note: ***Vulnerability 2.*** There is potential for transcription error, as there only ad hoc cross checks built into the system. Moreover, there are cases when data on the number of trainees is missing from one part of the TAMIS and this is not flagged.
➢ Are steps being taken to limit transcription error? (e.g., double keying of data for large surveys, electronic edit checking program to clean data, random checks of partner data entered by supervisors)	**X**	❑	**3**	Ideally, the number of participants gets entered twice – once from the contract document and once from the payment requisition form.
➢ Have data errors been tracked to their original source and mistakes corrected?	**X**	❑	**2**	See note: ***Non-conformity 1*****:** There are no formal procedures for dealing with missing data. However, each quarter when the TAMIS training report is generated, project officers review the report for missing data. Data omissions are not tracked.
If raw data need to be manipulated to produce the data required for the indicator:				
➢ Are the correct formulae being applied?	**X**	❑	**3**	Number of persons trained during the quarter are summed and added to the previous quarters' values to obtain cumulative values overall for the project
➢ Are the same formulae applied consistently from year to year, site to site, data source to data source (if data from multiple sources need to be aggregated)?	**X**	❑	**3**	See note above.
➢ Have procedures for dealing with missing data been correctly applied?	❑	**X**	**2**	See note: ***Non-conformity 1:*** There are no formal procedures for dealing with missing data. However, each quarter when the TAMIS training report is generated, project officers review the report for missing data.
➢ Are final numbers reported accurate? (E.g., does a number reported as a "total" actually add up?)	**X**	❑	**3**	Data that is captured adds up. There is little room for mathematical errors with TAMIS database reporting capacity.

1. VALIDITY—Do the data adequately represent performance? [Average score = 2.7]				
Representativeness of Data	**Yes**	**No**	**Score**	**Comments**
➢ Is the sample from which the data are drawn representative of the population served by the activity?	❑	❑	**N/A**	Not Applicable: The data is not a sample but is representative of the population to the extent that all training contractors submit payment requests and are required to indicate who was trained as part of the required documentation to accompany the payment request.
➢ Did all units of the population have an equal chance of being selected for the sample?	❑	❑	**N/A**	See above.
➢ Is the sampling frame (i.e., the list of units in the target population) up to date? Comprehensive? Mutually exclusive (for geographic frames)	❑	❑	**N/A**	See Above.
➢ Is the sample of adequate size?	❑	❑	**N/A**	See above.
➢ Are the data complete? (i.e., have all data points been recorded?)	❑	**X**	**2**	See note: ***Non-conformity 1*:** Despite the apparent cross-check between data extracted from the *request form*, *contract* document and on the *payment request form*, there are no formal systems for dealing with missing data. However, each quarter when the TAMIS training report is generated, project officers look for missing data.

Strengths and Vulnerabilities:
One non-conformity is noted.

Non-conformity 1: ***There are no <u>formal</u> procedures for ensuring that data is complete. Cross-checking is done by the project officer at the end of each quarter, but double data entry does not ensure that missing data is tracked. Classification of this non-conformity is MINOR.***

Strength 1. ***The original request for assistance form, contract to the trainer includes the intended number of people to be trained. During the training, participants must sign the register to confirm their attendance. There is no additional payment to the trainer if more people attend the training. This reduces the risk of non-reported information.***

Vulnerability 1. ***If fewer people attend than were originally intended, ECI says that they may reduce the contractors' payment, and that this potential threat represents a disincentive for providing truthful information.***

Recommendations for improvement:
R1. A documented procedure for ensuring data completeness and cross checks during the data entry stage would reduce risk associated with missing data.

2. RELIABILITY—Are data collection processes stable and consistent over time? [Average score = 2.4]				
	Yes	**No**	**Score**	**Comments**
Consistency				
➢ Is a consistent data collection process used from year to year, location to location, data source to data source (if data come from different sources)?	**X**	❑	**3**	Confirmed, not verified at audit.
➢ Is the same instrument used to collect data from year to year, location to location? If data come from different sources are the instruments similar enough that the reliability of the data are not compromised?	**X**	❑	**3**	Confirmed, not verified at audit.
➢ Is the same sampling method used from year to year, location to location, data source to data source?	❑	❑	**N/A**	No sampling
Internal quality control				
➢ Are there procedures to ensure that data are free of significant error and that bias is not introduced?	**X**	❑	**2**	See note: ***Non-conformity 1*****:** Double data entry should allows for cross-checks and reconciliation of data, but missing values are allowed to stand. However, each quarter when the TAMIS training report is generated, project officers review the report for missing data.
➢ Are there procedures in place for periodic review of data collection, maintenance, and processing?	❑	**X**	**2**	See note: **Non-conformity 2:** There are no written or documented procedures for data collection, maintenance, and processing. However, decisions to change any part of the process are recorded in the minutes of weekly meetings.
➢ Do these procedures provide for periodic sampling and quality assessment of data?	❑	❑	**N/A**	Per note above, no written procedures exist
Transparency				
➢ Are data collection, cleaning, analysis, reporting, and quality assessment procedures documented in writing?	❑	✓	**2**	See note: ***Non-conformity 2:*** there are no written procedures for data collection, maintenance, and processing.
➢ Are data problems at each level reported to the next level?	❑	❑	**N/A**	Not Applicable – no hierarchy of reporting. Data quality problems are not a problem once all the checks have been performed.
➢ Are data quality problems clearly described in final reports?	❑	❑	**N/A**	Not Applicable – no hierarchy of reporting. Data quality problems are not a problem once all the checks have been performed.

2. RELIABILITY—Are data collection processes stable and consistent over time? [Average score = 2.4]

Strengths and Vulnerabilities:

Non-conformity 2: ***There are no documented procedures for data collection, capturing, cleaning, analysis, reported, or quality assessment or the review thereof. Classification of this non-conformity is MINOR.***

Recommendations for improvement:
R2. Documentation of the project's data collection and handling procedures is essential.

3. TIMELINESS—Are data collected frequently and are they current? [Average score = 3]

	Yes	No	Score	Comments
Frequency				
➢ Are data available on a frequent enough basis to inform program management decisions?	X	❑	**3**	Data collected on a quarterly basis.
➢ Is a regularized schedule of data collection in place to meet program management needs?	**X**	❑	**3**	Data collected on a quarterly basis.
Currency				
➢ Are the data reported in a given timeframe the most current practically available?	**X**	❑	**3**	Data is collected and reported for a fixed time frame (previous quarter). Data current in terms of application of definition by partner.
➢ Are data from within the policy period of interest? (i.e., are data from a point in time after intervention has begun?)	**X**	❑	**3**	Data is collected and reported for a fixed time frame (previous quarter). Data current in terms of application of definition by partner.
➢ Are the data reported as soon as possible after collection?	**X**	❑	**3**	Data are processed and reported to USAID within 2 weeks of the reporting period.
➢ Is the date of collection clearly identified in the report?	**X**	❑	**3**	Quarterly reports to USAID contain the training data for that quarter and the dates for the quarter are clearly specified.

Recommendations for improvement:
None Noted.

4. PRECISION—Do the data have an acceptable margin of error? [Average score = 2]

	Yes	No	Score	Comments
➢ Is the margin of error less than the expected change being measured?	❑	**X**	**2**	See note: **Non-conformity 3**: The margin of error is not established and thus inherent error is not measured.

4. PRECISION—Do the data have an acceptable margin of error? [Average score = 2]				
	Yes	**No**	**Score**	**Comments**
➢ Is the margin of error is acceptable given the likely management decisions to be affected? (Consider the consequences of the program or policy decisions based on the data)	❑	❑	**N/A**	As above.
➢ Have targets been set for the acceptable margin of error?	❑	**X**	**2**	As above.
➢ Has the margin of error been reported along with the data?	❑	**X**	**2**	As above.
➢ Would an increase in the degree of accuracy be more costly than the increased value of the information?	**X**	❑	**2**	See above. Given the relative unimportance of the indicator data for measuring programme results, the time that would be required to replace missing information from one-side of the double data entry approach would probably not be worth the effort.

Strengths and Vulnerabilities:

Non-conformity 3: ***The margin of error is note defined nor established and thus inherent error is not measured. Inherent error in the data will be related to the ratio of reported number of persons trained to actual numbers of persons trained. However, given that payment of the contractor is based on signed attendance registered, classification of this non-conformity is MINOR.***

Recommendations for improvement:
See recommendation R1.

5. INTEGRITY—Are data are free of manipulation? [Average score = 3]				
	Yes	**No**	**Score**	**Comments**
➢ Are mechanisms in place to reduce the possibility that data are manipulated for political or personal reasons?	**X**	❑	**3**	Any unexpected variance from the data that is expected for that quarter is queried by project staff to obtain confirmation, clarification, or explanation of the employment data provided.
➢ Is there objectivity and independence in key data collection, management, and assessment procedures?	**X**	❑	**3**	On the other hand, data management and assessment procedures involve double data entry, which confer independence and objectivity.
➢ Has there been independent review?	**X**	❑	**3**	See note: **Vulnerability 2.** Mike Klesh of USAID/Pretoria conducted in in-house review of the project's data prior to his departure from USAID in ???. He verbally reported to ECI that they were fully compliant, but this was not provided to ECI in writing.
➢ If data is from a secondary source, is ECI management confident in the credibility of the data?	**X**	❑	**3**	Because of the project staff's in-depth knowledge of the programme, and given the common practice of querying outlier results, ECI management have high levels of confidence in the credibility of the data.

5. INTEGRITY—Are data are free of manipulation? [Average score = 3]
Strengths and Vulnerabilities: **Vulnerability 2:** ***There is no written evidence in the project of the independent review of the data conducted by USAID.*** **Recommendations for improvement**: R3. Some form of documentary evidence should support all internal audits and external reviews. The formation of an audit trail in respect of activities, which demonstrate the ability of the partner to identify, correct and prevent errors, is essential.

For indicators for which no recent relevant data are available
If no recent relevant data are available for this indicator, why not? **Not Applicable**
What concrete actions are now being undertaken to collect and report this data as soon as possible? **Not Applicable**
On what date will data be reported? **Not Applicable.**

No Comments.

Note: Document discussed with partner and findings left as stated with partner's agreement.

SEMED – DQA Worksheet 1 of 5: Indicator – **Number of Market driven Opportunities Created**

Refer to this checklist when the SO team conducts both initial and periodic data quality assessments. The full list does not have to be completed—the SO team may wish to identify the most critical data quality issues for formal or informal assessment.

Strategic Objective	SO5: Increased market driven employment opportunities
Intermediate Result (if applicable)	
Performance indicator	Number of market-driven employment opportunities created
Data source(s)	The "*Request for Services*" form & the "*Employment Generated*" Report
Partner or contractor who provided the data (if applicable)	SEMED Project
Year or period for which the data are being reported	???
Is this indicator reported in the R4 Report? *(circle one)*	❑✓ YES NO
Date(s) of assessment	April 2003.
Location(s) of assessment	17 Humber Street, Woodmead, Johannesburg, South Africa
Assessment team members	David Himelfarb, Mary Pat Selvaggio and Dr. Penelope Richards

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SO team leader approval: X_____Date_____

Mission director or delegate approval: X_____Date_____

Copies to: _____

Comments: _____

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1. VALIDITY—Do the data adequately represent performance? (Average Score = 3.0)				
Face Validity	**Yes**	**No**	**SCORE**	**Comments**
➢ Is there a solid, logical relation between the activity or program and what is being measured, or are there significant uncontrollable factors?	✓	❑	**3**	Data is secondary data derived from the project's internal document system. A client's employment levels are obtained at the first meeting to discuss request for assistance. After the project facilitates access to a new market or to new finance, the employment generated is calculated 3 months later. This very short monitoring period is designed to confer more direct attribution to the project. The difference is the value reported.
Measurement Error				
Sampling Error (only applies when the data source is a survey)				
➢ Were samples representative?	❑	❑	**N/A**	Not Applicable – data is primary data collected by SEMED and is not based on a sample survey
➢ Were the questions in the survey/questionnaire clear, direct, easy to understand?	❑	❑	**N/A**	Not Applicable
➢ If the instrument was self-reporting were adequate instructions provided?	❑	❑	**N/A**	Not Applicable
➢ Were response rates sufficiently large?	❑	❑	**N/A**	Not Applicable
➢ Has non-response rate been followed up?	❑	❑	**N/A**	Not Applicable
Non Sampling Error				
➢ Is the data collection instrument well designed?	✓	❑	**3**	Clear and concise instrument. Copies of the instrument included in the project's PMP.
➢ Were there incentives for respondents to give incomplete or untruthful information?	❑	✓	**3**	See **vulnerability note 1**: Data is reported by the project staff whose own performance targets include employment generated through clients.
➢ Are definitions for data to be collected operationally precise?	✓	❑	**3**	Data definitions are operationally precise. The project's PMP Manual clearly lays out definition for "employment opportunity" and "market-driven" employment. Definitions are internally consistent and complete.
➢ Are enumerators well trained? How were they trained? Were they insiders or outsiders? Was there any quality control in the selection process?	✓	❑	**3**	All project staff have been offered initial and repeat training in the PMP and the use of the instruments.

➢ Were there efforts to reduce the potential for personal bias by enumerators?	✓	❑	**3**	See **vulnerability note 1** and **strength note 1.** Despite potential bias in reporting, project has strong disciplinary code for mismanagement of data
Transcription Error				
➢ What is the data transcription process? Is there potential for error?	✓	❑	**3**	Double data entry for cross checks and reconciliation: Data is submitted to the project's information officer where it is entered once in the Access database and again in a spreadsheet. Variances in the totals are reconciled.
➢ Are steps being taken to limit transcription error? (e.g., double keying of data for large surveys, electronic edit checking program to clean data, random checks of SEMED data entered by supervisors)	✓	❑	**3**	See above.
➢ Have data errors been tracked to their original source and mistakes corrected?	✓	❑	**3**	Per comment above, double data entry limit transcription errors.
If raw data need to be manipulated to produce the data required for the indicator:				
➢ Are the correct formulae being applied?	✓	❑	**3**	Formulas are imbedded in the database system. These have been checked. Net jobs created during the quarter are summed and added to the previous quarters' values to obtain cumulative values overall for the project.
➢ Are the same formulae applied consistently from year to year, site to site, data source to data source (if data from multiple sources need to be aggregated)?	✓	❑	**3**	Formulas are imbedded in the database system. These have been checked. There has been a change in the formula since the project began – from September 2000 to September 2002, the project reported on employment new and sustained. Since October 2002, the project reports only on new employment created. Disaggregration by gender began January 2003.
➢ Have procedures for dealing with missing data been correctly applied?	✓	❑	**3**	Little scope for missing data as project field staff review the data reports on a monthly basis to see if their own performance targets are on track.
➢ Are final numbers reported accurate? (E.g., does a number reported as a "total" actually add up?)	✓	❑	**3**	Data adds up. There is little room for mathematical errors, particularly given reconciliation between double entered data..
Representativeness of Data				

➢ Is the sample from which the data are drawn representative of the population served by the activity?	✓	❑	**3**	Not Applicable: The data is not a sample but is representative of the population to the extent that it represents the active client-deals in the quarter – i.e. 100% sample.
➢ Did all units of the population have an equal chance of being selected for the sample?	✓	❑	**3**	All active client-deals are reported by the project field staff.
➢ Is the sampling frame (i.e., the list of units in the target population) up to date? Comprehensive? Mutually exclusive (for geographic frames)	✓	❑	**3**	The data is not a sample but is representative of the population to the extent that it represents the active client-deals in the quarter – i.e. 100% sample.
➢ Is the sample of adequate size?	✓	❑	**3**	The data is not a sample but is representative of the population to the extent that it represents the active client-deals in the quarter.
➢ Are the data complete? (i.e., have all data points been recorded?)	✓	❑	**3**	Little scope for missing or incomplete data as project field staff review the data reports on a monthly basis to see if their own performance targets are on track.

Notes on Strengths and/or Vulnerabilities:

This system is backed by an excellent, well-documented data collection/capturing/handling system which allows the SEMED to meet its stated objectives in terms of the definitions applied to the indicator by the SEMED.

Vulnerability 1: The primary data is generated by project staff whose own performance targets include data collected for this indicator. Thus, potential bias is upwards. There is no field-level cross check, although the instrument MUST be countersigned "as correct" by a representative of the company. However, this requirement is only somewhat difficult to "create" or "forge".

Strength 1: SEMED has strong disciplinary code with regards to the inappropriate manipulation of data, Disciplinary measures are enforced strictly.

Recommendations for improvement:

R1. Occasional random on-site spot checks of clients' employment data should be done on a regular basis to verify the data being submitted.

2. RELIABILITY—Are data collection processes stable and consistent over time? (Average Score = 2.9)				
Consistency	**Yes**	**No**	**SCORE**	**Comments**
➢ Is a consistent data collection process used from year to year, location to location, data source to data source (if data come from different sources)?	❑	✓	**3**	See **Strength 2:** Recent changes (October 2002) in the definition of employment generated (from new and sustained employment – to – new employment only) and recent introduction of variables (gender) for disaggregation (January 2002) have changed the method of collection.

				Changes are traceable.
➢ Is the same instrument used to collect data from year to year, location to location? If data come from different sources are the instruments similar enough that the reliability of the data are not compromised?	❑	✓	**3**	See **Strength 2:** The instrument has undergone changes since it was implemented. These documented in the attachment. However, changes have been noted in the MIS and these were confirmed at audit.
➢ Is the same sampling method used from year to year, location to location, data source to data source?	❑	❑	**N/A**	Not Applicable. No sampling
Internal quality control				
➢ Are there procedures to ensure that data are free of significant error and that bias is not introduced?	✓	❑	**3**	Database has numerous in-built data entry rules that prevent numerous data entry errors. Information Officer also checks data prior to double data entry.
➢ Are there procedures in place for periodic review of data collection, maintenance, and processing?	✓	❑	**3**	Project PMP documents data collection and analysis procedures. There are no specific procedures for data cleaning although PMP specialist reviews data on regular basis for accuracy.
➢ Do these procedures provide for periodic sampling and quality assessment of data?	✓	❑	**3**	See **vulnerability note 2:** Senior staff reportedly conduct spot checks but there is no specific audit trail pertaining to spot checks.
Transparency				
➢ Are data collection, cleaning, analysis, reporting, and quality assessment procedures documented in writing?	✓	❑	**3**	Project PMP documents data collection and analysis procedures. There are no specific written procedures for data cleaning. PMP has been approved by USAID.
➢ Are data problems at each level reported to the next level?	❑	❑	**N/A**	Not Applicable – no hierarchy of reporting. Data quality problems are not a problem once all the checks have been performed.
➢ Are data quality problems clearly described in final reports?	✓	❑	**3**	Problems with data are described in the monthly reports to USAID with the method of rectification, as well as details of changes to reporting tools.

Notes on Strengths and/or Vulnerabilities:

Strength 2: Whilst data collection methods and instruments have changed since the beginning of data collection, although all changes to the system are traceable and logged on the system at the time of change.

Vulnerability 2:	The lack of a specific audit trail that demonstrates when and how spot checks are and were made leaves the SEMED open to risk should action be needed on the basis of such checks.

Recommendations for improvement:

R2. An audit trail pertaining to the spot checks is required.

3. TIMELINESS—Are data collected frequently and are they current? (Average Score = 3.0)				
	Yes	**No**	**Score**	**Comments**
Frequency				
➢ Are data available on a frequent enough basis to inform program management decisions?	✓	❑	**3**	Data collected on a monthly basis.
➢ Is a regularized schedule of data collection in place to meet program management needs?	✓	❑	**3**	Data collected 3 months after a transaction is completed. The project's MIS calculates a future date based on the submission of the transaction information. These dates are then used to schedule and track field officers' follow-up visits for the purpose of obtaining the employment data.
Currency				
➢ Are the data reported in a given timeframe the most current practically available?	✓	❑	**3**	Data is collected and reported for a fixed time frame. Data current in terms of application of definition by SEMED.
➢ Are data from within the policy period of interest? (i.e., are data from a point in time after intervention has begun?)	✓	❑	**3**	Data current in terms of application of definition by SEMED.
➢ Are the data reported as soon as possible after collection?	✓	❑	**3**	Data are processed and reported to USAID timeously.
➢ Is the date of collection clearly identified in the report?	✓	❑	**3**	The data request form clearly indicates to the client the period for which the data should be reported. Quarterly reports to USAID contain the employment data for that quarter and the dates for the quarter are clearly specified.

Recommendations for improvement:

None Noted.

4. PRECISION—Do the data have an acceptable margin of error? (Average Score = 2.0)				
	Yes	**No**	**Score**	**Comments**
➢ Is the margin of error less than the expected change being measured?	❑	✓	**2**	See **non-conformity note 2:** The margin of error within their own system is not established and thus inherent error is not measured. However, given the small size of most of their clients (80% have less than 10 employees) it is feasible for field staff to easily and quickly confirm the numbers presented on the form by the business owner when they are at the company to obtain employment and other data.
➢ Is the margin of error is acceptable given the likely management decisions to be affected? (Consider the consequences of the program or policy decisions based on the data)	❑	✓	**2**	As above.
➢ Have targets been set for the acceptable margin of error?	❑	✓	**2**	As above.
➢ Has the margin of error been reported along with the data?	❑	✓	**2**	As above.
➢ Would an increase in the degree of accuracy be more costly than the increased value of the information?	❑	✓	**3**	Margin of error within the system simple to establish.

Notes on Strengths and/or Vulnerabilities:

Non-conformity 2: The margin of error is not defined nor established and thus inherent error within SEMED's system is not measured. Inherent error in the data will be related to the ratio of reported level of employment to actual levels of employment and/or inherent system error. Classification of this non-conformity is **MINOR.**

Recommendations for improvement:

R3. Calculation of the margin of error should include an analysis of inherent systems error as well as reporting errors.

5. INTEGRITY—Are data are free of manipulation? (Average Score = 3.0)				
	Yes	**No**	**Score**	**Comments**
➢ Are mechanisms in place to reduce the possibility that data are manipulated for political or personal reasons?	✓	❑	**3**	See **vulnerability note 1** and **strength note 1** on page 4. Although the data is largely collected by the project field staff, the form requires a countersignature by the employer and there are

				no incentives for employers to falsify the employment data.
➢ Is there objectivity and independence in key data collection, management, and assessment procedures?	✓	❑	**3**	See **vulnerability note 1** and **strength note 1** on page 4: Regarding collection, there are no incentives for employers to falsify the employment data. On the other hand, data management and assessment procedures involve double data entry, cross checks and reconciliation, which confer independence and objectivity.
➢ Has there been independent review?	❑	✓	**3**	See **vulnerability note 3:** No independent reviews to date. *Is this a non-conformity or vulnerability?*
➢ If data is from a secondary source, is SEMED management confident in the credibility of the data?	✓	❑	**3**	Because of the project staff's in-depth knowledge of the programme, SEMED management have high levels of confidence in the credibility of the data.

Notes on Strengths and/or Vulnerabilities:

Vulnerability 3: There has been no independent review of the data leaving the system open to criticism.

Recommendations for improvement:

Nil

For indicators for which no recent relevant data are available
If no recent relevant data are available for this indicator, why not? Not Applicable
What concrete actions are now being undertaken to collect and report this data as soon as possible? Not Applicable
On what date will data be reported? Not Applicable.

SEMED – DQA Worksheet 2 of 5: Indicator – **Number and Value of Transactions**

Refer to this checklist when the SO team conducts both initial and periodic data quality assessments. The full list does not have to be completed—the SO team may wish to identify the most critical data quality issues for formal or informal assessment.

Strategic Objective	SO5: Increased market driven employment opportunities
Intermediate Result (if applicable)	More rapid growth of existing SMME's
Performance indicator	Number and Value of Business Transactions
Data source(s)	Aggregated from two Performance Indicator Reports: *Markets Identified* and *Finance Accessed*
Partner or contractor who provided the data (if applicable)	SEMED Project
Year or period for which the data are being reported	???
Is this indicator reported in the R4 Report? *(circle one)*	❑✓ YES NO
Date(s) of assessment	April 2003
Location(s) of assessment	17 Humber Street, Woodmead, Johannesburg, South Africa
Assessment team members	David Himelfarb, Mary Pat Selvaggio and Dr. Penelope Richards

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SO team leader approval: X_____Date_____

Mission director or delegate approval: X_____Date_____

Copies to: _____

Comments: _____

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1. VALIDITY—Do the data adequately represent performance? (Average Score = 3.0)				
Face Validity	**Yes**	**No**	**SCORE**	**Comments**
➢ Is there a solid, logical relation between the activity or program and what is being measured, or are there significant uncontrollable factors?	✓	❑	**3**	Data is primary data emanating from the project's normal operations. Validity of formula (summing up from lower level indicators for markets, finance, and privatizations) is not clear, but this is what was required from USAID.
Measurement Error				
Sampling Error (only applies when the data source is a survey)				
➢ Were samples representative?	❑	❑	**N/A**	Not Applicable – data is primary data collected by SEMED and is not based on a sample survey.
➢ Were the questions in the survey/questionnaire clear, direct, easy to understand?	❑	❑	**N/A**	Not Applicable
➢ If the instrument was self-reporting were adequate instructions provided?	❑	❑	**N/A**	Not Applicable
➢ Were response rates sufficiently large?	❑	❑	**N/A**	Not Applicable
➢ Has non-response rate been followed up?	❑	❑	**N/A**	Not Applicable
Non Sampling Error				
➢ Is the data collection instrument well designed?	✓	❑	**3**	Very well designed instruments. Copies of the instruments included in the project's PMP.
➢ Were there incentives for respondents to give incomplete or untruthful information?	❑	✓	**3**	Data is derived from the two forms indicated (MIR and FAR). Although there is potential for upward bias given staff performance targets based on related indicators, data is only accepted when it is substantiated with external, objective documentation.
➢ Are definitions for data to be collected operationally precise?	✓	❑	**3**	Data definitions are operationally precise. The project's PMP Manual clearly lays out definition for "business transaction". Definition is internally consistent and complete.
➢ Are enumerators well trained? How were they trained? Were they insiders or outsiders? Was there any quality control in the selection process?	✓	❑	**3**	All project staff have been offered initial and repeat training in the PMP and the use of the instruments.
➢ Were there efforts to reduce the potential for personal bias	✓	❑	**3**	See **vulnerability note 1** and **strength note 1.** Despite bias potential in reporting, project has

by enumerators?				strong disciplinary code for mismanagement of data
Transcription Error				
➢ What is the data transcription process? Is there potential for error?	✓	❑	**3**	The primary data collected with regards to transaction numbers is already within the project's MIS. Double data entry of those values allows for cross checks and reconciliation. .
➢ Are steps being taken to limit transcription error? (e.g., double keying of data for large surveys, electronic edit checking program to clean data, random checks of SEMED data entered by supervisors)	✓	❑	**3**	See above.
➢ Have data errors been tracked to their original source and mistakes corrected?	✓	❑	**3**	Per comment above, double data entry limit transcription errors.
If raw data need to be manipulated to produce the data required for the indicator:				
➢ Are the correct formulae being applied?	✓	❑	**3**	Extrapolations made on counting the relevant SMME actors indicated on the *Market Identified Report* and *Finance Accessed Report*. Formulas are imbedded in the database system. See **Vulnerability note 2:** One potential ACCEPTABILITY issue relates to the acceptability of counting a transaction twice when it involves 2 SEMED SMME clients.
➢ Are the same formulae applied consistently from year to year, site to site, data source to data source (if data from multiple sources need to be aggregated)?	✓	❑	**3**	Formulas are imbedded in the database system. These have been checked.
➢ Have procedures for dealing with missing data been correctly applied?	✓	❑	**3**	Little scope for missing data as project field staff review the data reports on a monthly basis to see if their own performance targets are on track.
➢ Are final numbers reported accurate? (E.g., does a number reported as a "total" actually add up?)	✓	❑	**3**	Data adds up. There is little room for mathematical errors, particularly given reconciliation between double entered data.
Representativeness of Data				
➢ Is the sample from which the data are drawn representative	✓	❑	**3**	Not Applicable: The data is not a sample but is representative of the population to the extent that

of the population served by the activity?				it represents the active client-deals in the quarter – i.e. 100% sample.
➢ Did all units of the population have an equal chance of being selected for the sample?	✓	❑	**3**	All currently active client-deals are reported by the project field staff.
➢ Is the sampling frame (i.e., the list of units in the target population) up to date? Comprehensive? Mutually exclusive (for geographic frames)	✓	❑	**3**	The data is not a sample but is representative of the population to the extent that it represents the active client-deals in the quarter – i.e. 100% sample.
➢ Is the sample of adequate size?	✓	❑	**3**	The data is not a sample but is representative of the population to the extent that it represents the active client-deals in the quarter.
➢ Are the data complete? (i.e., have all data points been recorded?)	✓	❑	**3**	Little scope for missing or incomplete data as project field staff review the data reports on a monthly basis to see if their own performance targets are on track.

Notes on Strengths and/or Vulnerabilities:

This system is backed by an excellent, well-documented data collection/capturing/handling system which allows the SEMED to meet its stated objectives in terms of the definitions applied to the indicator by the SEMED.

Strength 1: SEMED has strong disciplinary code with regards to the inappropriate manipulation of data, Disciplinary measures are enforced strictly.

Vulnerability 1: The primary data is generated by project staff whose own performance targets include data collected for this indicator. Thus, potential bias is upwards. However, this is greatly minimized by the requirement of accompanying legal documentation to substantiate the value being recorded on the form. This requirement is very difficult to "create" or "forge".

Vulnerability note 2: A potential acceptability issue relates to the practice of counting a transaction twice when it involves 2 SEMED SMME clients. Vulnerability lies in the standard economic theory that views a transaction in a uni-directional fashion.

Recommendations for improvement:

None.

2. RELIABILITY—Are data collection processes stable and consistent over time? (Average Score = 3.0)

Consistency	**Yes**	**No**	**SCORE**	**Comments**
➢ Is a consistent data collection process used from year to	✓	❑	**3**	Data has been collected in the same manner

year, location to location, data source to data source (if data come from different sources)?				since 2000.
➢ Is the same instrument used to collect data from year to year, location to location? If data come from different sources are the instruments similar enough that the reliability of the data are not compromised?	✓	❑	**3**	There is no instrument for this indicator as it is an extrapolation of data derived from other indicators. Instruments for gathering the data for those indicators have been modified slightly, but all changes have been well documented, and there does not appear to be any threat to the validity or reliability of the data.
➢ Is the same sampling method used from year to year, location to location, data source to data source?	❑	❑	**N/A**	Not Applicable. No sampling
Internal quality control				
➢ Are there procedures to ensure that data are free of significant error and that bias is not introduced?	✓	❑	**3**	Database has numerous in-built data entry rules that prevent numerous data entry errors. Information Officer also checks data prior to double data entry.
➢ Are there procedures in place for periodic review of data collection, maintenance, and processing?	✓	❑	**3**	Project PMP documents data collection and analysis procedures. There are no specific procedures for data cleaning although PMP specialist reviews data on regular basis for accuracy.
➢ Do these procedures provide for periodic sampling and quality assessment of data?	✓	❑	**3**	See **vulnerability note 3:** Senior staff reportedly conduct spot checks but there is no specific audit trail pertaining to spot checks.
Transparency				
➢ Are data collection, cleaning, analysis, reporting, and quality assessment procedures documented in writing?	✓	❑	**3**	Project PMP documents data collection and analysis procedures. There are no specific written procedures for data cleaning. PMP has been approved by USAID.
➢ Are data problems at each level reported to the next level?	❑	❑	**3**	Not Applicable – no hierarchy of reporting. Data quality problems are not a problem once all the checks have been performed.
➢ Are data quality problems clearly described in final reports?	✓	❑	**3**	Problems with data are described in the monthly reports to USAID with the method of rectification, as well as details of changes to reporting tools.

Notes on Strengths and/or Vulnerabilities:

Vulnerability 3: The lack of a specific audit trail that demonstrates when and how spot checks are and were made leaves the SEMED open to risk should action be needed on the basis of such checks.

Recommendations for improvement:

R1. An audit trail pertaining to the spot checks is required.

3. TIMELINESS—Are data collected frequently and are they current? (Average Score = 3.0)				
	Yes	**No**	**Score**	**Comments**
Frequency				
➢ Are data available on a frequent enough basis to inform program management decisions?	✓	❑	**3**	Dependency exists in terms of receiving updated transactions from *Market Identified Report* and *Finance Accessed Report*, however as this is primary data generated by SEMED, there is no risk to the calculation of this indicator.
➢ Is a regularized schedule of data collection in place to meet program management needs?	✓	❑	**3**	See above
Currency				
➢ Are the data reported in a given timeframe the most current practically available?	✓	❑	**3**	See above
➢ Are data from within the policy period of interest? (i.e., are data from a point in time after intervention has begun?)	✓	❑	**3**	See above
➢ Are the data reported as soon as possible after collection?	✓	❑	**3**	Data from the *Market Identified Report* and *Finance Accessed Report* submitted continuously.
➢ Is the date of collection clearly identified in the report?	✓	❑	**3**	Quarterly reports to USAID contain the employment data for that quarter and the dates for the quarter are clearly specified.

Recommendations for improvement:

None Noted.

4. PRECISION—Do the data have an acceptable margin of error? (Average Score = 2.0)				
	Yes	**No**	**Score**	**Comments**
➢ Is the margin of error less than the expected change being measured?	❑	✓	**2**	See **non-conformity note 1:** The margin of error is not established and thus inherent error is not measured. The margin of error would be related to any non-reported data. The nature of the SEMED system is such that the margin of

				error is probably negligible.
➢ Is the margin of error is acceptable given the likely management decisions to be affected? (Consider the consequences of the program or policy decisions based on the data)	❑	✓	**2**	As above.
➢ Have targets been set for the acceptable margin of error?	❑	✓	**2**	As above.
➢ Has the margin of error been reported along with the data?	❑	✓	**2**	As above.
➢ Would an increase in the degree of accuracy be more costly than the increased value of the information?	✓	✓	**2**	Error negligible therefore cost outweighs additional benefit.

Notes on Strengths and/or Vulnerabilities:

Non-conformity 1: The margin of error is not defined nor established and thus inherent error is not measured. The specific acceptable level of error has not been set. This limits the identification of potential negative trends in terms of data quality and the timely correction and prevention thereof. Calculation of the margin of error would necessitate an investigation of the existence of non-reported data. Classification of this non-conformity is **MINOR.**

Recommendations for improvement:

Nil

5. INTEGRITY—Are data are free of manipulation? (Average Score = ??)				
	Yes	**No**	**Score**	**Comments**
➢ Are mechanisms in place to reduce the possibility that data are manipulated for political or personal reasons?	✓	❑	**3**	Follow-up and cross checks include COP visits to 40 companies per year and information officer cross check with 2 submissions per field officer each month. However this is not documented and therefore not auditable. See **vulnerability note 1** on page 4. Although the data is largely collected by the project field staff, the form requires substantiating documentation thereby minimizing any incentives for falsification.
➢ Is there objectivity and independence in key data collection, management, and assessment procedures?	✓	❑	**3**	See above. Data management and assessment procedures involve double data entry, cross checks and reconciliation, which confer independence and objectivity.
➢ Has there been independent	❑	✓	**3**	See **vulnerability 4:** No independent reviews to

	review?				date.
➢	If data is from a secondary source, is SEMED management confident in the credibility of the data?	❑	❑	**N/A**	Not Applicable.

Notes on Strengths and/or Vulnerabilities:

Vulnerability 4: There has been no independent review of the data leaving the system open to criticism.

Recommendations for improvement:

Nil

For indicators for which no recent relevant data are available
If no recent relevant data are available for this indicator, why not?
Not Applicable
What concrete actions are now being undertaken to collect and report this data as soon as possible?
Not Applicable
On what date will data be reported?
Not Applicable.

SEMED – DQA Worksheet 3 of 5: Indicator – **Value of Finance Accessed**

Refer to this checklist when the SO team conducts both initial and periodic data quality assessments. The full list does not have to be completed—the SO team may wish to identify the most critical data quality issues for formal or informal assessment.

Strategic Objective	SO5: Increased market driven employment opportunities
Intermediate Result (if applicable)	More rapid growth of existing SMME's
Performance indicator	Value of Financed Accessed
Data source(s)	From the *Finance Accessed* report
Partner or Contractor who provided the data (if applicable)	SEMED Project
Year or period for which the data are being reported	???
Is this indicator reported in the R4 Report? *(circle one)*	❑✓ YES NO
Date(s) of assessment	April 2003
Location(s) of assessment	17 Humber Street, Woodmead, Johannesburg, South Africa
Assessment team members	David Himelfarb, Mary Pat Selvaggio and Dr. Penelope Richards

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SO team leader approval: X_____Date_____

Mission director or delegate approval: X_____Date_____

Copies to: _____

Comments: _____

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1. VALIDITY—Do the data adequately represent performance? (Average Score = 3.0)				
Face Validity	**Yes**	**No**	**SCORE**	**Comments**
➢ Is there a solid, logical relation between the activity or program and what is being measured, or are there significant uncontrollable factors?	✓	❑	**3**	Data is primary data emanating from the project's normal operations.
Measurement Error				
Sampling Error (only applies when the data source is a survey)				
➢ Were samples representative?	❑	❑	**N/A**	Not Applicable – data is primary data collected by SEMED and is not based on a sample survey.
➢ Were the questions in the survey/questionnaire clear, direct, easy to understand?	❑	❑	**N/A**	Not Applicable
➢ If the instrument was self-reporting were adequate instructions provided?	❑	❑	**N/A**	Not Applicable
➢ Were response rates sufficiently large?	❑	❑	**N/A**	Not Applicable
➢ Has non-response rate been followed up?	❑	❑	**N/A**	Not Applicable
Non Sampling Error				
➢ Is the data collection instrument well designed?	✓	❑	**3**	Clear and concise instruments. Copies of the instruments included in the project's PMP.
➢ Were there incentives for respondents to give incomplete or untruthful information?	❑	✓	**3**	See **vulnerability note 1.** Although there is potential for upward bias given staff performance targets based on this indicator, data is only accepted when it is substantiated with external, supporting documentation.
➢ Are definitions for data to be collected operationally precise?	✓	❑	**3**	Data definitions are operationally precise. The project's PMP Manual clearly lays out definition for "finance accessed". Definition is internally consistent and complete.
➢ Are enumerators well trained? How were they trained? Were they insiders or outsiders? Was there any quality control in the selection process?	✓	❑	**3**	All project staff have been offered initial and repeat training in the PMP and the use of the instruments.
➢ Were there efforts to reduce the potential for personal bias by enumerators?	✓	❑	**3**	See **vulnerability note 1** and **strength note 1.** Despite bias potential in reporting, project has strong disciplinary code for mismanagement of

				data
Transcription Error				
➢ What is the data transcription process? Is there potential for error?	✓	❑	**3**	The value of finance accessed is primary data collected as part of the project's normal operations. Data MUST be supported with copies of relevant documentation. Double data entry of those values allows for cross checks and reconciliation. .
➢ Are steps being taken to limit transcription error? (e.g., double keying of data for large surveys, electronic edit checking program to clean data, random checks of SEMED data entered by supervisors)	✓	❑	**3**	See above.
➢ Have data errors been tracked to their original source and mistakes corrected?	✓	❑	**3**	Per comment above, double data entry limit transcription errors.
If raw data need to be manipulated to produce the data required for the indicator:				
➢ Are the correct formulae being applied?	✓	❑	**3**	Extrapolations made on 100% of the value from the *Finance Accessed* Report. Formulas are imbedded in the database system.
➢ Are the same formulae applied consistently from year to year, site to site, data source to data source (if data from multiple sources need to be aggregated)?	✓	❑	**3**	Formulas are imbedded in the database system. These have been checked. No change has been made in the formula since 2000.
➢ Have procedures for dealing with missing data been correctly applied?	✓	❑	**3**	Little scope for missing data as project field staff review the data reports on a monthly basis to see if their own performance targets are on track.
➢ Are final numbers reported accurate? (E.g., does a number reported as a "total" actually add up?)	✓	❑	**3**	Data adds up. There is little room for mathematical errors, particularly given reconciliation between double entered data.
Representativeness of Data				
➢ Is the sample from which the data are drawn representative of the population served by the activity?	✓	❑	**3**	Not Applicable: The data is not a sample but is representative of the population to the extent that it represents the active client-deals in the quarter – i.e. 100% sample.
➢ Did all units of the population have an equal chance of	✓	❑	**3**	All currently active client-deals are reported by the project field staff.

being selected for the sample?				
➢ Is the sampling frame (i.e., the list of units in the target population) up to date? Comprehensive? Mutually exclusive (for geographic frames)	✓	❑	**3**	The data is not a sample but is representative of the population to the extent that it represents the active client-deals in the quarter – i.e. 100% sample.
➢ Is the sample of adequate size?	✓	❑	**3**	The data is not a sample but is representative of the population to the extent that it represents the active client-deals in the quarter.
➢ Are the data complete? (i.e., have all data points been recorded?)	✓	❑	**3**	Little scope for missing or incomplete data as project field staff review the data reports on a monthly basis to see if their own performance targets are on track.

Notes on Strengths and/or Vulnerabilities:

This system is backed by an excellent, well-documented data collection/capturing/handling system which allows the SEMED to meet its stated objectives in terms of the definitions applied to the indicator by the SEMED.

Vulnerability 1: The primary data is generated by project staff whose own performance targets include data collected for this indicator. Thus, potential bias is upwards. However, this is greatly minimized by the requirement of accompanying legal documentation to substantiate the value being recorded on the form. This requirement is very difficult to "create" or "forge".

Strength 1: SEMED has strong disciplinary code with regards to the inappropriate manipulation of data, Disciplinary measures are enforced strictly.

Recommendations for improvement:

None.

2. RELIABILITY—Are data collection processes stable and consistent over time? (Average Score = 3.0)

Consistency	**Yes**	**No**	**SCORE**	**Comments**
➢ Is a consistent data collection process used from year to year, location to location, data source to data source (if data come from different sources)?	✓	❑	**3**	Data has been collected in the same manner since 2000.
➢ Is the same instrument used to collect data from year to year, location to location? If data come from different sources are the instruments similar enough that the reliability of the data are not compromised?	✓	❑	**3**	The same instrument has been used since 2000. No indication at audit that instrument has changed.

➢ Is the same sampling method used from year to year, location to location, data source to data source?	❑	❑	**N/A**	Not Applicable. No sampling
Internal quality control				
➢ Are there procedures to ensure that data are free of significant error and that bias is not introduced?	✓	❑	**3**	Database has numerous in-built data entry rules that prevent numerous data entry errors. Information Officer also checks data prior to double data entry.
➢ Are there procedures in place for periodic review of data collection, maintenance, and processing?	✓	❑	**3**	Project PMP documents data collection and analysis procedures. There are no specific procedures for data cleaning although PMP specialist reviews data on regular basis for accuracy.
➢ Do these procedures provide for periodic sampling and quality assessment of data?	✓	❑	**3**	See **vulnerability note 2:** Senior staff reportedly conduct spot checks but there is no specific audit trail pertaining to spot checks.
Transparency				
➢ Are data collection, cleaning, analysis, reporting, and quality assessment procedures documented in writing?	✓	❑	**3**	Project PMP documents data collection and analysis procedures. There are no specific written procedures for data cleaning. PMP has been approved by USAID.
➢ Are data problems at each level reported to the next level?	❑	❑	**N/A**	Not Applicable – no hierarchy of reporting. Data quality problems are not a problem once all the checks have been performed.
➢ Are data quality problems clearly described in final reports?	✓	❑	**3**	Problems with data are described in the monthly reports to USAID with the method of rectification, as well as details of changes to reporting tools.

Notes on Strengths and/or Vulnerabilities:

Vulnerability 2: The lack of a specific audit trail that demonstrates when and how spot checks are and were made leaves the SEMED open to risk should action be needed on the basis of such checks.

Recommendations for improvement:

R1. An audit trail pertaining to the spot checks is required. .

3. TIMELINESS—Are data collected frequently and are they current? (Average Score = 3.0)				
	Yes	**No**	**Score**	**Comments**
Frequency				

➢ Are data available on a frequent enough basis to inform program management decisions?	✓	❑	**3**	
➢ Is a regularized schedule of data collection in place to meet program management needs?	✓	❑	**3**	See above
Currency				
➢ Are the data reported in a given timeframe the most current practically available?	✓	❑	**3**	Data is collected and reported for a fixed time frame. Data current in terms of application of definition by SEMED
➢ Are data from within the policy period of interest? (i.e., are data from a point in time after intervention has begun?)	✓	❑	**3**	Data current in terms of application of definition by SEMED.
➢ Are the data reported as soon as possible after collection?	✓	❑	**3**	Data are processed and reported to USAID timeously.
➢ Is the date of collection clearly identified in the report?	✓	❑	**3**	The data request form clearly indicates to the client the period for which the data should be reported. Quarterly reports to USAID contain the employment data for that quarter and the dates for the quarter are clearly specified.

Recommendations for improvement:

None Noted.

4. PRECISION—Do the data have an acceptable margin of error? (Average Score = 2.0)				
	Yes	**No**	**Score**	**Comments**
➢ Is the margin of error less than the expected change being measured?	❑	✓	**2**	See **non-conformity note 1:** The margin of error is not established and thus inherent error is not measured. The margin of error would be related to any non-reported data. The nature of the SEMED system is such that the margin of error is probably negligible.
➢ Is the margin of error is acceptable given the likely management decisions to be affected? (Consider the consequences of the program or policy decisions based on the data)	❑	✓	**2**	As above.
➢ Have targets been set for the acceptable margin of error?	❑	✓	**2**	As above.

➢ Has the margin of error been reported along with the data?	❑	✓	**2**	As above.
➢ Would an increase in the degree of accuracy be more costly than the increased value of the information?	✓	✓	**2**	Error negligible therefore cost outweighs additional benefit.

Notes on Strengths and/or Vulnerabilities:

Non-conformity 1: The margin of error is not defined nor established and thus inherent error is not measured. The specific acceptable level of error has not been set. This limits the identification of potential negative trends in terms of data quality and the timely correction and prevention thereof. Calculation of the margin of error would necessitate an investigation of the existence of non-reported data. Classification of this non-conformity is **MINOR.**

Recommendations for improvement:

Nil

5. INTEGRITY—Are data are free of manipulation? (Average Score = ??)

	Yes	No	Score	Comments
➢ Are mechanisms in place to reduce the possibility that data are manipulated for political or personal reasons?	✓	❑	**3**	Follow-up and cross checks include COP visits to 40 companies per year and information officer cross check with 2 submissions per field officer each month. However this is not documented and therefore not auditable See **vulnerability note 1** on page 4. Although the data is largely collected by the project field staff, the form requires substantiating documentation thereby minimizing any incentives for falsification.
➢ Is there objectivity and independence in key data collection, management, and assessment procedures?	✓	❑	**3**	See above. Data management and assessment procedures involve double data entry, cross checks and reconciliation, which confer independence and objectivity.
➢ Has there been independent review?	❑	✓	**3**	See **vulnerability 4:** No independent reviews to date.
➢ If data is from a secondary source, is SEMED management confident in the credibility of the data?	❑	❑	**N/A**	Not Applicable.

Notes on Strengths and/or Vulnerabilities:

Vulnerability 4: There has been no independent review of the data leaving the system open to criticism.

Recommendations for improvement:
Nil

For indicators for which no recent relevant data are available
If no recent relevant data are available for this indicator, why not?
Not Applicable
What concrete actions are now being undertaken to collect and report this data as soon as possible?
Not Applicable
On what date will data be reported?
Not Applicable.

SEMED – DQA Worksheet 4 of 5: Indicator – **Number of Entrepreneurs who receive Business Training**

Refer to this checklist when the SO team conducts both initial and periodic data quality assessments. The full list does not have to be completed—the SO team may wish to identify the most critical data quality issues for formal or informal assessment.

Strategic Objective	SO5: Increased market driven employment opportunities
Intermediate Result (if applicable)	More rapid growth of existing SMME's
Performance indicator	Number of Entrepreneurs who receive Business Training
Data source(s)	Extracted from the *Training Report* and (if applicable) accompanying *Training Register*
Partner or contractor who provided the data (if applicable)	SEMED Project
Year or period for which the data are being reported	???
Is this indicator reported in the R4 Report? *(circle one)*	❑✓ YES NO
Date(s) of assessment	April 2003
Location(s) of assessment	17 Humber Street, Woodmead, Johannesburg, South Africa
Assessment team members	David Himelfarb, Mary Pat Selvaggio and Dr. Penelope Richards

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Mission director or delegate approval: X_____Date_____

Copies to: _____

Comments: _____

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1. VALIDITY—Do the data adequately represent performance? (Average Score = 3.0)				
Face Validity	**Yes**	**No**	**SCORE**	**Comments**
➢ Is there a solid, logical relation between the activity or program and what is being measured, or are there significant uncontrollable factors?	✓	❑	**3**	Data is primary data emanating from the project's normal operations. Formula is such that it avoids double counting.
Measurement Error				
Sampling Error (only applies when the data source is a survey)				
➢ Were samples representative?	❑	❑	**N/A**	Not Applicable – data is primary data collected by SEMED and is not based on a sample survey.
➢ Were the questions in the survey/questionnaire clear, direct, easy to understand?	❑	❑	**N/A**	Not Applicable
➢ If the instrument was self-reporting were adequate instructions provided?	❑	❑	**N/A**	Not Applicable
➢ Were response rates sufficiently large?	❑	❑	**N/A**	Not Applicable
➢ Has non-response rate been followed up?	❑	❑	**N/A**	Not Applicable
Non Sampling Error				
➢ Is the data collection instrument well designed?	✓	❑	**3**	Clear and concise instruments. Copies of he instruments included in the project's PMP. Item on *Training Form* contributes to a formula in the database that avoids double counting.
➢ Were there incentives for respondents to give incomplete or untruthful information?	❑	✓	**3**	See **vulnerability note 1:** No incentives given to trainees (who must countersign the form), but data are reported by the project staff whose own performance targets include numbers of entrepreneurs trained.
➢ Are definitions for data to be collected operationally precise?	✓	❑	**3**	Data definitions are operationally precise. The project's PMP Manual clearly lays out definition for "business training". Definition is internally consistent and complete.
➢ Are enumerators well trained? How were they trained? Were they insiders or outsiders? Was there any quality control in the selection process?	✓	❑	**3**	All project staff have been offered initial and repeat training in the PMP and the use of the instruments.
➢ Were there efforts to reduce	✓	❑	**3**	See **vulnerability note 1** and **strength note 1.**

the potential for personal bias by enumerators?				Despite bias potential in reporting, project has strong disciplinary code for mismanagement of data
Transcription Error				
➢ What is the data transcription process? Is there potential for error?	✓	❑	**3**	Double data entry for cross checks and reconciliation: Data is submitted to the project's information officer where it is entered once in the Access database and again in a spreadsheet. Variances in the totals are reconciled.
➢ Are steps being taken to limit transcription error? (e.g., double keying of data for large surveys, electronic edit checking program to clean data, random checks of SEMED data entered by supervisors)	✓	❑	**3**	See above.
➢ Have data errors been tracked to their original source and mistakes corrected?	✓	❑	**3**	Per comment above, double data entry limit transcription errors.
If raw data need to be manipulated to produce the data required for the indicator:				
➢ Are the correct formulae being applied?	✓	❑	**3**	Formulas are imbedded in the database system. These have been checked. Numbers of entrepreneurs trained during the quarter are summed and added to the previous quarters' values to obtain cumulative values overall for the project.
➢ Are the same formulae applied consistently from year to year, site to site, data source to data source (if data from multiple sources need to be aggregated)?	✓	❑	**3**	Formulas are imbedded in the database system. These have been checked. Changes are traceable.
➢ Have procedures for dealing with missing data been correctly applied?	✓	❑	**3**	Little scope for missing data as project field staff review the data reports on a monthly basis to see if their own performance targets are on track.
➢ Are final numbers reported accurate? (E.g., does a number reported as a "total" actually add up?)	✓	❑	**3**	Data adds up. There is little room for mathematical errors, particularly given reconciliation between double entered data.
Representativeness of Data				
➢ Is the sample from which the data are drawn representative	✓	❑	**3**	Not Applicable: The data is not a sample but is representative of the population to the extent that

of the population served by the activity?				it represents the all mentoring and training that has been delivered in the quarter – i.e. 100% sample.
➢ Did all units of the population have an equal chance of being selected for the sample?	✓	❑	**3**	See above.
➢ Is the sampling frame (i.e., the list of units in the target population) up to date? Comprehensive? Mutually exclusive (for geographic frames)	✓	❑	**3**	See above.
➢ Is the sample of adequate size?	✓	❑	**3**	See above.
➢ Are the data complete? (i.e., have all data points been recorded?)	✓	❑	**3**	Little scope for missing or incomplete data as project field staff review the data reports on a monthly basis to see if their own performance targets are on track.

Notes on Strengths and/or Vulnerabilities:

This system is backed by an excellent, well-documented data collection/capturing/handling system that allows the SEMED project to meet its stated objectives in terms of the definitions applied to the indicator by the SEMED.

Vulnerability 1: The primary data is generated by project staff whose own performance targets include data collected for this indicator. Thus, potential bias is upwards. However, this is greatly minimized by the requirement of countersignatures by the trainees to substantiate the information recorded on the form.

Strength 1: SEMED has strong disciplinary code with regards to the inappropriate manipulation of data, Disciplinary measures are enforced strictly.

Recommendations for improvement:

R1. Occasional random checks of clients' training should be done to verify the data being submitted.

2. RELIABILITY—Are data collection processes stable and consistent over time? (Average Score = 3.0)

Consistency	**Yes**	**No**	**SCORE**	**Comments**
➢ Is a consistent data collection process used from year to year, location to location, data source to data source (if data come from different sources)?	✓	❑	**3**	Changes are traceable. (i) Recent changes (October 2002) in the definition of "business training" (from only formal training to formal training, mentoring, or other support); (ii) recent disaggregation of mass media data from training data (in October 2002); and (iii) recent introduction of variables (gender) for

				disaggregation (January 2002)
➢ Is the same instrument used to collect data from year to year, location to location? If data come from different sources are the instruments similar enough that the reliability of the data are not compromised?	✓	❑	**3**	The instrument has undergone changes since it was implemented. However, changes have been noted in the MIS and these were confirmed at audit.
➢ Is the same sampling method used from year to year, location to location, data source to data source?	❑	❑	**N/A**	Not Applicable. No sampling
Internal quality control				
➢ Are there procedures to ensure that data are free of significant error and that bias is not introduced?	✓	❑	**3**	Prior to data entry, numbers of persons trained on *Training Report* and signatures on that report or the accompanying *Training Register* are manually reconciled by the Information Officer to obtain final numbers of entrepreneurs trained. No risk of bias by Information Officer. Database has numerous in-built data entry rules that prevent numerous data entry errors. Information Officer also checks data prior to double data entry.
➢ Are there procedures in place for periodic review of data collection, maintenance, and processing?	✓	❑	**3**	Project PMP documents data collection and analysis procedures. There are no specific procedures for data cleaning although PMP specialist reviews data on regular basis for accuracy.
➢ Do these procedures provide for periodic sampling and quality assessment of data?	✓	❑	**3**	See **vulnerability note 2:** Senior staff reportedly conduct spot checks but there is no specific audit trail pertaining to spot checks.
Transparency				
➢ Are data collection, cleaning, analysis, reporting, and quality assessment procedures documented in writing?	✓	❑	**3**	Project PMP documents data collection and analysis procedures. There are no specific written procedures for data cleaning. PMP has been approved by USAID.
➢ Are data problems at each level reported to the next level?	❑	❑	**N/A**	Not Applicable – no hierarchy of reporting.
➢ Are data quality problems clearly described in final reports?	✓	❑	**3**	Problems with data are described in the monthly reports to USAID with the method of rectification, as well as details of changes to reporting tools.
Notes on Strengths and/or Vulnerabilities:				

Vulnerability 2: The lack of a specific audit trail that demonstrates when and how spot checks are and were made leaves the SEMED open to risk should action be needed on the basis of such checks.

Recommendations for improvement:

R2. An audit trail pertaining to the spot checks is required.

3. TIMELINESS—Are data collected frequently and are they current? (Average Score = 3.0)				
	Yes	**No**	**Score**	**Comments**
Frequency				
➢ Are data available on a frequent enough basis to inform program management decisions?	✓	❑	**3**	Data collected and submitted to the database on an on-going basis.
➢ Is a regularized schedule of data collection in place to meet program management needs?	✓	❑	**3**	See above.
Currency				
➢ Are the data reported in a given timeframe the most current practically available?	✓	❑	**3**	Data is reported for a fixed time frame (past month). Data current in terms of application of definition by SEMED
➢ Are data from within the policy period of interest? (i.e., are data from a point in time after intervention has begun?)	✓	❑	**3**	Data current in terms of application of definition by SEMED.
➢ Are the data reported as soon as possible after collection?	✓	❑	**3**	Data are processed and reported to USAID timeously
➢ Is the date of collection clearly identified in the report?	✓	❑	**3**	The data request form clearly indicates to the client the period for which the data should be reported. Quarterly reports to USAID contain the employment data for that quarter and the dates for the quarter are clearly specified.

Recommendations for improvement:

None Noted.

4. PRECISION—Do the data have an acceptable margin of error? (Average Score = 2.0)				
	Yes	**No**	**Score**	**Comments**

➢ Is the margin of error less than the expected change being measured?	❑	✓	**2**	See **non-conformity note 1:** The margin of error is not established and thus inherent error is not measured. The margin of error could not be established, as the total number of excluded data due to missing forms is not known.
➢ Is the margin of error is acceptable given the likely management decisions to be affected? (Consider the consequences of the program or policy decisions based on the data)	❑	✓	**2**	As above.
➢ Have targets been set for the acceptable margin of error?	❑	✓	**2**	As above.
➢ Has the margin of error been reported along with the data?	❑	✓	**2**	As above.
➢ Would an increase in the degree of accuracy be more costly than the increased value of the information?	✓	❑	**2**	Large cost would be effected with only minor changes in error.

Notes on Strengths and/or Vulnerabilities:

Non-conformity 1: The margin of error is not defined nor established and thus inherent error is not measured. The specific acceptable level of error has not been set. This limits the identification of potential negative trends in terms of data quality and the timely correction and prevention thereof. Inherent error in the data will be related to the ratio of reported number of persons trained to actual numbers of persons trained. However, given that this indicator is related to performance targets for project field staff, error is minimized. Classification of this non-conformity is **MINOR.**

Recommendations for improvement:

R3. Calculation of the margin of error should include ???.

5. INTEGRITY—Are data are free of manipulation? (Average Score = ??)				
	Yes	**No**	**Score**	**Comments**
➢ Are mechanisms in place to reduce the possibility that data are manipulated for political or personal reasons?	✓	❑	**3**	Follow-up and cross checks include COP visits to 40 companies per year and information officer crosschecks with 2 submissions per field officer each month. However this is not documented and therefore not auditable. (MPS to cross check this with SEMED – any record of these mechanisms?) See **vulnerability note 1** on page 4. Although the data is largely collected by the project field staff, the form requires substantiating documentation thereby minimizing any

				incentives for falsification.
➢ Is there objectivity and independence in key data collection, management, and assessment procedures?	✓	❑	**3**	See above. Data management and assessment procedures involve double data entry, cross checks and reconciliation, which confer independence and objectivity.
➢ Has there been independent review?	❑	✓	**2**	See **non-conformity note 3:** No independent reviews to date. *Is this a non-conformity or vulnerability?*
➢ If data is from a secondary source, is SEMED management confident in the credibility of the data?	✓	❑	**3**	Because of the project staff's in-depth knowledge of the programme, SEMED management have high levels of confidence in the credibility of the data.

Notes on Strengths and/or Vulnerabilities:

Non-conformity 3: There has been no independent review of the data. Classification of this non-conformity is **MINOR.**

Recommendations for improvement:

????

For indicators for which no recent relevant data are available
If no recent relevant data are available for this indicator, why not? Not Applicable
What concrete actions are now being undertaken to collect and report this data as soon as possible? Not Applicable
On what date will data be reported? Not Applicable.

SEMED – DQA Worksheet 5 of 5: Indicator – **Number of people who receive HIV/AIDS education And Number of Condoms Distributed**

Refer to this checklist when the SO team conducts both initial and periodic data quality assessments. The full list does not have to be completed—the SO team may wish to identify the most critical data quality issues for formal or informal assessment.

Strategic Objective	SO5: Increased market driven employment opportunities
Intermediate Result (if applicable)	Increased demand for HIV/AIDS/STDS and TB prevention and mitigation services and practices
Performance indicator	1) Number of people who receive HIV/AIDS education and 2) Number of Condoms Distributed
Data source(s)	Extracted from *Meeting Reports*
Partner or contractor who provided the data (if applicable)	SEMED Project
Year or period for which the data are being reported	???
Is this indicator reported in the R4 Report? *(circle one)*	❑✓ YES NO
Date(s) of assessment	April 2003
Location(s) of assessment	17 Humber Street, Woodmead, Johannesburg, South Africa
Assessment team members	David Himelfarb, Mary Pat Selvaggio and Dr. Penelope Richards

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Mission director or delegate approval: X_____Date_____

Copies to: _____

Comments: _____

1. VALIDITY—Do the data adequately represent performance? (Ave. Score = ??)				
Face Validity	**Yes**	**No**	**SCORE**	**Comments**
➢ Is there a solid, logical relation between the activity or program and what is being measured, or are there significant uncontrollable factors?	✓	❑	**3**	There is a logical link between the activity (HIV/AIDS awareness and condom distribution) and the data measured/collected.
Measurement Error				
Sampling Error (only applies when the data source is a survey)				
➢ Were samples representative?	❑	❑	**N/A**	Not Applicable – data is primary data collected by SEMED and is not based on a sample survey.
➢ Were the questions in the survey/questionnaire clear, direct, easy to understand?	❑	❑	**N/A**	Not Applicable
➢ If the instrument was self-reporting were adequate instructions provided?	❑	❑	**N/A**	Not Applicable
➢ Were response rates sufficiently large?	❑	❑	**N/A**	Not Applicable
➢ Has non-response rate been followed up?	❑	❑	**N/A**	Not Applicable
Non Sampling Error				
➢ Is the data collection instrument well designed?	✓	❑	**3**	Data derived from a standardized attendance registration form required for processing payment.
➢ Were there incentives for respondents to give incomplete or untruthful information?	❑	✓	**3**	No incentives given to trainees.
➢ Are definitions for data to be collected operationally precise?	✓	❑	**3**	While *Meeting Report* form doesn't state the precise definitions of the data required, all fields are clearly understandable.
➢ Are enumerators well trained? How were they trained? Were they insiders or outsiders? Was there any quality control in the selection process?	✓	❑	**3**	All project staff have been offered initial and repeat training in the use of the instrument.
➢ Were there efforts to reduce the potential for personal bias by enumerators?	✓	❑	**3**	See **vulnerability note 1** and **strength note 1.** Despite bias potential in reporting, project has strong disciplinary code for mismanagement of data

Transcription Error				
➢ What is the data transcription process? Is there potential for error?	❑	✓	**2**	See **non-conformity note 1:** There is potential for transcription error, as there are no cross checks built into the system.
➢ Are steps being taken to limit transcription error? (e.g., double keying of data for large surveys, electronic edit checking program to clean data, random checks of SEMED data entered by supervisors)	❑	✓	**2**	See **non-conformity note 1.**
➢ Have data errors been tracked to their original source and mistakes corrected?	❑	✓	**2**	See **non-conformity note 1.**
If raw data need to be manipulated to produce the data required for the indicator:				
➢ Are the correct formulae being applied?	✓	❑	**3**	Formulas are imbedded in the database system. Numbers are summed and added to the previous quarters' values to obtain cumulative values overall.
➢ Are the same formulae applied consistently from year to year, site to site, data source to data source (if data from multiple sources need to be aggregated)?	✓	❑	**3**	Formulas are imbedded in the database system.
➢ Have procedures for dealing with missing data been correctly applied?	❑	✓	**2**	See **non-conformity note 1:** No procedures for missing data.
➢ Are final numbers reported accurate? (E.g., does a number reported as a "total" actually add up?)	✓	❑	**3**	Data adds up.
Representativeness of Data				
➢ Is the sample from which the data are drawn representative of the population served by the activity?	✓	❑	**3**	Not Applicable: The data is not a sample but is representative of the population to the extent that it represents the all reported HIV activity mentoring delivered in the quarter – i.e. 100% sample.
➢ Did all units of the population have an equal chance of being selected for the	✓	❑	**3**	See above.

sample?				
➢ Is the sampling frame (i.e., the list of units in the target population) up to date? Comprehensive? Mutually exclusive (for geographic frames)	✓	❑	**3**	See above.
➢ Is the sample of adequate size?	✓	❑	**3**	See above.
➢ Are the data complete? (i.e., have all data points been recorded?)	❑	✓	**2**	See **non-conformity note 1:** No procedures for missing data.

Notes on Strengths and/or Vulnerabilities:

Vulnerability 1: The primary data is generated by project staff whose own performance targets include data collected for this indicator. Thus, potential bias is upwards. However, this is greatly minimized by the requirement of countersignatures by the trainees to substantiate the information recorded on the form.

Strength 1: SEMED has strong disciplinary code with regards to the inappropriate manipulation of data, Disciplinary measures are enforced strictly.

Non-conformity 1: There are no procedures or mechanisms of any kind to ensure the quality of the data. There is potential for transcription error and missing data, as there are no cross checks built into the system. Moreover, there are no procedures for reviewing any aspects of the data (such as error, bias, or falsification). SEMED does not consider this data auditable, so no data quality procedures or mechanisms are built into the system, other than a standardized collection methodology. Because USAID also does not consider this auditable, classification of this non-conformity is **MINOR**.

Recommendations for improvement:

R1. Occasional random checks of clients' views on HIV/AIDS activities to verify the data submitted will address vulnerability 1.

R2. Written Procedures for data collection, capturing, cleaning, and analysis for this specific indicator will address non-conformity 1.

2. RELIABILITY—Are data collection processes stable and consistent over time? (Ave. Score = ??)				
Consistency	**Yes**	**No**	**SCORE**	**Comments**
➢ Is a consistent data collection process used from year to year, location to location, data source to data source (if data come from different sources)?	❑	❑	**??**	To be verified with SEMED. Data hasn't been collected a consistent manner since the beginning of the project. Since January 2003, efforts have been made to collect the data in a more in a more consistent manner.
➢ Is the same instrument used to collect data from year to	❑	❑	**??**	To be verified with SEMED The same instrument has not been used since the

year, location to location? If data come from different sources are the instruments similar enough that the reliability of the data are not compromised?				beginning of the project. Since January 2003, efforts have been made to collect the data in a more in a more consistent manner.
➢ Is the same sampling method used from year to year, location to location, data source to data source?	❑	❑	**N/A**	Not Applicable. No sampling
Internal quality control				
➢ Are there procedures to ensure that data are free of significant error and that bias is not introduced?	❑	✓	**2**	See **non-conformity note 1:** No procedures for reviewing any aspect of data quality.
➢ Are there procedures in place for periodic review of data collection, maintenance, and processing?	❑	✓	**2**	See **non-conformity note 1:** No procedures for reviewing any aspect of data quality.
➢ Do these procedures provide for periodic sampling and quality assessment of data?	❑	❑	**N/A**	Not Applicable – no procedures exist.
Transparency				
➢ Are data collection, cleaning, analysis, reporting, and quality assessment procedures documented in writing?	❑	✓	**2**	See **non-conformity note 2:** there are no written procedures for data collection, maintenance, and processing.
➢ Are data problems at each level reported to the next level?	❑	❑	**3**	Not Applicable – no hierarchy of reporting. Data quality problems are not a problem once all the checks have been performed.
➢ Are data quality problems clearly described in final reports?	❑	❑	**3**	Not Applicable – no hierarchy of reporting. Data quality problems are not a problem once all the checks have been performed.

Notes on Strengths and/or Vulnerabilities:

Non-conformity 2: There are no documented procedures for data collection, capturing, cleaning, analysis, reported, or quality assessment or the review thereof. Classification of this non-conformity is **MINOR.**

Recommendations for improvement:

See recommendation 2 on page 4.

R3. Documentation of all data handling procedures will address vulnerability 2.

3. TIMELINESS—Are data collected frequently and are they current? (Ave. Score = ??)				
	Yes	**No**	**Score**	**Comments**
Frequency				
➢ Are data available on a frequent enough basis to inform program management decisions?	✓	❑	**3**	Data collected as part of the project's normal operations and submitted to the database on an on-going basis.
➢ Is a regularized schedule of data collection in place to meet program management needs?	✓	❑	**3**	See above.
Currency				
➢ Are the data reported in a given timeframe the most current practically available?	✓	❑	**3**	Data is reported for a fixed time frame (past month) with no more than a ?? week time lag. Data current in terms of application of definition by SEMED
➢ Are data from within the policy period of interest? (i.e., are data from a point in time after intervention has begun?)	✓	❑	**3**	Data current in terms of application of definition by SEMED.
➢ Are the data reported as soon as possible after collection?	✓	❑	**3**	Data are processed and reported to USAID within (??) weeks of the reporting period.
➢ Is the date of collection clearly identified in the report?	✓	❑	**3**	The data request form clearly indicates to the client the period for which the data should be reported. Quarterly reports to USAID contain the employment data for that quarter and the dates for the quarter are clearly specified.
Recommendations for improvement: None Noted.				

4. PRECISION—Do the data have an acceptable margin of error? (Ave. Score = ??)				
	Yes	**No**	**Score**	**Comments**
➢ Is the margin of error less than the expected change being measured?	❑	✓	**2**	See **non-conformity note 3:** The margin of error is not established and thus inherent error is not measured. The margin of error could not be established, as the total number of excluded data due to missing forms is not known.
➢ Is the margin of error is acceptable given the likely management decisions to be affected? (Consider the	❑	✓	**2**	As above.

consequences of the program or policy decisions based on the data)				
➢ Have targets been set for the acceptable margin of error?	❑	✓	**2**	As above.
➢ Has the margin of error been reported along with the data?	❑	✓	**2**	As above.
➢ Would an increase in the degree of accuracy be more costly than the increased value of the information?	✓	❑	**3**	Verifying the number of condoms distributed would require obtaining confirmation or documentation from the public health clinics where the condom supplies are obtained.

Notes on Strengths and/or Vulnerabilities:

Non-conformity 3: The margin of error is not defined nor established and thus inherent error is not measured. The specific acceptable level of error has not been set. This limits the identification of potential negative trends in terms of data quality and the timely correction and prevention thereof. Inherent error in the data will be related to the ratio of reported number of persons reached to actual numbers of persons reached with both interventions. Classification of this non-conformity is **MINOR.**

Recommendations for improvement:

R4. Calculation of the margin of error should include ???.

5. INTEGRITY—Are data are free of manipulation? (Ave. Score = ??)				
	Yes	**No**	**Score**	**Comments**
➢ Are mechanisms in place to reduce the possibility that data are manipulated for political or personal reasons?	❑	✓	**2**	See **non-conformity notes 1 and 2:** No mechanisms in place for ensuring any aspect of data quality.
➢ Is there objectivity and independence in key data collection, management, and assessment procedures?	❑	✓	**2**	See **non-conformity notes 1 and 2:** No mechanisms in place for ensuring any aspect of data quality.
➢ Has there been independent review?	❑	✓	**2**	See **non-conformity note 4:** No independent reviews to date. *Is this a non-conformity or vulnerability?*
➢ If data is from a secondary source, is SEMED management confident in the credibility of the data?	✓	❑	**2**	See **non-conformity notes 1 and 2:** By SEMED's own admission, the quality of the dat is poor, and only recently has the project focused on more accurate reporting by the field officers.

Notes on Strengths and/or Vulnerabilities:

Non-conformity 4: There has been no independent review of the data. Classification of this non-conformity

is **MINOR.**

Recommendations for improvement:

See Recommendations 1 and 2 on page 4, and Recommendation 3 on page 5.

For indicators for which no recent relevant data are available
If no recent relevant data are available for this indicator, why not?
Not Applicable
What concrete actions are now being undertaken to collect and report this data as soon as possible?
Not Applicable
On what date will data be reported?
Not Applicable.

FINCA – DQA Worksheet 1 of 3: Indicator – **Jobs Created**

Refer to this checklist when the SO team conducts both initial and periodic data quality assessments. The full list does not have to be completed—the SO team may wish to identify the most critical data quality issues for formal or informal assessment.

Strategic Objective	SO5: Increased market driven employment opportunities
Intermediate Result (if applicable)	
Performance indicator	Jobs Created
Data source(s)	Formula derived from loans issued (from *Loan Request* Form), and variables extrapolated from a once-off surveys (Snap survey of clients business activities)
Partner or Contractor who provided the data (if applicable)	FINCA
Year or period for which the data are being reported	July 2002 – present
Is this indicator reported in the R4 Report? *(circle one)*	❑✓ YES NO
Date(s) of assessment	April 2003
Location(s) of assessment	Durban, South Africa
Assessment team members	David Himelfarb, Mary Pat Selvaggio and Dr. Penelope Richards

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SO team leader approval: X_____Date_____

Mission director or delegate approval: X_____Date_____

Copies to: _____

Comments: _____

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1. VALIDITY—Do the data adequately represent performance? (Average Score = 2.37)				
Face Validity	**Yes**	**No**	**SCORE**	**Comments**
➢ Is there a solid, logical relation between the activity or program and what is being measured, or are there significant uncontrollable factors?	❑	✓	**1**	See **Non-conformity 1**: The measurement has a high level of dependence on secondary data whose validity is not established..
Measurement Error				
Sampling Error (only applies when the data source is a survey)				*N.B. Scores and comments on sampling error refer only to the data point variable in the formula – not the # of New Clients which is derived from the programme's primary data.*
➢ Were samples representative?	❑	✓	**2**	SNAP Survey: See **non-conformity note 2:** Because data point from SNAP survey based on convenience sampling, results are not generalisable to the entire FINCA population. .
➢ Were the questions in the survey/questionnaire clear, direct, easy to understand?	✓	❑	**3**	SNAP Survey: Items addressing employment are clear, direct, and easy to understand.
➢ If the instrument was self-reporting were adequate instructions provided?	❑	❑	**N/A**	SNAP Survey: Not Applicable -- Survey was not self-administered.
➢ Were response rates sufficiently large?	✓	❑	**3**	SNAP Survey: Response rate equals a minimum of 12% of active clients.
➢ Has non-response rate been followed up?	❑	✓	**N/A**	SNAP Survey: Not Applicable
Non Sampling Error				
➢ Is the data collection instrument well designed?	❑	✓	**3**	SNAP Survey: See **vulnerability 1:** The SNAP Survey instrument did not request respondent details and respondent's signature, so no confirmation of data is possible. # of New Clients: Not applicable. Data is derived from programme's primary data set.
➢ Were there incentives for respondents to give incomplete or untruthful information?	❑	✓	**1**	SNAP Survey: See **non-conformity note 3:** field staff were given incentives to submit SNAP Survey forms. Not all field staff administered the same number of surveys, so results are biased toward the areas where more surveys were administered. Moreover, field officers were given financial remuneration for each survey completed # of New Clients: Not applicable. Data is derived from programme's primary data set.

1. VALIDITY—Do the data adequately represent performance? (Average Score = 2.37)				
	Yes	**No**	**SCORE**	**Comments**
➢ Are definitions for data to be collected operationally precise?	✓	❑	**3**	SNAP Survey: see **vulnerability note 2:** No definitions for employees, but questions for employment are self-explanatory. # of New Clients: definition of new clients is operationally sound and internally consistent.
➢ Are enumerators well trained? How were they trained? Were they insiders or outsiders? Was there any quality control in the selection process?	✓	❑	**3**	SNAP Survey: Enumerators were FINCA field staff who were trained by the survey manager. There was no selection process – all field officers were used to collect data. Training was reportedly a morning orientation, but no documentation exists to substantiate the training. # of New Clients: Not Applicable. Data is programme's primary data
➢ Were there efforts to reduce the potential for personal bias by enumerators?	❑	✓	**1**	SNAP Survey: See **non-conformity note 3:** Because data point from SNAP survey based on convenience sampling, results are not necessarily generalisable to the entire FINCA population. Not all field staff administered the same number of surveys, so results are biased toward the areas where more surveys were administered. Moreover, field officers were given financial remuneration for each survey completed. # of New Clients: Not Applicable. Data is programme's primary data
Transcription Error				
➢ What is the data transcription process? Is there potential for error?	✓	❑	**3**	SNAP Survey: See **vulnerability note 3:** Not possible to document the transcription process, but data was reportedly manually entered by the survey manager (who no longer works at FINCA). # of New Clients: Data is derived from field on *Loan Request* form which indicates if the request is from a new client or a repeat client. Determination of the status is made by the field officer, and this may have some potential for error if the client/group use a new loan officer.
➢ Are steps being taken to limit transcription error? (e.g., double keying of data for large surveys, electronic edit checking program to clean data, random checks of partner data entered by supervisors)	❑	✓	**3**	SNAP Survey:See **vulnerability note 3:** Unknown. See comment above. # of New Clients: Not audited.
➢ Have data errors been tracked to their original	❑	✓	**3**	SNAP Survey:See **vulnerability note 3** Unknown. Magnitude of transcription error not

1. VALIDITY—Do the data adequately represent performance? (Average Score = 2.37)				
	Yes	**No**	**SCORE**	**Comments**
source and mistakes corrected?				possible to measure because paper copies of the instruments are no longer at the FINCA offices. Only an electronic version of the raw data set exists. # of New Clients: Not audited.
If raw data need to be manipulated to produce the data required for the indicator:				
➢ Are the correct formulae being applied?	✓	❑	**1**	See **non-conformity note 1:** Calculation of job created has a high level of dependency on the SNAP survey. It is not possible to determine whether the formula is correct in terms of what it aims to calculate SNAP Survey: Formula for calculating data point is correct and was checked during audit. # of New Clients: Not Applicable. No formula.
➢ Are the same formulae applied consistently from year to year, site to site, data source to data source (if data from multiple sources need to be aggregated)?	✓	❑	**3**	There has been no change in the formula since FINCA began reporting in 2002.
➢ Have procedures for dealing with missing data been correctly applied?	❑	❑	**N/A**	Only in so far as the normal management of the SIEM database.. # of New Clients: Not audited.
➢ Are final numbers reported accurate? (E.g., does a number reported as a "total" actually add up?)	✓	❑	**3**	Yes in so far as the IT-based calculation will produce a consistent and reliable result. SNAP Survey: Data adds up. There is little room for mathematical errors. # of New Clients: Total calculated from field in SIEM.
Representativeness of Data				
➢ Is the sample from which the data are drawn representative of the population served by the activity?	❑	✓	**2**	SNAP Survey: See **non-conformity note 2:** Because data point from SNAP survey based on convenience sampling, results are not necessarily generalisable to the entire FINCA population. # of New Clients: Not Applicable. No sample
➢ Did all units of the population have an equal chance of being selected for the sample?	❑	✓	**2**	SNAP Survey: See **non-conformity note 2:** No, not all clients had an equal chance of being selected.. # of New Clients: Not Applicable. No sample

1. VALIDITY—Do the data adequately represent performance? (Average Score = 2.37)				
	Yes	**No**	**SCORE**	**Comments**
➢ Is the sampling frame (i.e., the list of units in the target population) up to date? Comprehensive? Mutually exclusive (for geographic frames)	❑	❑	**N/A**	SNAP Survey: Not Applicable: No representative sampling frame. # of New Clients: Not Applicable. No sample
➢ Is the sample of adequate size?	✓	❑	**3**	SNAP Survey: Response rate equals a minimum of 12% of active clients at the time of the survey. # of New Clients: Not Applicable. No sample
➢ Are the data complete? (i.e., have all data points been recorded?)	❑	✓	**2**	SNAP Survey: See **non-conformity note 2:** Unknown as to whether all data was entered and recorded. # of New Clients: no reason for the data to be incomplete.

Notes on Strengths and/or Vulnerabilities:

Non-conformity 1: The formula used depends on two separate data sets: 1) number of new clients from the program's primary data, and 2) # of new employees per new client which is a fixed variable derived from the results of a SNAP survey conducted in 2002. The use of the fixed variable from the SNAP survey offers vulnerability in that the validity and reliability of the SNAP survey methodology (including sampling frame, sampling approach, and instrument) is not established. Moreover, relevance of SNAP survey results over the long-term, given changing economic conditions, is not established. Low validity results in the classification of this non-conformity as **MAJOR.**

Non-conformity 2: Because the data point from the SNAP survey is based on a convenience sampling, results are not generalisable to the entire FINCA population. Classification of this non-conformity as **MINOR.**

Non-conformity 3: Field staff were given financial remuneration for each survey instrument completed. This combined with the fact that instrument omitted items related to respondent details, or respondent signature, calls into question the reliability and objectivity of the results. Classification of this non-conformity is **MAJOR**

Vulnerability 1: The SNAP Survey instrument did not request respondent details and respondent's signature, so no confirmation of data is possible.

Vulnerability 2: No definitions for employees, but although are self-explanatory, the risk for subjectivity still exists.

Vulnerability 3: There is no audit trail of the transcription process. Accordingly, quality of data capturing cannot be established.

1. VALIDITY—Do the data adequately represent performance? (Average Score = 2.37)				
	Yes	**No**	**SCORE**	**Comments**
Recommendations for improvement:				
R1. Conduct the SNAP survey on an annual basis with significant modifications in the sampling framework, and instrument design.				
R2. Establish an audit trail for the SNAP survey data collection, capturing, and handling processes.				
R3. Ensure that any data collection process is free from the subjectivity that results from undue financial gain.				

2. RELIABILITY—Are data collection processes stable and consistent over time? (Average Score = 2.29)				
Consistency	**Yes**	**No**	**SCORE**	**Comments**
➢ Is a consistent data collection process used from year to year, location to location, data source to data source (if data come from different sources)?	✓	❑	**3**	SNAP Survey: Not relevant. Survey conducted only once. # of new Clients: No changes have been made in the manner in which the data has been collected since July 2002 .
➢ Is the same instrument used to collect data from year to year, location to location? If data come from different sources are the instruments similar enough that the reliability of the data are not compromised?	✓	❑	**3**	SNAP Survey: Not relevant. Survey conducted only once. # of new Clients: No changes have been made in the manner in which the data has been collected since July 2002 .
➢ Is the same sampling method used from year to year, location to location, data source to data source?	❑	❑	**N/A**	SNAP Survey: Not relevant. Survey conducted only once. # of new Clients: Not relevant. No sampling
Internal quality control				
➢ Are there procedures to ensure that data are free of significant error and that bias is not introduced?	✓	❑	**1**	SNAP Survey: See **non-conformity 1:** Procedures applied for the collection of data could not be determined. # of New Clients: There is limited scope for bias or significant error. Standard procedures applied for the collection of all primary data are under the control of FINCA.
➢ Are there procedures in place for periodic review of data collection, maintenance, and processing?	✓	❑	**3**	SNAP Survey: Not Applicable. Data was collected only once. # of New Clients: Each batch of loan requests is sampled for accuracy in data capturing once the

2. RELIABILITY—Are data collection processes stable and consistent over time? (Average Score = 2.29)				
	Yes	**No**	**SCORE**	**Comments**
				data has been entered into the database. There are no specific procedures for data cleaning.
➢ Do these procedures provide for periodic sampling and quality assessment of data?	✓	❑	**3**	SNAP Survey: Not Applicable. Data was collected only once. # of New Clients: see comment above on batch sampling..
Transparency				
➢ Are data collection, cleaning, analysis, reporting, and quality assessment procedures documented in writing?	❑	✓	**1**	SNAP Survey: See **non-conformity note 1** and **vulnerability note 3:** there were no written procedures for data collection, maintenance, and processing # of New Clients: Data collection processes are noted in Flow charts for programme operations. See **non-conformity note 4**: There are no written procedures for data cleaning or quality assessment. ..
➢ Are data problems at each level reported to the next level?	❑	❑	**N/A**	Not Applicable – no hierarchy of reporting. Data quality problems are not a problem once all the checks have been performed.
➢ Are data quality problems clearly described in final reports?	❑	✓	**2**	No data quality problems indicated in USAID reports, but per **non-conformity note 4**, these may not have been previously identified.

Notes on Strengths and/or Vulnerabilities:

Non-conformity 4 Bar the flow charts, there are no other documented (written) procedures for data collection, capturing, cleaning, analysis, reported, or quality assessment or the review thereof. Classification of this non-conformity is **MINOR.**

Recommendations for improvement:

R4. The documentation of the data handling procedures is required.

3. TIMELINESS—Are data collected frequently and are they current? (Average Score = 3.0)				
	Yes	**No**	**Score**	**Comments**
Frequency				
➢ Are data available on a frequent enough basis to inform program management decisions?	✓	❑	**3**	Jobs created reports are produced monthly as a matter of normal operations, but data can be made available more frequently.

3. TIMELINESS—Are data collected frequently and are they current? (Average Score = 3.0)				
	Yes	**No**	**Score**	**Comments**
➢ Is a regularized schedule of data collection in place to meet program management needs?	✓	❑	**3**	See above
Currency				
➢ Are the data reported in a given timeframe the most current practically available?	✓	❑	**3**	Job created data is collected and reported for a fixed time frame (past month). Data current in terms of application of definition by FINCA
➢ Are data from within the policy period of interest? (i.e., are data from a point in time after intervention has begun?)	✓	❑	**3**	Data current in terms of application of definition by FINCA.
➢ Are the data reported as soon as possible after collection?	✓	❑	**3**	Yes, see above.
➢ Is the date of collection clearly identified in the report?	✓	❑	**3**	Quarterly reports to USAID contain the employment data for that quarter and the dates for the quarter are clearly specified.
Recommendations for improvement: None Noted.				

4. PRECISION—Do the data have an acceptable margin of error? (Average Score = 2.0)				
	Yes	**No**	**Score**	**Comments**
➢ Is the margin of error less than the expected change being measured?	❑	❑	**2**	See note **non-conformity 5**: the margin of error is not established as the total number of excluded client records due to missing values is not known. Thus inherent error is not measured.
➢ Is the margin of error is acceptable given the likely management decisions to be affected? (Consider the consequences of the program or policy decisions based on the data)	❑	❑	**N/A**	As above.
➢ Have targets been set for the acceptable margin of error?	❑	❑	**2**	As above.
➢ Has the margin of error been reported along with the data?	❑	❑	**2**	As above.
➢ Would an increase in the degree of accuracy be more	✓	❑	**2**	Due to the nature of FINCA's operations, evidence suggests that the cost of the increased

4. PRECISION—Do the data have an acceptable margin of error? (Average Score = 2.0)				
	Yes	**No**	**Score**	**Comments**
costly than the increased value of the information?				accuracy would outweigh the benefit.

Notes on Strengths and/or Vulnerabilities:

Non-conformity 5: The margin of error is not defined nor established and thus inherent error is not measured. Inherent error in the data will be related to the ratio of records excluded due to missing data. Classification of this non-conformity is **MINOR.**

Recommendations for improvement:

R5. Calculation of the margin of error for all normal operations is essential in order to identify activities which become non-conformant and introduce vulnerability.

5. INTEGRITY—Are data are free of manipulation? (Average Score = 1.6)				
	Yes	**No**	**Score**	**Comments**
➢ Are mechanisms in place to reduce the possibility that data are manipulated for political or personal reasons?	✓	❑	**1**	Yes in so far as FINCA is able to control the source of primary data, however for SNAP survey **see nonconformity notes 1 and 3.**. .
➢ Is there objectivity and independence in key data collection, management, and assessment procedures?	✓	❑	**1**	Yes in so far as FINCA is able to control the source of primary data, however for SNAP survey **see nonconformity notes 1 and 3.**. .
➢ Has there been independent review?	✓	❑	**3**	There are annual public accountant audits of the programme, including for he primary data used in this indicator.
➢ If data is from a secondary source, is FINCA management confident in the credibility of the data?	✓	❑	**N/A**	Data is from a primary source.

Recommendations for improvement:

None noted

For indicators for which no recent relevant data are available
If no recent relevant data are available for this indicator, why not?
Not Applicable
What concrete actions are now being undertaken to collect and report this data as soon as possible?
Not Applicable
On what date will data be reported?

Not Applicable.

Note: The current set of indicators, and the methods for calculating them, are currently "enshrined" in the signed agreement between USAID and FINCA. Therefore, if USAID wants to make changes, then it will be necessary to make an amendment to the cooperative agreement. To clarify the issue, USAID should spell out, in an official letter to each partner, exactly what they are being asked to do.

FINCA– DQA Worksheet 2 of 3: Indicator – **Value of Finance Accessed**

Refer to this checklist when the SO team conducts both initial and periodic data quality assessments. The full list does not have to be completed—the SO team may wish to identify the most critical data quality issues for formal or informal assessment.

Strategic Objective	SO5: Increased market driven employment opportunities
Intermediate Result (if applicable)	More rapid growth of existing SMME's
Performance indicator	Value of Financed Accessed
Data source(s)	*Loan Request* Form
Partner or Contractor who provided the data (if applicable)	FINCA a
Year or period for which the data are being reported	July 2002 – present
Is this indicator reported in the R4 Report? *(circle one)*	❑✓ YES NO
Date(s) of assessment	April 2003
Location(s) of assessment	Durban, South Africa
Assessment team members	David Himelfarb, Mary Pat Selvaggio and Dr. Penelope Richards

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SO team leader approval: X_____Date_____

Mission director or delegate approval: X_____Date_____

Copies to: _____

Comments: _____

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1. VALIDITY—Do the data adequately represent performance? (Average Score = 3.0)				
Face Validity	**Yes**	**No**	**SCORE**	**Comments**
➢ Is there a solid, logical relation between the activity or program and what is being measured, or are there significant uncontrollable factors?	✓	❑	**3**	Data is primary data emanating from the project's normal operations.
Measurement Error				
Sampling Error (only applies when the data source is a survey)				
➢ Were samples representative?	❑	❑	**N/A**	Not Applicable – 100 % reporting.
➢ Were the questions in the survey/questionnaire clear, direct, easy to understand?	❑	❑	**N/A**	Not Applicable
➢ If the instrument was self-reporting were adequate instructions provided?	❑	❑	**N/A**	Not Applicable
➢ Were response rates sufficiently large?	❑	❑	**N/A**	Not Applicable
➢ Has non-response rate been followed up?	❑	❑	**N/A**	Not Applicable
Non Sampling Error				
➢ Is the data collection instrument well designed?	✓	❑	**3**	Data derived from a documentation of actual loan requests.
➢ Were there incentives for respondents to give incomplete or untruthful information?	❑	✓	**3**	No, the data is based on original financing documentation.
➢ Are definitions for data to be collected operationally precise?	✓	❑	**3**	The value of the loan is derived directly from the legal documents conferring the financing.
➢ Are enumerators well trained? How were they trained? Were they insiders or outsiders? Was there any quality control in the selection process?	✓	❑	**3**	Quality control is based in the normal loan application process.
➢ Were there efforts to reduce the potential for personal bias by enumerators?	✓	❑	**3**	There is no potential for personal bias in the normal loan application process.
Transcription Error				

➢ What is the data transcription process? Is there potential for error?	✓	❑	**3**	Double data extraction from the *Loan Request* form into the project's database (SIEM) as well s the accounting database for issuance of checks (Pay ACCESS) are then manually reconciled.
➢ Are steps being taken to limit transcription error? (e.g., double keying of data for large surveys, electronic edit checking program to clean data, random checks of FINCA data entered by supervisors)	✓	❑	**3**	Per above, reconciliation limits transcription errors.
➢ Have data errors been tracked to their original source and mistakes corrected?	✓	❑	**3**	Per above, reconciliation limit transcription errors.
If raw data need to be manipulated to produce the data required for the indicator:				
➢ Are the correct formulae being applied?	✓	❑	**3**	Extrapolations made on 100% of the value from the *Loan Request* form. No formulas other than summing up individual records. See **vulnerability note 1:** no attribution is being made to USAID vs. other donors.
➢ Are the same formulae applied consistently from year to year, site to site, data source to data source (if data from multiple sources need to be aggregated)?	✓	❑	**3**	Formulas are imbedded in the database system. No change has been made in formulas since July 2002 when USAID support began.
➢ Have procedures for dealing with missing data been correctly applied?	✓	❑	**3**	Little scope for missing or incomplete data as (i) each loan request has a receipt issued against it, (ii) clients will query status of *Loan* Request, and (iii) the value of the loans are generated by PAY ACCsYS when checks are issued.
➢ Are final numbers reported accurate? (E.g., does a number reported as a "total" actually add up?)	✓	❑	**3**	Data adds up. There is little room for mathematical errors, particularly given reconciliation between double-entered data. Partners subject to annual public accountant audit.
Representativeness of Data				
➢ Is the sample from which the data are drawn representative of the population served by the activity?	✓	❑	**3**	100 % reporting. The data is not a sample but is representative of the population to the extent that it represents the majority of cases where SAIBL successfully facilitated a financial transaction.
➢ Did all units of the population have an equal chance of	✓	❑	**3**	100 % reporting. see above.

being selected for the sample?				
➢ Is the sampling frame (i.e., the list of units in the target population) up to date? Comprehensive? Mutually exclusive (for geographic frames)	✓	❑	**3**	100 % reporting. see above.
➢ Is the sample of adequate size?	✓	❑	**3**	100 % reporting. see above.
➢ Are the data complete? (i.e., have all data points been recorded?)	✓	❑	**3**	Little scope for missing or incomplete data as (i) each loan request has a receipt issued against it, (ii) clients will query status of *Loan* Request, and (iii) the value of the loans are generated by PAY ACCsYS when the checks are issued.

Notes on Strengths and/or Vulnerabilities:

Vulnerability 1: There is a possible Acceptability issue: no attribution is being made to USAID vs. other donors. 100% of the value is reported as attributable to USAID as well as other donors

Recommendations for improvement:

R1. Guidance must be sought from USAID as to whether it is acceptable to report 100% of value when there is more than one donor.

2. RELIABILITY—Are data collection processes stable and consistent over time? (Average Score = 3.0)				
Consistency	**Yes**	**No**	**SCORE**	**Comments**
➢ Is a consistent data collection process used from year to year, location to location, data source to data source (if data come from different sources)?	✓	❑	**3**	Data has been collected in the same manner since 2002 when USAID support began.
➢ Is the same instrument used to collect data from year to year, location to location? If data come from different sources are the instruments similar enough that the reliability of the data are not compromised?	✓	❑	**3**	The same instrument has been used since July 2000
➢ Is the same sampling method used from year to year, location to location, data source to data source?	❑	❑	**N/A**	Not Applicable. No sampling

Internal quality control				
➢ Are there procedures to ensure that data are free of significant error and that bias is not introduced?	✓	❑	**3**	Data based on primary data collected as part of normal operations. Double data and internal administrative controls entry limits error, bias. Moreover, signatures of all group members are checked against signature cards on file to ensure the integrity of the loan request.
➢ Are there procedures in place for periodic review of data collection, maintenance, and processing?	✓	❑	**3**	Each batch of loan requests is sampled for accuracy in data capturing once the data has been entered into the database. In addition, two major reconciliations are carried out each month: - Between SIEM's bank module an portfolio module - Between SIEM's bank module and FINCA's bank statements There are no specific procedures for data cleaning although PMP specialist reviews data on regular basis for accuracy. Partners subject to annual public accountant audit.
➢ Do these procedures provide for periodic sampling and quality assessment of data?	✓	❑	**2**	See **vulnerability note 2:** There is no internal audit trail to substantiate the cross checks noted above.
Transparency				
➢ Are data collection, cleaning, analysis, reporting, and quality assessment procedures documented in writing?	✓	❑	**3**	Data collection processes are noted in Flow charts for programme operations.
➢ Are data problems at each level reported to the next level?	❑	❑	**N/A**	Not Applicable – no hierarchy of reporting. Data quality problems are not a problem once all the checks have been performed.
➢ Are data quality problems clearly described in final reports?	❑	✓	**3**	No data quality problems indicated in USAID reports, but these may not have been previously identified.

Notes on Strengths and/or Vulnerabilities:

Vulnerability 2: The lack of a specific audit trail that demonstrates when and how spot checks are and were made leaves the FINCA open to risk should action be needed on the basis of such checks.

Recommendations for improvement:

R1. Documentation of the batch spot checking process is required.

3. TIMELINESS—Are data collected frequently and are they current? (Average Score = 3.0)				
	Yes	**No**	**Score**	**Comments**
Frequency				
➢ Are data available on a frequent enough basis to inform program management decisions?	✓	❑	**3**	Data reports are produced monthly as a matter of normal operations, but more data can be made available more frequently.
➢ Is a regularized schedule of data collection in place to meet program management needs?	✓	❑	**3**	See above
Currency				
➢ Are the data reported in a given timeframe the most current practically available?	✓	❑	**3**	Data is collected and reported for a fixed time frame (past month). Data current in terms of application of definition by FINCA
➢ Are data from within the policy period of interest? (i.e., are data from a point in time after intervention has begun?)	✓	❑	**3**	Yes. Data current in terms of application of definition by FINCA.
➢ Are the data reported as soon as possible after collection?	✓	❑	**3**	Data are processed and reported to USAID timeously.
➢ Is the date of collection clearly identified in the report?	✓	❑	**3**	The *Loan Request* form clearly indicates to the client the period for which the data should be reported. Quarterly reports to USAID contain the employment data for that quarter and the dates for the quarter are clearly specified.
Recommendations for improvement: None Noted.				

4. PRECISION—Do the data have an acceptable margin of error? (Average Score = ??)				
	Yes	**No**	**Score**	**Comments**
➢ Is the margin of error less than the expected change being measured?	✓	❑	**3**	Last financial audit drew no qualifications in terms of disbursement or numbers of loans. Generally Accepted Accounting Practice confirmed. Data gathered with telephonic interview with Country Director on 23 April 03..
➢ Is the margin of error is acceptable given the likely management decisions to be affected? (Consider the consequences of the program	✓	❑	**3**	As above.

or policy decisions based on the data)				
➢ Have targets been set for the acceptable margin of error?	✓	❑	**3**	As above.
➢ Has the margin of error been reported along with the data?	✓	❑	**3**	As above.
➢ Would an increase in the degree of accuracy be more costly than the increased value of the information?	❑	❑	**N/A**	Not Applicable.

Recommendations for improvement:

None Noted.

5. INTEGRITY—Are data are free of manipulation? (Average Score = 3.0)

	Yes	No	Score	Comments
➢ Are mechanisms in place to reduce the possibility that data are manipulated for political or personal reasons?	✓	❑	**3**	Signatures of group members are required before the loan is approved. Signatures are checked against signature cards on file to ensure the integrity of the loan request.
➢ Is there objectivity and independence in key data collection, management, and assessment procedures?	✓	❑	**3**	See above. Data management and assessment procedures involve double data entry, cross checks and reconciliation, which confer independence and objectivity.
➢ Has there been independent review?	✓	❑	**3**	There are annual public accountant audits of the programme, including the data for this indicator.
➢ If data is from a secondary source, is FINCA management confident in the credibility of the data?	❑	❑	**N/A**	Data is from a primary source.

Recommendations for improvement:

None noted

For indicators for which no recent relevant data are available
If no recent relevant data are available for this indicator, why not?
Not Applicable
What concrete actions are now being undertaken to collect and report this data as soon as possible?
Not Applicable
On what date will data be reported?
Not Applicable.

Note: The current set of indicators, and the methods for calculating them, are currently "enshrined" in the signed agreement between USAID and FINCA. Therefore, if USAID wants to make changes, then it will be necessary to make an amendment to the cooperative agreement. To clarify the issue, USAID should spell out, in an official letter to each partner, exactly what they are being asked to do.

FINCA – DQA Worksheet 3 of 3: Indicator – **Value of Business Transactions**

Refer to this checklist when the SO team conducts both initial and periodic data quality assessments. The full list does not have to be completed—the SO team may wish to identify the most critical data quality issues for formal or informal assessment.

Strategic Objective	SO5: Increased market driven employment opportunities
Intermediate Result (if applicable)	More Rapid Growth of Existing SMMEs
Performance indicator	Value of Business Transactions
Data source(s)	Formula derived from value of loans issued (from *Loan Request* Form), variables extrapolated from a once-off survey (Snap survey of clients business activities), and data extracted from random client interviews.
Partner or Contractor who provided the data (if applicable)	FINCA
Year or period for which the data are being reported	July 2002 – present
Is this indicator reported in the R4 Report? *(circle one)*	❑✓ YES NO
Date(s) of assessment	April 2003
Location(s) of assessment	Durban, South Africa
Assessment team members	David Himelfarb, Mary Pat Selvaggio and Dr. Penelope Richards

For Office Use Only

SO team leader approval: X_____Date_____

Mission director or delegate approval: X_____Date_____

Copies to: _____

Comments: _____

_____

1. VALIDITY—Do the data adequately represent performance? (Average Score = 1.8)				
Face Validity	**Yes**	**No**	**SCORE**	**Comments**
➢ Is there a solid, logical relation between the activity or program and what is being measured, or are there significant uncontrollable factors?	❑	✓	**1**	See **Non-conformity 1**: The measurement has a high level of dependence on secondary data whose validity is not established..
Measurement Error				
Sampling Error (only applies when the data source is a survey)				*N.B. Scores and comments on sampling error refer only to the data point variable in the formula – not the Value of Loans Disbursed which is derived from the programme's primary data.*
➢ Were samples representative?	❑	✓	**2**	Random Interviews and SNAP Survey: See **non-conformity note 2:** Because data point from surveys based on convenience sampling, results are not generalisable to the entire FINCA population. .
➢ Were the questions in the survey/questionnaire clear, direct, easy to understand?	✓	❑	**1**	Random Interviews: See **non-conformity note 3:** No instrument used. SNAP Survey: Items addressing employment are clear, direct, and easy to understand.
➢ If the instrument was self-reporting were adequate instructions provided?	❑	❑	**N/A**	Random Interviews and SNAP Survey: Not Applicable -- Surveys were not self-administered.
➢ Were response rates sufficiently large?	✓	❑	**3**	Random Interviews: 100% of people interviewed responded. SNAP Survey: Response rate equals a minimum of 12% of active clients.
➢ Has non-response rate been followed up?	❑	✓	**N/A**	Random Interviews and SNAP Survey: Not Applicable
Non Sampling Error				
➢ Is the data collection instrument well designed?	❑	✓	**1**	Random Interviews: See **non-conformity note 3:** No auditable instrument. Data collected through conversations with clients on margins and turnover. SNAP Survey: See **vulnerability 1:** The Random Interviews: SNAP Survey instrument did not request respondent details and respondent's signature, so no confirmation of data is possible. Value of Loans Disbursed: Data derived from a documentation of actual loan requests

1. VALIDITY—Do the data adequately represent performance? (Average Score = 1.8)				
	Yes	**No**	**SCORE**	**Comments**
➢ Were there incentives for respondents to give incomplete or untruthful information?	❑	✓	**1**	Random Interviews: No incentives given to respondents. SNAP Survey: See **Non-conformity note 4:** field staff were given incentives to submit Random Interviews: SNAP Survey forms. Not all field staff administered the same number of surveys, so results are biased toward the areas where more surveys were administered. Moreover, field officers were given financial remuneration for each survey completed Value of Loans Disbursed: Not Applicable – see above
➢ Are definitions for data to be collected operationally precise?	✓	❑	**1**	Random Interviews: See **non-conformity note 3:** No instrument used. SNAP Survey: see **vulnerability note 2:** No definitions for employees, but questions for employment are self-explanatory. Value of Loans Disbursed: The value of the loan is derived directly from the legal documents conferring the financing.
➢ Are enumerators well trained? How were they trained? Were they insiders or outsiders? Was there any quality control in the selection process?	✓	❑	**3**	Random Interviews: No additional enumerators.. Data collected by the Country Director. SNAP Survey: Enumerators were FINCA field staff who were trained by the survey manager. There was no selection process – all field officers were used to collect data. Training was reportedly a morning orientation, but no documentation exists to substantiate the training. Value of Loans Disbursed: Not Applicable. Data is programme's primary data
➢ Were there efforts to reduce the potential for personal bias by enumerators?	❑	✓	**1**	Random Interviews: Unknown level of personal bias that may have been introduced. SNAP Survey: See **Non-conformity note 4:** Because data point from Random Interviews: SNAP Survey based on convenience sampling, results are not necessarily generalisable to the entire FINCA population. Not all field staff administered the same number of surveys, so results are biased toward the areas where more surveys were administered. Moreover, field officers were given financial remuneration for each survey completed. Value of Loans Disbursed: Not Applicable. Data is programme's primary data
Transcription Error				

1. VALIDITY—Do the data adequately represent performance? (Average Score = 1.8)				
	Yes	**No**	**SCORE**	**Comments**
➢ What is the data transcription process? Is there potential for error?	✓	❑	**3**	Random Interviews: See **vulnerability note 3:** Notes from the conversations are typed into an excel spreadsheet. There are no cross checks, but given the small sample size, potential error is small. SNAP Survey: See **vulnerability note 3:** Not possible to document the transcription process, but data was reportedly manually entered by the survey manager (who no longer works at FINCA). Value of Loans Disbursed: Double data extraction from the *Loan Request* form into the project's database (SIEM) as well s the accounting database for issuance of checks (Pay ACCESS) are then manually reconciled
➢ Are steps being taken to limit transcription error? (e.g., double keying of data for large surveys, electronic edit checking program to clean data, random checks of partner data entered by supervisors)	❑	✓	**3**	Random Interviews and SNAP Survey: See **vulnerability note 3:** Unknown. See comment above. Value of Loans Disbursed: Per above, reconciliation limits transcription errors
➢ Have data errors been tracked to their original source and mistakes corrected?	❑	✓	**3**	Random Interviews and SNAP Survey:See **vulnerability note 3** Unknown. Magnitude of transcription error not possible to measure because paper copies of the instruments are no longer at the FINCA offices. Only an electronic version of the raw data set exists. Value of Loans Disbursed: Per above, reconciliation limits transcription errors
If raw data need to be manipulated to produce the data required for the indicator:				
➢ Are the correct formulae being applied?	✓	❑	**1**	See **non-conformity note 1:** Calculation of value of business transactions has a high level of dependency on the SNAP survey and random interviews. It is not possible to determine whether the formula is correct in terms of what it aims to calculate Random Interviews: and SNAP Survey: Formula for calculating data point is correct and was checked during audit. Value of Loans Disbursed: Not Applicable. No formula. Data is an extracted sum for the reporting period
➢ Are the same formulae	✓	❑	**3**	There has been no change in the formula since

1. VALIDITY—Do the data adequately represent performance? (Average Score = 1.8)				
	Yes	**No**	**SCORE**	**Comments**
applied consistently from year to year, site to site, data source to data source (if data from multiple sources need to be aggregated)?				FINCA began reporting in 2002.
➢ Have procedures for dealing with missing data been correctly applied?	❑	❑	**N/A**	Only in so far as the normal management of the SIEM database. Value of Loans Disbursed: Not audited.
➢ Are final numbers reported accurate? (E.g., does a number reported as a "total" actually add up?)	✓	❑	**3**	Yes in so far as the IT-based calculation will produce a consistent and reliable result. Random Interviews: and SNAP Survey: Data adds up. There is little room for mathematical errors. Value of Loans Disbursed: Total calculated from field in SIEM.
Representativeness of Data				
➢ Is the sample from which the data are drawn representative of the population served by the activity?	❑	✓	**1**	Random Interviews: See **non-conformity notes 1 and 2:** Data is based on an extremely small convenience sample from the Durban office (N=13) and are not generalisable to the entire FINCA population. SNAP Survey: See **non-conformity note 2:** Because data point from SNAP Survey based on convenience sampling, results are not necessarily generalisable to the entire FINCA population. Value of Loans Disbursed: Not Applicable. No sample
➢ Did all units of the population have an equal chance of being selected for the sample?	❑	✓	**1**	Random Interviews and SNAP Survey: See **non-conformity notes 1 and 2:** No, not all clients had an equal chance of being selected. Value of Loans Disbursed: Not Applicable. No sample
➢ Is the sampling frame (i.e., the list of units in the target population) up to date? Comprehensive? Mutually exclusive (for geographic frames)	❑	❑	**N/A**	Random Interviews and SNAP Survey: Not Applicable: No representative sampling frame. Value of Loans Disbursed: Not Applicable. No sample
➢ Is the sample of adequate size?	✓	❑	**1**	Random Interviews: Sample size extremely small –only 13 respondents from the Durban office in Feb 2003. SNAP Survey: Response rate equals a minimum of 12% of active clients at the time of

1. VALIDITY—Do the data adequately represent performance? (Average Score = 1.8)				
	Yes	**No**	**SCORE**	**Comments**
				the survey. Value of Loans Disbursed: Not Applicable. No sample
➢ Are the data complete? (i.e., have all data points been recorded?)	❑	✓	**2**	Random Interviews and SNAP Survey: See **non-conformity note 2:** Unknown as to whether all data was entered and recorded. Value of Loans Disbursed: no reason for the data to be incomplete.

Notes on Strengths and/or Vulnerabilities:

Non-conformity 1: The formula used depends on three separate data sets: 1) number of new clients from the program's primary data, 2) # of new employees per new client which is a fixed variable derived from the results of a SNAP survey conducted in 2002, and 3) margin and turnover rates for various business activities (derived from an extremely small sample of random interviews held each February in the Durban FINCA office). The use of the fixed variable from the two surveys offers vulnerability in that the validity and reliability of the surveys' methodologies (including sampling frame, sampling approach, and instrument) are not established. Moreover, relevance of SNAP survey results over the long-term, given changing economic conditions, is not established. Low validity results in the classification of this non-conformity as **MAJOR.**

Non-conformity 2: Because the data point from the surveys are based on convenience sampling, results are not generalisable to the entire FINCA population. Classification of this non-conformity as **MINOR.**

Non-conformity 3: Lack of an instrument for random interviews results in no demonstrable validity, reliability, consistency or integrity of data. Classification of this non-conformity as **MAJOR.**

Non-conformity 4: Field staff were given financial remuneration for each survey instrument completed. This combined with the fact that instrument omitted items related to respondent details, or respondent signature, calls into question the reliability and objectivity of the results. Classification of this non-conformity is **MAJOR**

Vulnerability 1: The SNAP Survey instrument did not request respondent details and respondent's signature, so no confirmation of data is possible.

Vulnerability 2: No definitions for employees, but although are self-explanatory, the risk for subjectivity still exists.

Vulnerability 3: There is no audit trail of the transcription process. Accordingly, quality of data capturing cannot be established.

Recommendations for improvement:

R1. Conduct the surveys on an annual basis with significant modifications in the sampling framework, and

1. VALIDITY—Do the data adequately represent performance? (Average Score = 1.8)				
	Yes	**No**	**SCORE**	**Comments**
instrument design. R2. Establish an audit trail for the surveys' data collection, capturing, and handling processes. R3. Ensure that any data collection process is free from the subjectivity that results from undue financial gain.				

2. RELIABILITY—Are data collection processes stable and consistent over time? (Average Score = 2.0)				
Consistency	**Yes**	**No**	**SCORE**	**Comments**
➢ Is a consistent data collection process used from year to year, location to location, data source to data source (if data come from different sources)?	✓	❑	**3**	Random Interviews: Data collected by the same person at the same time of year in the same manner. SNAP Survey: Not relevant. Survey conducted only once. Value of Loans Disbursed: No changes have been made in the manner in which the data has been collected since July 2002.
➢ Is the same instrument used to collect data from year to year, location to location? If data come from different sources are the instruments similar enough that the reliability of the data are not compromised?	✓	❑	**1**	Random Interviews: see **non-conformity note 3:** No instrument SNAP Survey: Not relevant. Survey conducted only once. Value of Loans Disbursed: No changes have been made in the manner in which the data has been collected since July 2002 .
➢ Is the same sampling method used from year to year, location to location, data source to data source?	❑	❑	**N/A**	Random Interviews: Same sampling method reportedly used in both years, but no audit trail. SNAP Survey: Not relevant. Survey conducted only once. Value of Loans Disbursed: Not relevant. No sampling
Internal quality control				
➢ Are there procedures to ensure that data are free of significant error and that bias is not introduced?	✓	❑	**1**	Random Interviews and SNAP Survey: See **non-conformity 3 and 4:** Procedures applied for the collection of data could not be determined. Value of Loans Disbursed: There is limited scope for bias or significant error. Standard procedures applied for the collection of all primary data are under the control of FINCA.

2. RELIABILITY—Are data collection processes stable and consistent over time? (Average Score = 2.0)				
	Yes	**No**	**SCORE**	**Comments**
➢ Are there procedures in place for periodic review of data collection, maintenance, and processing?	✓	❑	**3**	Random Interviews and SNAP Survey: Not Applicable. Data was collected only once. Value of Loans Disbursed: Each batch of loan requests is sampled for accuracy in data capturing once the data has been entered into the database. There are no specific procedures for data cleaning.
➢ Do these procedures provide for periodic sampling and quality assessment of data?	✓	❑	**3**	Random Interviews and SNAP Survey: Not Applicable. Data was collected only once. Value of Loans Disbursed: see comment above on batch sampling.
Transparency				
➢ Are data collection, cleaning, analysis, reporting, and quality assessment procedures documented in writing?	❑	✓	**1**	Random Interviews and SNAP Survey: See **non-conformity note 1** and **vulnerability note 3:** there were no written procedures for data collection, maintenance, and processing Value of Loans Disbursed: Data collection processes are noted in Flow charts for programme operations. See **Non-conformity note 5**: There are no written procedures for data cleaning or quality assessment. ..
➢ Are data problems at each level reported to the next level?	❑	❑	**N/A**	Not Applicable – no hierarchy of reporting. Data quality problems are not a problem once all the checks have been performed.
➢ Are data quality problems clearly described in final reports?	❑	✓	**2**	No data quality problems indicated in USAID reports, but per **Non-conformity note 5**, these may not have been previously identified.

Notes on Strengths and/or Vulnerabilities:

Non-conformity 5 Bar the flow charts, there are no other documented (written) procedures for data collection, capturing, cleaning, analysis, reported, or quality assessment or the review thereof. Classification of this non-conformity is **MINOR.**

Recommendations for improvement:

R4. The documentation of the data handling procedures is required.

3. TIMELINESS—Are data collected frequently and are they current? (Average Score = 3.0)				
	Yes	**No**	**Score**	**Comments**
Frequency				

3. TIMELINESS—Are data collected frequently and are they current? (Average Score = 3.0)				
	Yes	**No**	**Score**	**Comments**
➢ Are data available on a frequent enough basis to inform program management decisions?	✓	❑	**3**	Business Transaction Value reports are produced for reporting purposes.
➢ Is a regularized schedule of data collection in place to meet program management needs?	✓	❑	**3**	See above
Currency				
➢ Are the data reported in a given timeframe the most current practically available?	✓	❑	**3**	Business Transaction Value data is collected and reported for a fixed time period. Data current in terms of application of definition by FINCA
➢ Are data from within the policy period of interest? (i.e., are data from a point in time after intervention has begun?)	✓	❑	**3**	Data current in terms of application of definition by FINCA.
➢ Are the data reported as soon as possible after collection?	✓	❑	**3**	Yes, see above.
➢ Is the date of collection clearly identified in the report?	✓	❑	**3**	Quarterly reports to USAID contain the employment data for that quarter and the dates for the quarter are clearly specified.
Recommendations for improvement: None Noted.				

4. PRECISION—Do the data have an acceptable margin of error? (Average Score = 2.0)				
	Yes	**No**	**Score**	**Comments**
➢ Is the margin of error less than the expected change being measured?	❑	❑	**2**	See note **Non-conformity 6**: the margin of error is not established as the total number of excluded client records due to missing values is not known. Thus inherent error is not measured.
➢ Is the margin of error is acceptable given the likely management decisions to be affected? (Consider the consequences of the program or policy decisions based on the data)	❑	❑	**N/A**	As above.
➢ Have targets been set for the acceptable margin of error?	❑	❑	**2**	As above.

4. PRECISION—Do the data have an acceptable margin of error? (Average Score = 2.0)				
	Yes	**No**	**Score**	**Comments**
➢ Has the margin of error been reported along with the data?	❑	❑	**2**	As above.
➢ Would an increase in the degree of accuracy be more costly than the increased value of the information?	✓	❑	**2**	Due to the nature of FINCA's operations, evidence suggests that the cost of the increased accuracy would outweigh the benefit.

Notes on Strengths and/or Vulnerabilities:

Non-conformity 6: The margin of error is not defined nor established and thus inherent error is not measured. Inherent error in the data will be related to the ratio of records excluded due to missing data. Classification of this non-conformity is **MINOR.**

Recommendations for improvement:

R5. Calculation of the margin of error for all normal operations is essential in order to identify activities, which become non-conformant and introduce vulnerability.

5. INTEGRITY—Are data are free of manipulation? (Average Score = 1.6)				
	Yes	**No**	**Score**	**Comments**
➢ Are mechanisms in place to reduce the possibility that data are manipulated for political or personal reasons?	✓	❑	**1**	Yes in so far as FINCA is able to control the source of primary data, however for Random Interviews and SNAP Survey **see nonconformity notes 1 and 3.** .
➢ Is there objectivity and independence in key data collection, management, and assessment procedures?	✓	❑	**1**	Yes in so far as FINCA is able to control the source of primary data, however for Random Interviews and SNAP Survey **see nonconformity notes 1 and 3.** .
➢ Has there been independent review?	✓	❑	**3**	There are annual public accountant audits of the programme, including for the primary data used in this indicator.
➢ If data is from a secondary source, is FINCA management confident in the credibility of the data?	✓	❑	**N/A**	Data is from a primary source.

Recommendations for improvement:

None noted

For indicators for which no recent relevant data are available
If no recent relevant data are available for this indicator, why not?
Not Applicable

What concrete actions are now being undertaken to collect and report this data as soon as possible?
Not Applicable
On what date will data be reported?
Not Applicable.

Note: The current set of indicators, and the methods for calculating them, are currently "enshrined" in the signed agreement between USAID and FINCA. Therefore, if USAID wants to make changes, then it will be necessary to make an amendment to the cooperative agreement. To clarify the issue, USAID should spell out, in an official letter to each partner, exactly what they are being asked to do.

WORKSHEET 7: DATA QUALITY ASSESSMENT CHECKLIST (GAPP)

Check-sheet 1 of 3

Refer to this checklist when the SO team conducts both initial and periodic data quality assessments. The full list does not have to be completed—the SO team may wish to identify the most critical data quality issues for formal or informal assessment.

Strategic Objective:
SO5.0 Increased Market-driven Employment Opportunities.

Intermediate Result:
Not applicable.

Performance indicator:
Employment Opportunities Created in the SMME and Agribusiness Sectors

Data source(s): Number of jobs to be retained or created (primary data) as captured by the GAPP project team and as reflected in the business plans constructed in relation to the transactions.

Partner or contractor who provided the data:
Deloitte Touche Tohmatsu (GAPP Project)

Year or period for which the data are being reported:
Nov 1997 - April 2003 (Present)

Is this indicator reported in the R4 Report? YES

Date(s) of assessment: April 3 – 29,2003

Location(s) of assessment: Johannesburg, South Africa

Assessment team members: Mr D Himelfarb, Ms M Selvaggio, Dr PA Richards

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SO team leader approval:

X_____Date_____

Mission director or delegate approval:

X_____Date_____

Copies to:
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Comments: _____

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1. VALIDITY—Do the data adequately represent performance? [Average Score = 2.7]				
Face Validity	**Yes**	**No**	**Score**	**Comments**
➢ Is there a solid, logical relation between the activity or program and what is being measured?	❑	**X**	**1**	See note ***Non-conformity 1***. Activity based on participation in privatization, hence the poor direct link between this activity and the measurement required for reporting purposes.
Measurement Error				
Sampling Error (only applies when the data source is a survey)				Not Applicable – Data Source is not a survey. All data reported.
➢ Were samples representative?	❑	❑	**N/A**	
➢ Were the questions in the survey/questionnaire clear, direct, easy to understand?	❑	❑	**N/A**	
➢ If the instrument was self-reporting were adequate instructions provided?	❑	❑	**N/A**	
➢ Were response rates sufficiently large?	❑	❑	**N/A**	
➢ Has non-response rate been followed up?	❑	❑	**N/A**	
Non Sampling Error				
➢ Is the data collection instrument well designed?	❑	❑	**N/A**	No specific collection instrument used in terms of this data due to the participation nature of the interventions.
➢ Were there incentives for respondents to give incomplete or untruthful information?	❑	❑	**3**	No incentive for untruthful information as participation nature of contract between USAID and DTT precludes this.
➢ Are definitions for data to be collected operationally precise?	❑	❑	**1**	See note: ***Non-conformity 1***. The partner definition results in low validity of the data.
➢ Are enumerators well trained? How were they trained? Were they insiders or outsiders? Was there any quality control in the selection process?	❑	❑	**3**	Data managed by Chief of Party
➢ Were there efforts to reduce the potential for personal bias by enumerators?	❑	❑	**3**	No potential for personal bias noted.
Transcription Error				
➢ What is the data transcription process? Is there potential for error?	❑	**X**	**3**	No multiple transcription; data entered and updated by Chief of Party. Primary data with single entry.
➢ Are steps being taken to limit transcription error?	❑	❑	**N/A**	Not applicable, no additional transcription.
➢ Have data errors been tracked to their original source and mistakes corrected?	**X**	❑	**3**	See note: ***Vulnerability 1***. Single measurement based on business plan.
➢ If raw data need to be manipulated to produce the data required for the indicator:	❑	**X**	**3**	See note: ***Vulnerability 2***. No manipulation but rather prediction.
➢ Are the correct formulae being applied?	❑	❑	**N/A**	Not applicable, no formulae, no manipulation.
➢ Are the same formulae applied consistently from year to year, site-to-site, data source to data source?	❑	❑	**N/A**	See note ***Vulnerability 2***. No manipulation but rather prediction.

1. VALIDITY—Do the data adequately represent performance? [Average Score = 2.7]				
	Yes	**No**	**Score**	**Comments**
➢ Have procedures for dealing with missing data been correctly applied?	❑	❑	**N/A**	Not applicable. Prediction made for all transactions reported.
➢ Are final numbers reported accurate? (E.g., does a number reported as a "total" actually add up?)	**X**	❑	**3**	See note: ***Vulnerability 1.*** Limited measurement based on business plan. Data not always contained in business plan. See note ***Vulnerability 2***. No manipulation but rather prediction. Data not always contained in business plan.
Representativeness of Data				
➢ Is the sample from which the data are drawn representative of the population served by the activity?	**X**	❑	**3**	Not a sample; report 100% of transaction participated in.
➢ Did all units of the population have an equal chance of being selected for the sample?	**X**	❑	**3**	100% reporting.
➢ Is the sampling frame (i.e., the list of units in the target population) up to date? Comprehensive? Mutually exclusive (for geographic frames)	**X**	❑	**3**	100% reporting.
➢ Is the sample of adequate size?	**X**	❑	**3**	100% reporting.
➢ Are the data complete? (i.e., have all data points been recorded?)	**X**	❑	**3**	See note: ***Vulnerability 1.*** Limited measurement based on business plan. Data not always contained in business plan.

Strengths and Vulnerabilities:
One non-conformity is raised with regards to data validity. Two vulnerabilities are noted:

Non-conformity 1: ***Activity based on participation in privatization, hence the poor direct link between this activity and the measurement required for reporting purposes. The non-conformity is classified as MAJOR.***

Vulnerability 1: ***The primary data is collected on the basis of limited subjective measurement, which is based on the business case. The figures reported do not always appear in the business plans and thus are not always auditable. This reduces the possibility of detecting and correcting errors. Final data numbers can thus not be guaranteed.***

Vulnerability 2: ***The employment data reported are not based on any manipulation but are a reflection of information gathered related to the transaction. The data gathered does not reflect the same discreet variable and thus consistency of validity is not possible to demonstrate.***

1. VALIDITY—Do the data adequately represent performance? [Average Score = 2.7]				
	Yes	**No**	**Score**	**Comments**
Recommendations for improvement: R1. This partner should not be reporting on this indicator if the current indicator definition stays the same due to the nature of the partner's operations. Should the partner continue to report on this indicator then the following recommendations given in this report must be met if data quality is to be considered reasonable for extrapolation purposes. R2. An audit trail pertaining to all transactions should be created which allows for the identification of the primary / secondary source of the data and which is traceable and consistent over time. R3. A specific rubric for the inclusion and exclusion criteria for what constitutes an 'employment opportunity' is essential if this partner is to manage the vulnerability presented by the predictive nature of many of the employment opportunities data reported.				

2. RELIABILITY—Are data collection processes stable and consistent over time? [Average score = 2.6]				
	Yes	**No**	**Score**	**Comments**
Consistency				
➢ Is a consistent data collection process used from year to year, location-to-location, data source to data source (if data come from different sources)?	**X**	❑	**3**	Always connected to the construction of the business plan. See note: ***Vulnerability 1***. Limited measurement based on business plan. In which data not always present.
➢ Is the same instrument used to collect data from year to year, location to location? If data come from different sources are the instruments similar enough that the reliability of the data are not compromised?	**X**	❑	**3**	No specific instrument although same data collector using same methodology over reporting period to date.
➢ Is the same sampling method used from year to year, location to location, data source to data source?	❑	❑	**N/A**	Not applicable, no sampling, 100% reporting.
Internal quality control				
➢ Are there procedures to ensure that data are free of significant error and that bias is not introduced?	**X**	❑	**3**	See note: ***Vulnerability 1***. Limited measurement based on business plan. In which data not always present. See note: ***Vulnerability 3***. Subjective nature of data results in unknown bias.
➢ Are there procedures in place for periodic review of data collection, maintenance, and processing?	❑	**X**	**2**	See note: ***Non-conformity 2****:* No specific documented procedures for data management. The risk is minimized by the quarterly reporting method.
➢ Do these procedures provide for periodic sampling and quality assessment of data?	❑	❑	**N/A**	No procedures. See note: ***Non-conformity 2***.
Transparency				
➢ Are data collection, cleaning, analysis, reporting, and quality assessment procedures documented in writing?	❑	**X**	**2**	See note: ***Non-conformity 2****:* No specific documented procedures for data management.
➢ Are data problems at each level reported to the next level?	❑	❑	**N/A**	Not applicable, no hierarchy of reporting.

2. RELIABILITY—Are data collection processes stable and consistent over time? [Average score = 2.6]				
	Yes	**No**	**Score**	**Comments**
➢ Are data quality problems clearly described in final reports?	❑	❑	**N/A**	Not applicable, no final report as of yet. See note ***Vulnerability 4****:* No specific analysis has been undertaken to date to assess the existence of any data quality problems.

Strengths and Vulnerabilities:
One non-conformity in terms of data reliability is raised and two additional vulnerabilities are noted:

Non-conformity 2: ***There are no documented procedures for the collection, cleaning, analysis, reporting, and quality assessment of data and / or the review thereof. Classification of non-conformity is MINOR.***

Vulnerability 3: ***The subjective nature of this data means that the measurement of inherent bias is not always possible. At present the risk is managed by reducing the inter-observer variability as the COP reports all the data.***

Vulnerability 4: ***The fact that no specific analysis has been undertaken to date to assess the existence of any data quality problems means that inherent unidentified risks may exist.***

Recommendations for improvement (R):
See also Recommendation R3.

R4. Non-conformity 2 will be addressed by the documentation of the data quality processes and procedures, as well as the documentation of the quality requirements / rubrics for each procedure.

R5. A specific analysis of the strengths and vulnerabilities of current data quality processes and procedures of GAPP, taking into account the current and future requirements of USAID, is suggested so that GAPP can highlight any inherent data limitations and thus allow for both GAPP and USAID to manage these.

3. TIMELINESS—Are data collected frequently and are they current? [Average score = 3]				
	Yes	**No**	**Score**	**Comments**
Frequency				
➢ Are data available on a frequent enough basis to inform program management decisions?	**X**	❑	**3**	Monthly meetings and quarterly written reports on data
➢ Is a regularized schedule of data collection in place to meet program management needs?	**X**	❑	**3**	Monthly meetings and quarterly written reports on data
Currency				
➢ Are the data reported in a given timeframe the most current practically available?	**X**	❑	**3**	See note ***Vulnerability 5****:*The inherent prospective nature of the data means that much of the data is predicative rather than actual.
➢ Are data from within the policy period of interest? (i.e., are data from a point in time after intervention has begun?)	**X**	❑	**3**	As above. Data current in terms of application of definition by partner.
➢ Are the data reported as soon as possible after collection?	**X**	❑	**3**	As above. Data current in terms of application of definition by partner.
➢ Is the date of collection clearly identified in the report?	**X**	❑	**3**	As above. Data current in terms of application of definition by partner.

3. TIMELINESS—Are data collected frequently and are they current? [Average score = 3]

	Yes	No	Score	Comments

Strengths and Vulnerabilities:
One additional vulnerability is noted:

Vulnerability 5: ***The inherent prospective nature of the data means that much of the data is predicative rather than actual. This results in the inherent risk of the value of data changing as time passes (transactions are either concluded or abandoned).***

Recommendations for improvement:
See Recommendations R2 and R3.

4. PRECISION—Do the data have an acceptable margin of error? [Average score = 1.6]

	Yes	No	Score	Comments
➢ Is the margin of error less than the expected change being measured?	❑	❑	**N/A**	See note ***Non-conformity 3****:* The margin of error is not established and thus inherent error not measured.
➢ Is the margin of error acceptable given the likely management decisions to be affected?	❑	❑	**N/A**	As above.
➢ Have targets been set for the acceptable margin of error?	❑	**X**	**2**	See note ***Non-conformity 3****:* The margin of error is not established and thus inherent error not measured.
➢ Has the margin of error been reported along with the data?	❑	**X**	**2**	See note ***Non-conformity 3****:* The margin of error is not established and thus inherent error not measured.
➢ Would an increase in the degree of accuracy be more costly than the increased value of the information?	**X**	❑	**1**	See note ***Non-conformity 1***. Yes, unless it were decided that this would form an input data point.

Strengths and Vulnerabilities:
One additional non-conformity in terms of precision is noted:

Non-conformity 3: ***The margin of error is not defined nor established and thus inherent error not measured. Non-conformity classified as MINOR.***

Recommendations for improvement:
See Recommendations R2 and R3.

5. INTEGRITY—Are data free of manipulation? [Average score 2.6]

	Yes	No	Score	Comments
➢ Are mechanisms in place to reduce the possibility that data are manipulated for political or personal reasons?	**X**	❑	**3**	See note: ***Strength 1***. Focus of program on privatization not job-creation and thus reduces risk of 'padded' data.
➢ Is there objectivity and independence in key data collection, management, and	❑	**X**	**2**	See note: ***Vulnerability 3***. Subjective nature of data results in unknown bias. Raised as ***Non-conformity 4*** in terms of

5. INTEGRITY—Are data free of manipulation? [Average score 2.6]				
	Yes	**No**	**Score**	**Comments**
assessment procedures?				this criterion.
➢ Has there been independent review?	**X**	❑	**3**	Mid-term evaluation; COTR in the field on a regular basis
➢ If data is from a secondary source, is USAID management confident in the credibility of the data?	❑	❑	**N/A**	Not Applicable, no data from secondary source.

Strengths and Vulnerabilities:

Non-conformity 4: ***See notes on vulnerability 3. Non-conformity classified as MINOR.***

Strength 1: ***Focus of program on privatization, not job-creation, reduces risk of 'padded' data. The concept of employment is thus a useful tool for management decisions without being the driver for achievement of reporting numbers.***

Recommendations for improvement (R):
See Recommendations R3 and R4.

For indicators for which no recent relevant data are available: N/A
If no recent relevant data are available for this indicator, why not? **Not applicable**
What concrete actions are now being undertaken to collect and report this data as soon as possible? **Not applicable**
On what date will data be reported? **Not applicable**

WORKSHEET 7: DATA QUALITY ASSESSMENT CHECKLIST (GAPP)

Check-sheet 2 of 3

Refer to this checklist when the SO team conducts both initial and periodic data quality assessments. The full list does not have to be completed—the SO team may wish to identify the most critical data quality issues for formal or informal assessment.

Strategic Objective:
SO5.0 Increased Market-driven Employment Opportunities

Intermediate Result:
IR5.2 Increased Commercial Viability of Existing Small and Medium Agribusinesses

Performance indicator:
Number of Transactions

Data source(s): Active privatization transactions (primary data) captured by the GAPP project team

Partner or contractor who provided the data:
Deloitte Touche Tohmatsu (GAPP Project)

Year or period for which the data are being reported:
Nov 1997 - April 2003 (Present)

Is this indicator reported in the R4 Report? YES

Date(s) of assessment: April 3 – 29,2003

Location(s) of assessment: Johannesburg, South Africa

Assessment team members: Mr D Himelfarb, Ms M Selvaggio, Dr PA Richards

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SO team leader approval:

X_____Date_____

Mission director or delegate approval:

X_____Date_____

Copies to:
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Comments: _____

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1. VALIDITY—Do the data adequately represent performance? [Average Score = 2.9]				
Face Validity	**Yes**	**No**	**Score**	**Comments**
➢ Is there a solid, logical relation between the activity or program and what is being measured?	**X**	❑	**3**	No to the extent that measurement is based on participation and not completed privatizations.
Measurement Error				
Sampling Error (only applies when the data source is a survey)				Not Applicable – Data Source is not a survey. All data reported.
➢ Were samples representative?	❑	❑	**N/A**	
➢ Were the questions in the survey/questionnaire clear, direct, easy to understand?	❑	❑	**N/A**	
➢ If the instrument was self-reporting were adequate instructions provided?	❑	❑	**N/A**	
➢ Were response rates sufficiently large?	❑	❑	**N/A**	
➢ Has non-response rate been followed up?	❑	❑	**N/A**	
Non Sampling Error				
➢ Is the data collection instrument well designed?	❑	❑	**N/A**	No specific collection instrument used in terms of this data due to the participatory nature of the interventions.
➢ Were there incentives for respondents to give incomplete or untruthful information?	❑	**X**	**3**	No incentive for untruthful information as participatory nature of contract between USAID and DTT precludes this.
➢ Are definitions for data to be collected operationally precise?	❑	**X**	**2**	See note: ***Non-conformity 1***. The nature of definition does not reflect the operational differences within the data.
➢ Are enumerators well trained? How were they trained? Were they insiders or outsiders? Was there any quality control in the selection process?	**X**	❑	**3**	Data managed by Chief of Party
➢ Were there efforts to reduce the potential for personal bias by enumerators?	**X**	❑	**3**	No potential for personal bias noted.
Transcription Error				
➢ What is the data transcription process? Is there potential for error?	❑	**X**	**3**	Chief of Party records in quarterly progress reports based on discussion. Data generated once, no additional transcription.
➢ Are steps being taken to limit transcription error?	❑	❑	**N/A**	Not Applicable, no additional transcription.
➢ Have data errors been tracked to their original source and mistakes corrected?	**X**	❑	**3**	See note: ***Vulnerability 1***. No longitudinal records kept in terms of transactions abandoned.
➢ If raw data need to be manipulated to produce the data required for the indicator:	❑	**X**	**3**	No manipulation of primary data.
➢ Are the correct formulae being applied?	❑	❑	**N/A**	No formula used.
➢ Are the same formulae applied consistently from year to year, site-to-site, data source to data source?	❑	❑	**N/A**	Not applicable.

1. VALIDITY—Do the data adequately represent performance? [Average Score = 2.9]				
	Yes	**No**	**Score**	**Comments**
➢ Have procedures for dealing with missing data been correctly applied?	❑	❑	**N/A**	Not applicable.
➢ Are final numbers reported accurate? (E.g., does a number reported as a "total" actually add up?)	**X**	❑	**3**	Audit trail based on USAID in-field contact and verification of and with actual parties involved in transaction.
Representativeness of Data				
➢ Is the sample from which the data are drawn representative of the population served by the activity?	**X**	❑	**3**	Not a sample; report 100% of transaction participated in.
➢ Did all units of the population have an equal chance of being selected for the sample?	**X**	❑	**3**	100% reporting.
➢ Is the sampling frame (i.e., the list of units in the target population) up to date? Comprehensive? Mutually exclusive (for geographic frames)	**X**	❑	**3**	100% reporting.
➢ Is the sample of adequate size?	**X**	❑	**3**	100% reporting.
➢ Are the data complete? (i.e., have all data points been recorded?)	**X**	❑	**3**	See note: ***Vulnerability 1***. No longitudinal records kept in terms of transactions abandoned.

Strengths and Vulnerabilities:
One non-conformity is raised with regards to data validity, and one vulnerability is noted:

Non-conformity 1: ***The nature of definition does not reflect the operational differences within the data. Hence the difference between the prospective and actual numbers is not clear. This may lead to an overestimation if some previously reported transactions are abandoned. Classification of non-conformity is MINOR.***

Vulnerability 1: ***There is an absence of any specific records related to those transactions that the partner participated in and subsequently abandoned.***

Recommendations for improvement:
R1. An audit trail pertaining to all transactions should be created which allows for tracking of transactions entered into, transactions abandoned, transactions lost and transactions successfully concluded. This will allow for disaggregating of the prospective and retrospective natures inherent within the current data.

2. RELIABILITY—Are data collection processes stable and consistent over time? [Average score =2.6]				
	Yes	**No**	**Score**	**Comments**
Consistency				
➢ Is a consistent data collection process used from year to year, location-to-location, data source to data source ?	**X**	❑	**3**	See note: ***Vulnerability 2***. No documented rubric for deciding when to abandon a transaction.

2. RELIABILITY—Are data collection processes stable and consistent over time? [Average score =2.6]				
	Yes	**No**	**Score**	**Comments**
➢ Is the same instrument used to collect data from year to year, location to location? If data come from different sources are the instruments similar enough that the reliability of the data are not compromised?	**X**	❑	**3**	Same data collector using same methodology over reporting period to date.
➢ Is the same sampling method used from year to year, location to location, data source to data source?	❑	❑	**N/A**	Not applicable, no sampling, 100% reporting.
Internal quality control				
➢ Are there procedures to ensure that data are free of significant error and that bias is not introduced?	**X**	❑	**3**	See note: ***Vulnerability 1***. No longitudinal records kept in terms of transactions abandoned. See note: ***Vulnerability 2***. No documented rubric for deciding when to abandon a transaction.
➢ Are there procedures in place for periodic review of data collection, maintenance, and processing?	❑	**X**	**2**	See note: ***Non-conformity 2***. No specific documented procedures for data management. The risk is minimized by the quarterly reporting method.
➢ Do these procedures provide for periodic sampling and quality assessment of data?	❑	**N/A**		Not applicable
Transparency				
➢ Are data collection, cleaning, analysis, reporting, and quality assessment procedures documented in writing?	❑	**X**	**2**	See note: ***Non-conformity 2***. No specific documented procedures for data management.
➢ Are data problems at each level reported to the next level?	❑	**N/A**		Not applicable, no hierarchy of reporting.
➢ Are data quality problems clearly described in final reports?	❑	**N/A**		Not applicable, no final report as of yet. See note ***Vulnerability 3***. No specific analysis has been undertaken to date to assess the existence of any data quality problems.

Strengths and Vulnerabilities:
One non-conformity in terms of data reliability is raised and two additional vulnerabilities are noted:

Non-conformity 2: ***There are no documented procedures for the collection, cleaning, analysis, reporting, and quality assessment of data and or the review thereof. Classification of non-conformity is MINOR.***

Vulnerability 2: ***The absence of a documented rubric for deciding when to abandon a transaction places the issue of consistency at risk should a failure in succession planning mean that a different data manager interprets the issue differently. This places objectivity at risk.***

Vulnerability 3: ***The fact that no specific analysis has been undertaken to date to assess the existence of any data quality problems means that inherent unidentified risks may exist.***

2. RELIABILITY—Are data collection processes stable and consistent over time? [Average score =2.6]				
	Yes	**No**	**Score**	**Comments**

Recommendations for improvement (R):

R2. The documentation of the data quality processes and procedures, as well as the documentation of the quality requirements/rubrics for each procedure will address both Non-conformity 1 as well as Vulnerability 2.

R3. A specific analysis of the strengths and vulnerabilities of current data quality processes and procedures of GAPP, taking into account the current and future requirements of USAID, is suggested so that GAPP can highlight any inherent data limitations and thus allow for both GAPP and USAID to manage these.

3. TIMELINESS—Are data collected frequently and are they current? [Average score = 3]				
	Yes	**No**	**Score**	**Comments**
Frequency				
➢ Are data available on a frequent enough basis to inform program management decisions?	**X**	❑	**3**	Monthly meetings, quarterly written reports on data
➢ Is a regularized schedule of data collection in place to meet program management needs?	**X**	❑	**3**	Monthly meetings, quarterly written reports on data
Currency				
➢ Are the data reported in a given timeframe the most current practically available?	**X**	❑	**3**	See note ***Vulnerability 4***.The inherent prospective nature of the data means that much of the data is predicative rather than actual.
➢ Are data from within the policy period of interest? (i.e., are data from a point in time after intervention has begun?)	**X**	❑	**3**	As above. Data current in terms of application of definition by partner.
➢ Are the data reported as soon as possible after collection?	**X**	❑	**3**	As above. Data current in terms of application of definition by partner.
➢ Is the date of collection clearly identified in the report?	**X**	❑	**3**	As above. Data current in terms of application of definition by partner.

Strengths and Vulnerabilities:

One additional vulnerability is noted:

Vulnerability 4: ***The inherent prospective nature of the data means that much of the data is predicative rather than actual. The aggregation of current transactions as well as transactions won and lost means that the characteristic of time-related data accuracy is not addressed.***

Recommendations for improvement:

See Recommendation R1.

4. PRECISION—Do the data have an acceptable margin of error? [Average score 2.3]				
	Yes	**No**	**Score**	**Comments**
➢ Is the margin of error less than the expected change being measured?	❑	❑	**N/A**	See note ***Non-conformity 3***. The margin of error is not established and thus inherent error not measured.

4. PRECISION—Do the data have an acceptable margin of error? [Average score 2.3]

	Yes	No	Score	Comments
➢ Is the margin of error acceptable given the likely management decisions to be affected?	❑	❑	**N/A**	As above.
➢ Have targets been set for the acceptable margin of error?	❑	**X**	**2**	As above.
➢ Has the margin of error been reported along with the data?	❑	**X**	**2**	As above.
➢ Would an increase in the degree of accuracy be more costly than the increased value of the information?	❑	**X**	**3**	Partner would be able to calculate error on basis of using data from recommendation R1.

Strengths and Vulnerabilities:
One non-conformity in terms of precision is noted:

Non-conformity 3: ***The margin of error is not defined nor established and thus inherent error not measured. Inherent error in this data will be related to those transactions abandoned or not won. Non-conformity classified as MINOR.***

Recommendations for improvement:
See Recommendation R1.
R4. The margin of error should include the ratio-analysis of transactions participated in as related to transactions won. The partner must determine what constitutes an acceptable error within the framework of the partner's principal company as well as in relation to economic evidence for the sector in question. This may be on the basis of empirical data.

5. INTEGRITY—Are data free of manipulation? [Average score 2.6]

	Yes	No	Score	Comments
➢ Are mechanisms in place to reduce the possibility that data are manipulated for political or personal reasons?	**X**	❑	**3**	COTR in the field on a regular basis and is aware of the transactions the partner is involved in.
➢ Is there objectivity and independence in key data collection, management, and assessment procedures?	❑	**X**	**2**	See note: ***Vulnerability 2***. No documented rubric for deciding when to abandon a transaction. Raised as ***Non-conformity 4*** in relation to this criterion.
➢ Has there been independent review?	**X**	❑	**3**	Mid-term evaluation; COTR in the field on a regular basis
➢ If data is from a secondary source, is USAID management confident in the credibility of the data?	❑	❑	**N/A**	Not Applicable, no data from secondary source.

Strengths and Vulnerabilities:

Non-conformity 4: ***See notes on vulnerability 2. Non-conformity classified as MINOR.***

Recommendations for improvement (R):
See recommendation R2.

For indicators for which no recent relevant data are available: N/A
If no recent relevant data are available for this indicator, why not? **Not applicable**
What concrete actions are now being undertaken to collect and report this data as soon as possible? **Not applicable**
On what date will data be reported? **Not applicable**

WORKSHEET 7: DATA QUALITY ASSESSMENT CHECKLIST (GAPP)

Check-sheet 3 of 3

Refer to this checklist when the SO team conducts both initial and periodic data quality assessments. The full list does not have to be completed—the SO team may wish to identify the most critical data quality issues for formal or informal assessment.

Strategic Objective:
SO5.0 Increased Market-driven Employment Opportunities

Intermediate Result:
IR5.2 Increased Commercial Viability of Existing Small and Medium Agribusinesses

Performance indicator:
Value of Transactions

Data source(s): Active privatization transactions (primary data) captured by the GAPP project team as reflected in the Business Plans constructed in relation to the transactions.

Partner or contractor who provided the data:
Deloitte Touche Tohmatsu (GAPP Project)

Year or period for which the data are being reported:
Nov 1997 - April 2003 (Present)

Is this indicator reported in the R4 Report? YES

Date(s) of assessment: April 3 – 29,2003

Location(s) of assessment: Johannesburg, South Africa

Assessment team members: Mr D Himelfarb, Ms M Selvaggio, Dr PA Richards

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For Office Use Only

SO team leader approval:

X_____Date_____

Mission director or delegate approval:

X_____Date_____

Copies to:
_____

Comments: _____

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_____

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_____

1. VALIDITY—Do the data adequately represent performance? [Average Score = 2.8]				
Face Validity	**Yes**	**No**	**Score**	**Comments**
➢ Is there a solid, logical relation between the activity or program and what is being measured?	**X**	❑	**3**	No to the extent that measurement is based on participation and not completed privatizations.
Measurement Error				
Sampling Error (only applies when the data source is a survey)				Not Applicable – Data Source is not a survey. All data reported.
➢ Were samples representative?	❑	❑	**N/A**	
➢ Were the questions in the survey/questionnaire clear, direct, easy to understand?	❑	❑	**N/A**	
➢ If the instrument was self-reporting were adequate instructions provided?	❑	❑	**N/A**	
➢ Were response rates sufficiently large?	❑	❑	**N/A**	
➢ Has non-response rate been followed up?	❑	❑	**N/A**	
Non Sampling Error				
➢ Is the data collection instrument well designed?	❑	❑	**N/A**	No specific collection instrument used in terms of this data due to the participatory nature of the interventions.
➢ Were there incentives for respondents to give incomplete or untruthful information?	❑	**X**	**3**	No incentive for untruthful information as participatory nature of contract between USAID and DTT precludes this.
➢ Are definitions for data to be collected operationally precise?	❑	**X**	**2**	See note: ***Non-conformity 1***. The nature of definition does not reflect the operational differences within the data.
➢ Are enumerators well trained? How were they trained? Were they insiders or outsiders? Was there any quality control in the selection process?	**X**	❑	**3**	Data managed by Chief of Party
➢ Were there efforts to reduce the potential for personal bias by enumerators?	**X**	❑	**3**	No potential for personal bias noted.
Transcription Error				
➢ What is the data transcription process? Is there potential for error?	❑	**X**	**3**	Data only entered once and then updated; no multiple entry.
➢ Are steps being taken to limit transcription error?	❑	❑	**N/A**	Not Applicable, no additional transcription.
➢ Have data errors been tracked to their original source and mistakes corrected?	**X**	❑	**3**	See note: ***Vulnerability 1.*** No longitudinal records kept in terms of transactions abandoned.
➢ If raw data need to be manipulated to produce the data required for the indicator:	**X**	❑	**3**	Manipulation of data in terms of reporting in USD rather than in SA Rand.
➢ Are the correct formulae being applied?	**X**	❑	**3**	Standardized calculation based on USD value of transaction as at day of reporting.
➢ Are the same formulae applied consistently from year to year, site-to-site, data source to data source ?	❑	**X**	**2**	See note: ***Non-conformity 2.*** Reported figure adjusted if 'transaction won' value less or greater than original predicted value. Updated value converted to USD on day of reporting. Net figure reported.

1. VALIDITY—Do the data adequately represent performance? [Average Score = 2.8]				
	Yes	**No**	**Score**	**Comments**
➢ Have procedures for dealing with missing data been correctly applied?	❑	❑	**N/A**	Not applicable.
➢ Are final numbers reported accurate? (E.g., does a number reported as a "total" actually add up?)	**X**	❑	**3**	See note: ***Vulnerability 2***. The lack of a documented audit trail makes verification of the accuracy and validity of the final numbers presented difficult. Numbers accurate in so far as information contained on database is concerned.
Representativeness of Data				
➢ Is the sample from which the data are drawn representative of the population served by the activity?	**X**	❑	**3**	Not a sample; report 100% of transaction participated in.
➢ Did all units of the population have an equal chance of being selected for the sample?	**X**	❑	**3**	100% reporting.
➢ Is the sampling frame (i.e., the list of units in the target population) up to date? Comprehensive? Mutually exclusive (for geographic frames)	**X**	❑	**3**	100% reporting.
➢ Is the sample of adequate size?	**X**	❑	**3**	100% reporting.
➢ Are the data complete? (i.e., have all data points been recorded?)	**X**	❑	**3**	See note: ***Vulnerability 1***. No longitudinal records kept in terms of transactions abandoned. See note: ***Strength 1***. The data is reflective of 'live' transactions and their predicted value if outcome successful.

Strengths and Vulnerabilities:
One non-conformity is raised with regards to data validity. Two vulnerabilities and one strength are noted:

Non-conformity 1: ***The nature of definition does not reflect the operational differences within the data. Hence the difference between the prospective and actual numbers is not clear. This may lead to an overestimation should actual won transactions are important to USAID. Classification of non-conformity is MINOR.***

Non-conformity 2: ***The data presented are not reflective of the same input method on a consistent basis as the reported figure is adjusted if the 'transaction won' value is less or greater than the original predicted value. Updated values are consistently converted to USD on the day of reporting. The non-conformity results from the variance in the exchange rate that the time factor will make in the reported value using this method of calculation and recalculation from different input data. The non-conformity is classified as MINOR.***

Vulnerability 1: ***There is an absence of any specific records related to those transactions that the partner participated in and subsequently abandoned. The partner has still spent time and effort on these transactions and the absence of the data leads to an underestimation of the total participatory nature of the interactions that the partner has had with the clients.***

1. VALIDITY—Do the data adequately represent performance? [Average Score = 2.8]				
	Yes	**No**	**Score**	**Comments**
Vulnerability 2: ***The lack of a documented audit trail makes verification of the accuracy and validity of the final numbers presented difficult. The business plans per se do not consistently contain the information the partner is reporting on, hence the difficulty with verification.***				
Strength 1: ***The data is reflective of 'live' transactions and their predicted value if the outcome is successful. This allows for a simple monitoring system for those transactions that the partner is currently involved in as well as those that have been brought to some form of conclusion, regardless of whether the transaction was won or lost.***				
Recommendations for improvement: R1. An audit trail pertaining to all transactions should be created which allows for tracking the value of all transactions entered into, transactions abandoned, transactions lost and transactions successfully concluded. This will allow for disaggregating of the prospective and retrospective natures inherent within the current data. This will address vulnerabilities 1 and 2. R2. Reporting of data should be the actual SA Rand value as contained within the acquisition bid (sales contract) to reduce the bias created in the conversion to USD with fluctuating exchange rates. R3. Data reported in terms of value should be disaggregated into predicted value versus actual value of sale should transaction be won. USAID should not aggregate prospective values with actual values.				

2. RELIABILITY—Are data collection processes stable and consistent over time? [Average score = 2.6]				
	Yes	**No**	**Score**	**Comments**
Consistency				
➢ Is a consistent data collection process used from year to year, location-to-location, data source to data source (if data come from different sources)?	**X**	❑	**3**	See note: ***Vulnerability 3***. No documented rubric for deciding when to abandon a transaction.
➢ Is the same instrument used to collect data from year to year, location to location? If data come from different sources are the instruments similar enough that the reliability of the data are not compromised?	**X**	❑	**3**	Same data collector using same methodology over reporting period to date.
➢ Is the same sampling method used from year to year, location to location, data source to data source?	❑	❑	**N/A**	Not applicable, no sampling, 100% reporting.
Internal quality control				
➢ Are there procedures to ensure that data are free of significant error and that bias is not introduced?	**X**	❑	**3**	See note: ***Vulnerability 1***. No longitudinal records kept in terms of transactions abandoned. See note: ***Vulnerability 3***. No documented rubric for deciding when to abandon a transaction.
➢ Are there procedures in place for periodic review of data collection, maintenance, and processing?	❑	**X**	**2**	See note: ***Non-conformity 3****:* No specific documented procedures for data management. The risk is minimized by the quarterly reporting method.

2. RELIABILITY—Are data collection processes stable and consistent over time? [Average score = 2.6]				
	Yes	**No**	**Score**	**Comments**
➢ Do these procedures provide for periodic sampling and quality assessment of data?	❑	**N/A**		Not applicable
Transparency				
➢ Are data collection, cleaning, analysis, reporting, and quality assessment procedures documented in writing?	❑	**X**	**2**	See note: ***Non-conformity 3****:* No specific documented procedures for data management.
➢ Are data problems at each level reported to the next level?	❑	**N/A**		Not applicable, no hierarchy of reporting.
➢ Are data quality problems clearly described in final reports?	❑	**N/A**		Not applicable, no final report as of yet. See note ***Vulnerability 4****:* No specific analysis has been undertaken to date to assess the existence of any data quality problems.

Strengths and Vulnerabilities:
One non-conformity in terms of data reliability is raised and two additional vulnerabilities are noted:

Non-conformity 3: ***There are no documented procedures for the collection, cleaning, analysis, reporting, and quality assessment of data and / or the review thereof. Classification of non-conformity is MINOR.***

Vulnerability 3: ***The absence of a documented rubric for deciding when to abandon a transaction places the issue of consistency at risk should a failure in succession planning mean that a different data manager interprets the issue differently. This places objectivity at risk.***

Vulnerability 4: ***The fact that no specific analysis has been undertaken to date to assess the existence of any data quality problems means that inherent unidentified risks may exist.***

Recommendations for improvement (R):
R4. The documentation of the data quality processes and procedures, as well as the documentation of the quality requirements/rubrics for each procedure is required and will address both non-conformity 2 as well as vulnerability 3.
R5. A specific analysis of the strengths and vulnerabilities of current data quality processes and procedures of GAPP, taking into account the current and future requirements of USAID, is suggested so that GAPP can highlight any inherent data limitations and thus allow for both GAPP and USAID to manage these.

3. TIMELINESS—Are data collected frequently and are they current? [Average score = 3]				
	Yes	**No**	**Score**	**Comments**
Frequency				
➢ Are data available on a frequent enough basis to inform program management decisions?	**X**	❑	**3**	Monthly meetings, quarterly written reports on data
➢ Is a regularized schedule of data collection in place to meet program management needs?	**X**	❑	**3**	Monthly meetings, quarterly written reports on data

3. TIMELINESS—Are data collected frequently and are they current? [Average score = 3]

	Yes	No	Score	Comments
Currency				
➢ Are the data reported in a given timeframe the most current practically available?	**X**	❑	**3**	See note ***Vulnerability 5****:*The inherent prospective nature of the data means that much of the data is predicative rather than actual.
➢ Are data from within the policy period of interest? (i.e., are data from a point in time after intervention has begun?)	**X**	❑	**3**	As above. Data current in terms of application of definition by partner.
➢ Are the data reported as soon as possible after collection?	**X**	❑	**3**	As above. Data current in terms of application of definition by partner.
➢ Is the date of collection clearly identified in the report?	**X**	❑	**3**	As above. Data current in terms of application of definition by partner.

Strengths and Vulnerabilities:
One additional vulnerability is noted:

Vulnerability 5: ***The inherent prospective nature of the data means that much of the data is predicative rather than actual. The aggregation of current transactions as well as transactions won and lost means that the characteristic of time-related data accuracy is not addressed.***

Recommendations for improvement:
See Recommendation R1.

4. PRECISION—Do the data have an acceptable margin of error? [Average score 2.3]

	Yes	No	Score	Comments
➢ Is the margin of error less than the expected change being measured?	❑	❑	**N/A**	See note ***Non-conformity 4****:* The margin of error is not established and thus inherent error not measured.
➢ Is the margin of error acceptable given the likely management decisions to be affected?	❑	❑	**N/A**	As above.
➢ Have targets been set for the acceptable margin of error?	❑	**X**	**2**	As above.
➢ Has the margin of error been reported along with the data?	❑	**X**	**2**	As above.
➢ Would an increase in the degree of accuracy be more costly than the increased value of the information?	❑	**X**	**3**	Partner would be able to calculate error on basis of using data from recommendation R1.

Strengths and Vulnerabilities:
One non-conformity in terms of precision is noted:

Non-conformity 4: ***The margin of error is not defined nor established and thus inherent error not measured. Inherent error in this data will be related to the ratio of predicted transaction value to actual transaction value for those transactions won. Non-conformity classified as MINOR.***

4. PRECISION—Do the data have an acceptable margin of error? [Average score 2.3]				
	Yes	**No**	**Score**	**Comments**

Recommendations for improvement:
See Recommendations R1, R2 and R3.
R6. The margin of error should include the ratio-analysis of the predicted to actual value of transactions won. The partner must determine what constitutes an acceptable error within the framework of the partner's principal company as well as in relation to economic evidence for the sector in question. This may be on the basis of empirical data.

5. INTEGRITY—Are data free of manipulation? [Average score 2.6]				
	Yes	**No**	**Score**	**Comments**
➢ Are mechanisms in place to reduce the possibility that data are manipulated for political or personal reasons?	**X**	❑	**3**	See note: ***Strength 2***. COTR in the field on a regular basis and is aware of the transactions the partner is involved in. No benefit to partner if values submitted greater than actual. Hence no risk of 'padding' for undue gain.
➢ Is there objectivity and independence in key data collection, management, and assessment procedures?	❑	**X**	**2**	See note: ***Vulnerability 3***. No documented rubric for deciding when to abandon a transaction. Raised as ***Non-conformity 5*** in terms of this criterion.
➢ Has there been independent review?	**X**	❑	**3**	Mid-term evaluation; COTR in the field on a regular basis
➢ If data is from a secondary source, is USAID management confident in the credibility of the data?	❑	❑	**N/A**	Not Applicable, no data from secondary source.

Strengths and Vulnerabilities:

Non-conformity 5: ***See notes on vulnerability 3. Non-conformity classified as MINOR.***

Strength 2: ***The nature of the contract entered into between the partner and USAID is of such a nature as to ensure that there would be no undue gain achieved by the partner should reporting not be an accurate reflection of the data. Contract not transaction numbers or value dependent.***

Recommendations for improvement (R):
See recommendation R4.

For indicators for which no recent relevant data are available: N/A
If no recent relevant data are available for this indicator, why not? **Not applicable**
What concrete actions are now being undertaken to collect and report this data as soon as possible? **Not applicable**
On what date will data be reported? **Not applicable**

Assessment Team

Mr. D. Himelfarb (Team leader)

Dr PA Richards

Ms MP Selvaggio

APPENDIX H: WORK PLAN

Submitted to:

USAID

By

Megatech

And

Khulisa Management Services (Pty) Ltd

Solicitation Number 0093-1102-SOL-MES

6 May 2003

SO5 DATA QUALITY ASSESSMENT (DQA)

WORKPLAN (April 5, 2003)

l. Objectives and Scope of Data Quality Assessment (DQA)

The primary purpose of this exercise is to assess the quality of SO5 indicators and the quality of the data reported for each indicator. In conducting the DQA, the Assessment Team (Team) will be guided by the criteria described in the ADS 203 (Assessment and Learning) and the PricewaterhouseCoopers (PWC) "Performance Management Toolkit." For indicators, these criteria include the extent to which they are: direct, objective, practical, and adequate. The assessment of data quality will determine the extent to which the data collected by partners for these indicators meet reasonable standards of validity, reliability, timeliness, precision and integrity.

On April 3, 2003, USAID/SA briefed the Team on the rationale and context for undertaking the assessment and clarified and/or confirmed the parameters of the exercise. As a result, two clarifications were made, as follows:

- Only the six key performance indicators identified in the SOW are to be covered by the assessment; and

- The assessment will be limited to the five major partners – SAIBL, SEMED, AGRILINKS, GAPP, and FINCA.

- Guidance for biotechnology indicators will not be required.

II. METHODOLOGY

A. Overview:

The Team believes that there is little point in assessing data quality issues without first evaluating the quality characteristics of the indicators. Therefore, the Team will initially develop a matrix to guide separate focus group discussions with each partner on the characteristics of the indicators they report on. Incorporated into a database/spreadsheet, information from the focus groups will be analyzed in accordance with the ADS indicator quality criteria, with results presented in table form for each indicator. This section of the final report titled, "Indicator Quality Assessment," will address the definitional issues that are of such importance in this DQA, as well as the relationships and interdependencies among indicators.

Regarding the Team's approach to assessing the quality of data collected and reported on by individual partners, the internationally recognized International Standards

Organization (ISO19011) systems auditing approach will be employed. This involves a standard data verification process on site that will be administered by the Team. The approach requires that partners complete the Data Quality Assessment Checklist prior to the on-site visit. All partners have received the form and have been notified of the requirement to complete it. The Team will then review the information presented in the checklist and perform the verification process of the data. The results of the validation process will allow the Team to assess each organization's capacity to collect and report on SO5 indicator data, and will point out strengths and vulnerabilities of the partners' data systems. This information will be contained in the section of the report titled, "Data Quality Assessment."

Undoubtedly various methodological issues will arise in the course of the assessment. The Team will consult with the SO5 team and the Bureau's M&E Office regularly in this regard.

B. Specific Approach:

Attached is a calendar containing key benchmarks and corresponding Team responsibilities for this exercise. The following provides a brief chronological description of workplan activities.

1. Preliminary review of the DQA documentation (ADS guidelines, TIPS, PWC Tookkit, etc), and preliminary discussion with USAID/Washington personnel to identify priority issues & concerns.

2. Initial consultations with mission personnel to:

   - Review the overall scope of work for the SO5 DQA, as well as the current SO5 Performance Monitoring Plan;
   - Clarify the set of indicators to be covered; and
   - Discuss mission and bureau issues/concerns about indicators and data quality.

3. Team prepares a Performance Indicator Database Matrix to (a) guide focus group discussions with partners about indicator quality issues, and (b) provide the information source for indicator quality assessment tables on each indicator.

4. Intensive Consultations With Implementing Partners to:

- Gather the information for completing the Performance Indicator Database Matrix. Once completed, the Team will prepare indicator quality assessment tables for each indicator which address the criteria contained in the "Performance Indicator Quality Assessment (Worksheet #5); and,

- Conduct a validation exercise of data quality with each partner based on the information contained in Data Quality Assessment Worksheet # 7 using the ISO audit standards method.

5. The Team will draft sections of the report in accordance with the time-frame contained in the attached workplan calendar.

III. REPORT OUTLINE

1. Executive Summary
2. Background
3. Methodology
4. Indicator Quality Assessment (see attached template)
   - 4.1 Indicator Quality: Employment Opportunities Created
   - 4.2 Indicator Quality: Value of Business Transactions Completed
   - 4.3 Indicator Quality: Number of Business Transactions Completed
   - 4.4 Indicator Quality: Value of Finance Leveraged
   - 4.5 Indicator Quality: Number of Firms Receiving Training
   - 4.6 Indicator Quality: Number of Beneficiaries Receiving HIV/AIDS Information/Training
   - 4.7 Performance Indicator Relationships and Interdependencies
5. Data Quality Assessment (see attached template)
   - 5.1 Data Quality Assessment: (South African International Business Linkages (SAIBL)
   - 5.2 Data Quality Assessment: Sustainable Employment Micro-enterprise Development (SEMED)
   - 5.3 Data Quality Assessment: Foundation for International Community Assistance (FINCA)
   - 5.4 Data Quality Assessment: Agribusiness Linkages (Agrilinks)
   - 5.5 Data Quality Assessment: SEGIR Privatization (GAPP)
   - 5.6 Capacity of Partners to Accurately Report on SO5 Indicators
6. Overall Findings and Recommendations

Appendices:

1. Performance Indicator Database Matrix (each partner)
2. Individuals/Organizations Contacted

III. Workplan Attachments

1. Workplan Calendar
2. Indicator Quality Assessment Template
3. Data Quality Assessment Template
4. Performance Indicator Database Matrix (for SAIBL)

Assessment Team

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Dr PA Richards

Ms MP Selvaggio

APPENDIX I: PWC WORKSHEET 5

Submitted to:

USAID

By

Megatech

And

Khulisa Management Services (Pty) Ltd

Solicitation Number 0093-1102-SOL-MES

6 May 2003

PERFORMANCE INDICATOR QUALITY ASSESSMENT

Indicator:

_____

Relevant Result:

_____

CRITERIA	COMMENTS
Is the indicator DIRECT?	
▪ Does it closely measure the result it is intended to measure?	
▪ Is it grounded in theory and practice?	
▪ Does it represent an acceptable measure to both proponents and skeptics?	
▪ If it is a proxy, is it as directly related to the relevant result as possible?	
Is the indicator OBJECTIVE?	
▪ Is it unambiguous about what is being measured?	
▪ Is there general agreement over the interpretation of the results?	
▪ Is it unidimensional (i.e., does it measure only one phenomenon at a time)?	
▪ Is it operationally precise (i.e., is there no ambiguity over what kind of data should be collected)?	
Is the indicator PRACTICAL?	
▪ Are timely data available (i.e., is data current and available on regular basis)?	
▪ Can the data be collected frequently enough to inform management decisions?	
▪ Are data valid and reliable?	
▪ Are the costs of data collection reasonable?	
Is the indicator ADEQUATE?	

▪ Does it merely indicate progress rather than attempt to fully describe everything an activity accomplishes?	
▪ Taken as a group, are the indicator and its companion indicators the minimum necessary to ensure that progress toward the given result is sufficiently captured?	
Is the indicator DISAGGREGATED, if appropriate?	
Is the indicator a RESULTS measure?	
▪ Does it reflect an outcome of the program, not completion of an activity or process? Outcomes can include:	
- Impact of services	-
- Quality of services	-
- Customer satisfaction	-
- Timeliness	-
- Costs/Efficiency	-
Is the indicator within USAID's MANAGEABLE INTEREST?	
▪ Can changes in the value of the indicator be reasonably attributed to the efforts of USAID and its partners?	
Is the indicator USEFUL for management?	
Is the indicator EASY to understand, communicate, and use?	
Is the indicator CREDIBLE?	
OTHER COMMENTS:	
RECOMMENDATION:	

ISO 19011:2002 - A COMBINED AUDITING STANDARD FOR QUALITY AND ENVIRONMENTAL MANAGEMENT SYSTEMS

Gary L. Johnson
Environmental Engineer
U.S. Environmental Protection Agency
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Abstract

In a precedent-setting decision in 1998, the International Organization for Standardization (ISO) directed ISO Technical Committee (TC) 176 on Quality Management and ISO TC 207 on Environmental Management to develop jointly a single guideline standard for auditing quality and environmental management systems. When approved, this standard would replace ISO 10011-1, ISO 10011-2, and ISO 10011-3 on quality auditing and ISO 14010, ISO 14011, and ISO 14012 on environmental auditing. A Joint Working Group (JWG) was established comprising experts from both TC 176 and TC 207 to develop the new standard, ISO 19011, Guidelines on Quality and/or Environmental Management Systems Auditing, and to incorporate lessons learned from efforts to improve compatibility between ISO 9001/9004 and ISO 14001/14004, the standards for quality and environmental management systems, respectively. Work is proceeding on the development of ISO 19011 with an expected completion in the summer or fall of 2002.

INTRODUCTION:

This paper discusses ISO 19011:2002, *Guidelines on Quality and/or Environmental Management Systems Auditing*, an international consensus standard currently under development that provides guidance on auditing quality management system as well as environmental management systems. The paper includes a description of the standard, a discussion of relevant issues addressed during its development, and a summary of its current status. Following the approval of the ISO 14001 and ISO 14004 environmental management systems (EMS) standards and the start of a revision to the ISO 9000 quality management systems (QMS) standards, there was considerable interest by ISO in increasing the compatibility between the EMS and QMS standards. Early in the discussions, it became clear that the similarities among the existing EMS and QMS auditing standards would make them a prime candidate for integration into a single standard.

A Joint Working Group (JWG), composed of participants from ISO/TC 176 on Quality Management and ISO/TC 207 on Environmental Management was created by ISO to develop the new standard. The JWG would have co-conveners, one from TC 176 and one from TC 207, and experts would be drawn from both technical committees. Because this venture had never been attempted by ISO before, the ground rules for operating the standard-setting process also had to be revised. Both TC 176 and TC 207 would participate fully in the process. Ballots would be sent to national member bodies for both technical committees, but ISO's rule of "one country, one vote" would require that both TC's agree on the vote for a particular ballot. Otherwise, a country's vote would not be counted. To ensure that a consensus position is reached in the USA, the U.S. Technical Advisory Groups (TAGs) to TC 176 and TC 207 formed a Liaison Group with representatives from TAG 176/Subcommittee 3 on Quality Auditing and TAG 207/ Subcommittee 2 on Environmental Auditing to formulate the U.S. position on ballots.

In November 1998, the first meeting of the JWG to develop a common auditing standard was held in The Hague, The Netherlands. Experts from TC 176 and TC 207 representing 34 countries attended that meeting with the purpose of charting the development process for the new standard. From the outset, the stronger experience was with the quality auditing standards. The environmental auditing standards had been published only for a little over two years and there wasn't much experience in their use. While very similar, there were some distinct differences between the quality auditing philosophy and that of environmental auditing. Issues getting early attention included auditor competency, usability by small-to-medium enterprises (SMEs) and developing countries, and the structure of the standard.

By the spring of 1999 and the second JWG meeting in Buenos Aires, Argentina, an initial Working Draft (WD.1) of the standard had emerged. Discussions were held at the TC 207 meeting in Seoul in June 1999 and at the TC 176 meeting in San Francisco in September 1999, which resulted in the first Committee Draft (CD.1) of ISO 19011. CD.1 was balloted in late 1999 and more than 1400 comments from 35 countries were received by the JWG Secretariat by the end of February 2000.

The JWG met in Berlin, Germany, in March 2000, to address the comments on CD.1. The JWG was divided into two sub-groups, one to address comments on the structure and process aspects of the standard, and one to address the comments on auditor competency. Each sub-group had about half of the comments. After considerable debate, the draft for CD.2 emerged and was balloted for comments in April 2000. The comments were received in August and were addressed by the JWG in Cancun, Mexico in September. The Cancun meeting produced CD.3 which subsequently distributed for comments in late fall 2001. The extensive international comments on CD.3 were addressed in Sydney, Australia, in March 2001, and general consensus was reached on enabling ISO to issue a Draft International Standard (DIS) on ISO 19011 for a five month ballot among the ISO member countries. While the DIS stage generally means that most issues have been resolved, there are still some concerns about parts of ISO/DIS 19011 that may yield extensive international comments. The JWG is tentatively scheduled to meet in Vancouver, Canada, in early 2002 to review any comments received on the DIS. When the DIS is approved the standard will be elevate to the Final Draft International Standard (FDIS) stage and issued for a straight "yes or mo" ballot. Approval of the FDIS will result in ISO issuing the finalized standard.

The goal is to publish ISO 19011 as an international consensus standard by the fall of 2002.

PURPOSE OF THE STANDARD:

ISO 19011 is intended to provide guidelines for auditing ISO 9001-based quality management systems (QMS) and ISO 14001-based environmental management systems (EMS); however, it will also be sufficiently general such that it can be applied to any QMS or EMS. The standard will replace the following current ISO standards:

- ISO 10011-1, -2, -3, *Guidelines for Auditing Quality Systems*
- ISO 14010, *Guidelines for Environmental Auditing - General Principles*
- ISO 14011, *Guidelines for Environmental Auditing - Audit Procedures - Auditing of Environmental Management Systems*
- ISO 14012, *Guidelines for Environmental Auditing - Qualification Criteria for Environmental Auditors*

ISO 19011 reflects the changes made to ISO 9001:2000, *Quality Management Systems - Requirements*, which was issued in December 2001, including the new business model for the standard. ISO 19011 is intended to apply to both internal and external auditing, and may be used as part of auditor certification and training.

STRUCTURE OF ISO 19011:

The structure of ISO 19011 is as follows:

0. Introduction
1. Scope
2. Normative References
3. Terms and Definitions
4. Principles of Auditing
5. Managing an Audit Program
6. Audit Activities
7. Competence of Auditors

The standard includes several diagrams and help boxes to aid users in understanding and using the guidance.

ISO 19011 is a guideline standard which means its use is not mandatory unless it is invoked as part of a multiple party agreement, such as contract or other legal agreement. As a guideline standard, its implementation is generally not auditable because the elements of the standard are not requirements and because there may be others ways of accomplishing the same objectives.

ISO 19011 is generally organized as follows: Clause 0, Introduction, assists the reader in understanding the reason for the standard and who might use it. Clause 1, Scope, defines the scope and applicability of the standard which extends beyond QMS and EMS auditing. Clause 4 provides general some principles on auditing to aid first-time users. Clause 5 provides guidance on establishing, managing, and evaluating different types of audit programs. Clause 6 addresses the process of planning, conducting, and evaluating individual audits within a specific audit program. Clause 7 addresses issues pertaining to auditor competence, including their initial selection and on-going evaluation.

THE AUDIT PROCESS:

Clause 4 - Principles of Auditing:

The standard provides a brief summary of auditing principles in Clause 4. These principles should be used to drive the establishment and implementation of the audit process for an organization. Key among the principles cited for auditor behavior are:

- **ethical conduct** -- the foundation of professionalism,
- **fair presentation** -- the obligation to report truthfully and accurately, and
- **due professional care** -- application of reasonable care in auditing.

Two other principles of auditing relate to the audit process primarily. They are

- **independence** -- the basis for impartiality and objectivity of the audit conclusion, and
- **evidence** -- the rational basis for reaching audit conclusions.

Clause 5 - Managing an Audit Program:

Clause 5 provides guidance for those who need to establish and maintain an ongoing set of audits for an organization. The standard utilizes the Plan-Do-Check-Act cycle to define the audit program. Some of the key actions addressed are:

- establishing the objectives and extent of the audit program;
- establishing the responsibilities, resources, and procedures;
- ensuring the implementation of the audit program,
- monitoring and reviewing the audit program to improve its efficiency and effectiveness, and
- ensuring that appropriate program records are maintained.

Because the standard may be applied to internal and external auditing, setting the objectives and extent of the audit program is a critical early step in defining the audit program for a particular organization or application. Any audit program should be managed by persons having appropriate authorities and

resources to implement the program.

The audit program may also address the possibility of "combined audits" and "joint audits." A "combined audit" occurs when a QMS and EMS are audited at the same time by the same audit team. A "joint audit" occurs when two audit teams cooperate to audit an organization during the same period with one team auditing the QMS and the other team auditing the EMS.

The audit program should be monitored and reviewed to ensure its ongoing effectiveness in meeting the needs of the organization. Adjustments to the audit program should be made when needed in order foster improvements.

Clause 6 - Audit Activities:

Clause 6 describes the six general steps in planning and conducting an audit. The steps include:

- initiating the audit,
- conducting document review,
- preparing for the on-site audit activities,
- conducting on-site audit activities,
- preparing, approving, and distributing the audit report, and
- completing the audit (including any follow-up activity that may be needed).

Initiating an audit requires consideration of several factors and actions, including:

- appointing a appropriate audit team leader,
- having defined audit objectives,
- confirming that the audit is feasible,
- establishing a satisfactory audit team, and
- establishing the initial contact with the auditee.

Once formed, the audit team will review any available documents pertaining to the audit and prepare for the on-site phase of the audit, including the logistics required and arrangements (such as travel) to be made. Preparation for the on-site audit activities may also include:

- creating an audit plan to document how the audit will be conducted,
- assigning specific work or responsibilities to audit team members, and
- developing work documents such as checklists and sampling plans.

Whether a QMS or EMS audit, the on-site activities are similar and include:

- opening meeting with the auditee,
- roles and responsibilities of guides (as needed),

- collection and verification of information,
- audit findings,
- communication with the audit client and auditee,
- preparation of the closing meeting, and
- closing meeting.

Reporting on the audit results is a critical step and must accurately reflect what transpired during the audit. The key is to address the extent of conformance to the audit criteria, the effectiveness of the management system implementation, and the ability of the management review process to assure the continuing suitability and effectiveness of the management system. This is a significant difference from QMS audit criteria in the past when auditors frequently commented on the suitability and effectiveness of the management system itself. This was inappropriate for two reasons: (1) management is responsible for assessing the value (i.e., "suitability and effectiveness") of the management system and (2) the auditors may lack critical knowledge about the organization's operations in order to assess the value of the management system.

The standard provides for audit follow-up as needed to confirm that all non-conformances have been addressed. In most cases, the audit will be completed when all activities described in the audit plan have been completed; however, there may be occasions when follow-up by the same audit team will be necessary, for example, in an internal audit..

COMPETENCE OF AUDITORS:

Auditors must be competent to perform their assigned tasks and there should be a consistent process for initially selecting and continually evaluating the competence of auditors.

The guidance provides describes the general knowledge, skills, and personal attributes needed for an auditor and an audit team leader. An auditor needs knowledge and skills in audit principles, procedures, and techniques in order to be able to implement the audit. Similarly, the auditor needs to understand the scope of the audit and concepts of management systems in order to apply audit principles effectively. An audit team leader needs to have these same knowledge and skills as well as have the appropriate organizational and leadership skills to be able to implement the audit consistent with the goals of the audit program. In addition, the auditor and audit team leader will need knowledge and skills pertaining to QMS and their applications and EMS and their applications, as appropriate. When combined audits are required, knowledge and skills in both areas will be necessary.

There is also a need for auditors to have appropriate education, work experience, auditor training, and auditing experience consistent with the needs of the audit program. Typically, the levels of education, training, and experience will vary according to the specific goals and objectives of the audit program. For example, the levels of education, training, and experience needed for internal (first-party) auditors is very likely to differ significantly from those for third-party, certification auditors. In a practical manner, these levels will be set by the "owner" of the audit program or by an appropriate accreditation body. For

ISO 19011, there has been a lengthy and yet unresolved debate about what these levels should be and who should set them.

At present, the DIS includes minimum levels of education, training, and experience for third-party certification auditors and recommends their use. Sentiments have been strong among some countries that this is needed "to raise the bar of excellence" for auditors professionally, but representatives of some developing countries have expressed concern that the requirements are too burdensome for them. Clause 7 of the DIS contains a table of "illustration of indicators of education, work experience, auditor training, and audit experience." While ISO 19011 is officially a guideline, inclusion of this table in the standard could be interpreted as meaning that these are minimum levels, and, in fact, makes this recommendation for certification audits in Section 7.6.4. The U.S. believes that this table is inappropriate for this standard and infringes upon the authorities of international and national certification bodies. The table is certainly inconsistent with the ANSI/RAB National Accreditation Programs for registrars for ISO 9001 and ISO 14001. Moreover, the U.S. fears that some users could be influenced to apply the table to other audit situations, including internal audits and second-party supplier audits. The U.S. has proposed that the table be deleted or, as a best case, moved to an Informative Annex of the standard with additional examples that cover the full range and scope of auditing to be addressed by the standard. Each national standards body would be responsible for defining the minimum experience levels appropriate for auditors, recognizing that there are differences between the major industrialized nations and the developing countries in terms of capabilities. In accordance with ISO rules and procedures, the U.S. may vote to disapprove the DIS in order to raise this important issue again with the JWG in Vancouver. The final resolution of this issue is uncertain at present.

The standard includes a process to guide the initial selection of auditors commensurate with the needs of the audit program. Since some audit programs may be long term in nature and auditors may be used over an extended period of time, the standard also describes a process for the on-going evaluation of auditor competence. The maintenance of auditor competence includes continuing professional development, such as through additional training, participation in conferences and seminars, and additional work experience outside the audit program.

CONCLUSIONS:

The Draft International Standard of ISO 19011 has accomplished several important objectives in the development of a consensus standard:

- the contents of ISO 10011-1, -2, and -3 have been fully incorporated into the standard;
- the contents of ISO 14010, ISO 14011, and ISO 14012 have been fully incorporated into the standard;
- the interests of the environmental and quality communities have been successfully integrated into one document;
- consistency with the requirements and terminology contained in ISO 9001 and ISO 14001 have been accomplished; and

- the new standard has been made easier to use with a logical structure and with a number of diagrams and examples.

While some critical issues remain to be resolved, the U.S. remains optimistic that they will be resolved and that an International Standard will emerge for use by the fall of 2002.

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1. ISO 19011, *Guidelines on Quality and/or Environmental Management Systems Auditing*. Draft International Standard, International Organization for Standardization, Geneva, Switzerland (May 2001).

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