



## The Sustainable Tree Crops Program (STCP)

---

### *Revisiting Child Labor in the Cocoa Sector of West Africa*

(version: February 5, 2010)

By:

Jim Gockowski<sup>1</sup>

<sup>1</sup> International Institute of Tropical Agriculture (IITA), Accra, Ghana.



International Institute of Tropical Agriculture

Since the on-line publication of the findings on the use of child labor in the cocoa sector of West Africa based on surveys conducted by the International Institute of Tropical Agriculture in 2001/2002, other studies examining this issue have followed, most notably those led by the University of Tulane at the behest of the US Department of Labor. It is useful to re-examine and clarify in some added detail the empirical findings of the 2001/2002 study in light of other findings.

We concentrate here exclusively on findings from the Côte d'Ivoire representative survey of 1,500 cocoa producers conducted by IITA and also commissioned by the United States Department of Labor. The purpose of this study was to objectively and independently investigate claims regarding the worst forms of child labor in the Ivoirian cocoa sector as raised by a BBC documentary in September of 2000.

In June of 2001 preparations were initiated to conduct a stratified random representative sample of cocoa producing households in March and April of 2002 in the principal cocoa growing areas of Cote d'Ivoire in order to survey labor practices with special regards to child labor. The original country report produced by the CEPRASS consulting agency may be accessed at [www.treecrops.org](http://www.treecrops.org).

The labor force employed by household heads in the 2001/2002 cocoa season (April 2001 to May 2002) was determined, classified, and categorized into 20 mutually exclusive cohorts (see Annex 1). The participation of each laborer employed by the producer in a set of 11 production and post harvest labor tasks was determined. Participation was defined as at least one day of labor provided (one day was defined as 4 hours of work).

The queried tasks were:

- 1) Brushing the undergrowth on the farm (almost exclusively done with machetes)
- 2) Establishing the farm (planting cocoa)
- 3) Maintenance of the tree stock (pruning usually with machetes)
- 4) Control of pests and disease (spraying pesticides)
- 5) Fertilizer application
- 6) Harvesting cocoa
- 7) Collection and piling up of harvested pods
- 8) Cocoa pod breaking (usually with machetes)
- 9) Cocoa fermentation
- 10) Cocoa field transport (pods usually carried on the head)
- 11) Cocoa drying

In addition to these specific tasks, the options of “participated in all tasks on the cocoa farm” and “did not participate in any cocoa labor task” were given. For each individual a count of the number of labor tasks in which they were involved was calculated as a gross indicator of their labor input in cocoa. While 11 specific tasks were enumerated and one might presume that those indicating “participated in all tasks” therefore did 11 tasks this would overestimate the actual labor input as the application of pesticides and fertilizers (tasks 4 and 5 above) occurs on only a minority of Ivoirian farms. Unfortunately, the incidence of pesticide and fertilizer application was not determined in this study.

However, the STCP baseline survey of 1,200 producers in RCI, which was conducted right on the heels of the child labor survey in April and May, found that only 14 and 52 percent of cocoa producing households had applied fertilizers and pesticides in 2001/2002, respectively. On the basis of this supplemental information the labor index of individuals indicating “all tasks” was adjusted. The value of the bias correction factor varied across the 7 age cohorts depending upon the probability of having “participated in all tasks on the cocoa farm” and the probability of applying pest and disease control.

## DEFINITIONS:

It is first of all useful to recall the various actors and agents that were the subject of study and how they are defined in the study.

Household head: the person with ultimate authority over the household’s endowment of resources (land, labor, capital).

Spouses: The wife, wives, or husband of the household head.

Household member : someone living in the house for at least 6 out of the last 12 months and who shared meals with other members of the household.

Son or daughter of the household head: defined in the biological sense.

Extended family member: a blood kinship relation on either the household head’s side or the spouse’s side of the family.

Household member with no familial relation to the household head: no known blood relationship to the household head or the spouse of the household head.

Casual worker: employed on an “as needed” basis to participate in a specific labor task.

Permanent fulltime worker: employed contractually against an agreed payment for at least 3 months during the cocoa growing/harvesting season. Typically does all the jobs on the farm.

Sharecropper: employed contractually to produce and harvest cocoa on a designated cocoa farm in exchange for an agreed share of the crop.

Foster child: A child living with the household head that is neither biological son nor biological daughter of the household head and/or their spouse.

## PRINCIPAL FINDINGS AND CLARIFICATIONS

From a descriptive analysis of the survey data we were able to enumerate and characterize the different labor sources employed, starting with those individuals actually residing in the household. Information on labor participation by task was collected through structured producer interview on nearly 12,000 individuals living on the sampled

1,500 cocoa farms. Additionally, each member was exclusively classified as either, a household head, spouse of household head, son/daughter of household head, a member of the household head's extended family, or a household member with no family tie. The frequency distribution over these categories is given in Table 1.

Table 1. Sample distribution of household members classified according to their relationship to the household head.

| Status within household      | Frequency | Freq Percent |
|------------------------------|-----------|--------------|
| Head of household (HH)       | 1,490     | 13%          |
| Spouse of HH                 | 1,896     | 16%          |
| Son or daughter of HH        | 5,275     | 45%          |
| Extended family member of HH | 2,624     | 22%          |
| No familial relation to HH   | 384       | 3%           |
| Total                        | 11,669    | 100%         |

Source: IITA 2002 Labor Survey of the Cocoa Sector of Cote d'Ivoire

The contribution of hired labor (sharecropper, permanent fulltime, and causal) was added to the contribution of the household resulting in an overall total of 49,000 cocoa tasks undertaken by our sample population. Using this approach allows us to evaluate the relative contributions of the different labor groups listed in Annex 1. Comparing the overall importance of child labor to all other input sources of labor, it was found that children of 6 to 17 years accounted for slightly under 17 percent of the total labor tasks carried out by the labor force employed by the sample population of 1,500 cocoa producing households (Table 2). The biggest portion of child labor was provided by the household's biological sons and daughters. As children are less productive physically than adults and as they work shorter hours their overall contribution at 17 percent most likely constitutes an upper limit on their total labor supply.

Table 2. Relative labor contribution by source supplied in the Ivoirian cocoa sector,

| Proportion of Total Labor Tasks (%) | Labor Category            |
|-------------------------------------|---------------------------|
| 59.84%                              | ADULT FAMILY              |
| 23.47%                              | ADULT CONTRACTUAL LABOR   |
| 11.99%                              | FAMILY CHILDREN           |
| 3.41%                               | BLOOD KIN FOSTER CHILDREN |
| 0.35%                               | NO KIN FOSTER CHILDREN    |
| 0.94%                               | CHILD CONTRACTUAL LABOR   |
| 100.00%                             | Total                     |

Source: IITA 2002 Labor Survey of the Cocoa Sector of Cote d'Ivoire

Extrapolating from the sample population, it was also estimated and reported that 12,000 children were living on cocoa farms where the producer was not a family member. When the report was issued in July 2002 it was stated that these children were among the most vulnerable to the worst forms of child labor, amid fears that some represented cases of

forced labor and trafficking. Subsequent examination of the data and other field work suggests that this conclusion might not have been as well founded as it seemed at the time. In retrospect the estimated 12,000 children would have been better described as in a traditional fostering relationship with the cocoa producer. The institution of placing one’s child in a fostering relationship with another household is well documented across most of sub-Saharan Africa. In fact the common African adage “. . .it takes a village to raise a child...” reflects this norm.

Fostering is undertaken for a number of positive reasons including access to education and human skills development. Pilon (2003) notes that “many (rural West African) children would probably never have access to school without fostering” and points out that that enrollment rates for children residing without their parents are often higher than that of the household heads' own children.<sup>1</sup> Indeed, when the school enrolment data are cross tabulating with age cohorts for foster children and the producers biological children, a similar finding is observed (table 3).

The conclusion that many of the estimated 12,000 children in this category may have been at high risk for the worst forms of child labor is not supported by this re-examination of the data. The persistent citation of this figure with no consideration of the actual social institution of fostering in the African context has unfortunately maligned the hard working West African cocoa producer trying to provide for his family.

By and large, the IITA survey findings for young foster children of ages 6 to 14 were more congruent with a fostering educational objective rather than an exploitative labor arrangement. Further evidence for this is seen in the intensity of labor participation,

Table 3. Matriculation rates of school age children living on cocoa farms.

|                    | 6 to 9 years | 10 to 14 years |
|--------------------|--------------|----------------|
| Sons and daughters | 63%          | 62%            |
| Extended family    | 62%          | 62%            |
| No family relation | 65%          | 66%            |

Source: IITA 2002 Labor Survey of the Cocoa Sector of Cote d’Ivoire

which for a cohort is given by the ratio of the proportion of its total labor tasks to its proportion of the sample population. Values inferior to one indicate a relatively low labor intensity, while those above 1 indicate that this particular cohort has a relatively high labor intensity. Comparing this ratio across cohorts (Table 4), we find not surprisingly that the household heads are the most intensively engaged with a ratio in excess of 2. It is interesting to note that the “no kin” foster children actually have a lower labor intensity than either the household’s own children or children of the related extended family lending further support to the relative non-discriminatory treatment of this group.

<sup>1</sup> As found in several West African countries that participated in the Network of Surveys on Migration and Urbanization in West Africa (Pilon 2003)

The increased labor intensity of the 14 to 17 age cohort is a reflection of the limited opportunities for secondary education in rural areas. Children of this age cohort who succeed in gaining admittance to a secondary institution most often leave the cocoa farm and establish residence in the urban centers in pursuit of their education. Those children for whom secondary schooling is not an option and who remain on the farm, necessarily increase their cocoa farming activities.

## CONCLUSION

While children on cocoa farms do assist in many labor tasks some of which involve the use of machetes, there is little to suggest that the issue of child labor is particularly exploitive. Our data indicate that their role at least up until the age of 15 tends to be relatively minor in extent and that overall child labor probably accounts for less than 10 percent of the total labor input. In the recent round of Tulane University-led surveys in 2008/2009, there was little discernable evidence indicating that children living on cocoa farms worked more frequently than children living on non-cocoa farms. In fact it seems as though the reverse might be true.<sup>2</sup> Additionally, the Tulane surveys found that children of cocoa farming households had higher rates of numeracy, literacy and school enrolment as compared to children of the non-cocoa agricultural sector.

So although child labor is an issue in the cocoa sector of West Africa, it is certainly not unique and policies and efforts to address this issue should be broad based. Cocoa in West Africa is an important source of government revenues. However the size of public expenditure in rural areas is far from equal to the size of the revenues generated. To effectively transform agriculture and address child labor will require some fundamental shifts in public expenditure policy to focus on the essential public goods, namely agricultural research and extension, roads, education, and health.

---

<sup>2</sup> Based on calculations derived from data presented in the “Annual Survey of Child Labor in the Cocoa Growing Areas in Cote d’Ivoire and Ghana” Tulane University, June 23, 2009.  
[http://www.childlabor-payson.org/AnnualSurveyChildLaborintheCocoaGrowingAreas\\_June2009.pdf](http://www.childlabor-payson.org/AnnualSurveyChildLaborintheCocoaGrowingAreas_June2009.pdf)

Table 5. Relative labor contributions of producer household demographic cohorts and labor intensity ratio.

|                            | Age Cohort  | Number of cocoa tasks | % of grand total | Labor intensity ratio |
|----------------------------|-------------|-----------------------|------------------|-----------------------|
| Household head             | 18 to 34    | 1,594                 | 4%               |                       |
|                            | 35 to 54    | 5,191                 | 14%              |                       |
|                            | 55+         | 3,143                 | 9%               |                       |
|                            | Unknown age | 46                    | 0%               |                       |
| Household head total       |             | 9,974                 | 27%              | 2.13                  |
| Spouses                    | 10 to 14    | 15                    | 0%               |                       |
|                            | 15 to 17    | 52                    | 0%               |                       |
|                            | 18 to 34    | 2,654                 | 7%               |                       |
|                            | 35 to 54    | 2,495                 | 7%               |                       |
|                            | 55+         | 488                   | 1%               |                       |
|                            | Unknown age | 128                   | 0%               |                       |
| Spouses total              |             | 5,832                 | 16%              | 0.98                  |
| Sons and daughters         | 0 to 5      | 44                    | 0%               | 0.01                  |
|                            | 6 to 9      | 952                   | 3%               | 0.28                  |
|                            | 10 to 14    | 2,737                 | 7%               | 0.80                  |
|                            | 15 to 17    | 2,148                 | 6%               | 1.38                  |
|                            | 18 to 34    | 6,253                 | 17%              | 1.77                  |
|                            | 35 to 54    | 847                   | 2%               | 1.58                  |
|                            | 55+         | 21                    | 0%               | 0.48                  |
|                            | Unknown age | 69                    | 0%               |                       |
| Sons and daughters total   |             | 13,071                | 36%              | 0.79                  |
| Extended family            | 0 to 5      | 12                    | 0%               | 0.01                  |
|                            | 6 to 9      | 227                   | 1%               | 0.19                  |
|                            | 10 to 14    | 679                   | 2%               | 0.66                  |
|                            | 15 to 17    | 752                   | 2%               | 1.28                  |
|                            | 18 to 34    | 3,561                 | 10%              | 1.41                  |
|                            | 35 to 54    | 854                   | 2%               | 1.14                  |
|                            | 55+         | 184                   | 1%               | 0.30                  |
|                            | Unknown age | 125                   | 0%               |                       |
| Extended family total      |             | 6,394                 | 17%              | 0.77                  |
| No familial relation       | 0 to 5      | 1                     | 0%               | 0.03                  |
|                            | 6 to 9      | 29                    | 0%               | 0.44                  |
|                            | 10 to 14    | 51                    | 0%               | 0.56                  |
|                            | 15 to 17    | 89                    | 0%               | 1.23                  |
|                            | 18 to 34    | 885                   | 2%               | 1.34                  |
|                            | 35 to 54    | 277                   | 1%               | 1.69                  |
|                            | 55+         | 46                    | 0%               | 1.22                  |
|                            | Unknown age | 83                    | 0%               |                       |
| No familial relation total |             | 1,461                 | 4%               | 1.21                  |
| Grand Total                |             | 36,732                | 100%             | 1.00                  |

Source: IITA 2002 Labor Survey of the Cocoa Sector of Cote d'Ivoire

## References

Pilon, Marc (2003). Preparation of the UNESCO 2003 EFA Monitoring Report: Foster Care and Schooling in West Africa: the State of Knowledge. Accessed on line at [www.crin.org/docs/foster care and education in West Africa.pdf](http://www.crin.org/docs/foster_care_and_education_in_West_Africa.pdf) on January 5<sup>th</sup>, 2010.

IITA (2002). Child Labor in the Cocoa Sector of West Africa: A synthesis of findings in Cameroon, Côte d'Ivoire, Ghana, and Nigeria. [www.treecrops.org](http://www.treecrops.org)

# Annex 1.

---

Age cohorts of various categories of cocoa workers were defined as follows :

1. Household children age 6-9 (biological sons and daughters of household head)
2. Household children age 10-14 (biological sons and daughters of household head)
3. Household children age 15-17 (biological sons and daughters of household head)
4. Household adults age 18+ (biological sons and daughters of household head)
5. Household children age 6-9 (extended family foster children),
6. Household children age 10-14 (extended family foster children),
7. Household children age 15-17 (extended family foster children),
8. Household adults age 18+ (extended family members),
9. Household children age 6-9 (no kin foster children),
10. Household children age 10-14 (no kin foster children),
11. Household children age 15-17 (no kin foster children),
12. Household adults age 18+ (no kin)
13. Household head
14. Spouse of household head
15. Sharecropper age 15-17
16. Sharecropper age 18+
17. Contractual worker (3 months or more verbal contract) age 13 to 17
18. Contractual worker (3 months or more verbal contract) 18 +
19. Casual worker age 10 to 17
20. Casual worker age 18+