

Child Labor Monitoring System of the
Cocoa Production Process in
Côte d'Ivoire



Steering Committee

Republic of Côte d'Ivoire
Union-Discipline-Work



Office of the Prime Minister

EXECUTIVE SECRETARIAT

SUPPLEMENTAL STUDY ON THE INITIAL DIAGNOSTIC SURVEY

[December]
[2009]

[This document is a follow-up of the IDS analyses. It includes the comments from the ICVB and the independent verification.]

[Revised report]

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PREFACE

The document presented below comes within the framework of a supplemental study on the Initial Diagnostic Survey (IDS) carried out by the Child Labor Monitoring System Project (CLMS) within the framework of a certification of the cocoa production process in Côte d'Ivoire.

The principal objective of this supplemental study is to take into account comments and suggestions made in the two (2) successive Independent Verification reports after the meeting initiated by the International Cocoa Verification Board (ICVB) in Accra, Ghana, on March 3 and 4, 2009, by the NGO Vérité and on March 11 and 12, 2009.

This study provides more specific data on the living and working conditions of children and adults in cocoa producing areas and has the effect of designing and implementing targeted socio-economic development projects and programs.

This study report was written by an expert group represented by Mr. ABI Monnet Innocent, Agro-Economist Engineer, Expert Statistician of the CLMS Project, under the supervision of Messrs TOHE Malik and N'CHO Serge Pacôme, respectively Executive Secretary and Technical Director of the CLMS Project.

ACRONYMS AND ABBREVIATIONS

IDS	Initial Diagnostic Survey
h	Hour
ICVB	International Cocoa Verification Board
Kg	Kilogram
Km	Kilometre
LTD	Limited
NGO	Non-governmental Organization
SPSS	Statistical Package for Social Sciences
CLMS	Child Labor Monitoring System

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SUMMARY

The certification of the cocoa production process in Côte d'Ivoire is a firm commitment made by the State in order to eradicate as necessary the worst forms of child labor and the trading and trafficking of children and adults. It consists of determining the living and working conditions of children and adults in cocoa producing areas by conducting a diagnostic survey. The data thus obtained should make it possible to identify and to plan in a strategic and targeted manner the social protection and economic development actions in the areas concerned. The performance of socio-economic development programs implemented within this framework is conditioned by the accuracy and precision of the data from the studies conducted.

Thus, the report initially written by Côte d'Ivoire after the initial diagnostic survey (IDS) carried out in 2008 was subjected to an independent verification by the International Cocoa Verification Board (ICVB) in accordance with the certification protocol.

A relevant comment highlighted by the independent verification was the necessity to reconsider the conclusions from the report by Côte d'Ivoire in order to be able to generalize the study results to the entire cocoa producing area and to make supplemental analyses so as to clarify certain elements put forward in the preliminary reports.

In order to achieve this objective, a weighting-descriptive analysis of the data from the IDS was carried out. The results were generated by the SPSS software program. This methodology made it possible to highlight the principal results indicated below:

Child Involvement in Cocoa Farming

- The rate of children concerned by the cocoa farming is 58.7%. 8.6% of the children are involved full-time as opposed to 50.2% who are involved part-time. This figure is far below that indicated in the first report of the national IDS;
- The insufficiencies observed in the educational system (small number of classes, lack of teachers, quality of teaching) and the modest living conditions of the producers appear to justify the full-time use of some children either because they are not attending school or because they have never been enrolled for an academic education;
- Children generally take part in harvesting (40.9%), pod breaking (55.2%) and pod collecting (32.4%), activities judged not to be dangerous. They do this voluntarily in order to help their parents, mainly during school vacations. This accounts for their high level of part-time presence at the farms;
- It is observed that children are involved in some production activities that may harm their health, although this is generally in low proportions. In effect, 28.4% carry heavy loads, 4.4% are involved with plant care products in nurseries, 3.5% are involved in felling trees, 3.4% participate in spreading fertilizers as compared to 1.5% who are directly involved with plant care products on the farms;
- It was also shown that many children are exposed to certain types of dangerous work in proportions not to be ignored: 31.6% are exposed to bush burning while 21.4% and 20.2% are exposed respectively to plant care products and felling trees;
- This situation is regrettable even though the risks linked to these practices appear to be under control, given the low level of health problems experienced by children working on the parcels;

- However, children cannot be considered a decisive labor force given the activities they are involved in, the level of their participation and the low level of their full-time involvement in cocoa production.

Living and working conditions of children and adults

- The cocoa producers grant an important place to academic schooling for their children. The rate of school enrollment among children involved in cocoa farming is 72.9%; this rate is rather low in the higher production category (58.7%);
- In the great majority of cases, cocoa farmers express no particular desire to use children in their fields. It would appear that the presence of children results from an oftentimes reciprocal concern for supervision, socialization or training. Furthermore, the rate of children involved full-time is far less than that of children involved part-time;
- Cases of child mistreatment can be observed in cocoa farming. These children, estimated at around 450 (0.01%), state that they do not feel safe, that they are often forced to work and that they often are the victims of violence, either physical or verbal. Furthermore, around 320 children, or 0.01%, are probably subject to trafficking. In addition to the above-mentioned characteristics, these children have no kinship relation with the heads of household for whom they work and have no relative in the village where they live;
- Most of the children and adults involved in cocoa farming live acceptably. Only 2% of them have no kinship relation with the head of household. In general, these children state that they feel safe (95%), that they are satisfied with their way of eating (98.8%) and that they sleep an average of nine hours a day;
- In nearly all cases, adult workers show similar characteristics and sleep around 8.4 hours a day. 53.5% live as married. The decision to work is generally taken by them or by their parents at the rate of 36.1% and 58.2% respectively;
- The problem of trafficking may also concern 4,000 adult workers, or 1.8%. These persons have identity cards which are kept either by their employer or by a third party other than next of kin, either close or far. 1.6% of the adults concerned come mainly from Mali, Burkina Faso and other countries;
- Rare as they might be, these phenomena should attract particular interest on the part of the Côte d'Ivoire authorities for the purpose of identifying and, as the case may be, arresting the persons responsible and successfully taking charge of the victims.

The socio-educative infrastructures of the villages

- The number of schools and teachers in the villages is insufficient. The insufficiency of the educational centers forces parents who are able to do so to send their children to the cities in order to benefit from schooling;
- Furthermore, 78.6% of the villages have access roads that very often cannot be used during certain times of the year, usually coinciding with the period of shipping production to the loading ports. In this context, an estimated 84.8% of villages have no healthcare center;
- Only one-fourth of the villages in the cocoa-producing area are provided with electrical supply; however, only 6.8% of the households have access to electricity whereas more than half of them (50.9%) have access to drinking water. There is an average of around three fountains per village, out of which one is in need of rehabilitation;

INTRODUCTION

Cocoa production has crucial importance for Côte d'Ivoire in view of its substantial contribution to export receipts (40%) and to the creation of the gross national product (10%). This situation makes Côte d'Ivoire particularly sensitive to any problem that presents potential risks for the sustainability of its cocoa economy.

Thus, facing the polemic related to the worst forms of child labor and forced labor of adults in cocoa farming, which gradually became more serious concerns in relation to the resulting ethical problem, Côte d'Ivoire agreed to participate in the process to certify its cocoa supply after ratification of the Harkin-Engel protocol in September 2001.

The certification of the production process for cocoa in Côte d'Ivoire is a firm commitment accepted by the State in order to eradicate as necessary both of the two (2) phenomena referred to above. It consists of determining the living and working conditions of children and adults in cocoa producing areas by conducting diagnostic surveys. The data thus obtained should make it possible to identify and to plan in a strategic and targeted manner, social protection and economic development actions in the areas concerned. The results of socio-economic development programs implemented in this framework are conditioned by the accuracy and precision of the data from the studies conducted.

Thus, the report written by Côte d'Ivoire after the initial diagnostic survey (IDS) carried out in 2008 was subjected to independent verification by the International Cocoa Verification Board (ICVB) in accordance with the certification protocol.

The results of this expert report conducted by two (2) International firms, FAFO AIS (Norway) and Khalisa Management Service LTD (South Africa) have emphasized the need to reconsider the conclusions in the report written by Côte d'Ivoire and to conduct supplemental analyses in order to generalize the study results to the entire cocoa producing area so that the scope of the socio-economic development programs and products can be determined in an efficient manner.

This supplemental study should make it possible to reconsider the evaluation of the principal results of the IDS, specifically the estimate of the number of children involved in cocoa farming and the explanation of cases of restriction of freedom reported in both the report by Côte d'Ivoire and the verification report. These new results should be the outcome of weighting the IDS data. However, other indicators deemed relevant have been re-evaluated.

This document, which is the supplemental study expert report, is presented in five (5) sections: The first section describes the methodology for calculating the weighting coefficients of the survey results. The second section describes the socio-demographic characteristics of the villages in the cocoa producing area. The profile of the cocoa producing households is presented in section three, while the living and working conditions of children and adults are respectively described in sections four and five of the report.

1. METHOD OF CALCULATION OF WEIGHTING COEFFICIENTS

The methodology described below summarizes the principle of calculating weighting coefficients as proposed by the Independent Verification (2008) for describing the data of the IDS.

The calculation of weighting coefficients is a function of the procedure for sampling used in connection with the IDS which consisted of a procedure in four steps. Here we distinguish successively: the selection of departments, sub-prefectures, villages and households of cocoa farmers.

1.1 PROBABILITY OF INCLUSION OF THE DEPARTMENTS

The study of the categorization of cocoa producing areas conducted in 2006 (see appendix 1) made it possible to group the 51 departments in the cocoa producing area into the following three (3) groups:

- a lower production category: 20 departments;
- an average production category: 14 departments; and
- a higher production category: 17 departments.

A total of 18 departments was selected in this survey with 14 departments in the higher production category and 2 departments in each of the other two categories. The probability of inclusion of a

department in a category is determined by using the equation: $p_{c,d} = \frac{n_{c,d}}{N_{c,d}}$;

with **c** as the category index, **d** as the department index, $n_{c,d}$ as the number of departments selected in each category and $N_{c,d}$ as the total number of departments in each category.

1.2 PROBABILITY OF INCLUSION OF THE SUB-PREFECTURES

In each selected department, a random sampling of two (2) sub-prefectures was taken. A total of 36 sub-prefectures were selected.

The probability of inclusion of a sub-prefecture in a selected department is given by the equation:

$$p_{c,d,s} = \frac{n_{c,d,s}}{N_{c,d,s}} = \frac{2}{N_{c,d,s}}$$

with **s** as the sub-prefecture index, $n_{c,d,s}$ as the number of sub-prefectures selected in each department and $N_{c,d,s}$ as the total number of sub-prefectures in each selected department.

1.3 PROBABILITY OF INCLUSION OF THE VILLAGES

In each selected sub-prefecture, a village was selected at random. In total, 36 villages were selected. The probability of including a village in a selected sub-prefecture is given by the equation:

$$p_{c,d,s,v} = \frac{n_{c,d,s,v}}{N_{c,d,s,v}} = \frac{1}{N_{c,d,s,v}}$$

with **v** as the village index, $n_{c,d,s,v}$ as the number of villages selected in each sub-prefecture and $N_{c,d,s,v}$ as the total number of villages in each selected sub-prefecture.

1.4 PROBABILITY OF INCLUSION OF A HOUSEHOLD

Twenty (20) households of cocoa-farmers were sampled at random in each chosen village. A total of 720 households was thus surveyed in the course of this study.

The probability of inclusion of a cocoa-producing household in a selected village is given by the

equation:
$$P_{c,d,s,v,m} = \frac{n_{c,d,s,v,m}}{N_{c,d,s,v,m}} = \frac{20}{N_{c,d,s,v,m}}$$

with m as the cocoa producing household index, $n_{c,d,s,v,m}$ as the number of households selected in each village, $N_{c,d,s,v,m}$ as the total number of cocoa-producing households in a selected village.

1.5 CALCULATION OF WEIGHTING COEFFICIENTS

As it is understood that all of the children and adults in each household were interviewed, the probability of selecting a household during the course of this survey is identical to the probability of selecting an adult or child within the framework of this study. This probability is given by the following equation:

$$P_m = P_{c,d} \cdot P_{c,d,s} \cdot P_{c,d,s,v} \cdot P_{c,d,s,v,m}$$

The weighting coefficients for the data concerning households, children and adults are determined by the following equation:

$$W_m = \frac{1}{P_m}; \text{ with } m=1, \dots, N \text{ (N being the total number of households selected).}$$

All of the information collected regarding households, children and adults presented in this document is weighted by the coefficients thus obtained.

The weighting coefficients at village level are obtained by the same method without taking into account the term $P_{c,d,s,v,m}$ in calculation of the probability of inclusion.

All estimations realized for the purpose of this study as well as the calculation of weighting coefficients¹ were realized using the SPSS 11.5 statistics software program.

2. SOCIO-DEMOGRAPHIC CHARACTERISTICS OF THE VILLAGES

In order to determine the living and working conditions of children and adults, we will first present the characteristics of villages in production areas in which they live. This will involve a brief look at the distances separating the villages from the government and public services as well as the accessibility of villages to absolutely essential needs.

¹ The weighting coefficient of the various villages are in appendix 2.

2.1 PROXIMITY AND ACCESSIBILITY OF GOVERNMENT SERVICES

As indicated in table 1, government services (city halls and sub-prefectures) are, on average, 18.2 km away from villages, while the main departmental towns and the forces for security and maintenance of public order are located, respectively, some 34.7 km and 20.6 km from villages. It is possible to see that villages in the higher cocoa producing area are the ones farthest from government services.

In addition, very few villages are, overall, inaccessible by road (1.9%). The highest rate of villages that are totally inaccessible is found in the higher cocoa producing area (7.9%).

However, it is regrettable that 78.6% of the villages in the cocoa producing areas are inaccessible during certain periods of the year, particularly during the rainy season, which coincides with the period of high production. The extent of work in order to rehabilitate and reprofile the access trails and roads in view of ensuring that collection of all cocoa productions in the villages concerned by this problem is thus considerable.

Table 1: Proximity and accessibility of public services

	Category			Total
	Lower cocoa producing area	Medium cocoa producing area	Higher cocoa producing area	
Proximity of the main departmental town (in Km)	29.5	35.9	40.3	34.7
Proximity of government services (in Km)	13.6	19.9	21.9	18.2
Proximity of forces for security and maintenance of order (Km)	17.8	21.8	22.4	20.6
Inaccessible villages	0.0%	0.0%	7.9%	1.9%
Villages inaccessible from time to time	86.7%	88.2%	50.3%	78.6%
Villages without a market	69.8%	29.1%	54.9%	49.6%

Source: CLMS-IDS 2008, Weighted data

2.2 ACCESSIBILITY OF VILLAGES TO HEALTHCARE CENTERS, DRINKING WATER AND ELECTRICITY

Approximately 84.8 % of the villages in the cocoa producing areas have no healthcare center. However, the closest healthcare center is located, on average, 10.3 km away (see table 2). This situation together with the inaccessibility of villages, as described above, represents a significant and prejudicial risk for taking charge of the ill in the event of a medical emergency.

Furthermore, only one-fourth of the villages (25.3%) in the cocoa producing area have electricity. There will be more electrification efforts to be made in low- and medium cocoa producing areas where it can be seen, respectively, that only 13.3% and 21.6% of the villages have electricity as opposed to 49.2% in the higher cocoa producing category. Investment efforts should be made in this respect in view of improving the conditions for studying and learning of pupils living in these areas.

In addition, there are around three public fountains in each village, of which one-third are in need of rehabilitation (33.33%).

Table 2: Accessibility to healthcare centers, drinking water and electricity

	Category			Total
	Lower cocoa producing area	Medium cocoa producing area	Higher cocoa producing area	
Villages without a healthcare center	86.7%	90.2%	72.9%	84.8%
Proximity of the healthcare center (in Km)	5.5	16.4	6.8	10.3
Percentage of villages with electricity	13.3%	21.6%	49.2%	25.3%
Total number of public fountains	3.3	1.9	3.0	2.7
Number of fountains in a good state	2.7	1.2	1.6	1.8

Source: CLMS-IDS 2008, Weighted data

2.3 AVAILABILITY OF EDUCATIONAL AND VOCATIONAL TRAINING CENTERS IN VILLAGES

Tables 3 and 4 show a lack of primary and secondary educational centers and of vocational training centers in the villages. In effect, the average number of classes and teachers in the public primary schools² are, respectively, 4.54 and 4.11. No village has a secondary school and only 5.4% of the villages have a vocational training center. The closest secondary school and vocational training centers are located 19 km and 41.1 km from the villages, respectively. These facts may constitute major obstacles to education and training for children growing up in production areas.

Table 3: Summary of other educational and vocational training centers

	Category			Total
	Lower cocoa producing area	Medium cocoa producing area	Higher cocoa producing area	
Existence of a secondary school	.0%	.0%	.0%	.0%
Distance from the secondary school	18.8	18.5	20.3	19.0
Presence of a vocational training center for cocoa farming	.0%	.0%	.2%	5.4%
Distance from the vocational training center	-	49.0	30.0	41.1

Source: CLMS-IDS 2008, Weighted data

² A primary school includes 6 classes

Table 4: Summary of Primary Schools in Villages

Category	Average Number	Average Number of Classes	Average No. of Students	Average No. of Teachers	
1	Public Primary School	.90	4.02	187.41	4.63
	Private Primary School	.00	.00	.00	.00
	Franco-Arabic School	.00	.00	.00	.00
	Koranic School	.00	.00	.00	.00
	Community Education Center	.00	.00	.00	.00
2	Public Primary School	.64	4.78	158.97	4.10
	Private Primary School	.00	.00	.00	.00
	Franco-Arabic School	.14	.48	14.56	.40
	Koranic School	.00	.00	.00	.00
	Community Education Center	.00	.00	.00	.00
3	Public Primary School	.76	4.19	167.78	3.67
	Private Primary School	.00	.00	.00	.00
	Franco-Arabic School	.04	.08	2.52	.04
	Koranic School	.19	.30	7.95	.19
	Community Education Center	.00	.00	.00	.00
Total	Public Primary School	.71	4.54	165.48	4.11
	Private Primary School	.00	.00	.00	.00
	Franco-Arabic School	.10	.32	9.80	.27
	Koranic School	.40	0.06	1.51	.04
	Community Education Center	.00	.00	.00	.00

3. CHARACTERISTICS OF COCOA FARMING HOUSEHOLDS

3.1 SOCIO-DEMOGRAPHIC CHARACTERISTICS OF HEADS OF HOUSEHOLD

The majority of households producing cocoa in Côte d'Ivoire are headed by men, with only 6.4% of heads of household being women. The average age of heads of household is 47 years. Almost all (93.6%) own their farms. 62.9% are illiterate and 83.7% are Ivoirians. In most cases they are married or live in co habitation (84.6%). See table 5.

Table 5: Socio-demographic characteristics of heads of household

	Category			Total
	Higher cocoa producing	Medium cocoa producing	Lower cocoa producing	
Average age	48.39	47.50	45.28	47.22
Sex				
Male	92.4%	91.1%	97.5%	93.6%
Female	7.6%	8.9%	2.5%	6.4%
Type of producer				
Owner	98.1%	89.1%	93.4%	94.4%
Manager	1.9%	5.5%	2.6%	3.0%
Tenant	0.0%	1.8%	2.8%	1.3%
Other	0.0%	0.0%	0.0%	0.0%
Educational level				
None	78.6%	53.9%	47.8%	62.9%
Primary	11.7%	29.9%	31.9%	22.5%
First cycle	8.7%	9.1%	16.4%	11.1%
Second cycle	1.0%	7.0%	3.6%	3.3%
Higher	0.0%	0.1%	0.4%	0.1%
Nationality				
Ivoirian	96.8%	70.2%	76.0%	83.7%
Malian	2.3%	23.9%	16.6%	12.2%
Burkina Faso	0.9%	5.9%	5.5%	3.6%
Other	0.0%	0.0%	1.9%	0.6%
Religion				
Christian	51.4%	47.1%	47.2%	49.0%
Muslim	13.8%	30.1%	21.7%	20.4%
Animist	28.6%	21.1%	26.9%	26.1%
Other	6.1%	1.7%	4.2%	4.4%
Marital status				
Married / cohabitation	87.6%	77.0%	86.6%	84.6%
Separated or divorced	7.6%	7.0%	3.6%	6.3%
Single	0.0%	10.5%	5.8%	4.5%
Widowed	4.8%	5.4%	3.6%	4.6%
Other	0.0%	0.0%	0.0%	0.0%

Source: CLMS-IDS 2008, Weighted data

3.2 FINANCIAL CAPITAL OF HOUSEHOLDS

Table 6 summarizes the financial capital of cocoa farming households in Côte d'Ivoire. It shows that in addition to cocoa production, which totals on average 702 Kg per household, with an average peak of 1,263.3 Kg in higher cocoa producing areas, cocoa farmers in Côte d'Ivoire have a more or less diversified agricultural activity.

In effect, it must be pointed out that cashew farming and the production of copra can be found, respectively, in the lower and average cocoa producing area with respective annual productions of 366.8 kg and 70.5 kg. The lower cocoa producing area is also developing other perennial forms of agriculture, including cotton in particular, for an annual production of 13.8 kg. The efforts being made toward diversification of crops in areas of higher cocoa production are based exclusively on the production of coffee and palm oil. This tendency can also be observed in other categories in more or less varied proportions.

The practice of subsistence agriculture through low-intensity rearing and crops can also be observed in the cocoa producing area.

Table 6: Financial capital of households

	Category			Total
	Higher cocoa producing area	Medium cocoa producing area	Lower cocoa producing area	
Cocoa plantation				
Average number of parcels	1.4	1.5	1.6	1.5
Average distance from farms to place of residence (Km)	3.9	4.5	4.3	4.2
Average age of parcels	17.2	13.6	28.6	20.8
Average size of cocoa parcels	4.8	4.2	3.3	4.0
Average production of cocoa (in kg)	1,263.3	818.9	248.8	701.9
Average sale price per kg of cocoa (in CFA francs)	345.8	366.8	335.7	345.7
Other perennial household crops				
Average tonnage of coffee	209.9	378.5	366.8	322.3
Average tonnage of palm oil	397.6	235.3	29.4	194.0
Average number of cashew nuts	.0	.0	366.2	160.9
Average tonnage of cola nuts	2.0	.0	.0	.6
Average tonnage of coconuts	.0	70.5	.0	18.2
Average tonnage of latex	7.7	5.6	6.1	6.5
Average tonnage of other perennial crops	.2	.0	13.8	6.2
Average area of subsistence crops of households	1.6	1.4	1.3	1.4
Animal production				
Average number of poultry per household	12.7	10.0	7.2	9.6
Average number of sheep per household	.9	.3	1.5	1.0
Average number of goats per household	1.0	.1	3.6	1.9
Average number of cattle per household	.0	.0	.0	.0
Average number of other animals per household	.3	.0	.2	.1
Producers having benefited from technical assistance	12.1%	5.9%	3.6%	6.8%

Source: CLMS-IDS 2008, Weighted data

Moreover, it is regrettable that, as indicated by table 7, only 6.8% of its producers who have such diversified activities, declare that they have benefited from technical assistance. In such a context, Ivorian cocoa farmers, also suffering the effects of fluctuations in the purchasing price of cocoa, have few means to cope with integrated techniques of production and management of parasitical pressure on cocoa farming (insects, micro-organisms, rodents, etc.).

Numerous professionals working in agricultural development agree in saying that insufficient technical assistance is prejudicial for the quantity and quality of agricultural productions and consequently that it has a decisive impact on the well-being of the producers.

3.3 LIVING CONDITIONS OF HOUSEHOLDS

Although some efforts have been made with regard to electrification and conveyance of water to rural areas, there remains a low level of access by cocoa farming households to drinking water and electricity. The proportion of households having access to electricity is 6.8%, and that having access to running water and/or to drinking water is 50.9%. (See table 7)

Living in this environment, 77.7% of heads of household consider that their living conditions have deteriorated in comparison to ten years ago. In villages of the higher cocoa producing area, nearly all heads of households, or 99.1%, have a poor opinion of their current living conditions. However, this situation must be related to the socio-political crisis which deeply marked Côte d'Ivoire during the years prior to this study.

Table 7: Living conditions of households

	Category			Total
	Higher cocoa producing	Medium cocoa producing	Lower cocoa producing	
House with electricity	2.7%	0.8%	18.1%	6.8%
No access to drinking water	10.6%	51.2%	109.0%	50.9%
Poor perception of current living conditions	99.1%	60.8%	61.1%	77.7%
Thinks that living conditions have remained unchanged	0.0%	1.7%	4.6%	1.9%

Source: CLMS-IDS 2008, Weighted data

3.4 PROFILE OF WORKERS³ OF THE HOUSEHOLD

As indicated in table 8, there are, on average, 8.7 children and adults per cocoa farming household, out of which 4.8 are involved in household work. The other children considered not to be workers, on average 3.9, live outside the family circle for reasons of enrollment in school in most cases. During vacations, these children return to the family circle. An average of 2.4 children work on behalf of the head of household in a variety of activities, as we will see further on.

Among working children in the household it must be noted that an average of 2.1 children are involved in cocoa farming: in the vast majority of cases this is part-time (1.8) and full-time for a small number of them (0.3).

³³ The notion of worker included in this subtitle concerns all forms of activity and is not limited to the cocoa farming sector.

Table 8: Profile of workers of the household

	Category			Total
	Higher cocoa producing	Medium cocoa producing	Lower cocoa producing	
Number of working (Mean/hh)				
Household workers	4.5	5.5	4.4	4.8
Working children	1.9	2.4	2.7	2.4
Children in the cocoa industry	1.7	1.8	2.6	2.1
Children involved full-time in cocoa activities	.4	.2	.3	.3
Children partially involved in cocoa industry	1.3	1.6	2.3	1.8
Number of non-working (Mean/hh)				
Household non-working adults and children	3.5	4.2	3.9	3.9
Non-working children	1.4	1.4	1.5	1.4
Origin of working Children				
Native	90.4%	89.6%	99.4%	96.1%
From other regions of CI	8.4%	3.5%	0.6%	3.1%
From Burkina Faso	2.3%	4.4%	0.0%	1.9%
From Mali	0.3%	0.0%	0.0%	0.1%
From other countries	0.4%	2.6%	0.0%	1.0%
Length of time of working children in the village				
Having spent more than 5 years	7.6%	4.2%	0.0%	2.9%
Having spent less than 5 years	8.3%	9.8%	2.5%	6.1%
Seasonal immigrant children	0.3%	0.0%	0.0%	0.1%
Origin of adult workers				
Native	38.6%	44.8%	94.1%	65.4%
From other regions of CI	18.1%	10.6%	1.0%	9.7%
From Burkina Faso	13.4%	15.6%	1.4%	10.8%
From Mali	1.1%	5.3%	0.0%	2.8%
From other countries	1.4%	19.5%	0.0%	8.9%
Length of time of adult workers in the village				
More than 5 years	24.4%	25.7%	0.6%	17.9%
Less than 5 years	14.5%	31.9%	8.6%	20.4%
Seasonal immigrants	1.0%	1.3%	0.0%	0.9%
Average age of working children and adults (in years)				
Overall average age of workers	24.1	22.7	22.8	22.0
Average age of working children	11.0	10.5	10.2	10.5

Source: CLMS-IDS 2008, Weighted data

Furthermore, most of the workers of the household have always been present in the village. In effect, only 2.9% of child workers arrived more than five years ago as opposed to 6.1% who arrived in the village less than five years ago. Regarding adults, estimates indicate that 17.9% and 20.4% respectively immigrated to the cocoa producing area more than and less than five years ago.

Most immigrant children in the cocoa producing area come mainly from the other regions of Côte d'Ivoire and from Burkina Faso at the rate of 3.1% and 1.9% respectively. Furthermore, estimates reveal cases of seasonal immigration of working children and adults in the area of high and average cocoa production.

As indicated by table 8, around 0.1% of child workers in the higher cocoa producing area and 0.9% of working adults in general are concerned by these seasonal movements. This represents, respectively, a total number of around 2,500 children and 32,000 adults.

Given the relative importance of movements of persons, the Government of Côte d'Ivoire should take suitable measures for monitoring so as to prevent and/or curb all probable cases of trafficking of persons that might be observed in the course of these displacements of the population.

4. LIVING AND WORKING CONDITIONS OF CHILDREN IN COCOA FARMING

This section of our analysis presents firstly the level of schooling of child workers as well as their living conditions. It then takes up participation and exposure of these children with regard to the various productive and non-productive activities of the household. The section ends with a presentation of the impact of production activities on the state of children's physical health. Particular emphasis is laid on cocoa farming in this presentation.

4.1 LIVING CONDITIONS OF CHILD WORKERS

The majority of children working for the account of households are boys (56.9%). They sleep an average of 9.1 hours a day. 98.8% of them state that they are satisfied with their way of eating, and 95.6% of the children say they feel safe. This could be explained by the fact that 84.4% of the children live with at least one relative.

Table 9: Profile and living conditions of children involved in cocoa farming

	Category			
	Higher cocoa producing	Medium cocoa producing	Lower cocoa producing	Total
Working Boys	56.4%	51.6%	59.4%	56.9%
Children satisfied with their way of eating	98.9%	95.9%	100.0%	98.8%
Average duration of sleep per day (in hours)	9.37	9.21	8.90	9.10
Children having experienced violence	26.0%	16.6%	.0%	9.8%
Children feeling safe	94.3%	86.3%	99.6%	95.6%
Mistreated children	.06%	.00%	.00%	.01%
Possible cases of child trafficking	.04%	.00%	.00%	.01%
Cocoa working children with no family ties to the head of household	3.5%	1.7%	.0%	1.3%
Parents not living in the village	.1%	.0%	.0%	.2%
Children living with at least one parent in the household	86.4%	81.7%	84.6%	84.4%
Cocoa working children who read French correctly	14.9%	11.0%	16.4%	14.8%

Source: CLMS-IDS 2008, Weighted data

However, 26% and 16.6% of children respectively in the higher and lower cocoa producing area declare respectively that they have already been the victims of physical or verbal violence. On the other hand, estimates reveal that 0.01% of child workers, or around 448 persons, may be subject to some form of mistreatment. These persons state that they do not feel safe, that they have already been forced to work and that they are the victims of violence.

Furthermore, a total number of around 312 children, or 0.01%, would appear to be subjected to trafficking. These children have no kinship relation with the head of household, have no relatives in the village and also present all of the characteristics of children who are the victims of mistreatment, as indicated above.

It can be observed that these probable cases of abuse reported on children working in cocoa farming are rare situations. However, the Ivoirian authorities should intensify their efforts to identify these probable cases so as to reach, if the case may be, complete eradication of these practices.

4.2 SCHOOLING OF CHILDREN INVOLVED IN COCOA FARMING

Table 10 shows that 72.9% of the children involved in cocoa farming are currently enrolled in a school. In general, children involved in cocoa farming have a level of studies limited to primary school (86%). However, it must be noted that the level of involvement in cocoa farming, of the children that are enrolled in school, is relatively lower than in regions with a higher level of cocoa production (58.7%). This rate of involvement of children enrolled in school is 61.1% and 85.1% respectively in the medium cocoa producing area and in the area with a lower level of production.

Table 10: School background of children working for the household

	Category			Total
	Higher cocoa producing	Medium cocoa producing	Lower cocoa producing	
Children involved in cocoa industry currently going to school	58.7%	61.1%	85.1%	72.9%
Children involved in cocoa industry currently going to school who did not attend school the day before	15.2%	23.0%	20.5%	20.2%
Working children who have never been to school	33.2%	36.7%	12.2%	23.5%
Working children who have stopped school	9.7%	13.9%	3.3%	7.6%
Working children currently going to school	69.3%	78.5%	86.4%	80.7%
Illiterate working children	33.0%	36.0%	1.2%	17.6%
Working children having a primary school level	76.6%	88.1%	88.4%	86.0%
Working children having a lower secondary school level	2.0%	4.3%	0.4%	1.8%
Working children having a junior high school level	0.0%	0.0%	0.0%	0.0%
Graduate and postgraduate working children	0.0%	0.0%	0.0%	0.0%
Working children with other education	0.3%	0.0%	0.0%	0.1%

Source: CLMS-IDS 2008, Weighted data

Without establishing any relation of cause and effect between cocoa farming and success at school, it must be noted that only 14.8% of children from cocoa farming households read French correctly (see table 9). This percentage is far below the rate of school enrolment of the children in these areas. This situation can also be explained in part by the insufficiencies highlighted in the school system, as presented in section 2, and raises the sensitive question of the quality of teaching given to children as well as their supervision outside of school. Moreover, among children involved in cocoa farming, around 250,000 (7.6%) are school dropouts.

4.3 PARTICIPATION OF CHILDREN IN HOUSEHOLD ACTIVITIES

According to the statements of heads of household, 66% of the workers in the household are children. They are involved in various activities, as indicated in table 11. Included in these workers, there are around 3,260,000 children involved in the cocoa industry, part-time for some (50.2%) and full-time for others (8.6%)⁴. The number of children working in cocoa farming belonging to the head of household comes to around 3,170,000, or 62.7% of the total number of children belonging to the heads of household. The number of children working in households who do not belong to the head of the household is estimated at around 65,000. This represents 2% of the children involved in cocoa production.

Table 11: Frequency of use of children of the household

	Category			Total
	Higher cocoa producing	Medium cocoa producing	Lower cocoa producing	
Household working children	63.8%	68.1%	65.5%	66.0%
Children involved in the cocoa industry	55.8%	52.5%	64.4%	58.7%
Children partially involved in the cocoa industry	41.3%	46.0%	57.0%	50.2%
Children involved full-time in cocoa production	14.5%	6.5%	7.4%	8.6%
Children belonging to the hh and involved in the cocoa industry	60.5%	60.2%	60.5%	62.7%
Children not belonging to the hh involved in the cocoa industry	0.3%	3.0%	0.2%	1.2%
Children involved in the cocoa industry with family ties to the hh head	54.6%	48.7%	64.3%	57.2%
Children involved in the cocoa industry without family ties to the hh head	0.6%	5.8%	0.4%	2%
Children having worked in another perennial field last week	21.7%	21.5%	41.2%	30.8%
Children having worked in a food crops field last week	41.8%	41.7%	56.9%	48.8%
Children having cared for cattle last week	26.0%	19.1%	30.0%	25.6%
Children involved in domestic work during the last week	51.7%	56.7%	57.3%	56.0%
Children having carried out remunerated work last week	6.8%	7.9%	4.9%	6.3%

Source: CLMS-IDS 2008, Weighted data

The proportion of children involved in other perennial agricultural productions is 30.8%. Raising food and other domestic work mobilizes a larger number of children, or 48.8% and 56% respectively of all children under the responsibility of the head of household. Furthermore, estimates reveal that 6.3% of children carry on activities that are remunerated.

⁴ These percentages are obtained on the basis of the total number of child workers and of non-working children in households

4.4 CONTRIBUTION OF CHILDREN TO COCOA PRODUCTION

The activities most often carried on by children in cocoa farming are in particular those which are judged not dangerous by the Ivoirian legislation. In general, these children take part in pod breaking (55.2%), cleaning the parcels (43.8%), harvesting (40.9%), and they are involved in other activities generally including pod collecting and gathering beans (32.4%). See table 13

However, it is observed that children involved in cocoa farming participate directly in and/or are exposed to all stages of production in highly varied proportions.

Table 12: Activity of children in cocoa farming and related health problems

	Category			Total
	Higher cocoa producing	Medium cocoa producing	Lower cocoa producing	
Directly involved				
Felling trees	8.8%	2.2%	1.8%	3.5%
Pesticides application	6.0%	0.6%	0.1%	1.5%
Spreading fertilizers	10.7%	2.9%	0.3%	3.4%
Heavy load carrying	62.0%	33.5%	8.8%	28.4%
Harvesting	40.4%	17.6%	57.7%	40.9%
Pod breaking	58.2%	30.5%	71.4%	55.2%
Weeding activities	47.6%	30.9%	51.1%	43.8%
Plant care	15.9%	2.8%	0.0%	4.4%
Other activities- generally pod collecting	39.5%	70.0%	2.2%	32.4%
Exposed to activities				
Felling trees	26.3%	5.4%	27.9%	20.2%
Burning bush	33.6%	10.0%	46.1%	31.6%
Pesticides application	41.3%	33.2%	3.4%	21.4%
Spreading fertilizers	24.1%	10.1%	1.8%	9.4%
Carrying heavy loads	57.8%	6.1%	17.6%	22.6%
Harvesting	71.0%	47.5%	72.8%	64.2%
Pod breaking	68.7%	41.2%	81.3%	65.5%
Weeding activities	60.7%	32.2%	64.5%	53.1%
Plant care	24.3%	5.3%	0.0%	7.0%
Exposed to other activities	7.5%	0.5%	0.0%	1.8%
Health problems				
Fractures and traumatisms	2.8%	0.3%	0.0%	0.7%
Skin irritation	2.0%	0.7%	0.1%	0.7%
Respiratory problems	0.9%	0.5%	0.0%	0.4%
Eye irritation	1.8%	0.5%	0.0%	0.5%
Coughing	2.8%	0.3%	0.2%	0.8%
Headaches	6.8%	3.0%	0.6%	2.7%
Various aches and pains	6.4%	4.3%	1.1%	3.3%
Machete injuries	0.5%	2.2%	1.8%	1.6%
Stomach pains	0.4%	0.0%	0.0%	0.1%
Other pains	0.6%	0.8%	0.0%	0.4%

Source: CLMS-IDS 2008, Weighted data

Table 12 shows that some children participate in work considered to be dangerous⁵. In general, this involves carrying heavy loads (28.4%). The higher cocoa producing area has the greatest number of children involved directly in this activity (62%), and a rather high proportion of this phenomenon can be observed in the medium cocoa producing area (33.5%).

Furthermore, the involvement of children in other activities judged to be dangerous is low. This concerns mainly the treating of plants in nurseries (4.4%), felling trees (3.5%), spreading fertilizers (3.4%) and application of pesticides (1.5%).

On the other hand, they are widely exposed to the harmful consequences of these activities, as shown by table 12. In effect, 53.1% of children are exposed to plant care products in nurseries while 31.6% of them are exposed to the consequences of burning bush. At the same time, 21.4% and 20.2% of the children questioned state, respectively, that they are exposed to plant care products on the farms and to felling trees in the fields.

However, estimates indicate that the risks linked to cocoa production seem to be more or less under control by the producers, all the more so in that reported health problems remain at low levels. The most important problems are body aches and pains, particularly in the neck, back, shoulders and limbs (3.3%). This may have a correlation with carrying heavy loads, which is one of the main activities of the children.

At the same time, it can be observed in the higher producing area that 2.8% of the children have experienced coughing. These respiratory problems may result from their exposure to and/or direct involvement in the activities with plant care products in the nurseries and on the plantations.

As another major health problem experienced by children on the cocoa farms, are migraine headaches (2.7%) and injuries caused by machetes (1.6%), the main instrument used for cocoa production in Côte d'Ivoire.

5. LIVING AND WORKING CONDITIONS OF ADULTS

In this section the marital status and the living and working conditions of adults is presented as well as the characteristics of those whose liberty and freedom of movement are restricted, as shown in the previous reports from Côte d'Ivoire and from the Independent Verification.

5.1 MARITAL STATUS OF ADULT WORKERS

Adults working on the cocoa parcels are usually married or live in cohabitation. 48.2% of adults live with their wife and children. These adult workers have an average of two children. The proportion of single fathers (or mothers) is 4.7% whereas 22.9% of them are unmarried without children. It is to be pointed out that working adults in this situation are nearly all male, with only 2.7% of them being female. See table 13.

The commitments they are obliged to honor with regard to their next of kin would appear to be a decisive explanatory factor of their presence in cocoa production, which is a principal activity in most of the villages in the cocoa producing area.

As indicated above, the movements of adults may in certain cases be attributable to their own decision. However, their living and working conditions should be evaluated in order to have a better picture of their situation.

⁵ In application of Ivoirian legislation.

Table 13: Profile of adult workers in cocoa farming

	Category			Total
	Higher cocoa producing	Medium cocoa producing	Lower cocoa producing	
Women	.8%	.0%	43.1%	2.7%
Number of children	2.1	1.9	.9	2.0
Adult living without spouse	36.6%	.6%	56.9%	27.6%
Adult living without spouse and children	32.8%	.6%	13.8%	22.9%
Adult with children living without spouse	3.8%	.0%	43.1%	4.7%
Adult with no children living with spouse	5.9%	.6%	.0%	4.1%
Adult with children living with spouse	56.6%	29.0%	43.1%	48.2%

Source: CLMS-IDS 2008, Weighted data

5.2 WORKING AND LIVING CONDITIONS OF ADULTS

The thesis as to the reasons for the presence of adults of cocoa farms mentioned above is confirmed. In effect, the great majority of adult workers lead a more or less normal way of life, sleeping on the average 8.4 hours a day. The decision to migrate toward cocoa producing areas is generally taken by the adult him- or herself (68%) or by next of kin, either close or far (26.3%).

Table 14: Indicators of constraint and restrictions on liberties

	Category			Total
	Higher cocoa producing	Medium cocoa producing	Lower cocoa producing	
Decision to work				
Adult	77.7%	46.4%	56.9%	68.0%
Relatives	14.0%	53.0%	43.1%	26.3%
Creditor	.0%	.0%	.0%	0.0%
Other	1.7%	.0%	.0%	1.3%
Indicators of constraints				
Obligation to work	1.3%	.6%	.0%	1.0%
Victim of physical or verbal violence	5.3%	.0%	.0%	3.5%
Restriction on freedom of movement	7.1%	2.0%	.0%	5.3%
Adult with debt	11.5%	35.5%	.0%	17.6%
Hours of sleep per day	8.28	8.52	8.28	8.35
Adults taking a siesta	25.0%	10.9%	.0%	19.7%
Impossibility of leaving after payment	3.5%	.6%	.0%	2.5%
Possession of identity card	88.8%	60.8%	100.0%	81.8%

Source: CLMS-IDS 2008, Weighted data

Furthermore, the indicators of constraints and restrictions on the liberties of adults remain in nearly all cases at extremely low levels. Table 15 shows that 5.3% of adults working in cocoa farming state that they are not able to leave the cocoa producing area in general. As a footnote to this information, it can be noted that adult workers say they are not free to leave the village even once they have settled any debts they might have contracted. Furthermore, 1% and 3.5% of adult workers declare respectively that they have been forced to work even when ill and that they are the victims of physical and verbal violence.

However, all of this information together with the fact that the decision to make certain adults work on the plantations is taken by persons foreign to the adult’s family circle (1.3%) may reveal isolated cases of trading and trafficking of persons.

5.3 PROFILE OF ADULTS CONCERNED BY RESTRICTION ON LIBERTY

The impossibility of leaving the village mentioned by some adults would appear to result in part from the basis of their family. The majority of these adults are married or live in cohabitation (53.5%) and have at least one child (46.5%). Another reason explaining cases of restriction on liberty is the debts contracted by these adults so as to be able to provide for certain needs. Table 16 shows that 20.6% of adults are concerned by this factor. See table 16

Only men are concerned by the restrictions on liberty that have been observed and declare that they are the victims of violence in the fields (3.7%). This situation, even though marginal, should draw particular attention, all the more so in that these persons who are the victims of abuse are 30 years old on the average.

Table 15: Profile of adults declaring that they are unable to leave the village freely

	Category					
	Higher cocoa producing		Medium cocoa producing		Total	
	Work force		Work force		Work force	
Women	0	.0%	0%	.00%	0%	.00%
Married or in cohabitation	4,997	52.0%	735	66.7%	5,732	53.5%
Having at least one child	4,617	48.0%	368	33.3%	4,984	46.5%
Average age in years	-	29.8	-	32.0	-	30.1
Decision to work						
Adult worker	3,502	36.4%	368	33.3%	3,869	36.1%
Relatives	5,873	61.1%	368	33.3%	6,240	58.2%
Creditor	0	.0%	0	.0%	0	.0%
Employer	0	.0%	368	33.3%	368	3.4%
Other person	245	2.5%	0	.0%	245	2.3%
Victim of violence	381	4.0%	0	.0%	381	3.7%
Possession of identity card	5,007	52.1%	1103	100.0%	6,110	57.0%
Adult with debts	1,840	19.1%	368	33.3%	2,208	20.6%

Source: CLMS-IDS 2008, Weighted data

Thus with a combined analysis of the origin and holding of identity cards belonging to the adult workers, it was determined that around 4,000 adult workers, or a percentage of 1.8%, may be victims of trafficking. Table 16 shows that 1% and 0.6% of adults coming from abroad (Mali, Burkina Faso or other countries) have had their identity cards kept respectively by their employer or by persons other than their relatives.

As far as adults coming from other regions of Côte d'Ivoire are concerned, none of them have their identity cards held by their employer, while only 0.2% declare that their identity cards are held by persons foreign to the family circle.

Nevertheless, probable cases of trading and trafficking persons thus brought to light remain a marginal and rare phenomenon and in no way do they concern the bulk of Ivoirian cocoa production. However, this information should be taken into account in the strategy and follow-up on the working conditions of children and adults in the cocoa industry.

Table 16: Holding of identity cards of adults

	Category							
	Higher cocoa producing		Medium cocoa producing		Lower cocoa producing		Total	
	Work force	%	Work force	%	Work force	%	Work force	%
Coming from abroad, having an identity card kept by the employer	2,247	1.5%	.00	.0%	.00	.0%	2,247	1.0%
Coming from abroad, having an identity card kept by other persons	1,407	1.0%	.00	.0%	.00	.0%	1,407	.6%
Coming from another region of CI, having an identity card kept by the employer	0	.0%	.00	.0%	.00	.0%	0	.0%
Coming from another region of CI, having an identity card kept by other persons	338	.2%	.00	.0%	.00	.0%	338	.2%

Source: CLMS-IDS 2008, Weighted data

CONCLUSIONS

In light of the above, this supplemental study, characterized by the weighting of data from the initial diagnostic survey, has made it possible to reconsider the various estimates. The results of this analysis provide an accurate account of the social, economic and demographic characteristics of the cocoa producing households in Côte d'Ivoire with regard to the problems of the worst forms of work and of trafficking and slavery of children and adults. The main facts that result from the analyses carried out are as follow:

- The supplemental study has made it possible to efficiently evaluate the rate of children involved in cocoa farming. The rate of children concerned by the cocoa industry is 58.7%. Children involved full-time come to 8.6% as opposed to 50.2% involved part-time;
- The insufficiencies observed in the educational system (small number of classes, lack of teachers, quality of teaching) and the modest living conditions of the producers appear to justify the full-time use of some children either because they are not attending school or because they have never been enrolled for an academic education;
- Children generally take part in harvesting (40.9%), pod breaking (55.2%) and pod collecting (32.4%), activities judged not to be dangerous. They do so voluntarily in order to help their parents, mainly during school vacations. This fact appears to explain their high level of part-time presence at the farms;
- However, it has been observed that a number of them are involved in certain types of production activities that might harm their state of health, although in relatively low proportions. In effect, 28.4% carry heavy loads, 4.4% intervene directly with plant care products in nurseries, 3.5% are involved in felling trees and 3.4% participate in spreading fertilizers as compared to 1.5% who are directly involved with plant care products on the farms;
- It was also shown that many children are exposed to certain types of dangerous work in proportions not to be ignored: 31.6% are exposed to bush burning while 21.4% and 20.2% are exposed respectively to plant care products and felling trees;
- This situation is regrettable even though the risks linked to these practices appear to be under control, given the low level of health problems experienced by children working on the parcels;
- However, children cannot be considered a decisive labor force, given the tasks they perform and the low level of their full-time involvement in cocoa production;
- Cocoa producers agree on the importance of academic education for their children. School attendance at the rate of 72.9% can be observed among children involved in cocoa farming; this rate is rather low in the higher production category (58.7%);
- In the great majority of cases, cocoa farmers express no particular desire to use children on their farms. It would appear that the presence of children results from an oftentimes reciprocal concern for supervision, socialization or training; the rate of children involved full-time being far below that of children involved part-time;
- On the other hand, cases of mistreatment of children working in cocoa farming can be observed. These children, estimated at around 450 (0.01%), state that they do not feel safe, that they are often forced to work and that they often are the victims of violence which is physical or verbal. Moreover, it would appear that around 320 children, or 0.01%, are the victims of trafficking. These children, in addition to presenting the above-mentioned characteristics, have no kinship bonds with the head of household and have no relative in the village;

- The problem of trafficking may also concern 4,000 adult workers, or 1.8%. These persons have their identity card kept either by their employer or by a third party other than next of kin, either close or far. 1.6% of the adults concerned come essentially from Mali, Burkina Faso and other countries;
- Rare as they might be, these phenomena should attract particular interest on the part of the Côte d'Ivoire authorities for the purpose of identifying and, as the case may be, identifying the persons responsible and successfully taking charge of the victims.
- Most children and adults involved in cocoa farming live acceptably. Only 2% of the children have no kinship bond with the head of household. In general, these children state that they feel safe (95%) and that they are satisfied with their way of eating (98.8%). They sleep an average of nine hours a day;
- In nearly all cases, adult workers show similar characteristics and sleep around 8.4 hours a day. 53.5% are married or live in cohabitation. The decision to work is generally taken by them or by their parents at the rate of 36.1% and 58.2% respectively;
- Furthermore, 78.6% of the villages have access roads that very often cannot be used at certain times of the year, usually coinciding with the period for shipping production to the loading ports. In this context, it is estimated that 84.8% of the number of villages have no healthcare center;
- Only one-fourth of the villages in the cocoa producing area have electricity, and only 6.8% of households have access to electricity, whereas more than half of them (50.9%) have access to drinking water. There is an average of around three fountains per village, out of which one is in need of rehabilitation.

In setting up socio-economic development actions, the CLMS Project could take into account the information set out above in order to identify the nature of the projects to be set up as well as their proportioning.

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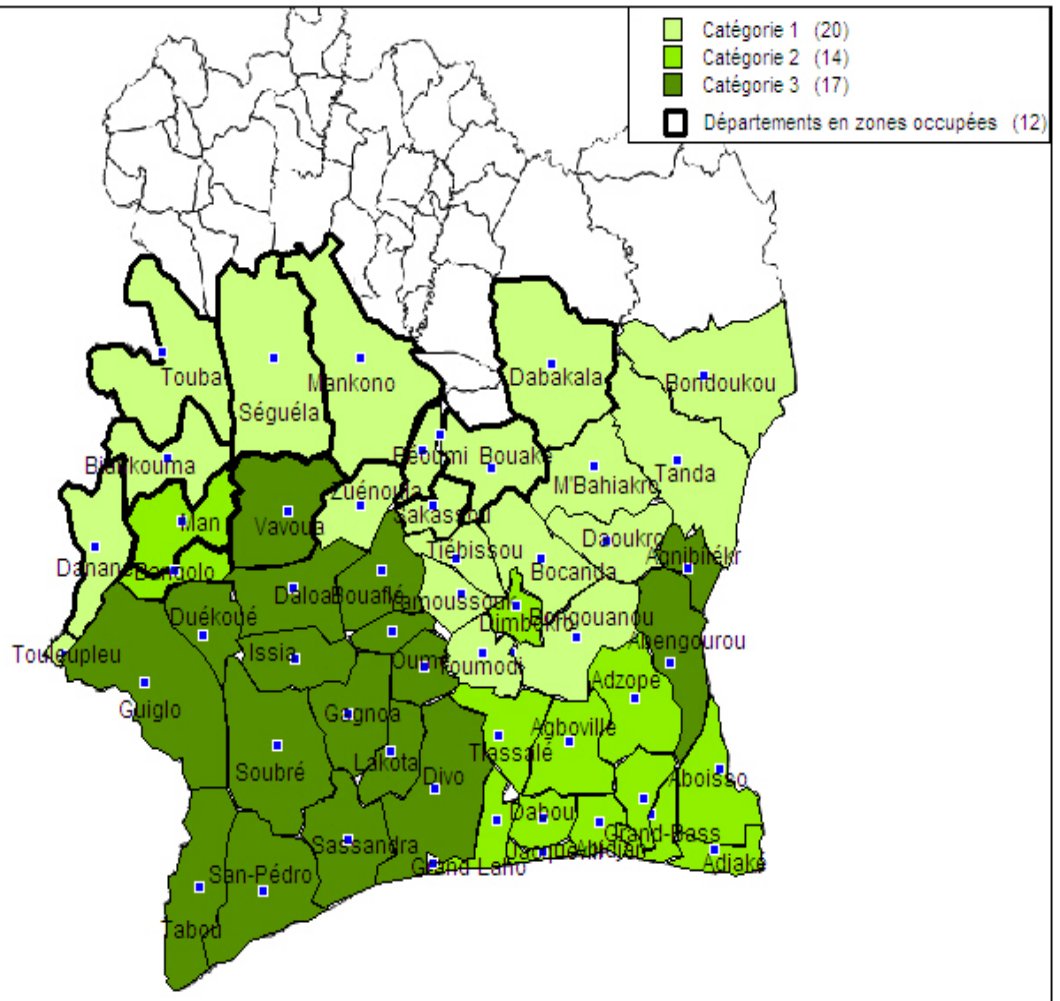
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APPENDICES

APPENDIX 1: PRESENTATION OF THE COCOA PRODUCING AREA

[CAPTION]
 Category 1 (20)
 Category 2 (14)
 Category 3 (17)
 Départements en zones occupées (12)



APPENDIX 2: COEFFICIENTS OF WEIGHTING OF THE VILLAGES

VILLAG: ZAH CODVILL:	21700101	2103.75
VILLAG: ZOBOUA CODVILL:	21700202	1384.29
VILLAG: GAZIBOUO CODVILL:	22700101	1335.71
VILLAG: GODOUA CODVILL:	22700202	1797.14
VILLAG: ZALA CODVILL:	24800102	212.11
VILLAG: KETRO CODVILL:	24800201	520.93
VILLAG: TAHAKRO CODVILL:	50800102	337.88
VILLAG: AKACOMOEKRO CODVILL:	50800201	135.79
VILLAG: BIAKALE CODVILL:	65700101	6540.80
VILLAG: KOULINLE CODVILL:	65700202	6682.20
VILLAG: SOGOBO CODVILL:	81000102	6037.50
VILLAG: KARAKO CODVILL:	81000201	19687.50
VILLAG: SOMAHORODOUGOU CODVILL:	93700102	311.77
VILLAG: BOIGNYKRO CODVILL:	93700201	2180.25
VILLAG: BOBOUO 2 CODVILL:	93800101	160.29
VILLAG: BOUTOUBRE 2 CODVILL:	93800202	831.48
VILLAG: MAHINO CODVILL:	94200102	421.84
VILLAG: SEH CODVILL:	94200201	184.88
VILLAG: AKRAKRO CODVILL:	111100101	1543.75

VILLAG: ALLAKRO CODVILL:	111100202	4830.00
VILLAG: ZANOUFULA CODVILL:	121200102	304.79
VILLAG: KPAKOUABO CODVILL:	121200201	777.14
VILLAG: PORABENEFLA CODVILL:	124000102	139.04
VILLAG: KOFFIKRO CODVILL:	124000201	795.60
VILLAG: KOUAKOUKRO LIMITE CODVILL:	130300101	367.50
VILLAG: KOTOKA CODVILL:	130300202	10657.50
VILLAG: LEHIRI PENDA CODVILL:	152100102	1451.31
VILLAG: ANOUMABOU CODVILL:	152100201	1184.17
VILLAG: TROKO CODVILL:	153000102	1568.86
VILLAG: DOUSSEBA CODVILL:	153000201	244.80
VILLAG: BASSEHOA CODVILL:	172400102	970.21
VILLAG: GODELILIE CODVILL:	172400201	266.29
VILLAG: LEHEDJAN CODVILL:	182200101	510.00
VILLAG: NIAMBLY CODVILL:	182200202	332.71
VILLAG: MONA CODVILL:	182600101	467.71
VILLAG: SAKRE CODVILL:	182600202	1061.86

Number of cases read: 36 Number of cases listed: 36