



**Khulisa
Management
Services (Pty) Ltd**

Verification of Certification Activities in West African Cocoa Sector

Final Verification Report: Ghana



Executive Summary

In 2000, stories emerged in the media about children being trafficked and forced to work under exploitive conditions on West African cocoa farms. In 2001, multiple stakeholders, including members of the United States Congress, the cocoa industry, affected African governments, non-governmental organizations, consumer groups, U.S. government agencies, and the ILO negotiated an all-inclusive, six-point problem-solving protocol aimed at ending the use of abusive child labor in cocoa. The Protocol for the Growing and Processing of Cocoa Beans and their Derivative Products in a Manner that Complies with ILO Convention 182 Concerning the Prohibition and Immediate Action for the Elimination of the Worst forms of Child Labor is more commonly referred to as the Harkin-Engel Protocol named after U.S. Senator Tom Harkin and U.S. Representative Eliot Engel. Signatories to the protocol committed to the development of a certification process that would ensure that no abusive child labor would be used in cocoa production.

In April 2008, after a full and open competitive procurement process, the International Cocoa Verification Board selected Fafo Institute for Applied International Studies (Fafo) with head office in Norway, and Khulisa Management Services (Khulisa) in South Africa, who entered into a cooperative agreement to conduct the verification activities.

The government of Ghana conducted a certification study during 2008 with the objectives of estimating child labor and worst forms of child labor (WFCL) in cocoa production sector, in addition to documenting the incidences of forced adult labor (FAL) practices.

The main findings of the scaled-up study were as follows:

- Cocoa production in Ghana is a smallholder activity with average farm size of 2.4 hectares.
- There was no evidence of trafficked children and none were found in debt bondage.
- The school enrolment rate was 89 percent with an attendance rate of 93 percent. 54 percent of children could not read and write.
- 77 percent of interviewed children lived with their parents. Nearly 90 percent of children engaged in domestic chores.
- 35 percent of children worked on cocoa farms with 61 children (6.1 percent) undertaking cocoa activities under high intensity conditions (working for 7 or more hours per day or 4 to 6 hours a day for 6 to 7 days a week).
- 47 percent of children had participated in at least one hazardous cocoa production activity during the last cocoa farming season. About one percent of children participated in application of pesticides.
- Nearly 50 percent of children in cocoa households are currently participating in cocoa farm activities. Children in the 5 to 12 year group participated in almost all the economic activities evaluated.

With the objective of verifying the credibility of the certification study, the verification was designed to assess the components of the certification studies: study objectives, literature, research techniques, sampling design, data, results and conclusions. These components were evaluated against standard criteria and best research practices using various mechanisms such as review and analysis, a data quality audit and a sub-sample study.

Throughout the verification process, the verifiers sought to ensure that their primary objectives described earlier were addressed by concentrating on several key research questions and focal issues. These focal issues were framed by international definitions of key concepts as well as national legislation in Ghana.

The implementation of the verification activities was conducted in phases by first carrying out a direct assessment on the various components of the certification study followed by a sub-sample study designed to assess the consistency and comparability of the results and conclusions of the certification study. The results of the two phases were synthesized and used for making a decision on the overall quality of the certification studies.

In the first phase, verifiers reviewed all relevant certification documents, including the certification study reports, data and materials used in the studies, and information gathered from various individuals and stakeholders that contributed to the outcome of the certification studies.

A Data Quality Audit (DQA) of the scaled-up survey was also conducted to evaluate data management capacity including the processes followed, the resources used and the limitations, and the quality of training provided for data collectors and the supervisors. The DQAs comprised interviews, document reviews and observation of audit trails. Documents on child labor and those relevant to the assessment of certification studies were reviewed to inform the assessment methodology and the design of DQA data collection tools. Five widely-accepted criteria for data quality were used: Validity, Reliability, Integrity, Timeliness and Completeness. Using standardized tools, the quality of data was tested against audit trails to verify the existence of strengths or risks to data quality.

To verify that the analysis and subsequent conclusions and policy recommendations were credible, the verifiers replicated all the reported findings to ensure that these findings were supported by the data collected for that purpose. They then identified core indicators for child labor in cocoa, worst forms of child labor, and forced adult labor practices. Using the core indicators, verifiers then examined the results and the conclusions drawn from these results to evaluate whether the conclusions were based on the analyses.

In the second phase, a sub-sample study was conducted by selecting a specified number of households from the original certification study data with the objective of verifying comparability and consistency of the results and conclusions of certification study.

Verification Findings

The assessment findings were drawn from the document assessment, data quality audit and replication of data analysis. Each assessment activity provided insight into different aspects of the certification studies.

The review of certification documentation and materials, and information from key stakeholders allowed the verifiers to assess the certification's objectives, literature review and background research, research techniques, sampling design, and instruments used.

Assessment Findings on the Certification Study Objectives

The main objective of the certification studies was to provide reliable, comprehensive and timely data which would improve understanding of the causes and consequences of child labor and serve as a basis for determining priorities for national action for the abolition of exploitive labor practices, in particular for the prohibition and elimination of the WFCL. This study process was guided by the

anticipated outcomes that included an estimation of the worst forms of child labor and forced adult practices in the cocoa sector. The results of the studies were also used to provide recommendations and remediation actions.

Literature Review and Background Research

The background literature did not directly shape the problem definition, but it influenced and created a framework for the study. The report included references to relevant literature and contextualized it well. Comparisons of the findings from the certification study and previous studies were conducted and discussed.

Research Techniques

The research technique used in the certification studies was direct face-to-face interviews aimed at gathering information from household heads, children, and adult workers. This method was further supplemented by conducting focus group discussions and administering a community-level questionnaire to key informants. These techniques enabled researchers to gather reliable statistical information on the various issues and indicators if properly and carefully implemented.

Sample design

The sample used in the certification study was constructed as a three stage stratified cluster sample, limited geographically to the six cocoa producing regions in Ghana. The first stage of the sampling entailed constructing a frame of districts and stratifying them by region. A total of 15 districts were then sampled. The second stage entailed selecting enumeration areas within each district selected in the first stage. In total 120 enumeration areas were selected proportional to the number of households in each enumeration area, using systematic probability proportional to size selection. The third stage involved making a list of the households in each enumeration area, and then selecting a fixed number of households.

The list of households was initially constructed so that it only consisted of households that produced cocoa, and that had least two children aged 5-17 years. The omission of the households with only one child in the correct age bracket obviously constitutes a bias. However, by examining the certification scaled-up study data, it was found this omission was not implemented as more than 30% of the households were found to have only one child. The sample size was estimated on the basis of the number of households. However, the formula given (Section 3 of certification study) for determining sample size was incorrect, and also not the one apparently used for calculation of the sample size as described in the report.

The study defined an adult worker as a person aged 18 or above who was working for the household in cocoa production activities in some form of work arrangement. A substantial number of interviewed adults were closely related to the household (88%). In investigating forced adult labor practices, the study would have been better served if it had focused on adult workers that were not members of the household.

The design of the scaled-up sample was described as a self-weighting sample. However, a close examination revealed that the sample was not a self-weighting sample. This was because the size measure in the first stage was not the same as that of the second and third stage. The allocation of the sample also led to unequal sampling probabilities and therefore unequal weights. A three stage design, as described above, often has relatively large variance, and is therefore not a particularly good choice if it can be avoided.

In general, it is not recommended to replace selected households when they cannot be interviewed, because it tends to increase any bias caused by the missing households. The survey sampling descriptions unfortunately lacked a discussion of how non-response was with in the survey. In the reported results, no procedure was used to handle non-responses.

Instruments

Four types of instruments were used to gather information using a direct interview technique supplemented by focus group discussions. These instruments were household, child, adult and community questionnaires. The instruments designed for the purpose of the certification studies to gather information about cocoa production activities at the household level and the associated labor requirements, both child and adult. The household instrument was designed to gather information at the household level and primarily administered to the head of the household. The main limitation with the questionnaire was that it was not constructed to include laborer that were not member of the household, be it children or adults.

Data Quality Audit Findings

Assessment of Data Collection Processes

The data collection process was generally acceptable and contributed only minor risk to the data quality of the overall certification study. The integrity and the completeness of the data collection process imparted little or no risk while validity, reliability, and timeliness of the process exhibited vulnerabilities which introduced some risk to overall data quality. Fieldworkers were well-qualified and reported that the questionnaires were well-designed, but they also indicated that they did not have sufficient time in each village to collect data and that the six-day training they underwent was not adequate. Additionally, the parents were sometimes present during the interviewing of young children, which could have the truthfulness of the children's responses.

Assessment of Data Capturing Processes

The certification study's data capturing process was generally acceptable and contributed only minor risk to the data quality of the overall certification study. The integrity and the completeness of the data capturing process were among the strongest aspects. However, the reliability and timeliness of the process exhibited vulnerabilities which imparted some risk to data quality. Data entry took two weeks longer than planned and data cleaning took a full seven weeks to complete. However, data entry personnel were provided comprehensive, hands-on training, and there were numerous quality control checks in place.

Assessment of Documentation and Reporting

The audit of documentation and reporting involved the determination of the availability of documentation on the major stages in survey implementation. Documentation and reporting cut across all the stages of data management process including data sources, data collection, data capturing, analysis, reporting and dissemination and information use. The documentation and reporting of the data collection *and data capturing* were found to be above average. *For survey preparation*, data analysis, *data protection* and reporting and dissemination, the documentation was found to be average. Survey methodologies, techniques and quality control measures used during the survey were well documented, and there was systematic documentation of the administrative processes and the procedures followed to support the survey.

Assessment of Improvement Cycle

Verifiers assessed the available capacity to improve future certification studies in Ghana. Specifically, the adaptability, expertise, and cost-effectiveness of the Ghana Certification study and the implications for future studies were considered. The scaled-up study was found to have been informed by lessons learned from the pilot study, which indicated willingness and ability for adaptation and improvement. There appears to be a sustainable base of expertise for future studies. However, no cost-effectiveness evaluation of the study had been carried out and research managers indicated that the efficiency of the survey in terms of design and implementation was not known.

Working children

Working children are defined as children who work for pay or profit (in cash or in kind, part-time or full-time), or working for a family enterprise (paid or unpaid), or as a domestic worker outside their own household for an employer (with or without pay) during a specific reference period.

The sub-sample study found 93 percent of children indicated that their primary activity was school while 8 percent indicated that their primary activity was cocoa farming. Moreover, 26 percent of children indicated that this was their secondary activity. The percentage of children that were working in cocoa was reported as 35 percent in the main findings of the certification study. However, this statistic was not noted as a secondary activity but rather was reported as a main activity. Hence, the certification study did not characterize the working children accurately according to the data.

Participation in hazardous cocoa activities

The results from the certification study showed that children do engage in hazardous cocoa activity, as more than 30 percent of the children interviewed engaged in at least six hazardous activities. Results from the sub-sample study showed that 59 percent of the children engaged in cocoa cultivation used a cutlass and 46 percent of them used it for pod breaking. These statistics confirm the conclusion of the certification study that children's engagement in hazardous activity was a widespread phenomena that needs to be addressed.

Worst forms of child labor

Forced child labor

The sub-sample addressed forced child labor by investigating how children first became involved in cocoa production, and if children were forced to work even if they were ill or hurt. The sub-sample result showed that six percent of the 120 children working in cocoa farming reported that they were initially forced by their family to work there. This characterization was an indication of a general labor practice and does not necessarily imply forced child labor in its strict sense. The certification study report concluded that this practice was a part of normal socialization and upbringing. However, it indicates unacceptable labor practices do exist in cocoa production activities.

Bonded child labor

The certification study did not find children who reported that they were in debt bondage. In the sub-sample study, children who were not living with any of either of their parents were asked if they had any debt they needed to repay and none reported any debts. Hence, the result of the scaled-up certification study was consistent with the findings of the sub-sample study, validating the results reported by the certification study.

Child trafficking

The scaled-up study did not report any incidences of child trafficking and hence no comparison could be made.

Commercial sexual exploitation of children

The certification study reported two suspected cases of children that were initially believed to be involved in commercial sex. This suspicion was ruled out with subsequent follow-ups that indicated no organized form of commercial sexual activities. The sub-sample study addressed the incidence of commercial sexual activities by posing questions on children's income-generating activities with commercial sex as an option. None of the children reported that they were engaged in commercial sexual activity, in line with the conclusion of the certification study.

Forced adult labor

The sub-sample study found the definition of adult labor used in the certification study to be problematic. The issue of forced adult labor needs to be studied among adult workers that are not members of the household. The certification study objectives would have been better served by studying adult workers of a given household that were not members of the household. To estimate the number of adults working for a given household that are not the member of the selected household, the sub-sample study collected demographic characteristics of these adults. The sub-sample study demonstrated that focusing only on adult workers coming from outside of the household in question would help characterize the forms of forced adult labor.

Conclusion

The main objective of the verification was to conduct an assessment of the credibility of the certification studies carried out by the government of Ghana through a comprehensive evaluation of the studies using a direct assessment supported by a sub-sample study.

The results of the verification indicate that the overall quality of the certification study is Average. This result suggests that the study achieved its objectives, albeit with some limitations. These limitations could be addressed by focusing on adult workers that are not the members of the household for investigating forced adult labor practices. In addition, for the reported results to be representative of the general population under study, appropriate statistical weights must be applied to the estimates in the study. The overall results are summarized in Table 1.

With these important remarks, the verification team makes the recommendation to the International Cocoa Verification Board to accept the Ghana certification scaled-up study.

Table 1 Verification summary chart: Ghana

Components of the study	Sub-components	Criteria	Mechanisms	Strength	Gaps, errors, omissions	Suggested improvements	Characterization
Objectives		Clarity	Desktop review*	Clearly set with relevant anticipated outcomes	None	None	Above average
Literature review		Completeness Impact on study	Desktop review	Created a framework for the study	Problem definition was not shaped by the available literature Limited discussion on findings	Provide context for results in comparison to previous research.	Average
Research technique		Appropriateness	Desktop review	Standard methodology for quantitative and qualitative data collection	None	Include research techniques for capturing rare and elusive populations	Above average
Sample	Sample design	Probability sample Substitution	Desktop review	Probability sample Use of maps and lists	Large variance No indications of replacement Non-response not dealt with	<i>For future surveys:</i> Two stage sampling. Substitution is not recommended	Below average
	Sample units	Completeness	Desktop review			<i>Short term:</i> Apply sample weights for estimates	
Instruments		Completeness	Desktop review	Adequate in terms of coverage of issues they were aimed at capturing	Lack of flow	Improve the flow and consistency of instruments	Average

Components of the study	Sub-components	Criteria	Mechanisms	Strength	Gaps, errors, omissions	Suggested improvements	Characterization
DQA	Data collection	Validity Reliability Integrity Timeliness Completeness	Standard DQA Tools**	See details in chapter 5.2	See details in chapter 5.2	See details in chapter 5.2	Average Average Above average Average Above average
	Data capture	Validity Reliability Integrity Timeliness Completeness	Standard DQA Tools	See details in chapter 5.2	See details in chapter 5.2	See details in chapter 5.2	Average Average Above average Average Above average
	Documentation Survey preparation Data collection Data capturing process Data protection Analysis documentation Reporting/dissemination	Availability, completeness, readability	Standard DQA Tools	See details in chapter 5.2	See details in chapter 5.2	See details in chapter 5.2	Average Above average Above average Average Average Average
Results and conclusions		Comparability Consistency	Replication Sub-sample	Comparable results between certification and subsample Most results replicable	Results were not weighted, and could not be representative to the population under the study	Use appropriate statistical weights on the data	Average***

* In reference to standard research practices

** Based on ISO 9000 standard

*** The quality of the results and conclusions is based upon the quality of all the components in the study, and their implication for the overall quality of measuring the central issue of the study, namely child labor, worst forms of child labor and forced adult labor

Preface

This report presents the overall findings of the verification activities of the Ghana Cocoa Certification Studies, which were carried out through the Ghana Cocoa Labour Survey (2007/2008). Similar verification activities were also conducted in Côte d'Ivoire as part of the verification of the National Initial Diagnostic Survey (2008) in that country. A separate verification report has also been prepared for Côte d'Ivoire. This report is intended for all stakeholders in the cocoa industry, from government, civil society organizations and consumers.

The Ghana verification activities were a joint venture between Fafø Institute for Applied International Studies (Fafø) with head office in Norway, and Khulisa Management Services (Khulisa) in South Africa. The verifiers were assisted in their activities by an in-country sub-partner, HEDGE Ghana.

The verifiers, having prepared this report in its entirety, are responsible for any inadvertent errors occurring in this document. Readers who have queries regarding this verification report should direct questions to one of the following individuals:

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The International Cocoa Verification Board

The International Cocoa Verification (ICVB) is an important initiative to help improve social conditions for cocoa farming families in West Africa. This multi-stakeholder body includes nine representatives from NGOs, academia, trade unions and industry. The chocolate industry is working with partners to support this independent verification board.

A wide-scale public search for potential Board members was initiated in the fall of 2007. After reviewing the nearly 40 applications that were received, Verité, a US-based nonprofit, screened applicants for conflicts of interest, relevant experience and institutional history. The short-listed applicants were interviewed and a committee of Verité’s Senior Management selected the Board members, taking care to balance nationality, gender and expertise. The International Cocoa Verification Board was formed in December 2007.

The creation of the ICVB, and the verifiers that it selected, are central to achieving the Harkin-Engel Protocol goals. However, it should be noted that the “certification system” that was established consisted of the activities outlined in the Joint Statement, namely the “monitoring, data analysis, reporting and activities to address the worst forms of child labor”, and is not a certification label attesting to specific product attributes.

At the first ICVB meeting, held in January 2008, the ICVB agreed to have Verité serve as the Secretariat. The Secretariat does not sit on the ICVB and does not possess decision-making authority, but serves to carry out the administrative and management functions for the board and provides technical support where appropriate.

Verité is an award-winning pioneer in social auditing, training and research. The organization has over a decade of experience working with governments, Fortune 500 corporations (and their local suppliers) through its global network of NGO partners. Verité works in over 60 countries to empower companies, factories, NGOs, governments, and workers to create sustainable workplace practices in factories and on farms.

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List of Acronyms

CRC	Convention on the Rights of the Child
CSEC	Commercial Sexual Exploitation of Children
CSPro	Census and Survey Processing System
DA	District Assemblies
DEC	Data Entry Clerks
DHS	Demographic and Health Survey
DQA	Data Quality Audit
EA	Enumeration Area
EIB	Employment Information Bureau
FAL	Forced Adult Labor
F-CUBE	Free Compulsory Universal Basic Education
FGD	Focus Group Discussions
GAWU	General Agriculture Workers' Union
GLSS	Ghana Living Conditions Survey
GSS	Ghana Statistical Services
HCL	Hazardous Child Labor
HEDGE	Foundation for Health, Education, Development Growth and Enterprise
ICVB	International Cocoa Verification Board
ILO	International Labor Organization
ISO	International organization for standardization
MMYE	Ministry of Manpower, Youth and Employment
MOWAC	Ministry of Women and Children Affairs
NPECLC	National Program for the Elimination of Worst Forms of Child Labor in Cocoa
OE	Office Editors
OSH	Occupational Health and Safety
QC	Quality Control
SNA	System of National Accounts
SPSS	A statistical analysis software
TRS	Total Risk Score
TWG	Technical Working Group
WFCL	Worst Forms of Child Labor

1. Introduction

Before going into detail of the verification, a brief review of the issue of child labor, particularly in the cocoa sector, is necessary to understand the context of certification and verification activities. Child labor continues to be a significant and widespread problem around the world. Both historically and today child labor is linked with poverty (Blunch 2000), with many children working to ensure the survival of their families and themselves. Estimates suggest that at least 200 to 250 million children in developing countries between the ages of 4 and 14 are involved in some type of child labor, and 120 million of these children are engaged in full time activities.

The International Labor Organization (ILO) defines child labor as “remunerated and unremunerated work by a young person under a certain age, the work of which impairs the young’s personal development, health, safety and well being physically, mentally and psychologically, impairments of which is in violation of national or international law” (ILO 2002). ILO Minimum Age Convention No 138 states that child labor is “any economic activity performed by a person under the age of 15 years but developing countries may fix it at 14 year (ILO 2002), and the Convention’s Article 3 states that the minimum age for work that is likely to be harmful to children’s health, safety or morals of young persons shall not be less than 18 years. ILO Convention 182 defines the Worst Forms of Child Labor (WFCL) as:

- All forms of slavery or practices similar to slavery, such as the sale and trafficking of children, debt bondage and serfdom, as well as forced or compulsory labor, including forced or compulsory recruitment of children
- The use, procuring or offering of a child for prostitution, for the production of pornography or for pornographic performances
- The use, procurement or offering of a child for illicit activities, in particular for the production and trafficking of drugs as defined in relevant international treaties
- Work which, by its nature or the circumstances in which it is carried out, is likely to harm the health, safety or morals of children, such harmful work to be determined by national authorities in consultation with employers and workers organizations.

The terms child work and child labor have been used to distinguish between forms of work (Bøås and Hatløy 2006), where child work refers to work that does not harm the safety, health or moral well-being of the child or prevent him or her from attending school. Extensive literature on child labor is available; nonetheless, reliable figures concerning forced child labor on cocoa farms are difficult to obtain. However, Sub-Saharan Africa has the highest child labor rate (ILO 2002). One of the factors that cause child labor is the structure of the household production (Andvig 2001b). African countries are largely rural, and continue to be dominated by household production compared to other parts of the world that have large land holdings (ibid).

Children and adults working in the cocoa sector can be defined as those who carry out at least one of the following tasks/activities on a cocoa farm on regular basis:

- Clearing the ground

- Nursery
- Maintaining cocoa trees
- Harvesting
- Treatment and sale of cocoa beans
- Other farm related activities

In West Africa, as is often the case in other parts of the developing world, children traditionally help out in the fields as a part of their household chores, and not all work is likely to harm the child or prevent them from attending school or social activities. The involvement of children in production varies from region to region, and from sector to sector. In cocoa production in West Africa, researchers distinguish between three categories of labor involving children (IITA 2002, Bøås and Huser 2006). The first is family labor, which includes the children of the farmers or children of close relatives of the farmers who live on the farm. The second is foster labor, which includes children with well-established kinship or communal ties to the household. The third and last category is salaried labor, the children who work for pay, without any kind of family, kinship or communal ties to the farm household in which they work. However, to develop an understanding of child labor, it is important to look beyond statistical definitions and firm categorizations (ibid). Children's agencies should be acknowledged as well, recognizing children as active participants within family and cultural structures.

Labor migration, also among children, is more than just a system of production; it is also a "rite of passage" for prepubescent boys and a tool for negotiating, redefining and reconstructing what it means a child or youth (Grier 2004). Kielland and Tovo (2006) argue that some of the work performed by children serves as preparation for adult life, and contributes to a feeling of being useful. Children have even expressed that they considered working as a child right in itself (ibid). The African Charter of the Rights and Welfare of the Child, which Ghana ratified in 2000, adds to these instruments by obliging governments to promote dissemination of information about the hazards of child labor. It also states explicitly that it applies to both the formal and informal sectors of the economy. The African Charter further notes that children have responsibilities towards their families, society, communities and government and the international community. In particular, Article 31 states that a child "shall have the duty . . . to work for the cohesion of the family, to respect his (sic) parents, superiors and elders at all times and to assist them in case of need".

Without the option to work, children may not have the ability to survive. However, this creates a dilemma for researchers, because it is difficult to draw a distinct line between "good" work and "bad" work. To what extent should children's expressed desire to work be respected? When is there cause to intervene and argue that the work is harmful? As stated above, the Convention of the Rights of the Child defines work as child labor when it "impairs the young's personal development, health, safety and well being physically, mentally and psychologically".

The background for this verification report is closely linked to the debate around child labor, labor migration, and child relocation. Ghana and Côte d'Ivoire produce around 60 percent of the cocoa in the

world, mainly on family farms. The cocoa producing areas are fertile and attractive to migrants from less productive areas, and there is significant movement of both children and adults to these regions. The immigrant flow goes mainly from the north to the south in both countries. Especially in Côte d'Ivoire, many immigrants come from neighboring countries, with Burkina Faso and Mali as the two most important places of origin.

In 2000, stories about children being trafficked and forced to work under exploitive conditions on West African cocoa farms emerged in the media. While there were varied opinions on the level and scope of the problem, in 2001, multiple stakeholders, including members of the United States Congress, the cocoa industry, affected African governments, non-governmental organizations, consumer groups, U.S. government agencies, and the ILO negotiated an all-inclusive, six-point problem-solving protocol aimed at ending the use of abusive child labor in cocoa growing by July 1, 2005. The Protocol for the Growing and Processing of Cocoa Beans and their Derivative Products in a Manner that Complies with ILO Convention 182 Concerning the Prohibition and Immediate Action for the Elimination of the Worst forms of Child Labor is more commonly referred to as the Harkin-Engel Protocol, after U.S. Senator Tom Harkin and U.S. Representative Eliot Engel. Signatories to the protocol committed to the development of a certification process that would ensure that no abusive child labor would be used in cocoa production. By the July 1, 2005 deadline, the first five steps of the protocol had been completed. The sixth point, related to the certification process, was still in a pilot phase.

On July 1, 2005, an extension of the Protocol was agreed to and a joint statement released by Senator Harkin, Representative Engel and the cocoa industry committed to expanding the pilot certification system to cover 50% of the cocoa growing areas of Côte d'Ivoire and Ghana by July 1, 2008. There are several documents that serve to clarify the scope of the certification effort that now requires verification. In the 2005 Joint Statement from U.S. Senator Tom Harkin, Representative Eliot Engel and the Chocolate/Cocoa Industry on Efforts to Address the Worst Forms of Child Labor in Cocoa Growing, Senator Harkin and Representative Engel acknowledged that the "Protocol stands as a framework for progress" (p. 1), and that specific actions on the part of industry must include:

- "Rollout of the certification system -- including monitoring, data analysis, reporting and activities to address the worst forms of child labor -- as aggressively as possible in Côte d'Ivoire and Ghana, with a goal of covering 50 percent of the two countries' cocoa-producing areas by July 2008" (p. 2). The verification effort is central to achieving this goal.
- "Support for programs to improve conditions in West African cocoa farming communities, and to address the worst forms of child labor and forced labor at the community level." (p. 2)

The latter goal is being achieved through other industry efforts, such as the International Cocoa Initiative, the World Cocoa Foundation and multiple company-specific remediation projects, although they are not part of the verification effort at this time and were not considered or addressed as part of this report.

Key elements of successful Protocol implementation, and future improvements in conditions in West Africa, are the rigor and transparency of the verification process and the credibility and quality of those

¹ From 2002 to 2006 the two countries produced between 58 and 63 percent of all cocoa in the world, Côte d'Ivoire 41-42 percent, and Ghana 15-20 percent according to numbers given on the web-page to World Cocoa foundation (2008)

selected to conduct the verification. While these are important factors for any process, it is especially true in this instance because of the unusual arrangement that conferred the task of surveying farms to the governments themselves. While government involvement may be unusual when compared with other certification efforts, there is no better partner for ensuring sustainable broad-scale improvements in the lives of cocoa farmers and their children in their respective countries.

As the Harkin-Engel Protocol itself acknowledges when it quotes the International Labor Organization's Convention 182 concerning the Prohibition and Immediate Action for Elimination of the Worst Forms of Child Labor, "child labor is to a great extent caused by poverty and that the long term solution lies in sustained economic growth leading to social progress, in particular poverty alleviation and universal education." The sector-wide government-backed surveys are an integral part of finding national solutions to these twin drivers of WFCL: poverty and lack of education.

The outline of this report reflects these two key activities. Chapter 2 describes briefly the certification activities in Ghana. In Chapter 3, the objectives for the verification process and the verification design are described. The materials and methods used for assessing the certification study are explained in Chapter 4. In Chapter 5, the findings from the assessment of the certification study are presented. Chapters 6 and 7 deal with the sub-sample study; the first presents the methods used, and the next presents the findings. A summary of the findings and conclusions of the verification are presented in Chapter 8.

2. Cocoa Certification Studies in Ghana

An important component of the Harkin-Engel Protocol is the call for a public certification on the issue of child labor in cocoa production. To this end, the government of Ghana conducted two studies through the Ministry of Manpower, Youth and Employment (MMYE): a pilot study and scaled-up certification study. These studies were the subject of the verification activities, though the primary focus was on the scaled-up study.

2.1. Pilot Study

The pilot study of labor in the cocoa sector was conducted by MMYE in 2006. The study was considered as a first response to the Harkin-Engel protocol requirements and aimed to provide the basis for a certification system in Ghana's cocoa sector. The pilot survey covered 24 communities in six districts from four cocoa growing regions. A total sample of 590 households, 610 children and 355 adult workers were selected for the purpose of the pilot study.

The objectives of the pilot study were:

- To identify sources, types and periods of labor need in cocoa production in Ghana.
- To document incidence or otherwise of unconditional worst forms of child labor (WFCL) in Ghana's cocoa sector.
- To document incidence or otherwise of forced adult labor (FAL) in Ghana's cocoa sector.

In addition to the above substantive objectives, the pilot study was aimed at testing the various instruments and methods used, and in addition, it was intended to inform the design of the scaled-up certification study.

Some of the key findings of the pilot survey were as follows:

- Cocoa farming is mainly a small holder activity and there are a limited number of large cocoa plantations in Ghana.
- Most children live with their parents (84 percent), 14 percent live with relatives and two percent live with non-relatives.
- All children in the various age groups are involved in one or more cocoa production activities: weeding (more than 50 percent), carrying water for spraying (more than 60 percent), pod gathering and heaping (more than 84 percent).
- Children engage in cocoa production activities on weekends (90 percent), holidays (85 percent), when they are needed by their parents (21 percent) or after school (34 percent).
- Children's involvement in cocoa production and exposure to hazardous farm work is widespread and diverse.

2.2. Scaled-up Study

The larger scaled-up survey was conducted by MMYE in 2007, and the final scaled-up certification report was released in June 2008.

The scaled-up study had similar objectives to the pilot study, though it was an extended survey covering a larger number of households, regions and districts. It focused on providing estimates for a variety of indicators on child trafficking, engagement and recruitment of children into hazardous activities and any of the worst forms of child labor, forced and/or bonded labor.

2.2.1 Methodology²

The scaled-up survey was a probability sample of households from each of the six administrative regions of Ghana that produce cocoa. The sample was designed to have a reporting domain at country and regional levels.

Sample frame and units

The target population was all those living within cocoa farming households in the six cocoa-producing administrative regions. A total of fifteen districts were selected from these regions. These districts were divided into manageable enumeration areas (EAs) called clusters whose size was standardized. This standardization was planned to avoid disproportionate sampling and to provide a self-weighting sample design. This clustering exercise was undertaken by the Cartographic Division of the Ghana Statistical Service (GSS) on all the “cocoa buying societies” in the 15 selected Administrative Districts. The average size of a standard cluster was reported to be 150 households. The EAs constituted the primary sampling unit in the first stage of the sampling design. The households within the EAs were the secondary sampling units for the second stage of the sampling design.

Prior to the selection of the sample at the second stage, a list of dwellings and households was compiled by GSS. This formed the sample frame and included information such as the name of the household head, whether or not the household operated a cocoa farm, the ownership structure of the household, the household size, and the number of children between the ages of 5 and 17 years. From this exercise the sampling frame for each district was formed satisfying the following conditions: 1) the household operated a cocoa farm and 2) at least two children aged 5-17 years live in the household.

Sample allocation

The 15 administrative districts were allocated proportionally into six regions using the administrative districts’ annual cocoa production level. Within each region, the EAs were further stratified into the selected administrative districts and were selected using a systematic method with probability proportional to the size, and size being the annual production level for the year 2004/2005.

In total, 120 EAs were selected for the study. These EAs constituted 60 percent of the total cocoa production in Ghana in the year 2004/2005. In each of these EAs, 15 households were selected as main respondents and an additional five households were selected for substitution. Substitutions were made for households that were not present and could not be found. Thus, a total sample of 2400 households was planned, including all the children and adults living in these households.

The questionnaires were designed by the Technical Working Group (TWG) of NPECLC, which was made up of agricultural economists, statisticians, an occupational health and safety specialist, a rural sociologist and child labor experts. After the initial design, the questionnaires were tested and modified.

² This section is based on Section 4 in the certification study.

During one of the training sessions held for the interviewers, the draft questionnaire was pre-tested. After the field tests, the questionnaires were further revised and finalized. A field manual was also prepared for the interviewers.

Data collection instruments

The scaled-up study used several instruments administered to different individuals. These instruments included a household questionnaire administered to the household head, an adult questionnaire administered to adult workers, a child questionnaire, and a community questionnaire for community leaders and chiefs. Additional focus group discussions were conducted to illicit information about cocoa farming and the use of labor, especially the involvement of children.

Survey organization and actual sample

The survey was conducted under the general supervision of the TWG. Actual data collection began immediately in the middle of December 2007 and was carried out by 15 teams of interviewers. These teams were overseen by five monitoring teams. Each data collection team consisted of a supervisor, three interviewers and a driver. Most of the interviewers were social workers, teachers, and statisticians with field experience and knowledge on child labor issues. Data was collected from 1735 households within the 15 selected districts. Interviewers were provided with a list of the heads of the selected households and maps of their assigned EAs. Where interviewers could not locate a selected household, a replacement was made from five reserved households on the list.

The household questionnaires were administered to the heads of the selected cocoa producing households within the 15 districts. All children between five and 17 years of age within these households were interviewed using the child questionnaires. The adult questionnaires were administered to adult cocoa farm workers within the selected household. The community questionnaires were administered to groups of opinion leaders from the selected cocoa growing communities. Focus group discussions were held in some of the communities.

In total, 119 instead of 120 EAs were surveyed, as one EA in the Asante Akim North district could not be covered due to logistical challenges. Interviews were conducted in 1735 households, 3452 children, 1391 adults, 104 key informants, and 66 focus groups were conducted during the survey.

Data processing and analysis

The completed questionnaires were edited at the GSS office prior to data capturing. The data was captured using CSPro. Data analysis was undertaken by the research team members and officials from the GSS. The data tabulation and analysis was done using SPSS.

2.2.2 Summary of Findings

The main findings of the certification study were as follows:

- Cocoa production in Ghana is a smallholder activity with average farm size of 2.4 hectares.
- There was no evidence of trafficked children and none were found in debt bondage.
- The school enrolment rate was 89 percent with an attendance rate of 93 percent.
- 54 percent of children could not read and write.

- 46 percent of children were engaged in domestic work.
- 35 percent of children worked on cocoa farms.
- 77 percent of interviewed children lived with their parents.
- 47 percent of children had participated in at least one hazardous cocoa production activity during the last cocoa farming season. 446 (47 percent) children were engaged in at least one of the fifteen hazardous cocoa activities or conditions of work. On average, the highest participation in the hazardous list activities occurred in the districts of the Western Region.
- One percent of children participated in application of pesticides.
- Nearly 50 percent of children in cocoa households are currently participating in cocoa farm activities. Children in the 5 to 12 year group participated in almost all the economic activities evaluated.
- About 73 percent of children in cocoa growing areas are involved in apprenticeship training in contravention to the Children's Act.
- 61 children (6.1 percent) undertook cocoa activities under high intensity conditions (defined as working for seven or more hours per day or four to six hours per day for six to seven days per week).
- There were 234 injuries reported two weeks prior to the survey. Nearly 37 percent were related to crop agriculture (injuries occurring on the farm or in transit between the farm and home) while the rest happened either at school or home.
- 93 percent of people walk to the farms but only 5.1 percent walk five or more miles to the farm.

3. Objectives and design of the verification process

The verification process had two primary objectives; namely, to confirm that each country has in place a certification system which:

1. Fully and accurately measures and reports on worst forms of child labor and adult forced labor practices in the cocoa sector, and
2. Effectively addresses incidences of worst forms of child labor and adult forced labor practices that are indicated by the data collection and reporting process.

The concept of certification is not new, but the implementation of such processes in Ghana is a relatively recent development. Though both objectives are crucial to meeting the commitments of the Harkin-Engel Protocol, it is logical and necessary that the initial emphasis of certification is on the first objective, so that remediation efforts can be appropriately designed and targeted based on existing realities. The government of Ghana has focused its early efforts on understanding the extent of the child labor problem in the cocoa sector and has recently completed studies aimed for these purposes. Planning and implementation of remediation activities are in very early phases.

Because the verifiers could only report on what has taken place, the methodology for this first verification exercise also placed more attention on the first objective than the second. It is anticipated that future rounds of both certification and verification will shift their focus to the second, and ultimately more important, of the two objectives. The verifiers remain cognizant of both aspects, and recommendations for future verification activities, which will be included in a separate document, will address this expected shift in priorities over time.

3.1. Verification Questions

Throughout the verification process, the verifiers sought to ensure that the primary objectives described earlier were addressed by concentrating on several key research questions and focal issues. The following verification questions are posed on the certification study report with the aim of systematically addressing the objectives of verification.

1. Study objectives: Did the certification study have clearly defined research objectives and anticipated outcomes that guided the research process? For example, did the study focus on estimating the number of children in worst forms child labor and adult labor, the types of worst forms of child labor involved and the characteristics of the children and adults involved?

2. Review of Literature: Did the certification study use the most relevant literature and references on the topic? Is the work related to the most current knowledge?

3. Research techniques: Were appropriate and effective research techniques used (face-to-face interviews, self-administered survey, focus group discussions, telephone interviews, child-centered interview methods, participatory interview methods, or a combination of one or more of these)? What was the basis for selection of the technique?

4. Instruments: Were the instruments (questionnaires, interview guides, focus group discussion and/or other group or individuals interview guides) aligned to the research objectives? Were they designed and administered in a way that ensured validity and reliability of data? For example, was attention paid to the language of instruments, and on issues of translations of instruments into the languages of respondents?

5. Sensitivity: Was the data collection process sensitive with regards to targeted respondents (such as children, victims of trafficking, children and adults in forced labor, etc.)? Were child-centered and culturally appropriate methods used? Was confidentiality respected and enforced?

6. Sampling: Were valid techniques used for selecting the sample(s) for each country study [i.e., controlling for sampling procedure (census, eligibility, etc.), identifying target respondents for the studies, sampling design and procedure, sample size, sample geographic areas, etc.]?

7. Data Collection: What data collection procedures were used (i.e., recruitment of fieldworkers, training of field staff and trial field testing of instruments)? How was the fieldwork exercise designed? Was adequate attention paid to the duration and schedule, seasons data was collected, monitoring and quality control, including follow-up procedures, to ensure verifiable data results? Was data handled, processed and cleaned in a way that ensured accuracy?

8. Data Analysis: Were results, conclusions and recommendations in line with and/or address the objectives of the studies? Were appropriate statistical techniques applied in analyzing the data? Were the results accurately presented in a manner that provided the most useful information possible, i.e., testing alternative tabulations and factor/regression models? Was there an evidence-based and user-friendly data management system where results could be presented and easily analyzed (i.e., using SPSS or similar program)?

In addition to conducting a direct assessment of the certification study through posing relevant questions that aim to evaluate the credibility of the certification study, a sub-sample of the certification data will be used to answer the question:

9. Sub-sample study: Were results, conclusions and recommendations of the certification study supported by a similar sub-sample study?

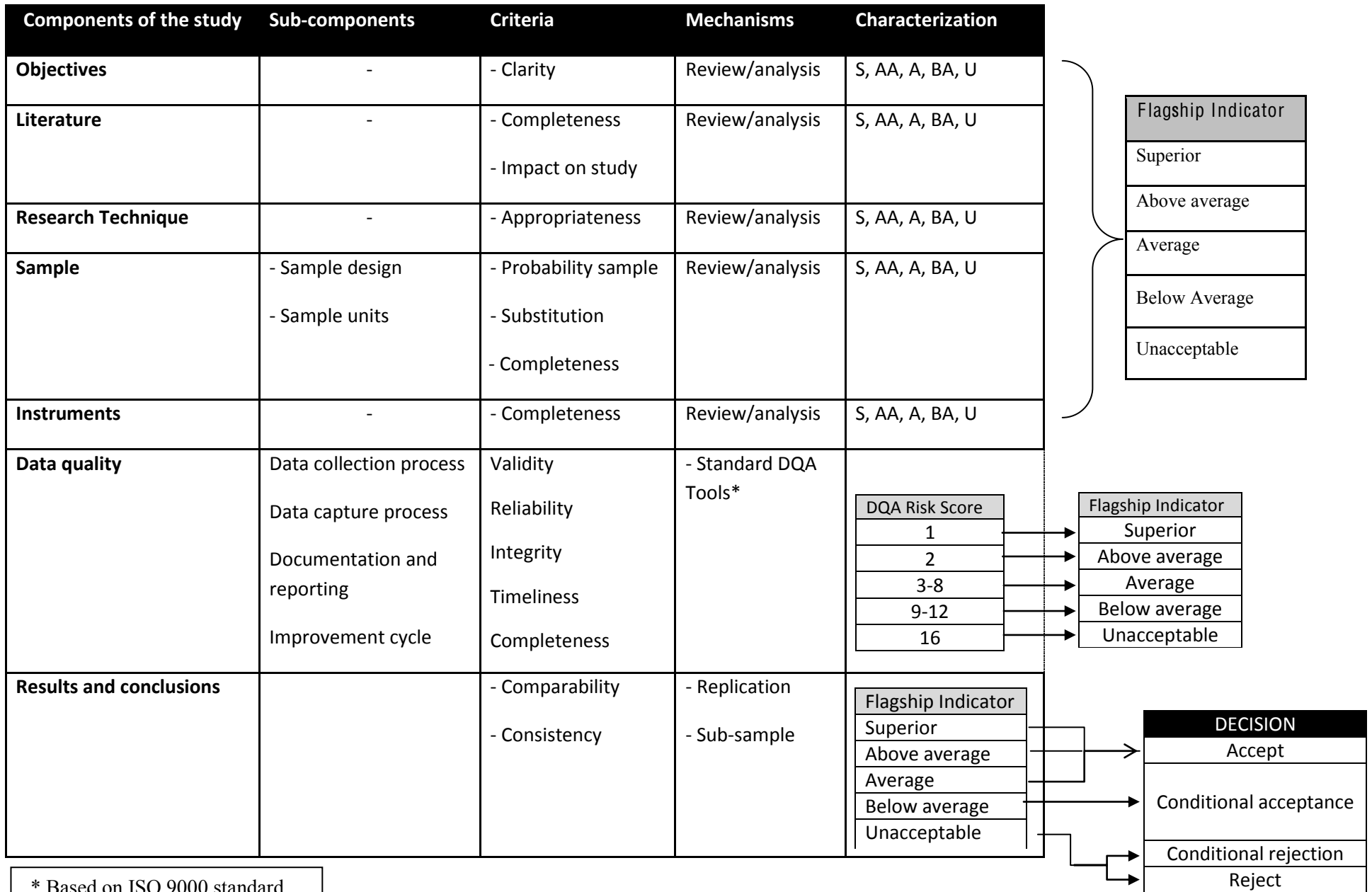
3.2. Verification Framework

The design of the verification methodology was driven by several guiding principles that shaped the quality and integrity of the scientific work that the verifiers were assigned to conduct. Verification was designed to assess the components of the certification studies: study objectives, literature, research technique, sampling design, data, results and conclusions. These components were evaluated against standard criteria and best research practices using various mechanisms. There were: Desktop review; Data quality audit; Sub-sample study. Each of the components was ultimately characterized using a flagship quality indicator that described the component as: Superior, Above Average, Average, Below Average and Unacceptable. The purpose of such characterization was to provide an assessment of the component and how it can be improved by flagging the aspect of the component that needs improvement. The assessment of the data quality audit was made using a total risk score that was transformed into a flagship indicator as shown in Figure 1.

The overall decision regarding the quality of the certification study was based on the extent to which the study was influenced by the quality of each component. A basic requirement for the final decision rested on whether the central issues of the study: measurement of the extent of child labor, WFCL, and FAL were compromised. The ultimate goal of the verification was to make recommendations for acceptance or rejection of the findings, conclusions, and recommendations of the study reports with explanation as follows:

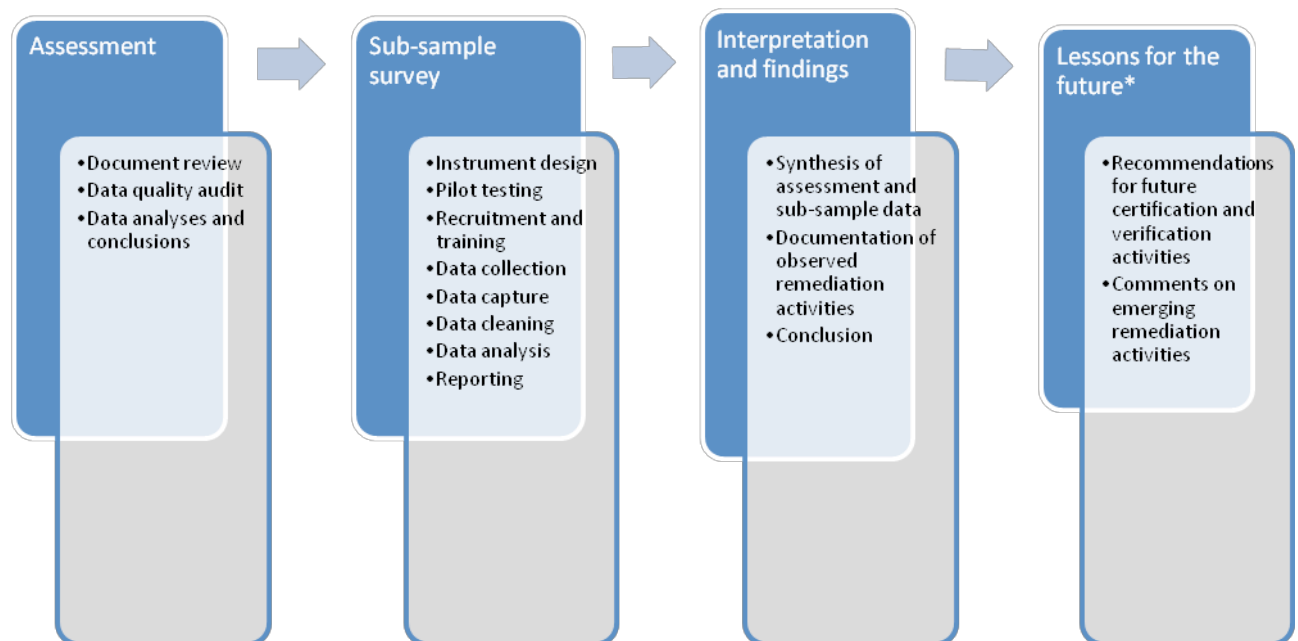
- **Accept:** acceptance of the certification study without major modifications while remarking challenges and areas of improvement for the study.
- **Conditional acceptance:** acceptance conditional on modification specified in the verification report
- **Conditional Rejection:** Rejection of part or whole of the report, findings, conclusions or recommendations
- **Reject:** Recommendation for improvements of the research process for future studies.

VERIFICATION DESIGN AND DECISION MAKING PROCESS



The implementation of the verification activities was conducted by carrying out a direct assessment of the certification addressing the various components of the study described in Figure 1. This was followed by a sub-sample study designed to assess the consistency and comparability of the results and conclusions of the certification study. The results of the two phases were synthesized and used for making a decision on the overall quality of the certification studies. Ultimately, lessons for future certification and verification activities were drawn from the overall activities of the verification (See Figure 2).

Figure 2: Verification implementation process



3.3. Guiding Principles

3.3.1. Independence

Throughout the verification process, the verifiers maintained their scientific independence and integrity. However, they cooperated with the relevant government bodies in Ghana and other stakeholders that provided valuable information for verification. They made sure this process was not influenced by the frequent communications and interactions that took place by maintaining objectivity as the first and important guiding principle.

3.3.2. Transparency

In order to ensure the credibility of the verification exercise, verifiers made every effort to make their work as transparent as possible through regular communication with representatives from the ICVB, monthly progress reports, and responsiveness to queries and requests for clarification. The reports from the verifiers were published on the web (<http://www.cocoverification.net>).

3.3.3. Internal Peer Review

Fafo and Khulisa committed to working together in partnership and cooperation with sub-partners HEDGE and Research International, and recognized that each partner brought particular strengths to the verification exercise. Though the tasks as described in the scope of work (SOW) were allocated among the partners and sub-partners, there was a continual process of internal peer review which served to strengthen the overall quality and credibility of the entire process.

Fafo and Khulisa were in daily contact throughout the process and each organization was responsible for reviewing and critiquing the work of the other. The peer review process thus had both formal and informal components. For example:

- It was understood that all reports were to be provided in draft format to the other organization several days before the deliverable date in order to allow for comments, feedback and modification as appropriate. Most documents underwent this review process several times and the final version represents a collaborative and highly iterative process.
- Khulisa's data quality assessment process and tools were reviewed by Fafo prior to the DQA. Feedback and suggestions provided by Fafo were incorporated into the final versions of the audit questionnaires and audit interview schedules.
- All sub-sample questionnaires were designed by Fafo and sent in draft format to Khulisa and the local sub-partners. They were extensively reviewed by the entire Khulisa project team, and comments and corrections were integrated by Fafo into the final versions of all four questionnaires. Local sub-partners were asked to provide contextual insights in order to improve the appropriateness of the content and wording of the tools.

For the sub-sample survey, Khulisa designed monitoring forms which were completed as each of the key activities (such as pilot testing, fieldworker training, or data capture) of the sub-sample study progresses. At the end of each activity a review meeting was conducted with representatives from each organization. The monitoring forms were completed and signed by the organizations' representatives and served as documented evidence of internal review processes.

3.3.4. Adherence to the Highest Ethical Standards

Observing ethical standards was of critical importance for all information gathering and research conducted throughout the verification exercise. Verifiers:

- Made sure all information-gathering was necessary and justified.
- Designed the activities to obtain valid information.
- Consulted with community leaders and chief and followed proper community entry procedures by consulting locally to determine who needed to grant permission for activities to proceed.
- Obtained informed consent from research participants (and their parents or guardians where applicable).
- Explained and respected the confidentiality of participants.
- Confirmed that all stakeholders understood the limits to the activity and next steps.

3.3.5. Child-Centered Approach to Research

Extra precautions were made to protect children, who might especially be vulnerable to exploitation, abuse, and other harmful outcomes. Strict observance of ethical principles is especially important when working with children and adolescents because of the difference in power between the participant and investigator.

Children's participation is particularly relevant to the worst forms of child labor, because child laborers are among the most vulnerable members of any society. They can be disadvantaged not only because of the work they do but also because their families and communities are usually excluded from power. They may not know about or have access to social protection and basic services. Also,

adults can only act to protect a child when they know what is happening in the child's life, and to do this they need to listen to and respect what children say about their experiences.

Children were therefore key participants in the verification process. To encourage children's participation means seeing children as human beings with dignity and rights and focusing on what they can do, rather than on what they cannot do. While there is great value in a participatory approach, there are also research topics and contexts where a more conventional approach is the most suitable. Within traditional qualitative research carried out by adults, there is scope to increase the active engagement of children as respondents, and to ensure that they feel more in control of the process. It is very valuable for children to be properly 'heard' as research respondents, whether or not they have other roles in the research process.³

Whenever children participate with adults the process should be:

- **Voluntary:** The right to participate means that they also have the right to decide not to participate. Fieldworkers will be trained to be sure that children know that even after they have given their consent, they always have the right to change their minds and not answer a particular question or stop the interview altogether.
- **Informed:** Children will be told the background, purpose, risks and possible outcomes of their participation, before they are asked if they wish to participate. This involves explaining why they are being asked to participate, what to expect during the interview, and what the possible outcomes of their participation are (both positive and negative).
- **Meaningful:** Participation should have a purpose, and a realistic chance of benefitting the child.
- **In the best interests of the child:** The benefits that a child can expect from participating in the research should always be greater than the potential disadvantages and risks. The verifiers (particularly the fieldworkers and fieldwork supervisors) will consult with community members to determine appropriate practices, referral processes and sources of support such as social workers or organizations.

3.4. Definitions, Focal Issues and Key Legislation

In order to provide focus, clarity and consistency for the verification activities, a first step was to explore and define key concepts, drawing on relevant international and national legislation and frameworks. In order for verifiers to focus on critical issues such as the worst forms of child labor (WFCL), migration and trafficking, it was necessary to state explicitly what is meant by these terms in the context of verification.

3.4.1. Basic Definitions

Child: According to the UN Convention on the Rights of the Child of 1989, a child is any person under the age of 18 years.

Economic Activity: As defined in the System of National Accounts (SNA), the conceptual framework that sets the international statistical standards for the measurements of the market economy, economic activity includes all market production and certain non-market production. This

³ *So You Want to Consult with Children? A Toolkit of Good Practice.* (2003). Save the Children.

is a broad concept that encompasses most productive activities undertaken by children, whether for the market or not, paid or unpaid, for a few hours or full time, on a casual or regular basis, legal or illegal. It excludes chores undertaken in the child's own household and schooling. To be counted as economically active, a child must have worked for at least one hour on any day during a seven-day reference period.

Under the heading of economic activities, *market economic activities* refer to activities leading to the production of goods and services that are primarily intended for sale or are sold on the market. *Non-market economic activities* refer to activities conducted leading to the production of goods and services for use or consumption by one's own household, such as the production of agricultural crops, firewood collection, hunting, fishing, processing such as weaving cloths, production of footwear, pottery, etc. Non-market economic activities also include the construction and substantial repairs on own account e.g. household activities such as replastering of walls, major renovations or extensions to a dwelling.

Non-economic activity: Non-economic activity is defined as any productive activity falling outside the System of National Accounts (SNA) production boundary. It consists mainly of work activities performed by household members in service to the household and its members. This includes housework such as cooking, washing, indoor cleaning, upkeep of the abode, repair of personal and household goods, minor home improvements, maintenance and repair and care of family members, for example. It also encompasses volunteering and community service and non-productive activities such as education, training, study, leisure and culture, and personal care.

Young workers: This refers to female and male adolescents below age 18 who have attained the minimum legal age for admission to employment and are therefore legally authorized to work under certain conditions.

Child labor: Child labor is defined as work that is harmful to the child because it is economically exploitative, hazardous, or is harmful to the child's health or physical, mental, spiritual, moral or social development, or interferes with the child's education. It includes WFCL as outlined in terms of the ILO WFCL Convention No 182 (see below). Child labor is thus a narrower concept than "economically active children", excluding all those children aged 12 years and older who are working only a few hours a week in permitted light work and those aged 15 years and above whose work is not classified as hazardous. The concept child labor is based on the ILO Minimum Age Convention No 138 which represents the most comprehensive and authoritative international definition of minimum age for admission to employment or work, implying "economic activity".

Child labor exploitation: Child labor exploitation refers to work which by its nature or the circumstances in which it is carried out is likely to harm the health, safety or morals of children. It also includes work done by children below the minimum age for admission to employment as outlined in Article 2 of the ILO Minimum Age Convention No 138.

Hazardous Work: Hazardous work is that which is dangerous, not age appropriate or conducted in unhealthy conditions that could result in a child being killed, or injured (often permanently), and/or made ill (often permanently) as a consequence of poor safety and health standards and working arrangements. Also refer to the ILO WFCL Convention 182 outlined below.

Forced Labor: Forced labor is defined as all work or service which is exacted from any person under the menace of any penalty and for which the said person has not offered himself voluntary (lack of

consent). Also refer to the ILO Forced Labor Convention No. 29 of 1930 and the ILO Abolition of Forced Labor Conventions No 105 of 1957 outlined below.

Debt bondage: Debt bondage is the least known and most widely used method of enslaving people worldwide refers to paying off loans with direct labor instead of currency or goods. Often, the bonded laborer's children inherit the debt. Also refer to the UN Supplementary Convention on the Abolition of Slavery, the Slave Trade, and Institutions and Practices Similar to Slavery (1956) as outlined below.

Child trafficking: a child has been trafficked if the child has been moved within a country, across borders, whether by force or not, with the purpose of labor exploitation. Labor exploitation includes work for which the child is too young, or which, by its nature or the circumstances in which it is carried out, is likely to harm the health, safety or morals of children. At its worst, it would include working in slave-like conditions or the child being subjected to commercial sexual exploitation or another WFCL. Also refer to the United Nations Protocol to Prevent, Suppress and Punish Trafficking in Persons, especially Women and Children, 2000, (Article 3(c) and (d). (Palermo Protocol) and the ILO WFCL Convention, No 182 outlined below

3.4.2. Key International and Regional Legislation and or Instruments

UN Convention on the Rights of the Child, 1990

This Convention specifies the rights and protection of children for those who are under age 18 and including protection from exploitation through labor.

Minimum Age: ILO Minimum Age Convention, No 138 (ILO Convention on the Minimum Age for Admission to Employment, C138 of 1973)

The ILO Minimum Age Convention, No 138 of 1973 stipulates that ratifying States fix a minimum age for admission to employment or work. Under this Convention, the minimum age for employment or work should not be less than 15 years, but developing countries may fix it at 14. A number of countries have fixed it at 16. This stipulation does not mean that young workers should be engaged in work where the occupational health and standard hazards and risks are high. Work activities should not be harmful to their health or development, and should prejudice their attendance at school or other training programs approved by the competent authority or their capacity to benefit from the instruction received. Efforts must be made to ensure that young workers are safe.

Article 7 of this Convention states that national laws or regulations may permit the employment or work of persons 13 to 15 years of age on light work which is not likely to be harmful to their health or development, and do not prejudice their attendance at school, their participation in vocational orientation or training programs approved by the competent authority or their capacity to benefit from the instruction received.

WFCL: ILO Worst forms of child labor Convention, No 182 (Convention on the Prohibition and Immediate Action for the Elimination of the Worst Forms of Child Labor (C182 of 1999)

Article 3 of the ILO WFCL Convention includes four pre-defined worst forms:

All forms of slavery or practices similar to slavery, such as the sale of a child, trafficking of children, debt bondage and serfdom, forced or compulsory labor, including forced or compulsory recruitment of children for use in armed conflict.

- *Commercial sexual exploitation*, which refers to the use, procuring or offering of a child for prostitution, the production of pornography or pornographic performances.
- *The use, procuring or offering* of a child by others for illicit activities, in particular for the production and trafficking of drugs as defined in the relevant international treaties.
- *Work which, by its nature or the circumstances* in which it is carried out, is likely to harm the health, safety or morals of children. The specific forms and circumstances of such hazardous work are to be determined by each country through consultations with employers and workers organizations.

With child laborers, their development also needs to be considered. Work that leaves no physical scars may nonetheless damage the psychological health of the child or stunt his or her social or intellectual development. Therefore, keeping children from school can be considered as hazardous since education is an essential part of children's development.

Hazardous child labor: ILO Worst forms of child labor Convention, No 182 (Convention on the Prohibition and Immediate Action for the Elimination of the Worst Forms of Child Labor (C182 of 1999) and WFCL Recommendation, 1999 (No 190)

Hazardous child labor is work performed in dangerous or unhealthy conditions that could result in a child being killed, or injured (often permanently), and/or made ill (often permanently) as a consequence of poor safety and health standards and working arrangements.

It is important to note the difference between 'hazard' and 'risk'. Hazard refers to a factor, characteristic, nature of or exposure to anything which has the potential to cause harm and risk refers to the likelihood of a hazard causing harm under specific conditions, and the severity of the health outcome.

The participation of children in hazardous activities will only be regarded as labor exploitation if children are engaged in activities which are prohibited in terms of the WFCL Recommendation, 1999 (No 190), which accompanies Convention No. 182, Paragraph 3 and the hazardous risk defined in every country in terms of this Paragraph by the government, employers and labor organizations.

Article 4 of the ILO WFCL Convention No 182 as well as paragraphs 3 and 4 of the WFCL Recommendations of 1999 (No 190) advise governments on hazardous work activities which should be prohibited for any young worker under 18 years of age and inter alia, include (i) work which exposes children to physical, psychological or sexual abuse; (ii) work underground, under water, at dangerous heights or in confined spaces; (iii) work with dangerous machinery, equipment and tools, or which involves the manual handling or transport of heavy loads; (iv) work in an unhealthy environment which may, for example, expose children to hazardous substances, agents or processes, or to temperatures, noise levels, or vibrations damaging to their health; (v) work under particularly difficult conditions such as work for long hours or during the night or work where the child is unreasonably confined to the premises of the employer.

Forced Labor: ILO Forced Labor Convention No. 29 of 1930 and the ILO Abolition of Forced Labor Conventions No 105 of 1957

Forced (compulsory) labor is defined by the ILO Forced Labor Convention, 1930 (No. 29), in Article 2, paragraph 1, (Article 2.1) as "all work or service which is exacted from any person under the menace of any penalty and for which the said person has not offered himself voluntarily".

ILO Convention 105 obligates the ratifying country to undertake to suppress and not make use of any form of forced or compulsory labor: (i) as a means of political coercion or education or as a punishment for holding or expressing political views or views ideologically opposed to the established political, social or economic system; (ii) as a method of mobilizing and using labor for purposes of economic development; (iii) as a means of labor discipline; (iv) as a punishment for having participated in strikes; and (v) as a means of racial, social, national or religious discrimination.

This convention broadened the 1926 Slavery Convention's definition of slavery to include forced or compulsory labor.

Forced child labor is one of the WFCL in terms of the ILO WFCL Convention 182 and can be distinguished from other forms of child labor by the presence of one or more of the following elements: (i) the restriction of the freedom to move; (ii) a degree of control over the child going beyond the normal exertion of lawful authority; (iii) physical or mental violence; and (iv) the absence of informed consent.

Child labor amounts to forced labor not only when children are forced, as individuals in their own right, by a third party to work under the menace of a penalty, but also when a child's work is included within the forced labor provided by the family as a whole.

Bonded Child Labor: Supplementary Convention on Abolition of Slavery, Slave Trade, Institutions and Practices Similar to Slavery (1956)

Bonded labor is a form of forced labor in which the element of coercion flows from a debt incurred by the worker. The Supplementary Convention on the Abolition of Slavery, the Slave Trade, and Institutions and Practices Similar to Slavery, adopted in 1956, in Article 1(a), defines debt bondage as “the status or condition arising from a pledge by a debtor of his personal services or those of a person under his control as security for a debt, if the value of those services as reasonably assessed is not applied towards the liquidation of the debt or the length and nature of those services are not respectively limited and defined”.

Bonded child labor refers to children's underpaid or unpaid work for an employer for excessively long hours, ensuing from a debt contracted by their parents and constituting exploitative employment practices affecting the parents and involving children being pledged for credit.

Commercial Sexual Exploitation of Children: Optional Protocol to Convention on Rights of the Child

Child prostitution means “the use of a child in sexual activities for remuneration or any form of consideration”, whereas child pornography means “any representation ... of a child engaged in real or simulated explicit sexual activities or any representation of the sexual parts of a child for primarily sexual purposes”. It is entirely or primarily for financial or other economic reasons. The economic exchanges involved may be either monetary or non-monetary (that is, food, shelter or drugs) but in every case involve maximum benefits to the exploiter and an abrogation of the basic rights, dignity, autonomy, and physical and mental well-being of the children involved.

It is often characterized by violence against and coercion of the child, and is frequently linked to child trafficking and forced child labor in which the victims are mostly girls. It is usually, but not always, organized by an intermediary such as a parent, family member or procurer, and includes children in sexual relationships with adults in exchange for money and family support within the context of their home, on the street or in private business places. Child trafficking: United Nations Protocol to Prevent, Suppress and Punish Trafficking in Persons, especially Women and Children,

2000, (Article 3(c) and (d). (Palermo Protocol) and the ILO Worst forms of child labor Convention, No 182

Child trafficking is defined by the United Nations Protocol to Prevent, Suppress and Punish Trafficking in Persons, especially Women and Children, 2000, (Article 3(c) and (d) as the “recruitment, transportation, transfer, harboring and receipt of a child for the purpose of exploitation”.

Article 3 also distinguishes child trafficking from trafficking in persons in general, which it describes as involving “the threat or use of force or other forms of coercion, of abduction, of fraud, of deception, of the abuse of power or of a position of vulnerability or of the giving or receiving of payments or benefits to achieve the consent of a person having control over another person, for the purpose of exploitation”.

Inasmuch as this text applies to adults, it does not contain the necessary conditions for the identification of child trafficking. In other words, child trafficking does not necessarily entail illicit means, but it does imply the removal of children from a familiar environment (not necessarily the crossing of an international border) and that the consent of children recruited is irrelevant if there is abuse of power or of a position of vulnerability, fraud or deception. It should be noted that in this context child trafficking is a process in which the trafficked child later becomes the victim to another form of child labor.

Migration-related child labor

Migration is the voluntary movement of a person within or across border seeking better opportunities including work, family re-unification etc. Where the movement of the child was not done *with the purpose of labor exploitation*, it is not child trafficking, even where the child still ends up in labor exploitation. Migration or movement out of choice may result in labor exploitation but the condition of exploitation does not denote trafficking.

However, national laws may provide that migration-related child labor, even where this falls outside of the definition of child trafficking, be considered a WFCL in terms of Article 3(d) of the ILO WFCL Convention. This Article provides that worst forms include work which, by its nature or the circumstances in which it is carried out, is likely to harm the health, safety or morals of the child..

Labor Protection: ILO Convention No 87 of 1948: Freedom of Association and Protection to Organize Convention and ILO Convention No 98 of 1949: Right to Organize and Collective Bargaining Convention

According to Convention No 87 of 1948 workers and employers, without distinction whatsoever, shall have the right to establish and, subject only to the rules of the organization concerned, to join organizations of their own choosing without previous authorization.

In terms of Convention No 98 of 1949 workers shall enjoy adequate protection against acts of anti-union discrimination in respect of their employment. Such protection shall apply more particularly in respect of acts calculated to (i) make the employment of a worker subject to the condition that he shall not join a union or shall relinquish trade union membership; and (ii) cause the dismissal of or otherwise prejudice a worker by reason of union membership or because of participation in union activities outside working hours or, with the consent of the employer, within working hours.

African Charter on the Rights and Welfare of the Child, 1999

The African Charter adheres to the UN Conventions on the Rights of the Child as well as the key ILO Conventions relating to child labor. However, this Charter outlines in Article 31 the responsibilities of the African Child with regard to his family and community.

Protocol for the Growing and Processing of Cocoa Beans and their Derivative Products in a Manner that Complies with ILO WFCL Convention, 2001

This protocol - commonly referred to as the Harkin-Engel Protocol, earmarks the development of a certification process to ensure no abusive child labor is used in cocoa production and set July 1, 2005 as deadline.

3.4.3. Related Key National Legislation in Ghana

The Free Compulsory Universal Basic Education (F-CUBE)

Education: The compulsory education age in Ghana is 14 years. The Free Compulsory Universal Basic Education (F-CUBE) Policy was intended to provide an avenue to ensure that all children from age six years are given fee free formal education. Implementation of the F-CUBE policy began in 1995. The F-CUBE policy was reviewed in 2005 and led to the design of the Educational strategic Plan in which the Capitation Grant was proposed as a catalyst for achieving universal basic education within a shorter period of time. In 2007, an education reform program was launched which implemented the Junior and Senior High Schools in place of the Junior and Senior Secondary Schools. The Capitation Grant was extended to cover educational costs of children in kindergarten from age 4 to children in Junior High school. A Government funded apprenticeship period of one year has also been introduced between graduation from Junior High School and senior High School.

Children's Act of 1998

Minimum age of employment and conditions of such employment: The Children's Act of 1998 protects the rights of children and included a section on the employment of children. In this act, the definition of child labor is in consonance with the WFCL C182 and the Minimum Age Convention C138 although Ghana has not ratified the latter convention. The minimum age for employment in the Act is:

- 13 years for light work
- 15 years for employment in non-hazardous work
- 18 years for full employment

Hazardous work is defined as activities that children are not allowed to participate in and this includes portage of heavy loads. Various organizations have gone ahead to describe activities that child workers, who are permitted to be employed beyond age 15, can undertake including the preparation of workplace standards for working children. This has largely been done for the formal sector but not the informal sector in which the cocoa sector falls.

The Labour Act of 2005 makes provisions for protection of young persons (18 – 21 of years of age) for engaging in hazardous work. It does not regulate the employment conditions for legally employed children between 15 – 17 years of age.

Human Trafficking Act (694)

Human trafficking (including child trafficking): As defined in Article 1 of the Human Trafficking Act (694) of Ghana, human trafficking means the recruitment, transportation, transfer, harboring, trading or receipt of persons within and across the national borders by the use of threats, force or other forms of coercion, abduction, fraud, deception, the abuse of power or exploitation of vulnerability, or giving or receiving payments and benefits to achieve consent.

Exploitation includes at the minimum, induced prostitution and other forms of sexual exploitation, forced labor or services, slavery or practices similar to slavery, servitude or the removal of organs. Placement for sale, bonded placement, temporary placement, placement as service where exploitation by someone else is the motivating factors also constitutes trafficking.

Where children are trafficked, the consent of the child, parents or guardian of the child cannot be used as a defense in case of prosecution, regardless of whether or not there is evidence of abuse of power, fraud or deception on the part of the trafficker or whether the vulnerability of the child was taken advantage of.

The Act defines involvement in trafficking as sending, taking, consenting to the taking to or receiving at any place any person for the purposes of trafficking. It also encompasses entering into an agreement (whether written or oral) to subject another person to trafficking. This Act has been applied in prosecution of a few cases in which children have been trafficked for ritual purposes, prostitution and purposes other than for work in the cocoa sector.

The omission of exploitation as the underlying motivation of all acts which qualify as prohibited acts of trafficking. Unlike the Palermo protocol the Trafficking Act does not make exploitation the main focus of criminalization. The definition of trafficking in the Act is too wide and covers acts which may not necessarily be intended to exploit the victims (e.g. the transporting of a person by deception and nothing more amounts to trafficking of such a person).

Hazardous work: A list of hazardous child labor in the Children's Act exists and in the 2007, the Ministry of Manpower, Youth and Employment and the ILO collaborated to create a new list to provide the broad guide to contextualize hazardous child labor in agriculture, fishing, mining and quarrying. However, these are considered insufficient and unsuitable on their own as a benchmark for evaluating hazardous child labor in agriculture. The typical concept of hazardous list based on predictable work environment in formal work settings has been largely unsuitable for agriculture. An existing list in the cocoa sector based on work done by ILO/WACAP and TWG has been generally agreed on by stakeholders. This list is, however, limited in scope and depth and list needs to be made more comprehensive subject to deeper analyses and classification using appropriate standards for age, schooling and risk health implications.

Hazardous Child Labour Activity Framework – For the Cocoa Sector in Ghana (June 2008).

The Hazardous Child Labor Framework is considered scientifically rigorous, economically feasible, politically, socially and culturally acceptable and yet has enough standards to drive intervention and research. The proposed hazardous child labor framework for the cocoa sector includes references to age standards, permissible carrying weight standards, work intensity standards, permissible carrying weight, weight of typical cocoa loads and a standards chart for evaluating carrying weight. It consists of a Hazardous Cocoa Child Labour List (17 points), permissible work and recommendations, and general recommendations for child participation in cocoa. Relative key points include:

- The framework proposes reducing the current legal minimum age for light work in the children's Act from 13 to 14 years.
- The maximum allowable carry weight for head portorage should be 30% of the child's body weight for not more than 3 kilometers or two miles. Children of 8 years and below should not usually carry loads.
- Suggests children can work 3 hrs per day when in school and not more than 28 hrs per week in a school week.
- A child should not work on a farm in isolation
- Children should not work full time on a farm and not attend formal/non-formal school (applicable to children under 15).

Ghana has ratified: UN Convention on the Rights of the Child, 1990, OAU Charter on the Rights and Welfare of the Child (Africa Charter), ILO Worst Forms of Child Labour Convention, 1999, ILO Conventions on Forced Labour Nos. 29 and 105, African Charter on the Rights and Welfare of the Child, 1991

However pending: Ghana has not ratified ILO Minimum Age Convention is 15 years and the two optional protocols to CRC dealing with child soldiers and commercial sexual exploitation.

National Structures and Programs for Ghana include National Programme of Action, National Commission on Children (GNCC), Child Labour Unit within the Labour Department, National Steering Committee on child labor, Ministry of Basic Secondary and Girl-Child Education, Ministry of Women and Children Affairs and Ministry of Manpower Development and Employment.

4. Assessment of certification study: materials and methods

In this chapter, the sources of data that were used for the direct assessment of the certification study are described. The methods used to answer each of the verification questions outlined in Chapter 3 will be discussed in detail.

4.1. Document review assessment

The verification was conducted using the certification report itself, data and materials used in the study and information gathered from various individuals and stakeholders that contributed to the outcome of the certification study.

The certification study report was directly obtained from National Program for the Elimination of Worst Forms of Child Labor in Cocoa (NPECLC) under the Ministry of Manpower, Youth and Employment (MMYE). The verifiers visited the ministry in person and obtained all relevant documents and data used for the certification study. The materials that were collected for the purpose of the verification study are listed in Table 2.

Table 2: Materials used for verification

Study	Type of material	Description
Pilot study	Documents	Pilot study report List of regions, district and communities Hazardous activity list Sample design Pilot 2006/07
	Instruments	Household questionnaire Child questionnaire Adult questionnaire Community questionnaire
	Data	Household data Child data Adult data Community data
Scaled up study	Documents	Scaled-up study certification report, June 2008 Sample design, Scale up 2007/08 Ghana scaled-up survey methodology Training guide & Interviewer manual (included focus group discussion manual)
	Instruments	Household questionnaire Child questionnaire Adult questionnaire Community questionnaire Maps of all selected communities
	Data	Household data Child data Adult data Community data

4.1.1. Study objectives

To assess the certification study objectives, the verifiers proceeded by reviewing the relevant material to determine if the study had clearly defined research objectives and anticipated outcomes that guided the research process. For example, verifiers looked at the extent to which the study focused on estimating the number of children in worst forms child labor and adult labor, the types of worst forms of child labor involved and the characteristics of the children and adults involved.

Other questions included: Was the research problem clearly stated? Is it properly defined? Is its significance recognized? Are assumptions and limitations of the certification study stated? Are important terms such as child labor and child work clearly defined in the study? The answers to these questions provided a concrete assessment of the objectives the certification study.

4.1.2. Review of literature

The literature that was used in the certification study was evaluated by raising basic questions such as: Was the available literature adequately covered? Was the cited literature current and relevant? Were important findings noted? Was the background research well organized? This evaluation was made by first providing an effective summary of the available literature on the issues of child labor and forced adult labor practices in general and cocoa production in particular. This served as a basis for judging the completeness of the literature covered in the certification study. The objective of this evaluation was not only to assess whether the literature was covered or not but also to evaluate the extent to which existing knowledge and approaches influenced the objectives of the certification study.

4.1.3. Research techniques

Verifiers investigated the research techniques used (face-to-face interviews, self-administered survey, focus group discussions, telephone interviews, child-centered interview methods, participatory interview methods, or a combination of one or more of these) to determine if they were appropriate and effective. They additionally sought to determine the basis for selection of the technique.

4.1.4. Instruments

The instruments (questionnaires and interview guides) used were reviewed to assess if they were aligned to the research objectives. Verifiers additionally looked to see if they were designed and administered in a way that ensured validity and reliability of data. For example, was attention paid to language and issues of translation? An assessment was made as to whether the instruments were able to collect adequate child labor and adult labor data to support the analysis needed to meet the objectives of the certification study. This was done by checking the completeness of the data collected using the instruments relative to the data presented in Table 3⁴ below. This list was compiled based on the data requirements of the objectives of the certification study.

⁴ Adapted from criteria presented for the 18th International Conference of Labour Statisticians, in Geneva 24 November to 5 December 2008

Table 3: Framework for child and adult labor data collection

A: Demographic and socio-economic characteristics	B: Child labor and working children
<ul style="list-style-type: none"> • Name of place of origin (village, community, town) • Size of household • Head of household • Siblings in the household; • Age, gender, education status of children; • Engagement of children under 5-17 years of age in cocoa and other economic production • Contribution of children (5-17 years) and youth to household income • Land tenure (sharecroppers or owners) and work activity of head of household • Migratory status of the household (place of origin, length of period living in the village, migratory patterns or practice • Ethnic and religious background • Housing (structure and amenities) • Economic and social status (including recent shocks faced by household) • Annual/monthly family expenditure (or income) and sources • Debt, if any, of household head 	<ul style="list-style-type: none"> • Distribution of working children by: <ul style="list-style-type: none"> ○ Occupation ○ Cocoa production activity ○ Status in employment ○ Method of payment • Knowledge and attitudes regarding child labor, child work • Awareness of the rights of child workers • Awareness of child labor-related national laws and regulations • Existence and mechanisms of enforcement within communities • Type and location of work at home, farm, other places • Hours worked per week • Periods when work is performed • Seasonality of work • Reasons for child to be at work • Conditions of work (including type and frequency of payment, exposure to chemicals, evidence of other hazards and dangerous conditions) • Accidents, injuries or sickness incurred as a result of cocoa-related activities (nature and extent of accident/injury/ill-health) • Engagement in household chores (hours per week, main tasks)
C: Occupational safety and health	D: Local education resources and infrastructure
<ul style="list-style-type: none"> • Illness, injuries by occupation, activity; • Knowledge and attitudes regarding safe work practices and procedures, by activity (use of tools and equipment, pesticide exposure, snake and insect bites, and so on) • Young people’s knowledge of what to do in the event of accidents and injuries and practical training in such eventualities • Knowledge and attitudes related to risk and risk management and prevention of accidents and injuries • Accidents or work-related health problems reported by others in the community • Application practices involving chemicals (for example, pesticides) and involvement of children (methods of application, handling of equipment, maintenance of equipment and protective gear, storage and disposal of pesticide containers, and so on) 	<ul style="list-style-type: none"> • Local school enrollment rate • Actual school attendance • Number of young people out of school • Grades completed by children, young people and adults; • Proximity of schools (primary, junior secondary and senior secondary levels) in kilometers/miles • Literacy rate of children and other family members • Attitudes toward education, formal schooling and teachers • Attitudes toward access and relevance of formal education • Attitudes toward, and access to, non-formal education programs • Reasons children attend or do not attend school • School drop-out rate • School facilities, condition and needs • Quality of teaching methodology and curriculum used (formal or non-formal) • Pupil–teacher ratio

4.1.5. Sampling

Verifiers reviewed the available documentation to determine if valid techniques were used for selecting the sample i.e., controlling for sampling procedure (census, eligibility, etc.), identifying target respondents for the studies, sampling design and procedure, sample size, sample geographic areas, etc.

The sampling design used in the certification study was evaluated by examining if the sample was a probability sample or not; examining the definition of sampling units; examining if substitution of was used; and looking at how non-response was handled. The findings determined the outcome of the assessment of the sampling design.

4.2. Data Quality Audit

A data quality audit (DQA) of the scaled-up survey was conducted to evaluate data management capacity including the processes followed, the resources used and the limitations, and the quality of training provided for data collectors and the supervisors.

In Ghana, a team of two auditors conducted the DQA activities with the logistical support of from HEDGE in Ghana. The DQAs comprised interviews, document reviews and observation of audit trails. Documents on child labor and those relevant to the assessment of certification studies were reviewed to inform the assessment methodology and the design of data collection tools. Logistical support included arrangement of interviews and obtaining documentation from the research team.

DQA findings were the results of evaluating the collected audit evidence against the audit criteria. Five widely-accepted criteria for data quality were used: Validity, Reliability, Integrity, Timeliness and Completeness. Using standardized tools, data quality of data was tested against audit trails to verify the existence of strengths or risks to data quality.

Risk scores for each data quality criterion were applied for the “probability of an error occurring” and the “effect of the error on the quality of the data”. The probability of error occurring was established using the rubric given below:

- Unlikely:** The mature nature of the data management system and the associated data quality processes / procedures usually precludes error from happening.
- Occasional:** The relative maturity of the data management system and the associated data quality processes / procedures results in errors only occurring infrequently. Such errors are unpredictable events.
- Frequently:** The relative immaturity and / or relatively poor nature of the data management system and the associated data quality processes / procedures results in error being more likely than not. Such errors are predictable.
- Constantly:** The immature and / or poor nature of the data management system and the associated data quality processes / procedures results in errors being the norm.

The overall effect on data quality was established using the rubric given below:

- Negligible:** There is no error or the introduction of an error would not result in any loss of data relevance or usefulness.
- Marginal:** The majority of data retains its relevance and usefulness.

Critical: Although elements of the data retain their usefulness and relevance there is an absolute need for data cleaning (statistical and / or procedural).

Catastrophic: The data / information cannot be reported as the data / information has lost all of its usefulness and relevance.

The multiplication of these two scores produces a Total Risk Score (TRS) per criterion (see Table 4 below).

Table 4: Risk Score Matrix

OVERALL EFFECT ON DATA QUALITY	PROBABILITY OF ERROR OCCURRING			
	Constantly (4)	Frequently (3)	Occasionally (2)	Unlikely (1)
Catastrophic (4)	16	12	8	4
Critical (3)	12	9	6	3
Marginal (2)	8	6	4	2
Negligible (1)	4	3	2	1

DQAs were conducted to assess the quality of the data collection and data capturing processes / procedures used in the certification studies. In order to align the scoring for all the stages of the certification studies that were assessed, the TRS discussed above were aligned to the Flagship Indicator.

A TRS of 1 indicates that the process/procedure imparts no risk to data quality and that the process / procedure are Superior. A TRS of 2 was equated to Above Average rating reflecting the infrequency of errors that have marginal effect on data quality. Since Compliance Notes are issued if the TRS is equal to or greater than nine (9), the TRS of 3-8 indicates an Average rating. Minor Compliance Notes are issued for TRS of 9 and 12. The correlation for these scores is therefore Below Average. A Major Compliance Note is issued for TRS of 16 and this was taken as equivalent to Unacceptable.

Total Risk Scores correlate to Flagship Indicator scores as summarized in Table 5 below.

Table 5: Flagship Indicator Correlation

DQA Total Risk Score	Flagship Indicator Score
1	Superior
2	Above average
3-8	Average
9-12	Below Average
16	Unacceptable

4.2.1. Data collection process

For the DQA of the data collection process, a sample of data collectors and their supervisors were interviewed. During the scaled-up certification studies a total of 45 data collectors (three per district), 8 supervisors (one per district) were involved in data collection. To assess the quality of fieldwork, 8 of the 15 districts involved in the scaled-up study in Ghana were randomly sampled. The selected eight (8) districts fell into four (4) Regions – Eastern, Western, Ashanti and Brong Ahafo. From the 8 selected districts, two data collectors and one supervisor were randomly selected per district.

An audit tool for fieldworkers was administered to fieldworkers to elicit information regarding the data collection process. The quality of the data collection was evaluated based on responses, audit trail and triangulation with data from research managers' assessment tool. The audit tool that was administered for fieldworkers was designed to collect data on:

- Fieldworker recruitment, training and deployment
- Sampling process and access to respondents
- Design of data collection tools
- Interviewing techniques including, introduction to respondents, child – centered interviewing techniques and sensitivity with regard to targeted respondents.
- Quality control process used during data collection
- The integrity, timeliness and completeness of the data collection process
- Documentation of the data collection process

4.2.2. Data capture process

A data quality audit was conducted on the data capturing processes / procedures to evaluate the accuracy of the data entry procedures. Data editors, data entry clerks and their supervisors were interviewed. In Ghana, ten data capturers and three supervisors were involved in capturing the data for the scaled-up study. Four data capturers and one supervisor were selected and interviewed to determine the quality of data capturing and processing.

The quality of the data capturing was evaluated based on responses, the audit trail and triangulation with data from research managers' assessment tool. An audit tool that was administered to the data capturers was designed to gather data on:

- Data capturers recruitment and training
- Logging of incoming questionnaires and office editing
- Design of the data entry screens and database
- Entering the data and quality control
- Data cleaning
- Integrity, Timeliness and Completeness of the data collation process
- Documentation of the data capturing process

4.2.3. Assessment of Documentation and Reporting

The assessment documentation and reporting entailed the determination of the availability of an audit trail, as well as the quality of data management systems and data protection. Documentation and reporting cut across all the stages of data management, including data sources, data collection and capturing, analysis and reporting. Consequently, the assessment of documentation and reporting was informed by the completed DQAs for the data collection and capturing processes and by the assessment of research managers who had been involved in various tasks in the certification studies.

4.2.4. Improvement cycle

An evaluation of the improvement cycle was made to establish available capacity to improve future cocoa certification studies. Specifically, the adaptability, expertise, and cost-effectiveness of the Ghana certification study and the implications for future studies were assessed.

A sample of the research managers who had been involved in various tasks in the certification studies was interviewed. Research managers had diverse roles in the certification studies including research

and questionnaire design, coordination, supervision and monitoring, actual facilitation of focus group discussions (FGDs), data analysis and reporting. In addition, the research managers were the custodians of the research documentation that supported the research activities.

A sample of five research managers was drawn to represent all the study activities that research managers had carried out. The sample was selected from individuals who were involved in one or more of the following: research and questionnaire design, coordination of research implementation and report writing.

The improvement cycle was assessed using an interview tool for research managers. The capacity to improve certification activities in the future was evaluated based on responses and triangulation with the DQA findings. A broad tool covering all the areas that the research managers were involved in the studies was developed. The research managers' tool was organized into the following subsections:

- Research objectives and survey design
- Assessment of data collection and data capturing
- Data transformations and analysis
- Documentation and reporting
- Assessment of improvement cycle

The source of information and the methods used for conducting an effective DQA that spanned all aspects starting from data collection to that of an improvement cycle is summarized in Table 6 below.

Table 6 Input requirements and methods

Activity	Inputs for assessment	Key Assessment Methods and Tools
Data collection	Data sources, enumerator training/deployment, conduct of fieldwork, etc.	DQA using Assessment Tool for Fieldworkers
Data capture and processing	Data capture, coding, editing/cleaning, imputation, etc.	DQA using Assessment Tool for Data Capturers
Documentation and reporting	Audit trails, data management systems, data protection, etc.	DQA trail
Improvement cycle	Adaptability, expertise, cost-effectiveness measures for future studies, etc.	Research Manager Interviews

4.3. Data analysis and conclusions

The ultimate goal of verification is to evaluate the credibility of the result and conclusions made by the certification studies. They have important implications in understanding the issues of child labor and forced adult labor practices in the cocoa sector and that of shaping national action plans and remediation activities. Hence, to verify that the analysis and subsequent conclusions and policy recommendations were credible, the verification proceeded by following the steps listed below.

Step 1: Replicate all the reported findings and ensure that these findings were supported by the data collected for that purpose. At this stage, indicate the extent of any discrepancy that may be found in the study.

Step 2: Identify core indicators for child labor in cocoa, worst forms of child labor, and forced adult labor practices. Table 7 describes the various indicators that were used in the certification studies and will be used for assessment of the statistical analysis and the associated conclusions.

Step 3: Using the core indicators, examine the results and the conclusions drawn up on these results to evaluate whether the conclusions were based on the analyses.

Table 7: Core indicators of child labor

Nature of work	Circumstances of work	Harmful consequences of work
1. Cocoa production	1. Working hours	1. Work related injury and illness
2. Non-economic production (domestic work, etc.)	2. Exposure to physical, psychological or sexual abuse	2. Attendance rate
3. Unconditional WFCL	3. Work with dangerous equipment and tools, or which involves the manual handling or transport of heavy loads	3. Repetition rate
4. All forms of slavery or practices similar to slavery	4. Work in unhealthy environment (exposure to hazardous substances, agents or processes damaging to the child's health)	4. Drop-out rate
5. Trafficked children, forced and bonded child labor, commercial sexual exploitation of children	5. Work under particularly difficult conditions (long hours or during the night, or work where the child is unreasonably confined to the premises of the employer)	5. Educational attainment
		6. Learning achievement

5. Findings: Assessment of certification study

In this chapter the findings of the assessment of the certification study are presented. The results are described for each of the different components of the certification study by answering the verification questions.

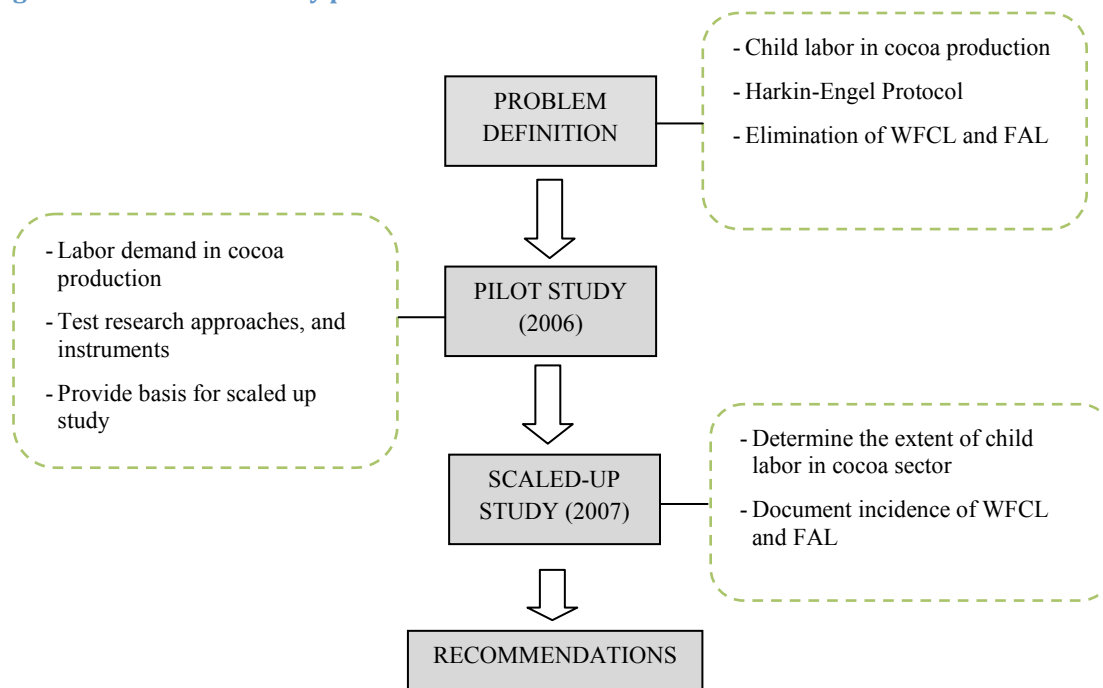
5.1. Document review assessment

5.1.1. Objectives

As discussed above, various media and research reports on the use of child labor in cocoa production highlighted the need to address the problem. The call for action was further strengthened by the requirements of the Harkin-Engel protocol for signatory countries to commit to documenting the nature and extent of child labor and the subsequent action required. Thus, the main objective of the certification studies was to provide reliable, comprehensive and timely data which would improve understanding of the causes and consequences of child labor and serve as a basis for determining priorities for national action for the abolition of exploitive labor practices, in particular for the prohibition and elimination of the WFCL.

The process that was followed in the certification study is described in Figure 3 below. The first stage of the certification study process was a pilot study, which was followed by a scaled-up study.

Figure 3 Certification study process



This study process was guided by the anticipated outcomes that included an estimation of the worst forms of child labor and forced adult practices in the cocoa sector. The results of the studies were also used to provide recommendations and remediation actions. Based on assessment activities, it was found that the objectives described in Section 4.1 in the scaled-up survey were clearly set with relevant anticipated outcomes. This component of the study was rated as ABOVE AVERAGE.

5.1.2. Literature review

The scaled-up study report referred to previous studies and summarized some of the literature on children involved in the cocoa production. This included a selection of the surveys (GLSS, NPEDLD 2007) and research papers (Bluch and Verner 2000, Asabte 1995, Osei-Bonsu 2001, Takame 2002, Opaté 1977, Donkor 1991 and Boahene 1995) on the specific topic. Comparisons of the findings from this study and previous studies were conducted and discussed.

There were four studies that served as the basis for the survey in Ghana. The first was a study conducted by International Institute of Tropical Agriculture in Côte d'Ivoire, Cameroon, Ghana and Nigeria that estimated that 625 000 children were involved in at least one aspect of cocoa production in Côte d'Ivoire and of those were 12 000 children had no local family connection (ITTA 2002: 13,15). Ghana Statistical Service (GSS 2003) estimated that 3.8 percent of the children involved in the cocoa production were engaged in activities that were classified as WFCL. The third study was conducted by the Ministry for Women and Children Affairs (MOWAC) in 2005 with the finding of children involved in cocoa production are mainly employed on family farms and not on plantations. The last was the pilot study in 2006 by the Ministry of Manpower, Youth and Employment (MMYE) which found that children and adults were not involved in trafficking or forced labor in the cocoa producing communities.

Considerable effort was made to elaborate on the rationale for the study, explain the background information on the subject of cocoa and conduct a comprehensive review of the literature. Despite these commendable efforts, the information was presented in a way that appeared disorganized to the reader. Information was repeated in several paragraphs, and statements were made without references. However, the report included much relevant literature and contextualized it well to the certification study.

The background literature did not seem to directly shape the problem definition but it seemed to influence and create a framework for the study. The major focus of the Ghana Cocoa Labor Survey was to provide estimates, with acceptable precision, for a variety of indicators on child trafficking, engagement or recruitment of children into hazardous activities and any of the worst forms of child labor, forced and/or bounded labor. The study sought to *'identify the main activities in cocoa cultivation and the labor associated with these, including the source, types and periods of peak labor needs'*. In addition the objective is to *'document incidence or otherwise of the Worst Forms of Child Labor (WFCL) in and Forced Adult Labor (FAL) in Ghana's Cocoa sector'*.

In the first section, the basis of the study was based on the four studies described above. The objectives of the study were outlined after the elaboration of the rationale. However, the objectives used in this study were identical to those stated in the pilot survey. The findings in the pilot study therefore did not reshape the objectives.

The second section clearly outlined and discussed previous and current interventions to address the issue of child labor in Ghana's cocoa sector. Legal frameworks, government initiatives and non-governmental activities were comprehensively described, though citations were sometimes incorrect. For example, the General Agriculture Workers' Union (GAWU) of Ghana Trade Unions Congress conducted research in 2003/2004, with several findings that guided the corrective action in 20 communities in five regions in Ghana. In section 2.2.3 (page 12) the reference to GAWU is dated 2005 and in section 3.2 GAWU is referred to as 2006.

Section three first presented the Pilot Cocoa Labor Survey conducted in 2006. This study contains important findings, but they were already presented and discussed in the summary of the scaled-up report and are further elaborated and discussed in section ten. It would therefore be sufficient to just briefly state the importance of the pilot report in section three. Further in this section (3.2), a review of other studies was conducted. In addition to the four studies mentioned in section 1.2, the report referred to seven others in a way that was well contextualized to the discussion around the nature and extent of child labor. For instance, the report discusses how the literature describes an increase of school enrollment among children working in the cocoa sector. However, none of the references used in section 3.2 were found on the reference list. This makes it difficult for the reader to verify if this literature is consistent with the text. Some of the references were noted in footnotes in previous sections (such as MOWAC, which is referred in section 1.2), but they were not clearly set out for the reader. References to three of the studies (GAWU 2002, Canagarajah and Caulombe 1997 and Donkor) were not found. Nonetheless, the studies used gave a good overview of the context of children in the cocoa production.

The following section (3.3) provided a systematic description of the cocoa farming households in Ghana in the context of socio-economic issues, age, sex, education, activities and priorities in terms of expenditures. All references to the various studies are found in the literature list at the end of the report. The last part of section three (3.4) describes a study commissioned by the Ministry of Manpower, Youth and Employment and the ILO as part of the International Program on the Elimination of Child Labor (IPEC) Time-Bound Program. The study sought to find out the extent to which the urban informal sector can provide potential possibilities for young people withdrawn from child labor and at risk out of school children to learn trades and increase income earning opportunities as a trade.

The analyses of the scaled-up study also provided a limited discussion in benefitted from previous research where some of the results were used in comparison with previous studies in addition to putting the right interpretation. Hence, the overall evaluation of the literature used in the scaled-up study was found to be AVERAGE despite some of the limitations described in this section.

5.1.3. Research techniques

The objective of the certification exercise was to identify main activities in cocoa cultivation and labor associated with these activities, and it further aimed to identify the worst forms of child labor (WFCL) and forced adult labor (FAL). These objectives required research techniques where the individuals exposed to the dangers of WFCL or FAL were reached, either directly or indirectly. The primary research technique selected for the certification studies was direct face-to-face interviews to gather information from children, adults and household heads. This method was further supplemented by conducting focus group discussions (FGDs) and administering a community-level questionnaire to key informants. These techniques enabled researchers to gather reliable statistical information on the various issues and indicators if properly and carefully implemented.

The data collected through the face-to-face interviews allowed the research team to estimate number of children working in cocoa production and in different types of labor. These techniques also made it possible to collect demographic data both on household and individual level, in addition to the data needed for addressing the research objectives. The methods used provided estimates at the individual level both for children and adult workers disaggregated by age, sex and geographical area. The research techniques were adequate to provide data needed to develop appropriate policy responses.

When conducting this type of research, the challenge is always how to best capture the target group. Often, it is necessary to use more than one technique. For the certification study, another approach could have been to interview children outside the household structure. Indirectly, this could have been done by talking to teachers and learners in the schools. However, if the group of highest interest was those in the worst forms of child labor, it is likely that the children would not go to school, and the teachers may not therefore be best to interview to get the information needed. Another approach that could have been tried is to interview the police about illicit activities, such as trafficking. However, the information obtained through such an approach would have been restricted to illicit activities.

Overall the research technique was found to be adequate to obtain reliable statistics on the issues of main and this component of the study was rated as AVERAGE.

5.1.4. Sampling design

The design of the Ghana sample is laid out in “Section 4: Study sample and methodology” and the following discussion is based on that description and the certification data.

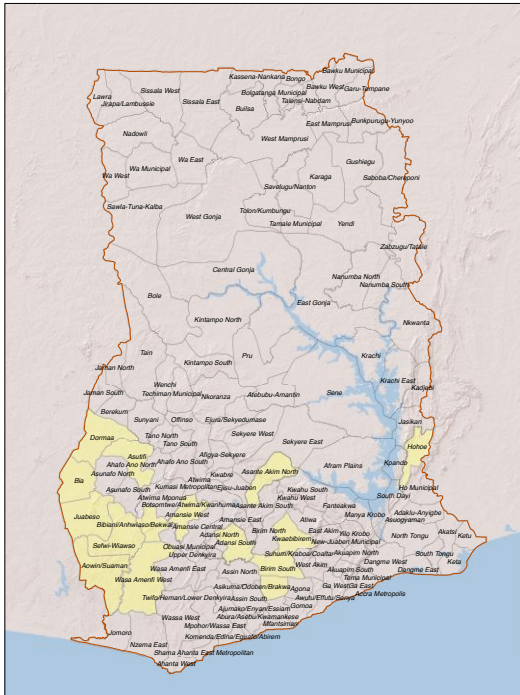
Sample description

The sample was constructed as a three stage stratified cluster sample, limited geographically to the six cocoa producing regions in Ghana. The first stage of the sampling entailed constructing a frame of districts and stratifying them by region. Each region was then allocated a sample take of districts proportional to the amount of cocoa produced in 2003/2004. A total of 15 districts were then sampled using systematic probability proportionate to size sampling within each region. The measure of size was the amount of cocoa produced. The distribution of districts was rather uneven, as the map in Figure 2 shows.

The second stage involved selecting enumeration areas within each district selected in the first stage. The enumeration areas were area units with 150 households on average. These were constructed by the Cartographic Division of GSS. The districts were each initially given an allocation of six enumeration areas, and the 11 that had the largest cocoa production were allocated 30 extra enumeration areas proportionally to the production. In total this yielded 120 enumeration areas. These were selected proportional to the number of households in each enumeration area, using systematic probability proportional to size selection.

The third stage involved making a list of the households in each enumeration area, and then selecting a fixed number of households (15 and 5 replacements) in each community.

Figure 4 Map of selected districts



Listing and definition of units

The list of households was constructed so that it only consisted of households that produced cocoa, and that had least two children aged 5-17 years. The intention of including only households with two children or more in the correct age range was presumably to make the fieldwork more efficient. However, the strategy excluded 32 percent of the households with children corresponding to 14 percent of the children, assuming that the distribution of children in the households was the same in the districts sampled as in the urban part of their respective regions as recorded in the 2003 Demographic and Health Survey (DHS) of Ghana.

The omission of the households with only one child in the correct age bracket obviously constitutes a bias, since one can easily come up with reasons that the frequency of child labor could be different in households with only one child, and households with more than one. However, what was reported in the Section 4 of the certification study appears not to have been implemented in practice as more than 30 percent of the households interviewed were found to have only one child in the scaled-up data.

According to the DHS 2003 survey data, the selected regions had an average of three children per household (within households of two and more children), so a sample of 1,800 households should have approximately 5,400 children. However, only 3,452 children were interviewed. In the description of the sample design (Section 3 of scaled-up certification study) it was described that the expected number of children was 2.5 per household or 4,500 expected in the total sample. Regardless of what average number of children is assumed, there were too few children in the realized sample. A further investigation on the composition of households and their members using the scaled-up data show that households with only one child were in fact included in the sample. This indicated that what was reported or initially planned was not implemented.

The sample size was estimated on the basis of the number of households. However, the formula given in Section 3 of the certification study for determining sample size was incorrect, and also not the one apparently used for calculation of the sample size as given in the report. The sample size should nevertheless have been adequate, although the true test of this is the realized precision of the child labor estimates.

The study defined an adult worker as a person of age 18 or above who was working for the household in cocoa production activities in some form of work arrangement. The study also included all adults who lived in the household or that of the worker’s household. Moreover, all workers associated with these and their spouses who were actively involved in the cocoa farm work were included. This definition should have resulted in a large number of adults. However, the total number of adults interviewed in the study was 1391.

The definition that was used for adult workers was found to be highly problematic because a substantial number of interviewed adults were related closely to the household. As can be seen in Table 8 below, only 6 percent of the interviewed adults were not related to the household. The household head herself or himself were interviewed as an adult worker. In studying the problem of forced adult labor, it is very important to have a clear definition of this concept. Asking a spouse of the household head about freedom of movement, including the ability to leave the household any time he or she wants, may result in responses that lead to incorrect conclusions about the extent of forced adult labor. The wife of a household head, for example, may tend to answer “no” when asked if she can leave her husband any time she wants.

Table 8 Relation of interviewed adults to head of the household

Relationship to head	Number	Percentage
Child	368	27
Spouse	702	51
Other relative	150	11
No relationship	126	9
Other	39	3
Total	1385	100
Missing	7	

Weighting and variance

A given sample is said to be a self-weighting sample when each sample unit has an equal and non-zero probability of being included in the sample. In a self-weighting sample, the estimates that are obtained can be reported directly without the need for any weighting. If the sample is not self-weighting then weighting of estimates is necessary for estimates to be valid for the population.

The design of the scaled-up sample was described as a self-weighting sample. However, a close examination reveals that the sample was not in fact self-weighting. This is because the size measure in the first stage was not the same as that of the second and third stage. The allocation of the sample also led to unequal sampling probabilities, and therefore unequal weights. All the estimated results in the certification study report were unweighted. Hence, the reported results are not valid for the general population. However, this drawback can easily be overcome by computing the appropriate weights using the information on amount of cocoa production and the number of cocoa producing households in each EA.

A three stage design as described above often has relatively large variance, and is therefore not a particularly good choice if it can be avoided.

Substitution

The sampling design entailed preselecting five extra households for use as replacements in case households could not be interviewed. There is no indication in the data file or in the sample description how often sampled households were replaced. In general, it is not recommended to replace selected households when they cannot be interviewed, because it tends to increase any bias caused by the missing households. For example, if a household cannot be interviewed because everyone is out working on the farm, a replacement household that *is* available to be interviewed is unlikely to have as many workers or the same level of involvement cocoa production. The survey sampling description unfortunately lacks a discussion of how non-response was dealt with in the survey. In the reported results, no procedure was used to handle non-responses.

In sum, several problems were identified with the sample design and its implementation. The overall design could have been more efficient by eliminating the first stage. Non-response needed to be dealt with adequately, and the use of replacement should have been avoided. The original intention of exclusion of households with only one child in the right age bracket was not advisable, given the relatively large proportion of the total population of children that they make up. This criterion was not used in reality, however, making the sample size determination irrelevant. The definition of adult was not precise enough to highlight the issue of forced adult labor. Due to these limitations, it was concluded that the sample design was BELOW AVERAGE.

5.1.5. Instruments

A wide variety of instruments have been used to gather information using a direct interview technique supplemented by focus group discussions. The challenge in designing a survey instrument will always be to gather as much information as possible through a very limited number of questions. The instruments designed for the purpose of the certification studies were specialized in gathering information about cocoa production activities at the household level and the associated labor requirements, both for children and adults. The instruments developed by TWG were household, child, adult and community questionnaires; each is discussed below.

The statistics and qualitative information on the nature of child labor on cocoa production that are required in order to develop a child labor profile in the cocoa sector can be grouped into the four categories: A) Demographic and socio-economic characteristics; B) Child labor and working children; C) Occupational safety and health; and D) Local education resources and infrastructure. The evaluation of the research instruments was based on how systematic and comprehensive the instruments were in covering these important aspects. The framework presented in Table 3 on page 26 was used as a basis for assessing the content in the instruments.

There were a total of four questionnaires in the scaled-up survey. All the questionnaires were constructed similarly and consisted primarily of closed questions where the alternatives were written close to the questions.

All questionnaires were written in English and translated orally to the respondents. In Ghana there are close to 80 different languages, therefore it would have been impractical to translate the questionnaires into all the possible languages that could be needed. However, with an oral translation, thorough training is needed, and even with training there is risk of inconsistent translation in the field.

Household Questionnaire

This instrument was designed to gather information at the household level and primarily administered to the head of the household. The first part of the questionnaire identified the location and name of the household interviewed. The rest of the questionnaire was structured into eight parts.

Part A was a household roster where information on each member of the household was gathered, including basic demographic data such as sex, ethnicity, age, religion, occupation, educational level and marital status. A person was regarded as a member of the household if she/he had lived in the house for at least six months prior to the interview date or had recently joined the household with the intent of staying more than six months. Part B collected detailed information about peak farm labor demand for 28 different types of cocoa production activities and the labor input by each member of the household in terms of person days. Part C was designed to gather information on each child's participation in activities such as fetching water, spraying of pesticides and fertilizer application. This information was gathered in a yes/no format. Part D collected information on the ownership of farm tools and equipment at the household level. This information was gathered in a yes/no format. Part E was concerned with identifying the remuneration of each child's work done for the household, the amount of payment, and frequency of payment, as well as the reason why the child was engaged in cocoa farming. Part F focused on general safety and the tools used for 29 cocoa production activities. Information was gathered on whether or not different types of tools were used by children of certain age groups (5-12, 13-14, 15-17), whether any injury was sustained during work, the severity of any injuries, and type of protective measures in place for children. Part G elicited information on material wealth and welfare indices. Part H gathered information on three main cash crops (including cocoa) regarding the area planted, type of ownership, type of spraying done and the number of people in pre-specified age groups (5-12, 13-14, 15-17) engaged in working with these cash crops.

Overall, the household questionnaire was comprehensive and provided nearly all data required to describe the in the *Demographic and socio-economic characteristics* in Table 10. The questionnaire also contributed essential information on *Child labor and working children* and *Occupational safety and health*.

The questionnaire was complex; however, most of the coding was located on the same page as the question, which made it easy to fill out in the field.

Child Questionnaire

The child questionnaire was administered to all children aged 5-17 years that were members of the household. The questionnaire was designed to establish migration status as a basis for determining trafficked children, describe children's current involvement in economic and non-economic activities, investigate the active involvement of children in hazardous production activities and the associated health impacts, and investigate children in unconditional WFCL. To meet these objectives, the items of the child questionnaire were structured and grouped into different parts.

Part A gathered information on the background characteristics of the child, including sex, date of birth, ethnic group, and primary and secondary occupation. Part B collected information on the migration status of the child by posing questions about place of birth, information on the parents of the child and their place of residence, and how the child came to live in the household. Part B was also aimed at gathering information on why a child was engaged in the specified economic activities and to whom these activities and services was provided. It also asked about any injuries sustained by the child during the past two weeks and where such injuries occurred.

Part C elicited information on the child's participation in economic and non-economic activities. The reference period used for these activities was the two weeks prior to the date of interview. For the activities that the children had participated in during the last two days, there were additional questions about the time of day when the work took place, with the day was divided into six intervals. There were four two-hour intervals (in the morning, afternoon evening), two eight-hour intervals (in the day, 8 a.m. to 4 p.m., and in the night 10 p.m. to 6 a.m.).

Part D gathered information on the child's participation in 28 different cocoa production activities and four other activities (domestic chores, work on school farm, work on their teacher's farm and work on a non-cocoa farm). The information asked was detailed, with questions about days worked per week, hours worked per day, and form of payment for each and every activity. The challenge here was that the activities were so detailed that it was nearly impossible to determine information such as the payment for each and every activity. Most likely, children that are paid receive that payment for a number of activities all together, and not for each specific activity. To give fully accurate answers would require estimations and calculations that would have been too challenging, especially for the youngest children.

Part E1 and E2 gathered information on the child's involvement in any hazardous cocoa production activities, any accident that occurred while conducting these activities and the use of protective clothing and/or equipment. These questions were formulated in a clear manner that was easy to understand.

Part F was designed to collect information about occurrence of debt bondage. Part G investigated the child's freedom of movement while Part H was concerned with the incidence of child abuse and its circumstances. Part I had dealt with school attendance, including current enrollment and what activities the child was engaged in if not attending school. Most of the questions here were formulated in an easily understandable manner.

In the certification study report (Annex C), 3452 children were reported to be interviewed using the child questionnaire. However, the data from household questionnaire Part A, where all the household members were listed, shows that there are 3920 children (5-17 years old) within the selected households. There is no information in the data that can explain why 468 (12 percent) children were not interviewed.

Furthermore, the numbers of children responding to different parts of child questionnaire vary. Table 9 lists the number of responses for major parts of child questionnaire. Part D and part E1 were designed only for children working in cocoa activities, and 1026 children were eligible for these two parts. Section H was the section with lowest response rate, and also the section with the most sensitive questions.

Table 9 Child questionnaire and responses

Part of child Questionnaire	Number of responses	Total eligible for question	Response rate
Part A: Background characteristics	3452	3452	100
Part B: Migration status	3452	3452	100
Part C: Participation in economic and non economic activities	3446	3452	100
Part D: Participation in cocoa production activities	1015	1026	99
Part E1: Involvement in Hazardous cocoa production activities	952	1026	93
Part E2: Use of protective measures	3449	3452	100
Part H: Child abuse and circumstances	2870	3452	83
Part I: School attendance	3449	3452	100

It was found that some important components of the child questionnaire were not designed properly. Consider the questions regarding a child’s school attendance: *If currently in school, what is your grade? Response filled by Categories for different grade levels*). The interviewer has to determine whether the child is currently in school or not. In the case of a child not attending school, this will not be reflected and it is difficult to obtain the answer for enrollment directly. Such questions could have been better designed by using simple and direct queries such as: *Are you currently enrolled in school?* Compound questions are inefficient ways of obtaining information.

The child questionnaire addressed indicators in section B, C and D in Table 10 (Framework for child and adult labor data collection). In general it covered most of the important topics for meeting the objectives of the survey. The detail level of the questionnaire was high, and some items might have been difficult for the youngest children to understand and interpret; however, Table 9 shows a high response rate on most parts of the questionnaire.

Adult Questionnaire

As discussed in the section above on the sampling design, the adult questionnaire was administered all to persons aged 18 years and above who work for the household in cocoa production activities in some form of work arrangement. The objective of this part of the survey was to obtain information on forced adult labor.

This questionnaire had three parts. Part A gathered background information on the respondent, such as gender, relationship to the household head, ethnicity, age, religion, primary and secondary occupation, education, marital status, migration status, and primary and secondary languages spoken. All these questions had alternatives that made it possible for all the adults to respond, except question A11 on the relationship to the owner/operator/caretaker/adult worker – the alternatives here did not permit the head of the household to answer.

Part B investigated whether the respondent was in any form of forced labor, had experienced any form of violence and whether he or she received adequate compensation for his or her labor. This group of questions was problematic for household heads, spouses and close family members. A question like ‘Are you free to leave?’ could be difficult to answer for these groups.

Part C gathered information about the respondent’s knowledge/awareness of the prohibitions against children’s involvement in hazardous labor activities.

There were two main challenges with this questionnaire. The first one was the large group of respondents that could not answer properly on part B, and the lack of skip patterns to avoid asking

them those questions. The second challenge was that the themes covered by the adult questionnaire were very limited. Questions about activities were collected in the household questionnaire, and it may have been advisable to repeat some of the questions in the adult questionnaire for comparison.

Community Questionnaire

The community questionnaire collected information about child labor at the community level, in addition to obtaining information on infrastructure, transportation, and migration. The questionnaire was grouped into six sections. Section 1 gathered information on demographics, Section 2 on access to transport, Section 3 on migration, Section 4 on specific questions on coca farming, Section 5 on education and Section 6 on agriculture.

The community was an integral part of the underlying methodology of data collection to obtain supplementary information on the circumstances in which children live and engage in their daily activities. The scope of the questionnaire was complete and its validity in terms of providing the necessary background information was valuable for understanding the issue of child labor and forced adult labor practices in the cocoa sector. The questionnaire provided some information on the *Local education resources and infrastructure* as listed in Table 10.

Table 10 shows how the questionnaires address the framework for child and adult labor data collection. Overall, all the instruments described above were found to be adequate in terms of their coverage and the design and were therefore rated as AVERAGE.

Table 10: Certification questionnaires and the framework for child and adult labor data collection

A: Demographic and socio-economic characteristics	B: Child labor and working children
<input checked="" type="checkbox"/> Name of place of origin (village, community, town) <input checked="" type="checkbox"/> Size of household <input checked="" type="checkbox"/> Head of household <input type="checkbox"/> Siblings in the household; <input checked="" type="checkbox"/> Age, gender, education status of children; <input checked="" type="checkbox"/> Engagement of children under 5-17 years of age in cocoa and other economic production <input checked="" type="checkbox"/> Contribution of children (5-17 years) and youth to household income <input checked="" type="checkbox"/> Land tenure (sharecroppers or owners) and work activity of head of household <input checked="" type="checkbox"/> Migratory status of the household (place of origin, length of period living in the village, migratory patterns or practice <input checked="" type="checkbox"/> Ethnic and religious background <input checked="" type="checkbox"/> Housing (structure and amenities) <input type="checkbox"/> Economic and social status (including recent shocks faced by household) <input checked="" type="checkbox"/> Annual/monthly family expenditure (or income) and sources <input type="checkbox"/> Debt, if any, of household head	Distribution of working children by: <input checked="" type="checkbox"/> Occupation <input checked="" type="checkbox"/> Cocoa production activity <input type="checkbox"/> Status in employment <input checked="" type="checkbox"/> Method of payment <input checked="" type="checkbox"/> Knowledge and attitudes regarding child labor, child work <input type="checkbox"/> Awareness of the rights of child workers <input type="checkbox"/> Awareness of child labor-related national laws and regulations <input type="checkbox"/> Existence and mechanisms of enforcement within communities <input type="checkbox"/> Type and location of work at home, farm, other places <input checked="" type="checkbox"/> hours worked per week <input checked="" type="checkbox"/> Periods when work is performed <input checked="" type="checkbox"/> Seasonality of work <input checked="" type="checkbox"/> Reasons for child to be at work <input checked="" type="checkbox"/> Conditions of work (including type and frequency of payment, exposure to chemicals, evidence of other hazards and dangerous conditions) <input checked="" type="checkbox"/> Accidents, injuries or sickness incurred as a result of cocoa-related activities (nature and extent of accident/injury/ill-health) <input checked="" type="checkbox"/> Engagement in household chores (hours per week, main tasks)
C: Occupational safety and health <input checked="" type="checkbox"/> Illness, injuries by occupation, activity; <input checked="" type="checkbox"/> Knowledge and attitudes regarding safe work practices and procedures, by activity (use of tools and equipment, pesticide exposure, snake and insect bites, and so on) <input type="checkbox"/> Young people’s knowledge of what to do in the event of accidents and injuries and practical training in such eventualities <input type="checkbox"/> Knowledge and attitudes related to risk and risk management and prevention of accidents and injuries <input checked="" type="checkbox"/> Accidents or work-related health problems reported by others in the community <input checked="" type="checkbox"/> Application practices involving chemicals and involvement of children	D: Local education resources and infrastructure <input checked="" type="checkbox"/> Grades completed by children, young people and adults; <input checked="" type="checkbox"/> Proximity of schools (primary, junior secondary and senior secondary levels) in kilometers/miles <input checked="" type="checkbox"/> Literacy rate of children and other family members <input checked="" type="checkbox"/> Attitudes toward education, formal schooling and teachers <input checked="" type="checkbox"/> Attitudes toward access and relevance of formal education <input type="checkbox"/> Attitudes toward, and access to, non-formal education programs <input checked="" type="checkbox"/> Reasons children attend or do not attend school <input type="checkbox"/> School drop-out rate <input type="checkbox"/> School facilities, condition and needs <input type="checkbox"/> Quality of teaching

¹The letters in the boxes relate to questionnaires from the scaled-up survey where there is questions related to the topic. V-questions comes from the Community/Village questionnaire, H from the Household questionnaire, C from the Child questionnaire and A from the Adult workers questionnaire

5.2. Data Quality Audit

The audit of the data collection process involved the compilation of a quality profile of the fieldwork exercise using the established data quality criteria of Validity, Reliability, Integrity, Timeliness and Completeness. Using these criteria, strengths and weaknesses as well as the risks posed by potential quality problems to the data collection process were appraised.

5.2.1. Summary of Findings: Data Collection

Table 11 below summarizes the audit findings for the certification study’s data collection process. The certification study’s data collection process was generally acceptable and contributed only minor risk to the data quality of the overall certification study. The integrity and the completeness of the data collection process imparted little or no risk while validity, reliability, and timeliness of the

process exhibited vulnerabilities which introduced some risk to overall data quality. These are explored in more detail below.

Table 11: Summary of findings – Certification Study Data collection Process

Components of the Data Collection Procedures	Total Risk scores	Acceptability Rating
Appropriateness of the data collection procedures used (such as recruitment of fieldworkers, training of field staff, and trial field testing of instruments)	Not Applicable	Average
Assessment of the fieldwork exercise, including duration, seasons data was collected, monitoring of data collection and quality control mechanisms.		
Validity of data collection process	6	Average
Reliability of data collection process	6	Average
Integrity of data collection process	2	Above Average
Timeliness of data collection process	6	Average
Completeness of data collection process	2	Above Average
Sensitivity of the data collection process with regard to targeted respondents (e.g. children, victims of trafficking, and children and adults in forced labor).	Not Applicable	Average
Child-centered interview techniques and participatory research methods	Not Applicable	Average

Preparation for data collection

Preparatory activities for the data collection included recruitment of fieldworkers, training of field staff, and trial field testing of instruments.

Data collectors for the certification study were recruited following a circular sent by the Ministry of Manpower, Youth and Employment (MMYE) to the 15 District Assemblies (DAs) where data collection was planned. Recruitment and selection was undertaken at the district level to capacitate the districts for future certification studies.

The DAs selected people based on their experience and qualifications. Specifically, preference was given to those with research experience, and a demonstrated ability and commitment to research. A minimum academic qualification of a first degree was also required. Other considerations for selection included occupation and familiarity with socio-cultural norms of the districts of data collection. Data collectors had to at least be able to speak the local dialects of the district where they would collect data. Preference was given to civil servants from the social welfare and labor departments and the employees of the Ghana Statistical Service (GSS).

Supervisors and data collectors were trained during a six-day workshop held at the Bunso Cocoa College, Accra in 11th -16th Nov 2007. This workshop was facilitated by members of the Technical Working Group (TWG). All data collectors were trained to respond to children’s needs. Role plays were used at the training to practice some of the instructions provided on the instrument and to sharpen interview skills. Instructions related to access to respondents were given to data collectors. Data collectors were told at the training not to threaten or force children to participate but rather to encourage them by assuring them of privacy and confidentiality. Data collectors were also

encouraged to be conversant with the questions on the questionnaires and to have control over the interview process. Following the training, the actual data collection started within 1-2 weeks in most districts.

Questionnaires used in the scaled-up survey were modified versions of those used in the pilot study. Each questionnaire went through several cycles of review including a pre-test by the TWG and a field test by the data collectors during their training session. The verifiers found that the questionnaires were detailed, well-designed and focused on child labor and related issues.

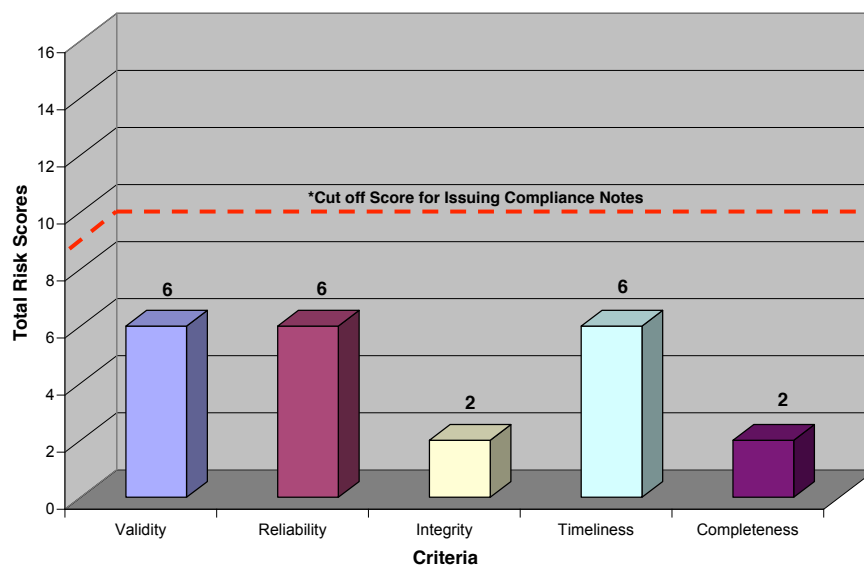
Several months before the actual survey, the Ghana Statistical Service (GSS) conducted listing of households sampled for the survey. At that time, community leaders were also informed about the forthcoming survey.

Based on all the facts above, the verifiers found that the preparation activities for the fieldwork were acceptable.

VALIDITY of the Data Collection Process

The Validity of the data collection process for the certification study is the assurance that verifiable data on child trafficking, engagement of children in hazardous activities and in the worst forms of labor, and forced adult labor practices were gathered. Errors that could have posed threats to Validity of the data collection process were investigated. These sources are: Questionnaire Design; Questionnaire Administration; Fieldworker Attributes; and Respondent Factors.

Figure 5: Total Risk Scores for Data Collection Process



* Total Risk Scores equal to or above 9 for any data quality criterion imply a high to absolute risk to the quality of data. Compliance notes are thus issued for scores 9 and above. As shown in the chart above no criterion had a risk score of 9 or greater. No Compliance note was issued for the data capturing process.

Questionnaire Design

The verifiers reviewed the data collection tools and found the tools were well designed and focused on cocoa farming, child labor and other related issues. The verifiers confirmed fieldworkers' reports

that the tools were easy to administer in the field. However, there were a few questions that needed further explanation to the respondents before they could give adequate answers.

The questionnaires were translated orally at the time of administration, which introduces risk to the quality of data because it leaves room for inconsistent translation. However, because of the number and variety of languages spoken in Ghana, it was not necessarily practical or advisable to attempt to translate the written questionnaires into multiple languages.

All the fieldworkers stated they were able to collect the desired information despite one questionnaire (the household questionnaire) being lengthy to administer which contributed to the risk of timeliness of the data collection process. The level of individual non-response was minimal with only 4 of 18 fieldworkers reporting cases of non-response.

Questionnaire Administration

The mode of data collection for the Cocoa Labor Survey was face-to-face, paper and pencil, interviews. This was an appropriate method of collecting data since the target respondents for the survey were mainly rural households operating cocoa farms, including children aged 5-17. Face-to-face interviews enabled the fieldworkers to clarify questions and prevent different interpretation of the meaning of questionnaire items.

Fieldworker Attributes

In order to minimize the effects interviewers had on respondents' answers to questions, the interviewers were trained on appropriate interviewing techniques including, reading and clarifying questions appropriately and methods of handling non-responses. Reduction of non-response is crucial to avoid the reduction of sample size and to minimize the bias. The training, and the ability to speak local dialects, and experience in conducting surveys enabled them to reduce cases of non-responses.

The research team that implemented the certification study worked with the Response Team on WFCL to follow-up on any serious consequences or outcomes arising from data collection. The survey managers reported that preliminary findings from the certification study pointed to forty-four cases of adult labor practices and two cases of children who were involved in commercial sex. Research teams were sent to the districts to follow-up and verify these cases so that appropriate interventions could be developed. However, on follow-up all the alleged cases of adult workers being forced to work as cocoa laborers against their will, and one of the two cases of child commercial sex work could not be confirmed. The second case of child sex work was put down as consequence of miscommunication between the fieldworker and the child in the interview, and failure of the fieldworker to properly understand and record the provided responses.

Respondent Factors

Households generally cooperated with the fieldworkers following the household owners' permission for the interviews to be conducted. However, as noted earlier in this report, some households expected to receive some 'benefits' from the government after the survey, and this may have enhanced participation in the study.

There were two instances where a household could not be interviewed because the landlord who was not listed to be surveyed got upset that his own household was not to be interviewed. Moreover, some households complained of interview- fatigue from previous interviews or unmet expectations following previous surveys.

Interviewing children, especially those aged 5 – 6 proved challenging. Parental assistance had to be often sought to assist with some questions, although the fieldworkers would have preferred to interview these young children away from their parents. This may have affected the truthfulness of the children's responses.

Table 12 below summarizes the strengths and vulnerabilities of Validity of the data collection process.

Table 12: Strengths, Vulnerabilities & Risk Scores for VALIDITY of the Data Collection Process

Strengths for Validity		Vulnerabilities to Validity	
1. Fieldworkers had access to a practical Training guide and Interview manual which they could consult while in the field as an aid to the data collection process 2. The level of individual non-response was very minimal as respondents were able to answer all the questions even though needing some further clarification from the fieldworkers in some instances. 3. The community leaders were informed well in advance (during listing of households by GSS) about the survey. A day or two before the survey, the supervisors reminded the community leaders about the study. 4. Supervisors actively monitored data collection to ensure standardization of the process and assist in troubleshooting. They also edited each questionnaire and ensured that errors and gaps were amended by the fieldworkers even if it meant returning to the field for clarification. Furthermore, fieldworkers kept notebooks where issues with the interview processes were recorded. The supervisors submitted reports to the Research Team in Accra which contained some of the problems they faced with data in the field. 5. The data collection tools were well designed and aligned to the data to be collected.		1. The tools were not translated in situ into the local languages even though the fieldworkers assert that they were able to translate it themselves in the field. This spoken translation leaves room for inconsistent translation and subsequent misinterpretation of the questions. 2. There were problems with the skip patterns in the questionnaires. However, supervisors often picked up such errors, omissions or wrong entries while editing the questionnaires and always insisted that the fieldworkers clarify such errors before their questionnaires can be formally signed off and stored. 3. Fieldworkers reported that households generally cooperated with them because they believed that they were going to receive some benefits from the government as a result of their participation in the survey. This raises questions as to whether or not failure of fieldworkers to correct such a misconception may have influenced the responses the interviewees gave. 4. The presence of parents while interviewing children 5-6 yrs may have affected the truthfulness of the children's responses.	
RISK ASSESSMENT FOR VALIDITY			
Frequency Risk Score			
Unlikely (1)	Occasional (2)	Frequent (3) ✓	Constant (4)
Quality Risk Score			
Negligible (1)	Marginal (2) ✓	Critical (3)	Catastrophic (4)
Total Risk Score			
TOTAL RISK SCORE = Frequency Risk Score × Quality Risk Score			6

The vulnerabilities suggest some of the data collection processes did not meet the expected standards for VALIDITY. Based on the total risk score of six (6), the VALIDITY of the data collection process was rated AVERAGE, imparting only minor risk to data quality of the certification study.

RELIABILITY of the Data Collection Process

The reliability of the data collection process refers to the consistency, stability, and repeatability of the data collection procedures with time and across all the sites of data collection.

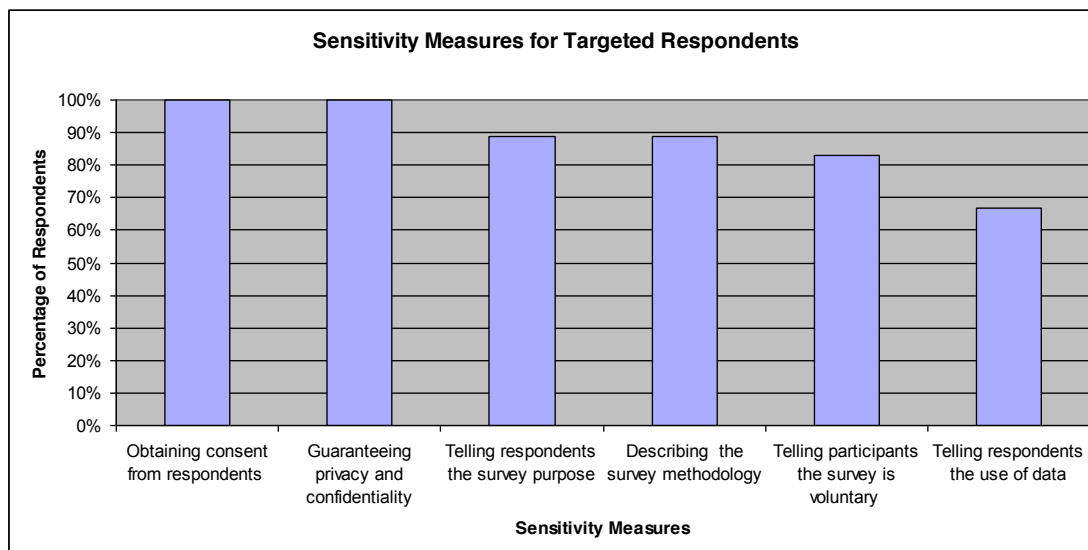
The method of data collection and tools remained consistent throughout the survey although there were a few very minor discrepancies in the tools that had to be addressed during fieldwork, e.g. misspelled names and addresses that led to delays in accessing the listed households. Instructions were provided in the training manual and interview guide, as well as in the questionnaires themselves. The verifiers reviewed the manuals and interview guides and found them clear and easy to understand.

However, during the data collection there were a few problems like difficulties in estimating ‘man-days’ for a certain question in the household questionnaire. In one district, when fieldworkers realized that they were not finding and interviewing adult workers, they were advised by the Research Team to go back to the households and interview adults living with household owners. In addition, as indicated above, follow-up on preliminary findings of forty-four adult workers allegedly engaged in forced labor and two of alleged commercial workers could not be substantiated during follow-up interviews conducted by the Response Team on WFCL. Only one case of child commercial sex worker was confirmed.

Sensitivity to Targeted Respondents

There were no problems in keeping the respondents interested and making the interview atmosphere comfortable and pleasant at all times. The fieldworkers used their extensive experience in research and their knowledge in cultural norms of their district of operation to establish appropriate rapport with the respondents. The following Figure 6 shows the measures taken to exercise sensitivity to targeted respondents and minimize non-responses.

Figure 6: Sensitivity and Ethical Measures for the Targeted Respondents



The fieldworkers informed respondents why and how the survey was being carried out and more than half of the fieldworkers explained to the respondents how the data would be used. Fieldworkers reported informing the households that participation in the certification survey was voluntary. The

fieldworkers guaranteed participants of their privacy and confidentiality and obtained spoken consent at the onset of each interview.

Where respondents did not understand the posed questions, the data collectors would rephrase the questions for better clarity. For sensitive questions like that of income, the fieldworkers had to break the questions gently and suitably without altering the meaning. Fieldworkers also fitted their schedule with respondents' day to day activities. For example, fieldworkers travelled to the farms and schools to interview respondents and students respectively.

The sensitivity of the data collection process with regard to targeted respondents was given an acceptability rating of AVERAGE.

5.2.2. Child-Centered Interview Techniques

The fieldworkers stated that they considered the rights of the children and their capacity to provide informed consent, and that they obtained permission from parents / guardians before interviewing children. If the children's interviews occurred at school, then the fieldworkers also sought permission from the Headmaster or teachers. In some cases consent was also obtained directly from older siblings 15 years or older.

While children were mostly interviewed separately from their parents, the parents were sometimes called in to confirm certain answers provided by the very young children e.g. to clarify the child's age. Children were put at ease before the interviews, especially those who were interviewed at school. Some of the children (aged 5-6 years) were encouraged by their parents to participate, although as noted earlier in this report, interviewing young children ages 5-6 was problematic as parents had to be called in to assist with responses. The presence of parents may have affected the truthfulness of the answers provided by these children.

While fieldworkers reported no problems securing rapport with the children, they did report that some children were uncomfortable at the beginning of the interviews. In addition, children became impatient, requiring the fieldworkers to break the interview, motivate the child and then proceed with the interview.

By and large however, the verifiers believe that the use of child centered interview techniques was at an acceptable standard in the survey.

5.2.3. Internal Data Quality Control

The fieldworkers consulted one another to clarify issues and to compare notes and checked each other's questionnaires for errors and gaps before submission to the supervisor for feedback.

Most of the fieldworkers reported making consistency checks during the data collection. These checks were made by cross-referencing to earlier responses in the same or different questionnaire. In one district, three cases of inconsistencies were identified and rectified. For example, one respondent indicated that s/he was engaged in an apprenticeship although a later response suggested s/he was a student. In another case, a farmer indicated that his children did not work in the farm and later he told the data collector that one of the children was injured in the farm. The data collector reminded the farmer of his earlier statement and he clarified it.

Quality control process related to the monitoring of data-management personnel and data collection process were in place. Each team of fieldworkers had one supervisor who observed interviews, edited questionnaires and provided feedback to data collectors. Feedback was extensive during the first few days of data collection, but decreased with time due to experience.

Supervisors were in turn answerable to Team Leaders, who along with other members of the Research Team from Accra, conducted monitoring visits to track the quality of the data collection process. The Research Team was accountable to the Technical Working Group, an organ of the NPECLC of the MMYE.

Table 13 below provides a summary of the strengths and vulnerabilities of the Reliability of the data collection process.

Table 13: Strengths, Vulnerabilities & Risk Scores for RELIABILITY of the Data Collection Process

Strengths for Reliability		Vulnerabilities to Reliability	
<p>1. The calibre of personnel used for data collection was impressive. All fieldworkers were at least university graduates with considerable experience in research surveys. Furthermore, fieldworkers were conversant with socio-cultural norms of the district of data collection in order to be recruited for the survey.</p> <p>2. During the data collection process, sensitivity with regards to children and adult forced labour was emphasized and observed by fieldworkers. Children were interviewed separately from their parents except for very young children who often needed the assistance of their parents to answer some questions.</p> <p>3. Fieldworkers showed remarkable persistence in their quest to interview listed household. If no member of a household was available, the fieldworker would either trace them to the farms or return later at night (or the following day). This is a likely factor for the low levels of non-response reported in this survey.</p> <p>4. The Quality Control checks in the data collection process were also impressive. Each district had one supervisor. Supervisors observed interviews, edited questionnaires and provided feedbacks to data collectors. Team Leaders were in charge of about three districts. The Team Leader and other members of the Research Team from Accra conducted monitoring visits to manage the process to ensure quality. The Research Team was accountable to the Technical Working Group, an organ of the NPECLC of the MMYE.</p>		<p>1. Although fieldworker report that the six-day training they received was useful, it was inadequate to thoroughly cover all areas pertaining to the data collection process, and cover each of the four questionnaire types.</p> <p>2. Fieldworkers reported that the data collection tools were generally clear and easy to administer. However, there were some difficult and/or sensitive questions especially in the Household questionnaire which required the fieldworker to reinterpret or rephrase the questions gently and suitably without altering the meaning. Also for some questions, fieldworker found that some respondents were unwilling to divulge information – such as information on personal income. Therefore fieldworkers had to use different indirect questions to extract information. This poses a risk to the consistency in the handling of such difficult questions.</p> <p>3. In one district fieldworkers discovered that they had not been interviewing the correct individuals from the outset and had to return to the household to do so. This may suggest a lack of thorough understanding of all categories of persons who ought to have been interviewed.</p>	
RISK ASSESSMENT FOR RELIABILITY			
Frequency Risk Score			
Unlikely (1)	Occasional (2) ✓	Frequent (3)	Constant (4)
Quality Risk Score			
Negligible (1)	Marginal (2)	Critical (3) ✓	Catastrophic (4)
TOTAL RISK SCORE = Frequency Risk Score × Quality Risk Score			6

Based on the total risk score of six (6), the RELIABILITY of the data collection process was rated AVERAGE, imparting only minor risk to data quality of the certification study .

INTEGRITY of the Data Collection Process

Integrity focuses on the introduction of intentional or unintentional errors. Intentional errors, for example fabrication and fudging of data, are serious challenges to Integrity. Unintentional errors, such as technological failures, can also compromise Integrity. The process of achieving and maintaining data integrity requires attention to methods of data collection, data collection training, and data collection monitoring.

Fieldworkers were paid equally at a pre-agreed daily rate and no additional performance related benefits or incentives were given which may have resulted in fabricated data. No intentional errors were found regarding the data collection process for the certification study. No cases of breach of conduct that required disciplinary action was reported by the supervisors or managers.

All of the fieldworkers reported that the repeated emphasis on honesty during training and the constant monitoring by supervisors and spot checks by members of the monitoring team all combined to ensure that the data collection process was transparent and truthful.

Supervisors were not specifically trained to identify data processes and procedures that could have allowed data tampering. The data collection supervisors who were interviewed indicated these potential risks were not discussed at any forum.

While fieldworkers did not sign a code of conduct before the start of the data collection, the fieldworkers were mostly recruited by the District Assemblies (DA) and were bound by the terms and conditions of employment of the DA.

Table 14: Strengths, Vulnerabilities & Risk Scores for INTEGRITY of the Data Collection Process

Strengths for Integrity		Vulnerabilities to Integrity	
1. All the fieldworkers were paid equally at a pre-agreed daily rate. No additional performance related benefits or incentives were given to fieldworkers for completion of data collection.		1. There was no forum where the potential data processes / procedures that could have been at risk with respect to data tampering were identified. 2. Fieldworkers did not sign a code of conduct to emphasis the importance of integrity and bide them to collect truthful data and to forewarn them of disciplinary action in the event of any breach of conduct.	
RISK ASSESSMENT FOR INTEGRITY			
Frequency Risk Score			
Unlikely (1)	Occasional (2) ✓	Frequent (3)	Constant (4)
Quality Risk Score			
Negligible (1) ✓	Marginal (2)	Critical (3)	Catastrophic (4)
Total Risk Score			
TOTAL RISK SCORE = Frequency Risk Score × Quality Risk Score			2

Based on the Strengths and Vulnerabilities in Table 14, the verifiers calculated a Total Risk Score of two (2) for the INTEGRITY of the data collection process. This means that the Integrity of the certification study’s data collection process imparts little to no risk to data quality. Based on the total risk score of two (2), the INTEGRITY of the data collection process was rated ABOVE AVERAGE, little to no risk to data quality of the certification study.

TIMELINESS of the Data Collection Process

Timeliness is the extent to which the data was current and sufficiently up to date for analysis and reporting. Data collection took place in November/December 2007, a time for cocoa harvesting. For each community, the three fieldworkers were to visit 15 households. In each household, the data collectors interviewed the household head, adult workers and children between 5 and 17 years. Questionnaires had space for recording start and end times of each interview.

Fieldworkers reported facing difficulties contacting migrant farming households. The listing of households had been done during the planting season. But when data collection took place months later, some of the migrant families had left their farm houses. This was not a major data collection issue as it was uncommon and unavailable households were replaced.

Transportation problems, geographically dispersed households, poor roads, the need to revisit households, and the lengthy household questionnaire were other reasons cited for the unexpected delays. In one district, there were delays because the survey map provided initially did not include all the enumerated households for the survey. In the end, all fieldworkers needed extra time to complete the data collection. Under-estimation in time budget could have created pressure for fieldworkers to meet deadlines which, in turn, could have led to shoddy data collection.

Table 15: Strengths, Vulnerabilities & Risk Scores for TIMELINESS of the Data Collection Process

Strengths for Timeliness		Vulnerabilities to Timeliness	
1. The questionnaires had fields for recording starting and ending time of interviews and the dates of the interviews. The fieldworkers also had provided with notebooks to take notes of their experiences in the field.		1. All fieldworkers interviewed asserted that they requested additional time to complete the data collection process. These delays were reportedly due to insufficient time to reach all the households.	
RISK ASSESSMENT FOR TIMELINESS			
Frequency Risk Score			
Unlikely (1)	Occasional (2) ✓	Frequent (3)	Constant (4)
Quality Risk Score			
Negligible (1)	Marginal (2)	Critical (3) ✓	Catastrophic (4)
Total Risk Score			
TOTAL RISK SCORE = Frequency Risk Score × Quality Risk Score			6

Based on the total risk score of six (6), the TIMELINESS of the data collection process was rated AVERAGE, imparting only minor risk to data quality of the certification study.

COMPLETENESS of the Data Collection Process

Completeness refers to the extent to which the expected number of questionnaires, based on allocated sample, were received and the extent to which data were not missing from received questionnaires. Procedures to address late, incomplete, inaccurate or missing reports were discussed during training and they were also listed under the roles and responsibilities of interviewers, supervisors and office editors in the Training Guide & Manual (pages 11-13).

Supervisor reviewed completed questionnaires at the end of each day. Questionnaires with errors or missing information were passed on to the responsible fieldworker for correction. Supervisors also made notes on each questionnaire as regards the missing information found while editing. One fieldworker reported losing two questionnaires and had to repeat the two interviews again.

Table 16 below summarizes the strength, vulnerabilities, and the Total Risk Score for COMPLETENESS for the data collection process.

Table 16: Strengths, Vulnerabilities & Risk Scores for COMPLETENESS of the Collection Process

Strengths for Completeness		Vulnerabilities to Completeness	
1. Data collection process generally reflects good practice for Completeness		1. If fieldworkers went to a listed household and one of the respondents was unavailable, they would fill in the demographic details of that respondent in a questionnaire but leave the rest of the questionnaire blank. They did this as evidence that they had visited that household. However this posed problems for office editors who were often confounded by the missing information they found on such questionnaires 2. Procedure to address late, incomplete, inaccurate and missing reports could have been better documented.	
RISK ASSESSMENT FOR COMPLETENESS			
Frequency Risk Score			
Unlikely (1)	Occasional (2) ✓	Frequent (3)	Constant (4)
Quality Risk Score			
Negligible (1) ✓	Marginal (2)	Critical (3)	Catastrophic (4)
Total Risk Score			
TOTAL RISK SCORE = Frequency Risk Score × Quality Risk Score			2

Based on the total risk score of two (2), the COMPLETENESS of the data collection process was rated ABOVE AVERAGE, since COMPLETENESS criterion imparts little to no risk to data quality of the certification study.

5.2.4. Assessment of Data Capture Process

The strengths, weaknesses and risks to the data capturing process were appraised using the established data quality criteria of Validity, Reliability, Integrity, Timeliness and Completeness.

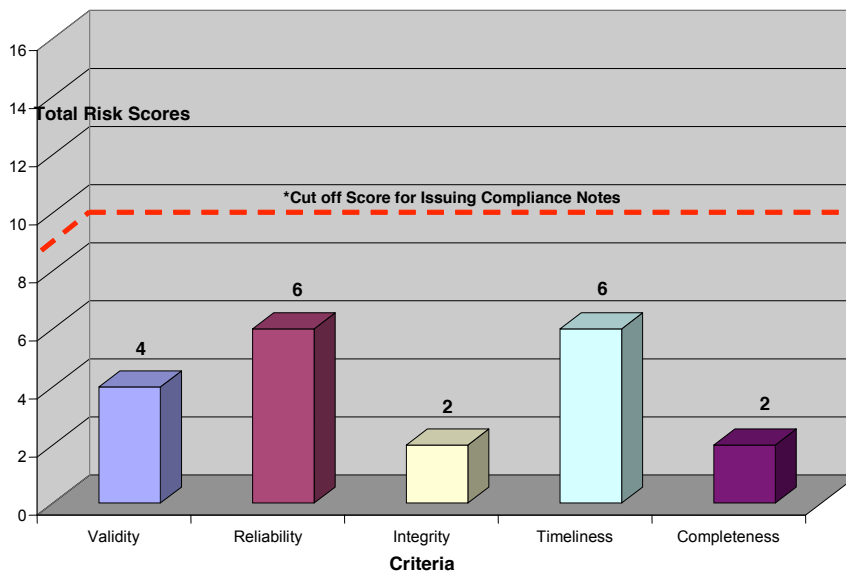
Summary of Findings: Data Capturing

As shown in Table 17 and Figure 7 below, the certification study’s data capturing process was generally acceptable and contributed only minor risk to the data quality of the overall certification study. The integrity and the completeness of the data capturing process were among the strongest aspects. However, the reliability and timeliness of the process exhibited vulnerabilities which imparted some risk to data quality. These are further explored below.

Table 17: Summary of findings – Certification Study Data Capturing Process

Components of the Data Capturing Procedures	Total Risk scores	Acceptability Rating
Assessment of the data capturing process including appropriateness of data capturing tools used, and quality control mechanisms,.		
Validity of data capturing process	4	Average
Reliability of data capturing process	6	Average
Integrity of data capturing process	2	Above Average
Timeliness of data capturing process	6	Average
Completeness of data capturing process	2	Above Average

Figure 7: Total Risk Scores for Data Capturing Process



** Total Risk Scores equal to or above 9 for any data quality criterion imply a high to absolute risk to the quality of data. Compliance notes are thus issued for scores 9 and above. As shown in the chart above no criterion had a risk score of 9 or greater. No Compliance note was issued for the data capturing process.*

VALIDITY of the Data Capturing Process

The Validity of data capturing process is the assurance that completed questionnaires of good quality were correctly transcribed into electronic format. Likely sources of transcription errors that could have posed threats to Validity of the data capturing process were investigated.

Database/Entry Screen Design

The data capturing tool was designed using CSPro 3.3 software. The verifiers compared the capturing tool with the questionnaires and found that the data entry screens were aligned to the corresponding questionnaires. There were in-built Mandatory Fields, Range, Validation Checks and skip patterns in the data capturing tool which matched the questionnaires’ design. Data entry fields had been coded appropriately as numeric or string to prevent wrongful entries.

Data Capturing Process

Ten data entry clerks (DECs), under the supervision of three supervisors, entered data over a period of six weeks. Prior to data entry, four Office Editors (OE) checked questionnaires for completeness and legibility and edited the questionnaires where appropriate. The supervisors assisted OE and DEC with clarifications regarding the questionnaires and performed daily checks of the data captured by the DEC. Towards the end of each day, the supervisors conducted logical editing and ran error statistics on captured data. The verifiers were provided with several print-outs of actual errors detected during the data capturing process. Most of the errors statistics comprised implausible and/or missing entries. Based on these findings, supervisors provided feedback to the DEC to ensure that the detected errors were corrected.

Table 18 below summarizes the data capturing process VALIDITY Total Risk Scores.

Table 18: Strengths, Vulnerabilities & Risk Scores for VALIDITY of the Data Capturing Process

Strengths for Validity		Vulnerabilities to Validity	
<ol style="list-style-type: none"> The weaknesses in checking procedures during data capture which were identified from the pilot survey were built upon and improved during the scaled-up study. Quality control checks in the data capturing process were quite impressive. For instance, on a few occasions, supervisors had to contact field supervisors and request that they come to the EIB offices in Accra to clarify some incomplete information in the questionnaires received from their district. Furthermore, DEC were required at all times to call either the office editors or supervisors to clarify any problems with the questionnaires rather than try to make the corrections themselves. Supervisors ran computer based error statistics such as range checks and frequencies which revealed any implausible entries made by the DEC. This further strengthened the accuracy of the data capturing process and hence the validity of data captured. 		<ol style="list-style-type: none"> There is no systematic documentation about the probable limitations in the use of the CSPro 3.3 database. Missing values in the questionnaires are left blank by DEC rather than coded as missing (e.g. 99). This is potentially problematic for the data cleaning process as there may be confusion as to whether the blank entries are actually missing values in the questions or omissions by the DEC. 	
RISK ASSESSMENT FOR VALIDITY			
Frequency Risk Score			
	Occasional (2) ✓	Frequent (3)	Constant (4)
Quality Risk Score			
Negligible (1)	Marginal (2) ✓	Critical (3)	Catastrophic (4)
Total Risk Score			
TOTAL RISK SCORE = Frequency Risk Score × Quality Risk Score			4

Based on the total risk score of four (4), the VALIDITY of the data capturing process can be said to have been AVERAGE, imparting minor risk to the data quality of the certification study.

RELIABILITY of the Data Capturing Process

The reliability of the data capturing process refers to the consistency, repeatability and transparency of the entire data capturing process over time. Four OE and two DEC, with extensive experience in office editing and data entry respectively, were recruited from GSS while another ten DEC staff were drawn from the Employment Information Bureau (EIB) of MMYE. The OEs were trained together with the fieldworkers, before the data collection began. On the other hand, the twelve DEC were trained exclusively by staff of the EIB and this training was timed to coincide with the tail end of the data collection process. The DEC received training for three days on data entry concepts, issues of confidentiality, verification of data and duties of DEC. This was followed by five-day experiential training using completed questionnaires that had been submitted to MMYE. After the first day of training, the trainees were tested and the best ten were selected to continue with the training. The training was conducted by three EIB staff who eventually served as supervisors of the data capturing process. A copy of a 16 page training manual designed by the supervisors was provided to the verifiers.

There were two data entry points. One was at EIB under the watch of one supervisor and the other was at GSS with two supervisors. The supervisors supported DEC, kept notes of the data capturing process and ran error statistics (see section on Validity of data capturing process). The supervisors and DEC reported that the data capturing process remained consistent except for the progressive

picking up of data entry speed as DEC became more conversant with the process. The DEC asserted that if the data capturing procedure was to be repeated a similar data set would be obtained barring minor human errors.

Table 19: Strengths, Vulnerabilities & Risk Scores for RELIABILITY of the Data Capturing Process

Strengths for Reliability		Vulnerabilities to Reliability	
1. There was a strong quality control process in the selection and training of DEC. Data entry clerks were trained for 3 days followed by five-day experiential training using completed questionnaires that fieldworkers had started submitting to MMYE. After the first day of training the trainees were tested and the best ten picked to continue with the training. 2. The QC procedures for the data capturing process were quite thorough. Supervisors were always available to assist data entry clerks with any difficulties that they experienced. During data entry there were several in-built mechanisms including a value range check for variables. Logical editing and statistical tests of procedures were also used to check for and clean data errors. Captured data was cleaned by supervisors.		1. Despite the thorough Quality Control procedures employed in the data capturing process, many errors were still found during data cleaning. The supervisors spent a lot of time (over 7 weeks) on data cleaning suggestive of some weakness in the actual data entry process itself. The supervisors agree that perhaps double-entry may have reduced the frequencies of errors in the data capturing process. Double entry, initially considered at the design stages, was shelved due to time and resource constraints.	
RISK ASSESSMENT FOR RELIABILITY			
Frequency Risk Score			
Unlikely (1)	Occasional (2)	Frequent (3) √	Constant (4)
Quality Risk Score			
Negligible (1)	Marginal (2) √	Critical (3)	Catastrophic (4)
TOTAL RISK SCORE = Frequency Risk Score × Quality Risk Score			6

As shown in Table 19 the total risk score of six (6), the RELIABILITY of the data capturing process can be said to have been AVERAGE, imparting minor risk to the data quality of the certification study.

INTEGRITY of the Data Capturing Process

Integrity focuses on intentional and or unintentional errors that may be introduced into the data capturing process.

The quality control procedures employed in the recruitment, training, monitoring and remuneration of data capturing personnel are important in achieving and maintaining data integrity. No additional bonuses or incentives were paid to the DEC for rapid capturing of questionnaires. The DEC signed an oath of secrecy a copy of which was made available to the verifiers. The supervisors spent 7 weeks on data cleaning to ensure that the captured data was accurate and free of ‘untruths’. All questionnaires were secured at the EIB offices and the captured data were saved unto a back up disk at the end of each day. The following Table 20 illustrates the strengths, vulnerabilities and Total Risk Scores for the INTEGRITY of the data capturing process.

Table 20: Strengths, Vulnerabilities & Risk Scores for INTEGRITY of the Data Capturing Process

Strengths for Integrity		Vulnerabilities to Integrity	
1. The DEC were made to sign an oath of secrecy and were persons with a proven track record of data entry having been in the employ of the Labor Department or GSS for several years.		1. The EIB could not provide an indication about the duration of time the questionnaires would be held in their possession. Questionnaires should be kept for a predetermined length of time before being disposed of. Without a fixed timeline, EIB cannot be held accountable should questionnaires be disposed off prematurely.	
2. All questionnaires were secured in a storage room and electronic copies of the captured data were saved onto a back up disk at the end of each day. The computer room where data was captured was declared a 'no entry' zone to outsiders during the day and securely locked at the end of each day.			
3. Wrong entries were detected using SPSS stats and in every instance, the responsible DEC had to trace the specific questionnaire and correct the errors.			
RISK ASSESSMENT FOR INTEGRITY			
Frequency Risk Score			
Unlikely (1)	Occasional (2) ✓	Frequent (3)	Constant (4)
Quality Risk Score			
Negligible (1) ✓	Marginal (2)	Critical (3)	Catastrophic (4)
Total Risk Score			
TOTAL RISK SCORE = Frequency Risk Score × Quality Risk Score			2

Based on the total risk score of two (2), the INTEGRITY of the data capturing process was rated ABOVE AVERAGE, imparting little to no risk to data quality of the certification study.

TIMELINESS of the Data Capturing Process

Timeliness of the data capturing process for the certification study is the extent to which the process of capturing data was current and sufficiently up to date for analysis and reporting. The time schedule for data capturing was driven by project timelines set by the TWG. In addition to the four weeks allocated, the DEC required two more weeks to complete their task. The data cleaning process lasted another seven weeks.

Table 21: Strengths, Vulnerabilities & Risk Scores for TIMELINESS of the Data Capturing Process

Strengths for Timeliness		Vulnerabilities to Timeliness	
1. Office Editors were responsible for receiving the completed questionnaires in batches from the districts. They counted and kept a register of the received questionnaires.		1. The two week delay in the data capturing process was diagnostic of under-estimation of time budget for the capturing process. Unnecessary pressure to complete data capturing within an unrealistic timeframes may, hypothetically speaking, predispose to poor capturing practices.	
		2. Also, supervisors themselves admitted that the data cleaning process which lasted seven weeks was just too long. Nonetheless they said it was absolutely necessary to spend that time in order to be thorough.	
RISK ASSESSMENT FOR TIMELINESS			
Frequency Risk Score			
Unlikely (1)	Occasional (2)	Frequent (3) ✓	Constant (4)
Quality Risk Score			
Negligible (1)	Marginal (2) ✓	Critical (3)	Catastrophic (4)
Total Risk Score			
TOTAL RISK SCORE = Frequency Risk Score × Quality Risk Score			6

Based on the total risk score of six (6), the TIMELINESS of the data capturing process was rated AVERAGE, imparting minor risk to data quality of the certification study.

COMPLETENESS of the Data Capturing Process

Completeness of the data capturing process is the extent to which the questionnaires that were received from the field were accurately and adequately captured in the database. The OE scrutinized each and every questionnaire for completeness and if any missing information was found by the OE, the supervisors were alerted and responsible fieldworker was contacted for clarifications. DEC were instructed to postpone all action on any incomplete questionnaire until the missing data was corrected. The supervisors ran error statistics on the captured data and cleaned the data to ensure that accuracy and completeness of the entire process. The supervisors provided active feedback to DEC and OE to minimize errors and omissions in the data capturing process.

The certification study report states that out of 36 of 1,785 household questionnaires administered were unutilized due to incompleteness. This amounts to 2 percent of all household questionnaires and 0.5 percent of all questionnaires administered in the field across all districts in the survey. The verifiers found these proportions of incomplete questionnaires to be acceptable.

Table 22: Strengths, Vulnerabilities & Risk Scores for COMPLETENESS of Data Capturing Process

Strengths for Completeness		Vulnerabilities to Completeness	
1. The Quality Control processes mentioned under validity and reliability also strengthen the Completeness criterion. For instance, DEC were told to stop all action on the said questionnaire and call for the attention of either the office editors or the supervisors for assistance. Incomplete questionnaires were traced to the source in the field and the responsible FW (usually their supervisors) were asked to clarify the issue.		1. There was no written procedure to address late, incomplete, inaccurate and missing questionnaires even though supervisors asserted that they held informal discussions among themselves in this regard.	
RISK ASSESSMENT FOR COMPLETENESS			
Frequency Risk Score			
Unlikely (1)	Occasional (2) ✓	Frequent (3)	Constant (4)
Quality Risk Score			
Negligible (1) ✓	Marginal (2)	Critical (3)	Catastrophic (4)
Total Risk Score			
TOTAL RISK SCORE = Frequency Risk Score × Quality Risk Score			2

Based on the total risk score of two (2), the COMPLETENESS of the data capturing process was rated ABOVE AVERAGE, imparting little to no risk to data quality of the certification study.

5.2.5. Assessment of Documentation and Reporting

The assessment of the documentation of the various stages of the certification study was based on the audit findings of the data collection and capturing processes, and interviews with research managers. As indicated in Table 23 below, the quality of documentation and reporting for individual certification study components ranged from average to above average. These components are further elaborated upon below.

Table 23: Summary of findings - Assessment of Documentation and Reporting

Certification Study Components	Acceptability Ratings for Documentation and Reporting
Survey Preparation	Average
Data Collection	Above Average
Data Capturing Process	Above Average
Data Protection	Average
Analysis	Average
Reporting and Dissemination	Average

Survey Preparation: Documentation

Following the review of provided documents the verifiers established that survey methodologies and techniques used during the survey, definitions of key concepts (e.g. child labor) and of statistical units (e.g. households) were well documented. In addition, reported quality assurance measures (e.g. follow-up procedures of non-response) and the results of the survey including all the data files were also properly documented. The following table shows a list of documents that were reviewed by the verifiers.

Table 24: Survey Preparation Documentation Reviewed during the Audits

Documentation developed as part of Survey Preparation
<ul style="list-style-type: none"> ➤ Sample Design For Cocoa Labour Scale Up Survey 2007/2008 ➤ Household Listings ➤ Ghana scaled-up survey methodology 2007.doc ➤ Terms of Reference for Consultants for the Cocoa Sector Survey in Ghana ➤ Ghana Research Team Contact Details Survey 2007 ➤ Adult Questionnaire (MS Excel 2003) ➤ Child Questionnaire (MS Excel 2003) ➤ Community Questionnaire (MS Excel 2003) ➤ Focus Group Discussion (FGDs) Guide ➤ Report on Workshop for the Pre-testing of Questionnaires for Scale Up Survey 9th -15th September 2007

Apart from documents related to the technical aspects of the survey, there was also systematic documentation of the administrative processes and the procedures followed to support the survey, including financial, staff and other resource management. The choice not to translate the data collection tools, the lack of introductory sections in the questionnaires and the lack of documented limitations of the data collection tools resulted in an audit rating of Average for the survey preparatory phase.

Data Collection: Documentation

Based on documents that were reviewed by the verifiers, fieldworkers were provided with written, clear and detailed instructions for consistent implementation of the entire data collection process. The instructions were provided in the training manual and interviewing guide. Table 25 summarizes the documents that were reviewed by the verifiers.

Table 25: Data Collection Documentation Reviewed during the Audits

Data Collection Documentation
<ul style="list-style-type: none"> ➤ Training Guide and Interviewer’s Manual ➤ Training Attendance Registers dated: 11-17th, 13th, 14th, 15th, and 16th November 2007 ➤ Report on Training Workshop for the Interviewers & Supervisors at Bunso Cocoa College 11th - 16th Nov 2007 ➤ MMYE- NPECLC Data Collectors Materials Distribution Sheet for Juaboso ➤ Fieldwork Reports for Amansie Central, Bibiani Anwhiaso Bekwai, Sefwi Wiawso Districts ➤ Fieldwork Reports for Birim South and Asikuma Odoben Brakwa Districts, ➤ Fieldwork Reports for Hohoe, Amenfi West, Juaboso Adansi South, Districts ➤ Checklist/ interview guide to probe alleged cases of two children involved in commercial sex ➤ Checklist/interview guide for probing alleged cases of adults in forced labor

The Training Guide and Interview Manual contained procedures to encourage responses from respondents. The design of the data collection instruments allowed for the documentation of the time and date of the data collection process, dates when completed questionnaires were submitted to the supervisor, and the dates when supervisors checked and signed off on the completed questionnaire. There was no systematic documentation about the probable limitations in the use of the data collecting tools. However, likely limitations were discussed during meetings and when discussing the analysis plan. There was no systematic logging of found errors although fieldworkers kept notebooks where issues with the interview processes were recorded. The data collection supervisors also submitted reports, with details of problems faced while in the field, to the research team at Accra.

Table 26: Quality Control Documentation for the Data Collection Process

Data Collection Quality Control Documentation	
Expected	Actual
Systematic documentation on limitations of data collecting tools	No documentation but limitations were discussed during meetings e.g. when developing analysis plan
Recording of Unit non-response (e.g. Household)	Fieldworker kept notes while in the field
Records of incomplete questionnaires	Fieldwork Report submitted to the Research Team at Accra
Log / record kept of all found data errors	Fieldwork Report submitted to the Research Team at Accra
Procedure to address late, incomplete, inaccurate and missing reports	Training Guide & Interview Manual (pages 11-13).

While the verifiers’ review of documentation for the data collection process indicates there was no systematic documentation on limitations of data collecting tools, there was extensive documentation of the data collection process. Overall this component’s documentation was rated Above Average

Data Capturing Process: Documentation

Several documents pertaining to the data capturing process were made available to the verifiers. These included a copy of the register used by Office Editors to log in received questionnaires. Verifiers were also shown copies of print-outs showing errors on captured data that were logged by supervisors after running error statistics, such as range checks and frequencies.

Data capturers were provided with a training manual with clear and detailed instructions for consistent usage. This manual was used during the training. In addition, the trainees took notes during training. Time spent capturing each questionnaire was not recorded, although the dates of actual data capturing and the data entry clerk’s details were entered in the data capturing tool.

Documentation of administrative processes and procedures for data capturing was done by the Supervisor at the EIB. A summary of these documents is shown in the following table.

Table 27: Data Capturing Process Documentation Reviewed during Audits

Data Capturing Process Documentation	
◆	Questionnaire Submission list
◆	Completed Adult Questionnaire (Photocopy)
◆	Completed Child Questionnaire (Photocopy)
◆	Completed Community Questionnaire (Photocopy)
◆	Completed Household Questionnaire (Photocopy)
◆	Data Entry Screens (CSPRO version 3.3)
◆	Error Record sheets (CSPRO Printout)
◆	Data Entry Manual
◆	Oath of Secrecy for Data Entry Clerks (Photocopy)
◆	Report from Office Editing Team
◆	Report on the Cocoa Labour Data Entry Training and Capture

After the review of the documents the verifiers found the data capturing component was well documented and was scored as ABOVE AVERAGE.

Data Protection: Documentation

While the verifiers were not able to observe a data management policy or any data-related standard operating procedures, there was a systematic approach for securely managing and archiving the study’s data (both hard copy questionnaires and captured electronic data). In the field, all questionnaires were kept in the custody of the data collection supervisors. From the field, all the

questionnaires were kept at the Employment Information Bureau (EIB) of the Labor Department, MMYE, where they were secured in a storage room. Electronic copies of the captured data are in a database that is backed up onto a disk. It was not possible to establish for how long questionnaires would be kept, given the lack of archiving policy for completed questionnaires. Due to lack of document management policy, archiving rules and regulation this component of documentation was found to be AVERAGE.

Analysis: Documentation

The quantitative survey data were analyzed and tabulated using SPSS and Genstat Statistical Packages. An analysis and tabulation plan was developed and revised by the research team before any actual data analysis took place. Where required during the analysis, the data analysts could trace results from data analysis back to the original forms on which data was captured, as the completed questionnaires were well-filed at EIB in batches according to the district of data collection.

Table 28: Data Analysis Documents Reviewed during the Audit

Data Analysis Documentation`	
➤	Adult Datasets (SPSS Dataset)
➤	Child data sets (SPSS Dataset)
➤	Community datasets (SPSS Dataset)
➤	Household data sets (SPSS Dataset)
➤	Analysis Plan- Tabulation Tables for Household Questionnaire

Analytical procedures and rounding practices were not well documented, but only briefly mentioned in the Certification study report. The verifiers found the analysis documentation that was reviewed to be AVERAGE.

Reporting and Dissemination: Documentation

Following data analysis, the certification studies research team embarked on report writing, which was still ongoing at the time of this DQA. The certification study team and stakeholders held a validation workshop to discuss the draft report whilst the DQAs were being conducted. Accordingly, the absence of a final report meant that the verifiers could not audit the report while in Ghana.

5.2.6. Assessment of Improvement Cycle

This section assesses the available capacity to improve future certification studies in Ghana. Specifically, the adaptability, expertise, and cost-effectiveness of the Ghana certification study and the implications for future studies are considered. Verifiers assessed the study’s improvement cycle through the interviews with six research managers including the Program Manager for the NPECLC. The research managers had diverse roles in the certification studies including research and questionnaire design, coordination, supervision and monitoring, actual facilitation of Focus Group Discussions (FGDs), and analysis and reporting. The findings of these interviews are discussed below.

Adaptability

The methodology used in Ghana Cocoa Labour Study 2007/2008 built upon the pilot study with a few additions and modifications. The scaled-up study was adapted to suit a larger study population. Furthermore, weaknesses noted in the pilot survey were improved upon in the scaled-up. For instance, the questionnaires used in the pilot were found not to be detailed enough to capture all the required information on child labor and related practices. Hence, the data collection tools in the scaled-up study were modified to be more comprehensive. Also, to further strengthen the qualitative

aspect of the survey, a community questionnaire was included in the scaled-up study for the first time. These and many more improvements were adapted from the pilot and applied in the scaled-up.

Expertise for Certification Studies

Research managers interviewed in this audit reported that they have a sustainable base of expertise for future cocoa certification studies. They also assert that any key staff turnovers will not pose a significant threat to the capacity to conduct any future studies. One research manager went further to say that the MMYE is undergoing a rapid process of expanding its capacity in terms of physical structures and other resources, including human resources. Furthermore, the MMYE is said to have a good working relationship with various local and international stakeholders in the cocoa sector, such as the Ghana Cocoa Board, Cocoa Research Institute of Ghana, to name a few. These stakeholders are said to have contributed in various ways to the design and conduct of the Ghana Cocoa Labour Study 2007/2008. It can therefore be concluded that the expertise required to carry the cocoa certification process into the future is available and sustainable.

Cost-effectiveness

As at June 2008, when this audit was conducted, no cost-effectiveness evaluation of the Ghana Cocoa Labour Study 2007/2008 had been done. This means that the value of additional resources needed to improve the efficiency of the survey was not known. Also, the efficiency of the survey in terms of design and implementation was not known as at the time of this audit. However, the verifiers did not get the impression that financial constraints are a limitation to this or future studies. Evidence of this is the optimization of the sample size for children to be interviewed; that is, although a sample size of 2291 children would have been statistically sufficient to achieve a 95 percent precision, the target sample was set at almost twice this number. Furthermore, the certification study's Research Managers generally assert that an increase in data accuracy would be more costly than the value of improved data. And they also assert that they had access to modern technology, such as computers, cell phones, internet etc, which they utilized in the execution of the survey.

Future Certification Studies

The research managers agreed that there was room for improving the certification study. Some suggested improving the content of the questionnaires, specifically the household questionnaire, which was thought to be too detailed and lengthy, and which contained a number of redundant questions that could be excluded in future studies. Others suggested a different approach to the certification study. For instance, it was suggested that a more effective survey approach may be domain research, e.g. research that focuses on specific groups, such as school children. It was also suggested that Community Child Monitoring could be a better approach to surveys targeted at WFCL. Another suggested area for improvement was increasing the duration of training for data collection personnel in order to improve the quality of fieldwork. By and large, it is evident to the verifiers that there are reasonable structures in place for a sustainable improvement cycle for the cocoa certification process in Ghana. However, what remains to be seen is the political will needed for such a process. This may ultimately be the deciding factor as to how sustainable any improvement cycle in the cocoa certification process will be.

5.3. Data Analysis, results and conclusions

5.3.1. Discrepancies in reported results

In the certification studies, the statistical methods that were used for analyzing the data were mainly descriptive statistics such as averages, frequencies, and percentages. Graphical presentation of the

data was made on selected indicators. The data was reported to be a self-weighting sample though this was not the case based on the assessment of the sampling approach used in the studies (See Section 5.1.4). None of the results reported in the certification studies were weighted, resulting in conclusions that were valid only to the selected children and households, which was a major handicap of the results of the studies. The results would be biased to conclude for the general population. Based on the original scaled-up data obtained from NPECLC, verifiers reproduced all the reported tabulations and found most of them to be the similar. This supports the conclusion that the report was based on the actual data collected and analyzed. However, a number of discrepancies were observed in some of the reported tables, as discussed in this section. This could stem from the fact that the verifiers obtained the raw data before any data cleaning was completed and this may potentially be the source of the observed differences in the results.

The reader should make further reference to the report of the certification studies to obtain detailed information on the various tabulations presented in the scaled-up certification study report.

Household level analysis

Section 6 of the certification studies provided tabulations and associated description on indicators about the household to which the child belongs to. The results were based on data collected using the household questionnaire. The results were presented using 27 tables and 17 histograms and pie charts.

Throughout the reporting and description of tables and figures presented in this section, the units on which information was collected about were referred as “respondents”. A clear differentiation should have been made between respondents and other units who are the subject of the specified question. Respondent refers to the person who was actually interviewed and provided information on behalf of the household, including information about themselves as well as the rest of the household members. The other household members on which the data was collected about could be referred as units of data collection or could have been expressed using the concept of the specified question. The frequent reference to all subjects as “respondent” may provide a misleading impression, as in the case of Table 6.2 where the total number of respondents was reported as 8957. This value refers to the all individuals in the sampled households rather than the number of respondents.

The verifiers replicated these reported results from the raw scaled-up certification data. Among the 27 tables, verifiers identified two tables with reporting that included missing values (Table 6.25 and 6.26). These tables refer to the perception of household heads on cocoa activities that are suitable for children and adults respectively. By treating the missing values as “no” or “non-suitable for children”, the percentage of household heads who perceived an activity as non-suitable would increase, hence providing an incorrect conclusion about perception.

The overall household level analysis lacked some important features of the data collected, such as the household size and the composition of female-headed households. Specifically, by aggregating the data into female-headed and male-headed households and relating that to the prevalence of child labor activities in these households, specific targeting recommendations could have been made.

Basic profile of children

Section 7 of the certification studies provided results based on data collected using the child questionnaire. The questionnaire was administered to all children who were the members of the household. The results of this analysis were presented using tabulations of various indicators, graphs and pie charts. There were 31 tables and one pie chart used to provide descriptive statistics.

To verify that the reported results were supported by the certification data, verifiers replicated the reported tables and found discrepancies in six tables. The tables where small and large differences were found are shown in Table 29.

Table 29 Differences found in the reported results

Title of Reported Table or Figure	Description of discrepancies between reported and replicated results
Table 7.4 Past school attendance (ever attended school)	Our findings present a higher level of school attendance and have a difference of 2 percentage points though the total number remains the same.
Table 7.6 Reasons for never attending or stopping school	A 1 percentage point difference was found. The total number of responses was found to be 200 lower than the reported value, 218.
Table 7.18 Location of mother by age group of children	A difference of at least 2 percentage points was found. The total number of responses was found to be 238 lower than the reported value, 277.
Table 7.19 Location of mother by sex of child	A difference of at least 2 percentage points was found.
Table 7.24 Freedom to visit parents and relatives	A difference of at least 5 percentage points was found. Among the children who were not living with their parents, 81 percent were reported to have a freedom to visit their parents and relatives. This reported value was found to be only 76 percent.
Table 7.25 Reasons for inability to visit parents and relatives	The question item in which this table was based on was a multiple response question. Only the first response was reported. It would have given a fuller picture if the other responses were reported.
Figure 7.1 Are you visited by your parents?	A five percentage point difference was found with the percentage of children who reported to have been visited by their parents reducing to 69 percent from that of the reported result, 74 percent

Children and cocoa production

Section 8 of the certification study report presented results on children’s involvement in cocoa production and the associated hazards faced by children. The results were reported using 20 tables and 17 graphs and pie charts. These results were based on the data collected from the interviewed children using the child questionnaire. None of the results were weighted and hence the results are valid only for the interviewed children.

Verifiers replicated the reported tables and found discrepancies in 4 tables and 11 graphs. The results are presented in Table 30.

Table 30 Discrepancies in reported results and interpretations: Children in Cocoa Production

Title of Reported Table or Figure	Description of discrepancies between reported and replicated results
Figure 8.2 Time frame of children's current participation in work	The graph presented children’s activities including economic and non-economic activities. These activities were presented earlier in Table 8.2 and 8.3. Non-economic activities included sleeping, schooling, leisure, domestic chores, studying at home and religious activities. However, Figure 8.2 shows the mean percentage of child participation during 10 p.m -6 a.m as only 0.4 percent and this did not correspond with the large number of children sleeping during these hours. It misrepresented the non-economic activity conducted during these hours. This made it difficult to understand and provide a proper interpretation of the graph and hence how children’s activities were organized during a given day. The presentation of this graph using mean percentages also masks important information regarding children’s activities and how these were organized.
Figure 8.4 Current participation of children in activities considered hazardous by district	Percentages of children in hazardous activities should have been better described per activity. By using mean of percentages, the most important observation of which activities were children involved and the extent of involvement was not explained well.
Table 8.5 Intensity of children's current participation in economic activities	In computing the percentage using the frequency of participation of children in economic activities in different times such as weekends, the reported percentages are not correct since the base that was used for calculating the percentages was N=3446, the total number of responses from children about their activities in these times. For example, the number of children who responded that they participated in economic activities during weekends was 1712. The number of children who indicated that they have not participated on any economic activities was found to be 817. Hence, the total number of responses on this question item was 2529. The remaining difference was attributed to missing values. In the calculation of percentage of children participating in economic activities on weekends, the missing values were also considered as no participation and hence the percentage would become 50 percent as reported. Such treatment of missing values on questions on various activities is misleading. Consider the case of children who reported that they participate on economic activities every day. This number was 132 and the percentage was reported to be 3.8 percent. However, a close examination of the data indicates that the number of children who do not participate in economic activities was 2365. Hence the percentage would become 5 percent instead. This discrepancy in reported results would lead to the ultimate conclusion of under-reporting on important points that the study aimed to highlight.

Title of Reported Table or Figure	Description of discrepancies between reported and replicated results
Table 8.6 Reasons for children's current participation in economic activities	The question item on which this table was based was a multiple response question. The reported percentage was based on the total number of responses on all the multiple responses. Using this number in computing percentages is misleading. For example, the percentage of children who gave the reason for their engagement in economic activities as a mechanism for supporting this family income was reported to be 25 percent with the number of such children standing at 942. When computing the percentages, the total number 3109 was used which was found to be an incorrect way computing percentages. The total should have been based on the number of children who gave supporting their family as a reason and who did not give that as a reason. This number was found to be 1785. Thus, the percentage of children who reported that they were engaged in economic activities because they need to support they family income is found to be 43 percent higher than the reported value.
Table 8.9 Descriptive statistics of involvement of children in cocoa activities	The statistics presented in this table were interpreted as showing variation in children's participation in major cocoa production activities. These variations were later interpreted as the cocoa activities being distributed to children based on their physical development. This appears to be an incorrect interpretation of the table, which does not provide much information about the relationship with age and at the same time the use of mean percentages.
Figure 8.7 Child participation in cocoa activities by district	The figure depicted mean percentages of children participation in cocoa activities by district. The definition of participation was not clear in this figure. Data was collected on 28 different cocoa production activities. Looking at one district, how did the study determine participation for that district? It was based on the mean of percentages of participation in each activity. However, in presenting cocoa activities and children's participation, the purpose would have been better served to focus on activities rather than taking averages which was inappropriate for the purpose.
Figure 8.8 Returns for children involvement cocoa farming over 2006-2007 season	An important element in understanding children working in the cocoa sector is to examine the form of payment involved in the work done. The figure presented was based on children's responses in all the 28 cocoa activities and the associated payment they have received for engaging themselves in the activities. However, the question item in the child questionnaire did not have the relevant option to highlight this important aspect. The question was framed with options such as <i>General upkeep</i> which is not precise enough to define payment.
Figure 8.10 Providers of children's PPE during the 2006-2007 cocoa season	This graph would have provided more information if it were related to which type of protective equipment was provided by whom instead of presenting only the provider with no specific mention of the equipment.
Table 8.15 Child participation in hazardous cocoa activity	The number and percentage of children who reported to have participated in administration of agrochemical related activities was reported to be 94 and 2.3 percent in the table. With a closer examination of the data, the percentage of children participating in agrochemical administration was found to be 7.2 percent. This is a clear miscalculation.

Title of Reported Table or Figure	Description of discrepancies between reported and replicated results
Figure 8.11 Participation in hazardous cocoa farming activities by district	The method of using mean percentages in the analysis was found to be quite problematic. In this figure, percentages of children participating in hazardous activities were averaged across activities. However, this averaging masks an important observation.
Figure 8.13 Intensity of participation of children in cocoa work	The sum of the respective segments of the pie chart was found to be more than 100 percent, resulting in an incorrect interpretation of the results.
Figure 8.14 Child work intensity by age Figure 8.15 Child work intensity by sex Figure 8.15 Child work intensity by district	The use of the intensity matrix was found to be quite problematic as it was not clear how the data was handled for the different activities upon which this matrix was based. The intensity of work would have been better analyzed and described using the data itself, e.g. by showing how many days and hours children worked for the 28 cocoa production activities for which data was collected.
Figure 8.17 Involvement of children in hazardous cocoa work by district	The use of mean of percentages made it difficult to understand which hazardous activities children engage in more in each district, which would have been more useful for guiding interventions. Moreover, the use of total values as a base for the percentages remains to be a problem in this figure. The appropriate total was not used, which led to incorrect results.

Adults in cocoa production

Section 9 of the certification study report presented results on adult involvement in cocoa production and assessed the presence of forced adult labor practices in the cocoa sector. The results were reported using 14 tables and 3 graphs and pie charts. These results were based on the data collected using the adult questionnaire. None of the results were weighted and hence the results are valid only for the interviewed adults and could not be generalized to the general population.

Verifiers replicated the reported tables and graphs based on the raw data and found no discrepancies in the reported results, suggesting that the results were based on the data collected for the purpose of the study.

5.3.2. Characteristics of respondents

The characteristics of household heads, children and adults that were reported in the certification studies are presented in Table 31.

Table 31 Characteristics of respondents (Scaled-up certification study)

Characteristics	Statistics
Number of households interviewed	1749
Average age of household heads (in years)	47
Average household size	5
Gender of household heads <ul style="list-style-type: none"> • Female • Male 	330 (19 percent) 1419 (81 percent)
Number of children (5-17 years) in selected households	3920
Number of children (5-17 years) interviewed in the study	3452
Average age of children (5-17 years) interviewed in the study	11
Gender of children (5-17 years) interviewed in the study <ul style="list-style-type: none"> • Female • Male 	1634 (47.3 percent) 1818 (52.7 percent)
Number of adults (18 years and above) interviewed	1391

Conclusions

The certification study presented a number of findings that characterize households. The conclusion derived from these activities show that cocoa cultivation is critical to the livelihood and wellbeing of the farm families in Ghana. The study called for measures to be taken to increase cocoa productivity by addressing the constraints faced by the farmers. However, no analysis was made regarding productivity and the specific constraints faced by farmers. This conclusion made by the report, however valid, was not deduced from the analysis and findings presented in the study.

The study also concluded that the engagement of children in hazardous activity was due to the ignorance on the part of the parents of children. The study concluded that the reasons why children were not attending school were no different from that of children in non-cocoa growing households or communities. However, no comparison was made between households in cocoa growing and non-growing communities and the conclusion was not derived from the findings.

Children's involvement in cocoa production was solely attributed as a part of socialization and training needed to make them a better citizen. However, this is not the only reason why children engage in cocoa production activities and the conclusion ignores the fact that children contribute to the economic well-being of the household to which they belong .

5.3.3. Classification of children by activity status

In this section, the reported results regarding children's involvement in productive activities and the conclusions drawn from these results are discussed.

Children in cocoa production activities

In assessing the statistical analysis conducted under the certification studies it is important to determine the statistical language for child labor measurement. Working children are those children engaged in cocoa production activities to which a specified reference period such as "currently" or "usually" is added to reflect the length of the reference period. Reference periods are important in the light of the fact that cocoa production activities are seasonal in nature. The term children in non-economic activities could be used for those who engage in unpaid household services. The term "students in cocoa production" might be used to reflect children combining only cocoa production with schooling, and "non-students in economic production" might be used to reflect children only that work in cocoa production without attending school or performing non-economic activities. There may also be a category of idle children who are neither attending school nor engaged in economic or non-economic production.

In the certification studies, information on children's current participation in economic and non-economic activities was collected using a two week reference period prior to the survey and "usual work" in cocoa production activities with a reference period of the 2006-7 cocoa season.

Children were found to be involved in six major economic activities, four of them in crop production and the rest in commerce and trading. The results of the studies show that 48 percent of children were found to be engaged in cocoa production activities over the two weeks reference period (Table 8.1 of Scaled up report). 36 percent of children were conducting other crop farming activities. Using a longer reference period (2006-7 cocoa season), the number of children who participated in any of cocoa production activities were found to be 1013 comprising 30 percent of interviewed children.

Further, the study investigated children who were engaged in cocoa production during the longer reference period (2006-7 cocoa season). Children were interviewed about their involvement in 28

different cocoa production activities. Among the children who reported participation in any cocoa production activity that provided payment one percent reported to have received cash payment for their work (Sixty five children, Fig 8.8 of the scaled-up study).

Children who were attending a formal education institution were found to constitute 89 percent of the sampled children. 11 percent of children were non-students since they were not attending any form of formal education. This statistics were deduced by subtracting the number of students currently enrolled in any grade from that of the total sampled children as there was not a direct question item which asked whether the child was currently enrolled or not.

Nature of cocoa production

Cocoa farming is seasonal, with a specified set of activities that are conducted over a given period. Cocoa production involves land preparation, planting, farm maintenance, harvesting and post-harvest processing. Each of these major activities is comprised of several components. In the certification studies, these components were classified into 28 different activities where some of them were conducted simultaneously with other activities. Each of these activities would have an implication for the well-being of a child. An understanding of which activities children are engaged in provides insight into the nature of the work children do on cocoa farms.

Analyzing the questions regarding children's involvement in any of these activities resulted in 1013 children having been involved in any one of the 28 different cocoa activities. Land preparation had a minimum involvement of children with 3-8 percent of children reporting that they had been involved in at least one of the six land preparation activities: clearing of land, felling and chopping, burning, stumping, pegs cutting and lining and pegging. 8-31 percent of children had conducted at least one planning activity: holing and planting of suckers, preparation of seedlings, carrying seedlings, holing for seedlings, planting of seedlings or sowing at stake. Harvesting of cocoa includes a number of activities: weeding and thinning, spraying of insecticide, fertilizer application, fungicide application, application of herbicides, fetching water for spraying, sanitation and pruning and mistletoe control. These constitute most of the activities that are hazardous and harmful to children's health. 1-81 percent of children have participated in at least one of these activities. Children were active in harvesting activities where 13-83 percent of them participating in any of the following harvesting activities: plucking of pods, gathering and heaping, breaking of pods, and scooping of beans. The last set of activities that constitute post-harvesting are fermentation of beans, carting fermented beans, drying of beans and carting of beans for sale. 11-45 percent of children were engaged in any of these activities.

Conclusions

The certification study concluded that the participation of children in cocoa activities during weekends and school holidays was part of their socialization and that their engagement in cocoa production was a positive development so long as they do not engage in hazardous activities that are detrimental to their development. Although this is a valid statement, there is a fine line between engagement in non-hazardous and hazardous cocoa activities. The study did not suggest how a farm-level operation mainly based on household decisions could prevent children from engaging in hazardous activities.

According to the report, there was no overwhelming evidence in the study to suggest children's participation affected their school attendance or their moral, psychological and emotional

development. This conclusion was not necessarily derived from the study, as no analysis was made on the impact of children's cocoa activities in that of their school attendance and their well-being.

The study concluded that children who relocated to new households with the consent of their parent(s) for the purpose of education engaged in increased workload in domestic chores and involvement in other activities. This essentially calls for more investigation on such children regarding the type of activities they were involved. This would help design better targeting schemes on situations that may exploit the vulnerability of children.

The report stated that distances to school, sickness and interest in schooling by children in cocoa growing areas are key issues requiring urgent attention so as to increase access and participation of children in cocoa growing areas. This was an important observation from the study and important policy instrument in solving the problem of child labor in general by providing children the opportunity of education with ease of access in the rural areas.

Categorization of children by the activities they are engaged in provides insights into how children spend their time and it is an important element in understanding the incidences of child labor. The classification of children by the following categories would have provided more knowledge about children's activities. These categories can be:

- Only study
- Study + cocoa
- Study + cocoa + unpaid household services
- Study + unpaid household services
- Only cocoa
- Only unpaid household services
- Cocoa + unpaid household services

5.3.4. Participation in hazardous cocoa activity

The data that was collected on actual injuries sustained by children due to cocoa farm activities was not used in the reporting which could have been important to give more insight in the nature of injury that occurred to children. However, the study focused on providing results on the number of children participating in activities that are deemed hazardous to the safety and health of children. These activities were land clearing, felling and chopping trees, burning, agrochemical related activity (including spraying of insecticide, fertilizer application, application of fungicide and herbicides), mistletoe control, plucking of pods and breaking of pods. In addition, the study provided location of occurrence of injury (Table 8.7 of the certification report) without relating it to the type and causes of injury.

The number of children involved in such hazardous cocoa production activity was reported in Table 8.15 of the certification study report. 25 percent (out of the 764 children who responded to the question whether they have participated in such activity or not) have been involved in breaking of pods, where as 7 percent have responded that they have been engaged in agrochemical related activity (out of 941 children who responded to this question).

The study concluded by the observation that children's involvement in cocoa farm activities was wide spread, and acknowledge children's exposure to hazardous cocoa production activities. However, no

analysis was made regarding the actual occurrence of injuries reported by children in relation to cocoa production activities and no clear conclusion was made on how to alleviate such problems faced by children.

5.3.5. Classification of children in worst forms of child labor

This section reviews how the certification study addressed the central issue it set out to document, i.e., the incidences of the worst forms of child labor in the cocoa sector. The various components of worst forms of child labor are discussed along with the findings of the study. The review in this section will be based on the definition of concepts outlined in Chapter 3 with more elaboration on the specific forms of WFCL.

Forced child labor

Forced (compulsory) labor is defined by the ILO Forced Labor Convention, 1930 (No. 29), in Article 2, paragraph 1, as “all work or service which is exacted from any person under the menace of any penalty and for which the said person has not offered himself voluntarily”. Forced child labor can be distinguished from other forms of labor by the presence of one or more of the following elements: i) the restriction of freedom to move; ii) a degree of control over the child going beyond the normal exertion of lawful authority; iii) physical or mental violence; and iv) the absence of informed consent.

A form of forced child labor that was reported in the certification study was violence incurred up on the child while working in the field. The nature of violence that was used in the study to characterize forced activity was spanking. 17 percent of the children interviewed acknowledged that they had experienced spanking. The act of spanking was committed up on the child by parents (83 percent), by relatives (10 percent), by employer (3 percent) and by non-relatives (3 percent). It was also reported that 64 percent of the children were spanked because they did not perform their household chores and 5 percent because they refused to work on the cocoa farm. The report concluded that such act was committed up on children as part of their socialization and upbringing.

Restriction of movement is also an important indicator about the presence of forced child labor. The study conducted an analysis that attempted to highlight the restriction of movement on children. This was done by looking at the freedom of children to visit their parents and relatives, parents’ inability to visit the child, children’s perception on their parents’ inability to visit, and freedom to leave the farm or the household. This analysis was done on children who were not currently living with their parents. However, the study did not report clearly the absence of forced child labor.

Child trafficking

The certification study reported no evidence of trafficked children; however, the study did not support this conclusion with any analysis.

Bonded child labor

Bonded labor is a form of forced labor in which the element of coercion flows from a debt incurred by the worker. The Supplementary Convention on the Abolition of Slavery, the Slave Trade, and Institutions and Practices Similar to Slavery, adopted in 1956, in Article 1(a), defines debt bondage as “the status or condition arising from a pledge by a debtor of his personal services or those of a person under his control as security for a debt, if the value of those services as reasonably assessed is not applied towards the liquidation of the debt or the length and nature of those services are not respectively limited and defined”. Bonded child labor would thus refer to children’s underpaid or unpaid work for an employer for excessively long hours, ensuing from a debt contracted by their

parents and constituting exploitative employment practices affecting the parents and involving children being pledged for credit.

The certification study did not find children who reported that they were in debt bondage. However, this finding was not based on an analysis that was reported in the study even though there was data collected on some indicators of debt bondage.

Commercial sexual exploitation of children

The study indicated two suspected cases of children engaged in commercial sex. However, with further investigations in the suspected cases, the study ruled out that the children in question were engaged in commercial sex by arguing that it was not conducted in an organized way but a personal decision conditioned up on the circumstances in which the children lived.

5.3.6. Forced adult labor practices

The issue of forced adult labor was analyzed based on the data that was collected on adults. The majority of interviewed adults were related to the head of the household. The indicators that were used in the study mainly focus on restriction on the freedom to move and important aspects of forced adult labor were not addressed in the study. The following indicators were used to characterize an adult as being in a forced labor situation:

- Ease with which adult workers can leave their jobs
- Reasons for now leaving job
- Freedom to leave household/community
- Reasons for inability to leave household/community
- Reasons for working against will
- Experience of violence
- Feeling obliged to work when sick or injured

The study found that 90 percent of the adult workers interviewed were between the ages of 18-49 years old. The certification study found 40 cases of alleged forced adult labor (FAL) that were further investigated and found to be false.

The study concluded by calling stakeholders to institutionalize the necessary measures to remove all hindrances and lead to a healthy environment for increased production. However, the study did not indicate what these hindrances were and it would be difficult to validate this conclusion.

The study called for policy actions to attract more youth into the cocoa sector with the aim of reducing urban unemployment. However, this conclusion was not supported by the analysis on adult workers.

6. Sub-sample study: objectives and methods

As discussed previously, the verification of the certification studies was conducted using two approaches: the assessment using direct evaluation of the data and materials of the study; and a sub-sample study. The sub-sample study was conducted upon a subset of the original certification study sample. Chapter 5 and 6 presented the objectives, materials and methods and the results of the direct assessment phase. This chapter will describe the objectives and methods used in the sub-sample study, which was an integral part of the verification design. The results of the sub-sample study are presented in the next chapter.

6.1. Objectives of the sub-sample study

The objective of the sub-sample study was to:

- Verify the credibility of the results and the conclusions reported in the scaled-up certification.
- Assess the methods and approaches used in the certification study.
- Draw relevant lessons for future data collection activities.

The rationale to re-sample a section of the data from the certification studies was that the reported results need to be checked in order to ensure that there were no substantial differences in the quality of the data and the reported results from the two studies.

6.2. Why sub-sample?

The main requirement for the sub-sample study was to provide data that can be used for verifying the credibility of the results of certification study in addition to identifying pitfalls in the implementation of the scaled-up study. To identify an approach that best met these requirements, the following approaches were assessed.

1. The first possible approach to collecting data for the verification is to draw a sample that is different from the one used in the certification study. This approach is based on a sampling design that addresses the drawbacks of sampling design of the certification study presented in Chapter 5. This method would provide reliable estimates in relation to the estimates presented in the certification study since the sample design would be improved.

Limitations: The approach would not allow one to assess methods and approaches used in the certification study and could not highlight drawbacks of the certification study that could only be identified by replicating the original study such as the appropriate selection of units, failing to achieve the requirements of the sub-study. Moreover, this approach depends on a construction of household lists and maps for the implementation of the survey, incurring substantial cost, and hence would not be cost effective.

2. The second approach is to select the same villages where the certification studies were conducted. Based on the listings of the cocoa producing households constructed for the certification study, one could draw a new sample of households. The verification sample may include some of the households included in the certification study. However, this is not guaranteed by the approach since the sample is a probability sample. The approach is less costly compared to the first approach.

Limitations: The approach inherits the drawbacks of the sampling design of the scaled-up study. The approach fails to achieve one of the requirements of the sub-study that is identification of all the pitfalls of the certification study that can only be identified with replication of the original study.

3. The third alternative is to select a specified number of households from the original scaled-up study sample. This method achieves all the objectives of the verification by providing estimates that are reliable and directly comparable with the certification study results. The approach would also allow verifiers to identify the pitfalls of the implementation of the scaled-up study.

Limitations: The approach inherits the drawbacks of the sampling design of the scaled-up study. However, this can be easily overcome by addressing the drawbacks of the scaled-up study such as incorporating improved definition of sampling units.

Based on the merits of the three approaches, the third alternative was selected for the verification. In addition, selecting a sub-sample from the scaled-up data helped to assess any changes that might occur over time. These differences could be a result of an underlying phenomenon such as migration. If a child that was selected in the original data cannot be found in the same household, further investigation was made as to the whereabouts of the child, the relationship to the household and the child's reported role in the production of cocoa. The same concept also applied to adult workers. By re-sampling a subset of the original sample, any data differences that are discovered may provide additional insight into issues such as child and adult migration among others. Detailed description and implementation of third approach adopted for the verification are presented in the following sections.

6.2.1. Sampling Frame

The sub-sample was a re-sample of a subset of the original data, and hence, the sample frame used in the certification studies was obtained and used for the selection of the sampling units. A random sample of 40 villages was selected from 120 villages in the certification study. The list of household heads, children and adult workers were extracted from the original data files from the certification studies. In addition, the household list used in the certification studies was obtained from GSS and used for calculation of inclusion probabilities.

6.2.2. Sample Allocation

As stated above, a selection of 40 out of the 120 villages was included in the sub-sample study. From each selected community, a sample of 10 households was selected, making up the total household sample size 400. There might have been changes in terms of household presence in the community due to migration or other reasons. Nevertheless, no substitution was used but rather additional information was gathered about the household. This information would help to highlight the issue of migration in the community. The allocation of communities is shown in Table 32 below. In each household, the child and adult workers that were included in the certification study were tracked. In addition, all new children and new adult workers were included. This provided the opportunity to study both the in- and out-migration of the households.

Table 32 Communities selected for sub-sample study in Ghana

No.	Region	District	Communities
1	Western	Wassa Amenfi West	Jerusalem
2	Western	Wassa Amenfi West	Donkorkrom
3	Western	Wassa Amenfi West	Woratrem
4	Western	Aowin Suaman	Yaw Mensah
5	Western	Aowin Suaman	Peterkrom
6	Western	Aowin Suaman	Kramokrom
7	Western	Bia	Mafia
8	Western	Bia	Campso
9	Western	Bia	Bornorkrom
10	Western	Bia	New Ahimakrom
11	Western	Juaboso	Bodi
12	Western	Juaboso	Boizan
13	Western	Juaboso	Asarekrom
14	Western	Juaboso	Ntensere
15	Western	Bibiani-Anhwiaso Bekwai	Asanwinso
16	Western	Bibiani-Anhwiaso Bekwai	Nambro
17	Western	Bibiani-Anhwiaso Bekwai	Aboduabo
18	Western	Sefwi Wiawso	Donkorkrom
19	Western	Sefwi Wiawso	Akurafu
20	Western	Sefwi Wiawso	Kwaku Badukrom
21	Eastern	Birim South	Akim Manso
22	Eastern	Birim South	Besease
23	Eastern	Kwaebibirem	Kade
24	Eastern	Kwaebibirem	Tweapease
25	Eastern	Kwaebibirem	Amanfoso
26	Volta	Hohoe	Likpe Bakwa
27	Volta	Hohoe	Akum
28	Central	Asikuma-Odoben Brakwa	Kwesi Eyipey
29	Central	Asikuma-Odoben Brakwa	Breman Brakwa
30	Brong Ahafo	Asutifi	Yawusukrom
31	Brong Ahafo	Asutifi	Asiedu Nkwanta
32	Brong Ahafo	Dormaa	Bredi
33	Brong Ahafo	Dormaa	Effakrom
34	Ashanti	Adansi South	Konsimwa
35	Ashanti	Adansi South	Aboabo No. 3
36	Ashanti	Adansi South	Biakwaso
37	Ashanti	Amansie Central (or West?)	Fahiabobo
38	Ashanti	Amansie Central (or West?)	Marfofrom
39	Ashanti	Ashanti Akim North	Patriansa
40	Ashanti	Ashanti Akim North	Sunkwa

6.3. Instrument Design

The results of the assessment of the certification studies informed the design of the instruments. Questions from the original instruments used in each country were carefully selected and were included in the sub-sample questionnaires. Where necessary and appropriate, questions were modified or added based on the findings of the assessment phase of the verification. All items in the instruments were reviewed for alignment with the objectives of the verification process, key research

questions, and focal issues described Chapter 3. The instruments used in the sub-sample study are described in the following sub-sections.

6.3.1. Community Questionnaire

In each village, verifiers interviewed the village chief or village leader and other key informants in order to collect general village-level information, including the location of all local facilities; availability of lending institutions; seasonal access to roads; migration; labor use and labor market in the community for cocoa production activities and the like. The community-level interviews also provided an opportunity to discuss their perception towards the problem of child labor in their community.

6.3.2. Household Questionnaire

The households that were selected were visited and interviewed using a household questionnaire. The household questionnaire included a cover sheet to identify the household and a form on which all members of the household and visitors were listed. This form was used to record some information about each household member, such as name, sex, age, and education. The household questionnaire also collected information on household's living conditions, cocoa production activities, and household member's participation in cocoa production activities, and production assets. The household questionnaire allowed the interviewer to identify children and adults who are eligible for the individual child and adult questionnaires.

6.3.3. Individual Child Questionnaire

Children ages 5-17 years in every selected household were eligible to be interviewed with the child questionnaire. In each household, a randomly selected child among the ones that were interviewed in the original survey was interviewed in order to collect information on the child's education, relationship to the household, migration history, the child's activity in the household and the production of cocoa, participation in hazardous child labor activities, and well-being of the child.

Child-centered interview approaches were employed to gather the relevant information from the child. Verifiers considered the following cross-cutting themes while planning and implementing the information-gathering activity: basic ethical principles; children's participation; legal and professional requirements, including ethical supervision; culture and gender; and especially vulnerable children. Selected fieldworkers were recruited based on experienced in interviewing children and were further trained on child-centered strategies. Both the training manual and the training agenda comprehensively addressed techniques and guidelines to be used when working with children.

Careful advance planning was crucial. Verifiers were responsible for thinking through all possible consequences, both intentional and unintentional, of the data collection and for anticipating the effect of the activity on young people and their families. If appropriate safeguards could not be put into place, the activity would not proceed. Fieldworkers and supervisors were responsible for identifying sources of support and referral mechanisms, and taking appropriate action should they become aware of a situation that was potentially harmful to a child.

6.3.4. Individual Adult Questionnaire

The adults that were interviewed in the certification study were interviewed using the adult questionnaire. In addition this questionnaire was administered to a selected adult worker who was not a member of the household. This selection was made from a list of all adult workers that were not the member of the household. This list was constructed using the household questionnaire. The household

head provided information regarding adult workers who were currently or in the last three months work on the household head's cocoa farm. Information was gathered on demographic characteristics, education, and activities in the household specifically in relation to cocoa production. More information was sought about the adult's involvement in a forced labor, debt bondage and other labor practices. Furthermore, specific information on internal and cross border migration for employment in cocoa farming was gathered on the selected adult worker.

6.4. Data Collection

Data collection for the sub-sample study was conducted during the month of October 2008. The data collection process was coordinated and carried out by the local sub-partners in each country, with supervision from Khulisa and Fafo, who each had a representative in Ghana. HEDGE Ghana was responsible for tasks such as securing drivers, itineraries and maps in advance for transport into field, providing supplies (including identification badges and letters of authority) for data collectors, and organizing the field operation, including the day to day logistics of field staff and questionnaires. In the following sections, the data collection activities conducted for the sub-sample survey are discussed. The process and structure of the fieldwork activities are documented comprehensively in field reports from each country (See Annex C).

6.4.1. Community entry

Community entry was an important step in data collection process. The purpose of this activity was to familiarize the local authorities and communities with the study and the data collection process, and to obtain the necessary cooperation from the community leaders. The NPECLC has assigned a focal person in various districts that oversees child labor and remediation activities at the district level and assisted in providing contact numbers of the district focal persons to verifiers. The focal persons facilitated the communication with the leaders of the selected communities by making appointments, introducing the field team with the leaders and obtaining their cooperation. Together with the community leaders and community chiefs, other relevant focal persons were identified. A community questionnaire was administered in the form of discussion where by views and ideas were synthesized to obtain the leaders and focal group members perceptions on the issue of child labor in cocoa production, and remediation activities that were planned and/or undergoing in the community.

6.4.2. Pilot Testing

The questionnaires were pilot tested and community access procedures were tested prior to data collection. The aim of pilot testing was to (1) familiarize the team with the community entry strategy that was to be employed on the field during the actual sub-sample survey, and (2) provide evidence to make necessary adjustments before deployment of data collectors into the field. Modifications to the questionnaires were completed after the pilot testing to ensure that:

- Delivery of the questions was acceptable and understood by the respondents.
- Items on the instruments capture adequately what the survey was seeking to gather.
- Time required for the administration of the questionnaire was feasible.

6.4.3. Fieldworker Recruitment and Training

The team was carefully selected from a database of youth workers, universities and pools of experts that HEDGE Ghana had worked with on previous projects. This database covers youth workers with various levels of education including experienced graduates from all the tertiary institutions in Ghana.

The recruitment of the fieldworkers was based on the following criteria to ensure the data collection was conducted by experienced fieldworkers:

- 1st degree holder
- Basic knowledge of farming communities and activities in rural Ghana
- Basic experience in survey methodology and techniques
- Experience in conducting fieldwork with children
- Knowledge (spoken, understood and translated) of local dialect where survey samples are located
- Genuine interest in conducting field work

Training for recruited fieldworkers was conducted over three days. The overall goals and objectives of the training program were to:

- Equip the field workers with the necessary background knowledge to execute data collection
- Build existing capacity in data collection specific to verification of a prior study
- Familiarize the field officers with the regions, districts, communities and households in which they will be conducting the survey
- Explain the community entry strategies to be employed on the field
- Ensure the field officers have the appropriate terms and expressions in the local dialect in which they will be administering the questionnaire
- Familiarize the field officers with their teams

Three language experts were invited for one day to assist the fieldworkers with translating technical terms into the local languages spoken in the selected regions and districts. During training, each fieldworker was provided with a comprehensive Interviewer's Manual. The manual included:

- An overview of the verification process: Survey objectives, sampling, survey organization, the interviewer's role, supervisory structures, survey regulations and code of conduct, etc.
- Guidance on conducting interviews: Building rapport with respondents, language and translation, ethics, child-centered research techniques, addressing issues of migration, trafficking and WFCL, etc.
- Fieldwork procedures: Preparatory activities and assignment sheets, contacting households and eligible respondents, revisiting households, checking completed questionnaires, returning work assignments, data quality, etc.
- General procedures for completing questionnaires: Asking questions, recording responses, correcting mistakes, following instructions, etc.

6.4.4. Supervision and quality control

Utilizing a team of 12 field officers, six supervisors and eight drivers, the fieldwork was organized in such a way that there was supervision in all six regions selected for the sub-sample survey. The verifiers ensured high-quality data using several mechanisms. All completed questionnaires were reviewed at the household by the enumerator. All completed questionnaires were then reviewed by a field supervisor. These checks included all outlier responses that influenced the data. When data were captured, a further set of checks were run for consistency and permissible values. Unexpected answers and outliers were checked against completed paper questionnaires. Monitoring and supervision was an essential part of the sub-sample survey and was accomplished on three levels: 1) through the

administration staff at the HEDGE Ghana office, 2) through the supervisors in each of the regions and 3) through engaging Fafo and Khulisa in quality control activities which included monitoring sites in the field.

6.4.5. Data Capture

Data capture programs were designed using CSPro and used for entering the data collected from the field. Training for data capture personnel was conducted before the beginning of the data entry process. Completed instruments were sent from the field to HEDGE headquarters for entry. The data capture process was conducted in parallel with the data collection process.

6.4.6. Summary of sub-sample units

Table 33 summarizes the sampling units' interview status for the sub-sample survey.

Table 33 Interview status of sub-sample data

Interview status	Household data		Child data		Adult data	
	Number of responses	Response rate	Number of responses	Response rate	Number of responses	Response rate
Total	385		323		329	
Interview completed	314	82%	228	71%	195	59%
Partly completed	3	1%	5	2%	2	0.6%
Refusal	0	0%	1	0.3%	1	0.3%
No contact	17	4%	30	9%	51	16%
Absent	31	8%	45	14%	54	16%
Not exist	20	5%	14	4%	26	8%
Intended interviews	360	-	348	-	273	-
Actually completed interviewed	314	87%	228	66%	160	59%
New completed interviews	-	-	-	-	35	-

6.5. Data analysis

The data collected using the sub-sample survey designed for the purpose of verification was analyzed and the methods that were used are discussed in this section.

6.5.1. Method used for evaluating the quality of scaled-up data

The sampling units for the sub-sample data were selected from the scaled-up study. This structure allowed the verifiers to check the quality of the certification data since the units were then the same. Direct comparison could be made on selected variables to indicate quality. The selection of these indicators depended on the nature of the indicators; for example, indicators that change over time are not suitable for direct comparison unless the temporal difference can be accounted in a measurable way. Indicators that are fixed over time or whose change can be measured are suitable for direct comparisons and can indicate the quality of a given data when retesting is made. For the purpose of this evaluation, verifiers identified indicators that were constant over time and whose changes over time can be determined. The assessment was made on the household data, child data and adult worker data.

Household data

The indicators that were selected for the evaluation of the quality of household level data were type of cocoa producer, number of plots, and distance to the main cocoa farm. The selection was made to relate the household level information with that of cocoa production, the central issue of the certification study.

Child data

The indicators that were selected for assessing the quality of child level data were: gender, age, participation in cocoa and education. These variables are constant or change over time in a measurable way and were therefore best suited for the assessment.

Adult data

Gender, age migration status, education and relationship to the owner of the cocoa farm were selected for providing assessment of the adult data.

On these indicators a statistical percentage or mean comparison was made that took into account the dependence between the scaled-up certification sample and sub-sample.

6.5.2. Method used for evaluating the results of the scaled-up study

The certification study produced results using descriptive statistics such as percentages, means and graphs. The reported results of the certification and sub-sample study were compared on selected key indicators to determine the consistency of the conclusions made based upon them.

The following issues were addressed to assess the credibility of the findings and conclusions made in the study:

- Working children and child labor
- Participation in hazardous cocoa activity
- Worst forms of child labor
- Forced adult labor

The results reported under the certification study were compared with those of the sub-sample using the relevant indicators. The difference in reported results was tested using a statistical t-test. Based on these results, any identified significant difference was examined to determine its impact on the conclusions and policy implications of the certification study.

7. Findings: Sub-sample study

This chapter describes the results of the sub-sample study.

7.1. Data recording

One assessment that can be used for comparing the quality of data between two surveys on the same units is to conduct comparison on the differences on some selected constant variables over time. The purpose of this type of assessment is to determine if data was correctly recorded between the two surveys. To conduct this test on the recording quality of household level data collected by the scaled-up survey the verifiers identified the number of cocoa plots the household was cultivating as relatively constant, relevant variable that may indicate quality of the data. The variable was selected based on the fact that it did not change over time in a substantial way. A pair-wise statistical t-test was conducted.

There were 303 households that reported the number of cocoa plots in both the certification study and the sub-sample study. The mean number of cocoa plots was 2.09 (with standard deviation (std dev) of 1.47) in the certification study, and while it was found to be 2.14 (std dev: 1.07) in the sub-sample study. The mean paired difference of the number of cocoa plots from two surveys was found to be -0.05 (with 95 percent confidence interval (CI): (-0.20, 0.11)), and paired samples t-test indicated that the mean paired difference was not significantly different from zero.

The variables selected for indicating the quality of child data were gender and current enrollment in school. 228 of the children interviewed in both surveys reported their gender. The percentage of male children in the scaled-up survey was 47 percent while it was found to be 46 percent in the sub-sample survey. By comparing whether data on gender was recorded consistently between the two surveys, one can learn that the data originally collected was credible on this aspect. The mean paired difference of gender proportion was found to be 0.007 (with 95 percent CI: (-0.013, 0.39)), and t-test indicated insignificant difference between the certification study and the sub-sample study in this regard.

The number of interviewed children currently enrolled in school in the two surveys was 217. Among them, 88.0 percent and 90.8 percent reported to be currently in school in certification study and sub-sample study, respectively. Paired samples test showed that the mean paired difference of current enrollment rate is -0.028 (with 95 percent CI: (-0.077, 0.022)), and this did not imply significant difference between the recording quality of the two surveys.

This assessment indicated that data was corrected in a consistent way in the scaled-up certification data. It is important to note that this does not indicate the overall quality of the data, but addresses some aspects of it. Quality of any given statistical data depends on the entire data collection and management process and a thorough assessment was therefore needed for this verification exercise. This was conducted in Chapter 5.2 and the results of this section were consistent with the findings of the DQA.

7.2. Comparison of conclusions

The conclusions of the scaled-up and the sub-sample study were compared to verify the consistency of the certification study. The findings of the analyses are presented here according to the key indicators on child labor, worst forms of child labor, and forced adult practices in the cocoa sector.

7.2.1. Working children

Working children were defined as children who reported working for pay or profit (in cash or in kind, part-time or full-time), or working for a family enterprise (paid or unpaid), or as a domestic worker outside their own household for an employer (with or without pay) during the reference period.

Child laborers were defined as working children in one of the following conditions:

- (i) The child is below the minimum age established in the legislation for the industry or type of work performed. Ghana's Children's Act of 1998 states that the minimum age for employment is 13 years for light work, 15 years for employment in non-hazardous work, and 18 years for full employment.
- (ii) The child works excessive hours or more than the maximum established in the legislation for the age, industry or type of work.
- (iii) The work is one of the worst forms of child labor.

With this conceptual background, a number of results were presented in the certification study that indicated the number and percentages of working children and child laborers. These were compared for consistency with the sub-sample study findings.

The sub-sample study found that 93 percent of children indicated that their primary activity was school while 8 percent indicated that their primary activity was cocoa farming. The results are presented in Table 34.

Table 34 Primary activities of children

		School	Cocoa farming	Other farming	Herding	Hair-dressing	Other	None	Sample size
Total		93	8	2			2	4	221
Region	Western	94	11	4	-	1	3	1	93
	Central	75	8	8	-	-	-	8	12
	Volta	100	-	-	-	-	-	-	16
	Eastern	94	11	-	-	-	-	-	18
	Ashanti	92	5	-	-	-	2	7	60
	Brong Ahafo	95	9	-	5	-	5	9	22
Age	6-12	96	5	2	1	-	2	4	141
	13-14	98	7	2	-	-	-	-	45
	15-17	75	19	3	-	3	6	9	32
Sex	Male	96	9	3	1	-	-	3	103
	Female	90	8	2	-	1	4	4	118
Children living with	Both parents	95	7	3	1	1	2	4	139
	Father or mother	93	14	2	-	-	-	-	43
	Other	83	6	-	-	-	6	6	36

n=All interviewed children in the households; Multiple responses, therefore percentages add up to more than 100

Moreover, 26 percent of children indicated that their secondary activity was cocoa farming. The percentage of children that were working in cocoa was reported as 35 percent in the main findings of the certification study. However, it was not stated in the report as a secondary activity but rather was reported as a main activity. Hence, the certification study did not characterize the working children according to the results from the data.

Table 35 Secondary activities of children

		School	Cocoa farming	Other farming	Business	Weaving	Other	None	Sample size
Total		1	26	6		1	1	5	221
Region	Western	2	27	8	1	2	-	8	93
	Central	-	33	-	-	-	-	-	12
	Volta	-	6	-	-	-	-	-	16
	Eastern	-	61	22	-	-	6	-	18
	Ashanti	-	15	2	-	-	-	3	60
	Brong Ahafo	-	36	5	-	-	5	5	22
Age	6-12	-	24	3	-	-	1	5	141
	13-14	2	33	13	-	2	2	7	45
	15-17	3	28	9	3	3	-	-	32
Sex	Male	-	32	5	1	2	1	5	103
	Female	2	21	7	-	-	1	4	118
Children living with	Bother parents	-	27	6	-	-	1	6	139
	Father or mother	2	28	7	2	5	-	-	43
	Other	3	19	6	-	-	3	6	36

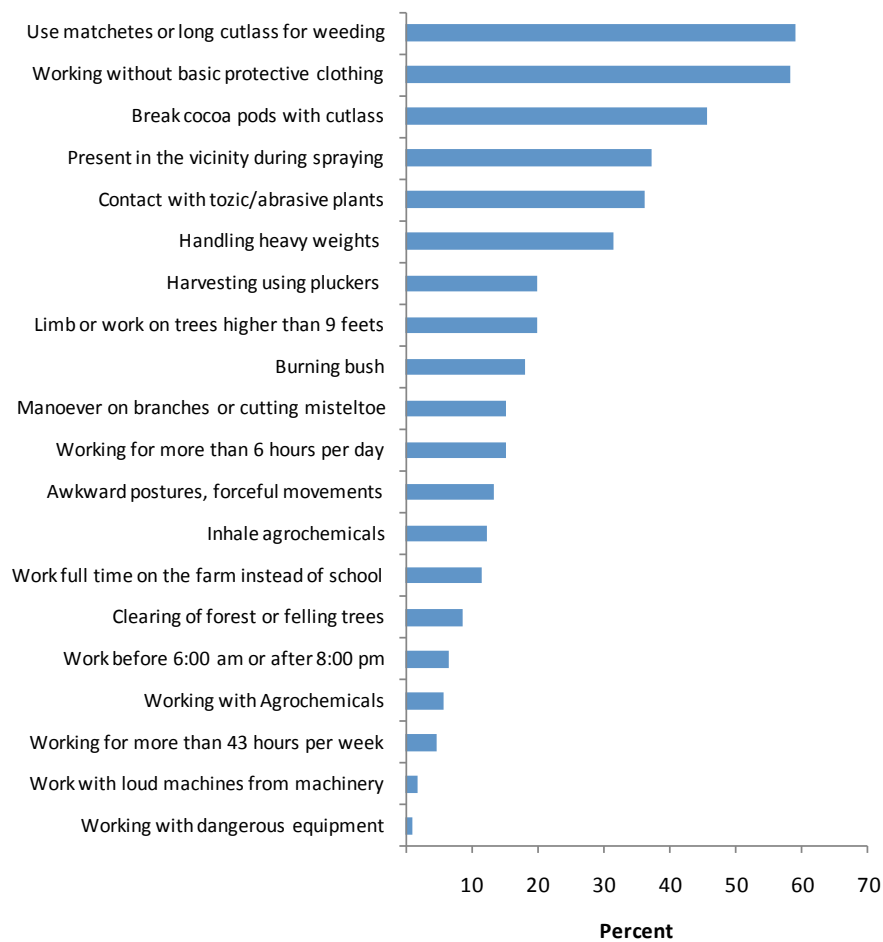
n=All interviewed children in the households; Multiple responses, therefore percentages add up to more than 100

7.2.2. Participation in hazardous cocoa activities

The engagement of children in hazardous cocoa production activities is detrimental to their health and development as it leads to injuries and illnesses (See Mull (2005) for detailed discussion). Hence, it is important to address this important aspect in understanding the working conditions of children.

One of the major efforts in Ghana that was reported in the certification study was the development of a framework that lists a number of activities that are considered hazardous to children's health. Using the components of the framework, the sub-sample study collected data on children's involvement in these activities. The results from the certification study showed that children do actively engage in hazardous cocoa production activities, as more than 30 percent of the children interviewed engaged in at least six hazardous activities. Results from the sub-sample study are presented in Figure 8, which shows that 59 percent of the children engaged in cocoa cultivation used a cutlass while 46 percent of them used it specifically for pod breaking. These statistics confirm the conclusion of the certification study that children's engagement in hazardous activity was a widespread phenomena that need to be addressed.

Figure 8 Involvement of children in potentially hazardous cocoa activities



7.2.3. Worst forms of child labor

Forced child labor

A form of forced child labor that was reported in the certification study was violence incurred upon the child while working in the field. The nature of violence that was used in the study to characterize forced activity was spanking. 17 percent of the children interviewed acknowledged that they had experienced spanking. The act of spanking was committed by parents (83%), by relatives (10%), by employers (3%) and by non-relatives (3%). It was also reported that 64 percent of the children were spanked because they did not perform their household chores and 5 percent because they refused to work on the cocoa farm.

The sub-sample study conducted analyses on the form of violence inflicted on children for comparison with the certification study results. 12 percent of the children out of the 137 who responded were found to have been spanked, with 33 percent of them reporting that they were spanked because they did not conduct their household chores while 20 percent said they were spanked because they refused to work on the cocoa farm.

The sub-sample addressed forced child labor by investigating how children first became involved in cocoa production, and if children had been forced to work even if they were ill or hurt. The sub-sample result showed that six percent of the 120 children working in cocoa farming reported that they

were initially forced by their family to work there. This characterization was an indication of a general labor practice and may not necessarily imply forced child labor in its strict sense. The certification study report concluded that this was a normal part of children's socialization and upbringing. However, it indicates that unacceptable labor practices do exist in cocoa production activities.

Bonded child labor

The certification study found no children who reported that they were in debt bondage. In the sub-sample study, children who were not living with either of their parents were asked if they had any debt they needed to repay. None reported any debt. Hence, the result of the scaled-up certification study was consistent with the findings of the sub-sample study, validating the results reported by the certification study.

Child trafficking

The scaled-up study did not address the issue of child trafficking and hence no comparison could be made.

Commercial sexual exploitation of children

The certification study reported two suspected cases of children that were initially believed to be in commercial sex. This suspicion was ruled out with subsequent follow ups that indicated no organized form of commercial sexual activities was being conducted up on the suspected children. The sub-sample study addressed the incidence of commercial sexual activities by posing questions on children's income generating activities with commercial sex as an option. None of the children reported that they were engaged in commercial sexual activity in line with the conclusion of the certification study.

7.2.4. Forced adult labor

The result of the certification study regarding forced adult labor was addressed by questioning the definition used in selecting adult workers for the study. As described in Chapter 5.1.4, 88 percent of the adult workers interviewed in the certification study were related to the owner/care taker of the farm they were working on. 51 percent of the adults were spouses of the owner/taker. In characterizing the forms of adult labor in cocoa farm, the right characterization of the adult workers is important to elicit the problem. Due to the ill-defined concept of adult worker, the certification study couldn't establish the existence of forced adult labor. The definition problem was also further reflected up on the forty four cases of adult workers reporting working against their will. The study reported that a Response Team investigated the reported cases and ruled all them out from being forced adult labor cases. The reason provided for these anomalies was difficulties in the part of the enumerators in providing appropriate translation of some key terms and concepts of forced adult labor.

The sub-sampled study, however, questioned the definition of adult labor used was problematic to address the right questions to the right respondents. The issue of forced adult labor needs to be study among adult workers that are not the member of the household who share eating and living arrangements. Instead the certification study objectives would have been better served by studying adult workers of a given household that are members of the household. To estimate the number of adults working for a given household that are not the member of the selected household, the sub-sample study collected demographic characteristics of these adults and the results are presented in Table 36 below. A total of 249 adult workers were coming from outside of the household. This

demonstrates that focusing only on adult workers coming from outside of the household in question would help characterize the forms of forced adult labor.

Table 36 Characteristics of adult workers (non household members)

		Type of worker			Sample size
		Contract worker	Long term worker	Daily worker	
Total		48	29	24	249
Region	Western	39	30	31	125
	Central	59	41	-	34
	Volta	100	-	-	27
	Eastern	37	23	40	43
	Ashanti	35	47	18	17
Age	18-29	65	18	17	93
	30-44	41	36	23	112
	45-60	31	33	36	39
Sex	Male	46	29	25	227
	Female	64	27	9	22

n=All Adult and child workers from outside of household on cocoa farm

8. Summary and conclusions

The main objective of the verification has been to conduct assessment on the credibility of the certification studies conducted by the government of Ghana by carrying out a comprehensive evaluation on the studies using direct assessment of the studies supported by a sub-sample study. The findings of the verification were presented in Chapter 5 and 7 with detailed analyses on several components of the certification study. In this chapter we summarize these findings and present the conclusions of the verification with a final recommendation on the acceptability of the verification exercise.

8.1. Assessment of research design

The certification scaled-up study was evaluated for its clarity in terms of defining the research objectives it set out to achieve. The intended outcome of the scaled-up study was found to be clearly specified and the process that was followed was guided by the anticipated outcome of the study, i.e., the estimation of the worst forms of child labor and forced adult practices in the cocoa sector. The verification assessment found the objectives of the study to be in AVERAGE level.

The literature used in the certification study was reviewed for its completeness and to what extent it guided the certification scaled-up study in defining its objectives and supplementing the results of the study. The problem definition and analyses of the study benefitted from the available literature, albeit limited. The literature that was used in the scaled-up study was considered to be in AVERAGE level based on the findings of the assessment made.

The scaled-up study was designed using both qualitative and quantitative approaches to achieve its objectives. The research technique used in the certification studies was direct face to face interview method aimed at gathering information from household heads, children, and adult workers. This method was further supplemented by administering a community level questionnaire to community leaders. Additional focus group was used to gather qualitative information that provided the study additional information on key issues. These techniques enabled the study to gather statistical information on the various issues and indicators that were designed. The use of these methods was found to be appropriate and was evaluated as ABOVE AVERAGE.

Several problems were identified with the sample design and its implementation. The scaled-up survey used three stage stratified cluster sample. The overall design could have been more efficient by limiting it to only two-stages, a standard statistical practice. Non-response was not dealt with adequately, and the use of replacement was not advisable. The original intention of exclusion of households with only one child in the right age was unfortunate, given the relatively large proportion they make up of the total population of children. The study was also limited due to its imprecise definition of adult workers that led to a large number of adult household members making up the sample. Due to these limitations, it was concluded that the sample design was BELOW AVERAGE. The main positive feature of the sample was found to be that it was a probability sample, so that if proper weights are used, one can generate representative estimates albeit with high variance.

The instruments used in the study to collect the necessary information were found to be adequate in terms of their coverage and hence considered as AVERAGE.

The evaluation summarized in this section show that assessment of the scaled-up study design was AVERAGE as most of its components were rated as such.

8.2. Data Quality Audit

As an integral part of the verification process, a data quality audit (DQA) of the scaled-up survey was conducted to evaluate data management capacity including the processes followed, the resources used and their limitations, and the quality of training provided for data collectors and the supervisors.

DQA findings are the results of evaluating the collected audit evidence against the audit criteria. Five widely-accepted criteria for data quality were used: Validity, Reliability, Integrity, Timeliness and Completeness. Using standardized tools, data quality of data was tested against audit trails to verify the existence of strengths or risks to data quality.

A detailed assessment of the data collection process was carried in chapter 5.2.1. The certification study's data collection process was found to be generally acceptable and contributed only minor risk to the data quality of the overall certification study. This assessment was further strengthened by the results of the assessment of recording quality of the data using sub-sample survey. The integrity and the completeness of the data collection process imparted little or no risk with validity, reliability, and timeliness of the process exhibited vulnerabilities which introduced some risk to overall data quality. Based on the results of the assessment; the overall data collection process was rated as ABOVE AVERAGE.

The assessment of the documentation of the various stages of the Certification study was based on the audit findings of the data collection and capturing processes, and interviews with research managers. Based on the results the overall documentation and reporting was rated as ABOVE AVERAGE.

In addition, the data capture process has been assessed as ABOVE AVERAGE.

8.3. Assessment of results

The statistical methods that were used in the scaled-up certification study were descriptive methods such as averages, percentages, frequencies, graphs and pie-charts. None of the reported results used weighting that would have made the reported estimates valid for the general population under the study. Based on the original scaled-up data obtained from NPECLC, we have reproduced all the reported results and have found most of them to be similar indicating that the results were supported by the collected data. However, a large number of discrepancies was found and discussed about the causes of them. These discrepancies didn't influence the conclusions of the certification study in a substantial way. The large amount of statistical tabulations and graphs could be refined more to present the results of the study in a focused way. The most important area of improvement for presenting estimates that are representative for the population under study should be to apply appropriate statistical weighting of the estimates.

Worst forms of child labor

The reported results on the existence of worst forms of child labor were found to be consistent with both the scaled-up and the sub-sample study.

Forced child labor

Both the results of the certification study and sub-sample study confirmed that children experience a form of violence such as spanking. However, the certification study attributed this to the social upbringing of children. Thus, no clear cases of forced child labor could be established based on the studies

Commercial sexual exploitation of children

The certification study reported two suspected cases of children that were initially believed to be in commercial sex. This suspicion was ruled out with subsequent follow ups that indicated no organized form of commercial sexual activities was being conducted up on the suspected children. Based on the sub-sample study results no reported cases of commercial sexual exploitation of children could be reported.

Bonded child labor

The certification study found no children who reported that they were in debt bondage. In the sub-sample study, children who were not living with either of their parents were asked if they had any debt they needed to repay. None of them reported any debt. Hence, the results of the scaled-up certification study were consistent with the findings of the sub-sample study, validating the results reported by the certification study.

Hazardous cocoa production activities

The certification study addressed potentially hazardous cocoa production activities and found a large number of children engagement in such activities. This result was confirmed by the results of the sub-sample study.

Forced adult labor

The certification study reported 44 cases of alleged forced adult labor cases. The study reported that a Response Team investigated the reported cases and ruled all them out from being forced adult labor cases. The sub-sample study questioned the definition of adult workers and highlighted a short-coming in the definition of adult workers that should be addressed in the effort to understand forced adult labor practices by refining the definition. This modification could be made by selecting adult workers that are not members of a given household but who work for that household.

Finally, for the reported results of the certification study to be representative for general population, appropriate statistical weights must be applied to the estimates. With these considerations, the overall result was rated as AVERAGE.

8.4. Conclusions of verification process

The results of the verification of the certification study are summarized in the flagship indicator shown in Table 37.

Table 37: Flagship Quality Indicator

Aspects of the Studies	S	AA	A	BA	U
Extent to which the research:					
1. Focuses on reliably estimating the number of children in the worst forms of child labor and others working in forced adult labor practices (5.1.1 ¹)			√		
2. Is based on existing knowledge about the subject and refers to this in an appropriate manner (5.1.2)			√		
Research techniques and methods:					
3. Appropriateness and effectiveness of the research techniques used (5.1.3)		√			
4. Sampling design (5.1.4)				√	
5. Completeness of instruments (5.1.5)			√		
6. Appropriateness of the data collection procedures used (5.2.1)		√			
7. Quality of data handling, processing, and cleaning for accuracy (5.2.4; 5.2.5; 7.1)		√			
8. Documentation and reporting (5.2.6)		√			
Analysis					
9. Ability to address central issue of estimating number of children working in cocoa production			√		
10. Appropriateness of statistical techniques used in analyzing the data			√		
11. Comparability with the results of the representative sample study			√		
Overall Quality of Scaled-up Certification Study			√		

S= Superior; AA= Above Average; A=Average; B=Below Average; U=Unacceptable

¹Refers to the chapter in the report where the subject is described.

The results summarized in the flagship indicator show that the overall quality of the certification study was found to be Average. This result suggests that the study achieved its objectives, albeit with some limitations. These limitations could be addressed by focusing on adult workers that are not the members of the household for investigating forced adult labor practices. For the reported results of the certification study to be representative for the general population under study, *appropriate statistical weights have to be applied to the estimates in the study.*

With these important remarks, the verification team makes the recommendation to the International Cocoa Verification Board to accept the Ghana certification scaled-up study.

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Annexes

A: Data quality assessment

B: Questionnaires

Community

Household

Children

Adult worker

C: Field report

D: Tabulation report