

Baseline Prevalence Study on Child Labor in Tea-Growing Areas in Rwanda

Rwanda Education Alternatives for Children in Tea-Growing Areas
(REACH-T)

Winrock International

ACKNOWLEDGEMENTS

This study was implemented through the joint efforts of several institutions and people to whom Winrock expresses gratitude.

Winrock would like to express appreciation to Laterite, Ltd, a Kigali-based data, research, and technical advisory firm that conducted the study and brought insights and context to the analysis.

Winrock also appreciates the National Institute of Statistics of Rwanda (NISR) and the National Ethics Committee (NEC) for providing technical assistance and required approvals during the inception phase, in particular, the NISR for providing the list of enumeration areas in tea districts that were highly valuable in carrying out the study.

Winrock wishes to recognize the District Councils for the assistance and cooperation they rendered during fieldwork.

Winrock also thanks all the people who enriched this product with their observations, criticisms, and comments throughout the process of this survey, mainly the REACH-T partners, line ministries, and key stakeholders throughout Rwanda.

Special acknowledgements go to the US Department of Labor for the financial and technical support provided to the REACH-T project as a whole, and to this baseline prevalence study in particular.

Finally, Winrock would like to express high regard to all others who have contributed to the realization of this study.

It is Winrock's sincere hope that the results of this survey will help in the development of strategies that will contribute to not only child labor free tea in Rwanda but also to improved livelihoods of the smallholder farmers in the impact areas.

Winrock International in cooperation with the Ministry of Public Service and Labor is grateful for the feedback and inputs of stakeholders and continued efforts made to prevent child labor in Rwanda.

Funding for this project was provided by the United States Department of Labor.

This material does not necessarily reflect the views or policies of the United States Department of Labor nor does the mention of trade names, commercial products, or organizations imply endorsement.

LIST OF ABBREVIATIONS

CAHR: Children at High Risk
CL: Child Labor
CMEP: Comprehensive Monitoring and Evaluation Plan
DSCCL: District Steering Committees on Child Labor
EDPRS 2: Second Economic Development Poverty Reduction Strategy (2013-2018)
EICV: Integrated Household Living Conditions Survey
FERWACOTHE: Rwandan Federation of Tea Farmers' Cooperatives
GOR: Government of Rwanda
HCL: Hazardous Child Labor
IABA: Integrated Area-based Approach
ILO: International Labor Organization
ICLS: International Conference of Labor Statisticians
IPRC: Integrated Polytechnic Regional Centers
M&E: Monitoring and Evaluation
MIFOTRA: Ministry of Public Service and Labor
MIGEPROF: Ministry of Gender and Family Promotion
MINALOC: Ministry of Local Government
MINEDUC: Ministry of Education
NCC: National Commission for Children
NCLS: National Child Labor Survey
NISR: National Institute of Statistics of Rwanda
NPECL: National Policy on Elimination of Child Labor
NSCCL: National Steering Committee on Child Labor
POC: Project Outcome Child
POH: Project Outcome Household
PSU: Primary Sampling Unit
REACH-T: Rwanda Education Alternatives for Children in Tea-growing Areas
REST: Roundtable for the Elimination of Child Labor for Sustainable Tea
RNEC: Rwanda National Ethics Committee
TSS: Technical Secondary School
TTC: Teacher Training College
TVET: Technical and Vocational Education Training Institutes
USDOL: United States Department of Labor
VTC: Vocational Training Center

TABLE OF CONTENTS

ACKNOWLEDGEMENTS	2
LIST OF ABBREVIATIONS	3
TABLE OF CONTENTS	4
SUMMARY OF TABLES, FIGURES AND MAPS	5
EXECUTIVE SUMMARY	6
SECTION 1: STUDY BACKGROUND	8
1. INTRODUCTION: CONTEXT AND OBJECTIVES	8
2. OVERVIEW OF POLICIES AND PROGRAMS AIMED AT REDUCING CHILD LABOR IN RWANDA & RECENT FINDINGS ON CHILD LABOR IN RWANDA	10
3. RESEARCH DESIGN	16
3.1. QUANTITATIVE RESEARCH DESIGN	16
3.1.1. <i>Target population</i>	16
3.1.2. <i>Sampling strategy</i>	17
3.1.3. <i>Design of quantitative survey instruments</i>	18
3.2. QUALITATIVE RESEARCH DESIGN	19
3.2.1. <i>Design of interview guidelines</i>	19
3.3. DATA COLLECTION	19
SECTION 2: RESULTS	21
4. CHILD-WORK IN TEA	21
4.1. PATTERNS OF CHILD WORK IN TEA	22
4.2. UNDERSTANDING THE PATTERNS OF AGGREGATE CHILD LABOR AND HAZARDOUS CHILD LABOR RATES IN TEA-GROWING AREAS	25
5. CONCLUSION, FURTHER RESEARCH, AND RECOMMENDATIONS	31
6. ANNEXES	33
6.1. ANNEX 1: SAMPLING STRATEGY	33
6.1.1. <i>Research design & sampling strategy</i>	33
6.1.2. <i>Understanding the Sample</i>	35
6.1.3. <i>Child-level insights</i>	44
6.2. ANNEX 2: RESEARCH FRAMEWORK TO MEASURE CHILD LABOR AND HAZARDOUS WORK IN RWANDA'S TEA-GROWING AREAS	48
6.2.1. <i>What constitutes work & the System of National Accounts production boundary?</i>	48
6.2.2. <i>Child labor definitions put forward in this report</i>	49
6.3. ANNEX 3 : LIMITATIONS OF THE RESEARCH	55
6.4. ANNEX 4: CHILD LABOR PREVALENCE CONSIDERING THE AREA-BASED APPROACH	57
6.4.1. <i>The integrated area-based approach and why it is important</i>	57
6.4.2. <i>Key contextual information</i>	58
6.4.3. <i>Conditions which may affect children's health, safety and/or morals</i>	60

SUMMARY OF TABLES, FIGURES AND MAPS

Tables

Table 3-1: Number of households and villages selected within each District	18
Table 4-1: Share of children working in tea by age group and importance of tea to household.....	22
Table 4-2: Activities carried out while working on tea.....	23
Table 4-3: Child labor and hazardous child labor for children working in tea	26
Table 4-4: Child labor and hazardous child labor for children working in tea as their primary occupation, by age	27
Table 4-5: Time of day when children aged 5-17 work in tea sector activities	28
Table 4-6: Early morning-intensity of activities	29
Table 4-7: Child labor in tea as primary occupation, by District.....	29
Table 6-1: Target number of households per District	35
Table 6-2: Enrolment rate of children based on education of parents	39
Table 6-3: Households' access to basic assets and utilities.....	41
Table 6-4: Main source of household income.....	41
Table 6-5: Tea-growing intensity, per District.....	43
Table 6-6: Education statistics based on child and adult surveys.....	44
Table 6-7: Share of children in tea-growing areas that reported engaging in a given chore in the week prior to the interview.....	46
Table 6-8: Summary of proposed key child labor definitions.....	50
Table 6-9: Working, Child Labor, and Hazardous Work Estimates by Age Group in tea-growing areas, 5-17 years old, 2014	58
Table 6-10: Population Estimates for Children in Tea-Growing Areas, 5-17 Years, Working, Not Working, in Child Labor, and in Hazardous Work, in Rwanda, 2014.....	60
Table 6-11: Contributing factors to child labor and hazardous child labor in tea-growing areas	61
Table 6-12: % children aged 5-17 that report being exposed to "hazardous working conditions".....	62
Table 6-13: Exposure to hazardous conditions by age group	62
Table 6-14: Time of day when children work.....	63

Figures

Figure 4-1: Estimated % children working in tea, based on distance to factory.....	24
Figure 6-1: Number of children aged 5-17	37
Figure 6-2: % children having lost at least 1 parent, by age	37
Figure 6-3: Distribution of the age of the household head.....	38
Figure 6-4: Level of education of the household head.....	38
Figure 6-5: % Household-heads with a disability or chronic illness.....	40
Figure 6-6: School attendance, by age and gender	45
Figure 6-7: Chores, by age and gender	46
Figure 6-8: Share of children doing chores.....	47
Figure 6-9: Breakdown of child labor rates by primary occupation	59

Maps

Map 4-1: Illustration of children working in tea.....	25
Map 6-1: Total number of households interviews per district	35
Map 6-2: Total number of households interviews per sector.....	36
Map 6-3: % households that generate some income from tea by district	42
Map 6-4: % households that generates some income from tea by sector	43

EXECUTIVE SUMMARY

This prevalence study on child labor in Rwanda's tea-growing areas, commissioned by the US Department of Labor and Winrock International, was implemented by Laterite Ltd, a Kigali-based data, research, and technical advisory firm. Data collection was carried out between October and December 2014. The primary objective of the study was to estimate the prevalence of working children, child labor (CL), and hazardous work in tea production and to better understand child labor dynamics, focusing on tea-growing areas of the country. Tea-growing areas in this study are defined as all villages (*umudugudu*) in the country where some tea is grown (as per lists provided by the Rwandan Federation of Tea Farmers' Cooperatives (FERWACOTHE)).

The survey sample included 2,831 households in tea-growing *villages* across 12 Districts. Within each household one parent and all children aged 5 to 17 were interviewed. In total, 6,791 child interviews were completed,¹ providing this study with sufficient precision to estimate child labor rates in tea-growing areas by district, and also to understand child labor dynamics by age, activity, and frequency. The hope is that this study will constitute a detailed and useful resource for policy makers interested in understanding the activities that children in rural households engage in, with a particular focus on tea-growing areas of the country.²

This study also serves as a baseline context for the Rwanda Education Alternatives for Children in Tea-growing Areas project (REACH-T) and is the first large scale survey aimed at estimating child labor rates in the tea-growing areas in Rwanda. An end line study is anticipated for the last year of the project.

The findings of the study estimated that there are about 133,000 households living in tea-growing areas in Rwanda, out of which about 45,000 generate some income from tea. Tea production is concentrated in 12 Districts in the Northern, Western and Southern Provinces of the country. These include: Gicumbi, Karongi, Ngororero, Nyabihu, Nyamagabe, Nyamasheke, Nyaruguru, Rubavu, Rulindo, Rutsiro, Rusizi and a handful of villages in Burera.

Tea production tends to be clustered in and around tea factories. This is because after having been picked, tea leaves need to be processed within a few hours. These factories typically own a large tea plantation of several hundred hectares - or what is often referred to as an estate or "industrial bloc" - in the immediate vicinity of the factory. These are relatively high-yield plantations, where farming practices are closely monitored. Workers on these plantations are directly recruited by the tea factories on wage contracts. Conditions for workers in these tea factories and plantations are closely monitored by the tea companies managing these factories, tea cooperatives, various organizations that provide certifications such as the Rainforest Alliance or the Ethical Tea Partnership, and by Government of Rwanda labor inspectors. Because of the effort tea companies have put into this issue, and because of monitoring and stringent labor regulations, child labor rates are considered to be extremely low in the "formal" tea sector.

Child labor rates in the tea sector are presented in Table 4-3, page 26. An estimated 3.9% (or 13,042 children) of children aged 5-17 in tea-growing areas have tea as their primary occupation and are in

¹ This is the number of completed data sets out of 6,865 child interviews.

² The "target" number used is 2864 (which is 179 villages times 16 HH in each village). See Annex I Sampling Strategy. 2831 is the final number of households actually reached with 2823 completed surveys.

child labor; 3.4% (or 11,227 children) are in hazardous child labor. When considering all children that worked on tea in the week prior to the interview, and not only children that have tea as their primary occupation, child labor estimates increase to about 5.8% (or 19,264 children). This is an upper bound estimate of child labor in Rwanda's tea sector, using as a reference point all children aged 5 to 17 and living in tea-growing areas.

The study used a two-stage sampling strategy, combining stratification at the District level with clustering at the village level.³ In practice this involved creating a list of all tea-growing villages per District (this list was provided to the researchers by FERWACOTHE). A number of "tea-growing" villages, in this case the primary sampling unit, were then randomly selected in each District. The number of Villages selected per District, was proportional to the number of tea-growing villages in that District,⁴ following a Probability Proportional to Size approach. For cost-efficiency purposes and in line with sample-size calculations, 16 households – here the secondary sampling unit – were then randomly selected and interviewed per village. Households to be interviewed were randomly selected from the official register of households living within that village.

RECOMMENDED ACTIONS

- Target primarily girls at all ages, although the likelihood of them being in child labor and working in tea as their primary occupation increases after the age of about 12-13.
- Target children between 5-15kms from tea factories and work with tea factories and cooperatives to sustain the low levels of child labor in the immediate vicinity of tea factories.
- Find new ways to prevent children from working in tea in the early morning or at night. Early morning or night work is a major concern in the tea sector and much more so than in other sectors. About 76% of children that work in tea report having worked on at least one morning between 6 to 8am in the week before the interview, a much higher rate than for children working in other sectors. This increases their risk of being exposed to hazardous working conditions. Note also that working in the early mornings, might be a response to greater inspections and supervision in the tea sector.
- Prevent children from engaging in hazardous tea activities, in particular carrying heavy loads and applying chemicals, which appears to be much higher in the tea sector than it is for other activities.
- Focus on high risk Districts, such as Nyamagabe, Nyamasheke, Karongi and Rusizi.
- Share lessons from tea cooperatives that have prioritized good labor practices in smallholder farms and contributed to efforts to improve livelihoods and access to education.
- Motivate and energize the NSCCL and REST forum at national level to harmonize hazards in tea and improved Occupational Safety and Health for children 16-17 legally working in tea and other agriculture in tea-growing areas.
- Advocate for resources for district child labor committees (DSCCL) to enforce child labor laws through labor inspection in non-formal sectors.
- Adopt the REACH-T ALERT system to enable Labor Inspectors and community leaders to refer child labor instances to the child labor monitoring system.
- Develop a sustainability plan during REACH-T with the government for child labor reduction.

³ In Rwanda the largest administrative division is Province, followed by District, Sector, Cell and Village. Villages are the smallest administrative division.

⁴ Data provided by MINAGRI and cross-checked with the National Institute of Statistics in Rwanda.

SECTION 1: STUDY BACKGROUND

1. INTRODUCTION: CONTEXT AND OBJECTIVES

This report presents findings from a large household and child survey, carried out in October-December 2014 that was designed to estimate the prevalence of working children, including child labor (CL) and hazardous work in tea and non-tea related activities in tea-growing areas of Rwanda. Tea-growing areas in this study are defined as all *umudugudus* (villages) in the country where some tea is grown (as per list provided by FERWACOTHE, the Rwandan Federation of Tea Cooperatives). This study was commissioned by Winrock International as part of the Rwanda Education Alternatives for Child Labor in Tea-growing Areas project or more commonly referred to as the REACH-T project. This is the first large-scale survey aimed at estimating actual child labor rates in the tea sector in Rwanda.

The baseline prevalence study provides an estimate of the prevalence of child labor in the tea sector in the context of the child labor situation throughout tea-growing areas (including child labor outside the tea sector), and also serves as a comparison point for an eventual follow-up survey's estimates to assess the impact and effectiveness of the REACH-T project's interventions. Through household surveys and semi-structured interviews, the baseline survey provides a comprehensive understanding of the proportion of children engaged in child labor in tea-growing areas and in tea specifically. The study includes an integrated area-based approach (IABA) to understand child labor in tea-growing areas in the 12 target districts, reaching children in or at risk of child labor (including in tea, domestic labor, mining and other agricultural sectors). It collects representative and insightful baseline data to estimate the prevalence (percentage) of working children (both children involved in child labor from ages 5-15 and children of legal working age involved in hazardous work in the twelve districts where tea is grown in Rwanda. The primary focus will be on tea-related labor, but also includes other types of child labor in the area. This allows for eventual goals of having child labor-free zones in tea-growing areas where children do not move from tea to other forms but have alternatives or for those of minimum age, engage in non-hazardous tasks.

The REACH-T project is a four-year intervention that aims to reduce child labor in the tea sector in tea-growing areas in Rwanda. This project is funded by the United States Department of Labor and is being implemented by Winrock International. The main objectives of the project are: (i) to provide education services to at least 4,090 children who are engaged in - or at-risk of entering - exploitative child labor in Rwanda with a focus on the tea sector; and (ii) to work on strengthening the economic situation of 1,320 vulnerable households, with the ultimate goal of reducing child labor rates. In this study, tea-growing areas are defined at the Village level – *i.e.* any Village where *some tea* is grown.⁵

CONTEXT

It is estimated that there are about 133,000 households living in tea-growing areas in Rwanda, out of which about 45,000 generate some income from tea. Tea production is concentrated in 12 Districts in the Northern, Western and Southern Provinces of the country. These include: Gicumbi, Karongi, Ngororero, Nyabihu, Nyamagabe, Nyamasheke, Nyaruguru, Rubavu, Rulindo, Rutsiro, Rusizi and a handful of villages in Burera.

⁵ The Integrated Area Based Approach strategy integrates services to address the root causes of child labor and ensures that as children leave one form of child labor they do not enter into another. The main study focuses on the tea sector only. See Annex 4 for additional data from the area and other forms of child labor in “tea-growing areas” for further reference.

Tea is a key cash crop for Rwanda and is one of the country's most important export products. In Rwanda, tea is produced in and around 11 factories (new factories/plantations are in the process of being established). Existing factories have been in operation for several decades. Tea was initially introduced in Rwanda by European and Asian investors in the mid50s/60s. By 1970 there were three (3) factories in operation, including Mulindi, Shagasha and Gisakura. There was a large expansion in tea production in the 70s and 80s, when 8 new factories were created. These 11 factories, most of which have been in operation for over 30 years, account for the vast majority of tea production in Rwanda today.⁶

Tea production tends to be clustered in and around these factories. This is because after having been picked, tea leaves need to be processed within a few hours. These factories typically own a large tea plantation of several hundred hectares - or what is often referred to as an estate or "industrial bloc" - in the immediate vicinity of the factory. These are relatively high-yield plantations, where farming practices are closely monitored. Workers on these plantations are directly recruited by the tea factories on wage contracts. Conditions for workers in these tea factories and plantations are closely monitored by the tea companies managing these factories, tea cooperatives, various organizations that provide certifications such as the Rainforest Alliance or the Ethical Tea Partnership, and by Government of Rwanda labor inspectors. Because of the effort tea companies have put into this issue, and because of monitoring and stringent labor regulations, child labor rates are considered to be extremely low in the "formal" tea sector. See for example a previous - mostly qualitative - study on child labor in the tea sector commissioned by Winrock International in 2012 which concluded that "on the whole, there is little or no child labor in the tea factories".⁷

Tea is also grown in the areas surrounding these large tea plantations in small individual plots of about 0.25 ha each. This is often referred to as "*thé villageois*", or village tea. These small out-grower plots are organized into cooperatives or associations. An estimated 70% of farmers that live within 2kms of a tea factory grow and sell tea to these tea factories. This number drops the further away one moves from the tea factory. Tea that is grown by individual households is considered to be low yield. Qualitative evidence, as per the case studies commissioned by Winrock International in 2012, also suggests that child labor rates in these areas - or in "*thé villageois*" - are relatively higher.⁸

This prevalence study is a part of REACH-T's research contribution and is meant to inform stakeholders and decision-makers about the current status and trends of child labor in tea-growing areas. This study provides an analysis of child work in tea, with a particular focus on estimating the number and share of working children and the prevalence of child labor and hazardous child labor in tea production at commercial and smallholder levels.⁹

Child labor rates in the tea sector are presented in Table 4-3, page 26. An estimated 3.9% (or 13,042 children) of children aged 5-17 in tea-growing areas have tea as their primary occupation and are in child labor; 3.4% (or 11,227 children) are in hazardous child labor. When considering all children that

⁶ Gathani and Stoelinga, "*Understanding Rwanda's Agribusiness and Manufacturing Sectors*", International Growth Center, 2014.

⁷ Winrock International, "*Child labor in the tea sector - case study of Nyamasheke, Nyaruguru, and Gicumbi*", 2012

⁸ Ibid.

⁹ Detailed definitions of what constitutes child labor and hazardous child labor are discussed in the ensuing sections; this study does not estimate the prevalence of the Worst Forms of Child Labor other than hazardous work.

worked on tea in the week prior to the interview, and not only children that have tea as their primary occupation, child labor estimates increase to about 5.8% (or 19,264 children). (Details on p. 26)

2. OVERVIEW OF POLICIES AND PROGRAMS AIMED AT REDUCING CHILD LABOR IN RWANDA & RECENT FINDINGS ON CHILD LABOR IN RWANDA

What is the national policy framework for dealing with child labor in Rwanda and what prior information is there about Child Labor in Rwanda?

Child labor has been an active area of policy making in Rwanda over the past few years and is a topic that is high on the Government of Rwanda's (GoR) agenda. The most recent policy guidelines on child labor were adopted in 2013 in the National Policy on Elimination of Child Labor (NPECL) by Rwanda's Ministry of Public Service and Labor (MIFOTRA). The NPECL provides guidance on what should be done, where and in which manner and emphasizes the roles and responsibilities of different partners working together to ensure total elimination of child labor through a coordinated effort. The Policy recognizes that "considering the cross-cutting nature of child labor, child labor issues must be mainstreamed into sectoral strategies, plans and budgets as well as in institutional values and priorities." The Policy also emphasizes the responsibility of the Ministry of Local Government (MINALOC) in the implementation of the National Policy: "The Ministry of Local Government will continue to follow-up on the implementation of social protection programmes for poor families and child laborers and also provide support and guide local authorities in the identification of poor families that need support." The NPECL puts forward a national framework to address the causes and consequences of child labor. It builds on a number of different legal tools and laws that define what constitutes labor and what types of economic activities fall within it.

Labor law enforcement has been identified as a priority by the Government of Rwanda. The 2011 National Social Protection Strategy makes reference to the need to enforce Rwanda's labor legislation through its District Labor Inspector network, stating: "However, laws, by themselves, are insufficient. Their implementation needs to be assured. For this reason, a network of labor inspectors is in place across the country, with one in each District. Nonetheless, the demands on inspectors vary significantly between Districts as some have many more enterprises to oversee than others. Therefore, the Ministry of Public Service and Labor will work with Districts to encourage those where the demand is greatest to increase the number of inspectors employed."¹⁰

In addition, the National Commission for Children (NCC) developed the Integrated Child Rights Policy and its implementation strategic plan. This policy addresses all children's issues, including child labor and states that: "All forms of child labor are prohibited for children under the age of 16, unless they are performed by children after school hours and involve light work as prescribed by law. In addition, it is prohibited to employ any person under the age of 18 years in worst forms of labor. The Government will enforce the implementation of ministerial decree on worst forms of labor for children. Specific time bound programs will be rolled out for rehabilitating children engaged in the worst forms of child labor as priority and extend to other forms of labor."¹¹

¹⁰ National Social Protection Strategy, 2011, Ministry of Local Government, p. 40.

¹¹ Integrated Child Rights Policy in Rwanda, Ministry of Gender and Family Promotion, 2011.

Education and Relation to Child Labor

Globally, there is evidence of the inextricable link between child labor and education. Specifically, the “Understanding Children’s Work Programme”¹² has established that if children are engaged in child labor, they cannot attend to studies and if education is not accessible, children will rather work. Children in child labor suffer from consequences of reduced years in school and poor educational achievement. Their life chances of obtaining future safe, stable and productive work opportunities and income are greatly compromised. Studies have established that education adequacy affects entry into work. It is easy to see how child labor increases the child and his/her family’s vulnerability to be caught in the poverty trap.

This link establishes the importance of making education accessible in the prevention of child labor. Addressing child labor through education however requires a systemic approach and progressive action toward sustainability of policies and programs that best meet children’s twin needs to access and benefit from quality education and be protected from work that harms their educational chances and overall well-being.

Cognizant of the importance of fulfilling children’s right to education and recognizing its importance in preventing child labor and harnessing the country’s human resource, the government, through the Ministry of Education (MINEDUC), has set up a Twelve Year Basic Education program, comprising of twelve years of free compulsory education for all Rwandan school children. It consists of six years of primary education and six years of secondary school. It is defined as: “All children to be able to get education in twelve years, this is made up of six years of primary education and six years of general cycle of secondary education without paying school fees.”

The Education Sector Strategic Plan 2013/14 - 2017/18 has identified three goals to support MINEDUC in achieving its mission of facilitating the development of human capital for the socioeconomic development of Rwanda. These goals are:

- promoting access to education at all levels,
- improving the quality of education and training, and
- strengthening the relevance of education and training to meet labor market demands.

Equity in access to education is emphasized across all three goals to ensure that disadvantaged students, such as girls, the poor (many of whom are in child labor) and disabled, have access to meaningful learning opportunities. In Rwanda the education system is composed of four main levels: pre-primary, primary, secondary, and higher education, with a significant Technical Vocational Education and Training (TVET) stream at both secondary and higher education levels. In addition, there is non-formal education, or Adult Basic Education (ABE). Compulsory education spans the nine years from age 7 to age 15, covering primary and lower secondary education, and is commonly known as Nine Years Basic Education (9YBE). Pre-primary education is organized in nursery schools and for a period of three years for children between the ages of 4 and 6.

Primary education lasts six years with the official school age at this level being from 7 years to 12 years. This stage focuses on core literacy and numeracy skills, as well as preparation for secondary studies.

¹² Understanding Children’s Work (UCW) Programme is an inter-agency research cooperation initiative involving the ILO, UNICEF and World Bank. Initiated in 2000, UCW produces research aimed at informing policies in the areas of child labour and youth employment, links between child labour and education, among others.

Primary education ends with national examinations which determine eligibility for proceeding to lower secondary school.

Secondary education also lasts for six years with the official age for this level being from 13 years to 18 years of age. It is subdivided into lower secondary (the first three years) and upper secondary (the last three years), both culminating in national examinations which respectively determine eligibility for upper secondary, and secondary graduation or entry to higher education. At upper secondary level students choose between continuing in general secondary schools, and enrolling in a Technical Secondary School (TSS) or a Teacher Training Colleges (TTC) to train as a primary teacher.

Technical and Vocational Education and Training (TVET) provides young people and the unemployed with the skills to gain productive employment and also provides those already in employment with an opportunity to upgrade their skills, including entrepreneurs and those wishing to work for themselves. TVET is delivered through the TSSs, Vocational Training Centers (VTCs) and Integrated Polytechnic Regional Centers (IPRCs). At the tertiary level students can pursue their studies in a range of academic directions or opt to enter an array of technical or vocational fields.¹³

Government Policies and Regulations on Child Labor

The government institutions that are primarily responsible for dealing with issues directly related to child labor are:

- The Ministry of Public Service and Labor (MIFOTRA), which proposes legislation, sets the policy direction, manages overall coordination between government bodies on issues surrounding child labor (for example through various committees at the national and local levels) and monitors the implementation of the law through its network of 30 labor inspectors country-wide. There is currently one labor inspector in each of Rwanda's 30 Districts and two in Kigali.
- The NCC, which supports the coordination of programs that aim to promote the fundamental rights of children and ensures that government policy is implemented in a coordinated way with development partners.
- District level government, which implements and coordinates policy at the local level. Local government, plays an active role in drafting locally tailored guidelines for tackling child labor.
- By extension, the Ministries of Education (MINEDUC), Gender and Family Promotion (MIGEPROF), Local Government (MINALOC), Health (MINISANTE) and of Internal Security (MININTER) all work towards keeping children out of work, healthy, and in school.

As a demonstration of its commitment to protect children and fight child labor, the GoR endorsed the *International Labor Convention n° 138 of June 26, 1973* concerning the Minimum Age for admission to Employment; and the *International Labor Convention n° 182 of June 17, 1999* concerning Worst Forms of Child Labor. Rwanda is also committed to achieve the Millennium Development Goals expiring in 2015.¹⁴ Amongst the goals set by the UN, achieving primary education received particular attention from Rwandan policymakers and has been seen as a central strategy to reduce and eradicate child labor. The Government of Rwanda is also a signatory to numerous other international conventions aimed at child protection, including declarations or treaties on human rights, education, child labor,

¹³ Undergraduate degrees currently require four years to complete, though the option of reducing this to three years in order to harmonize with the rest of the region is being explored.

¹⁴ The study adheres to the ILO international conventions as ratified by the GoR and defers to the Rwanda Law and Ministerial Orders when available and officially documented.

disabilities, and refugees that oblige the government to commit itself to ensuring the rights of children in the country. These include, the United Nations Convention of the Rights of the Child (UN CRC, 1989), its two Optional Protocols on children in armed conflict and on sale of children, child prostitution and child pornography.

In addition to signing the aforementioned international convention, the GoR has put in place national legislation prohibiting child labor. Elements of this legal arsenal can be found in:

(i) The Rwandan Constitution

- a. The Constitution of 2003, as amended to date, puts special emphasis on children's protection

(ii) Several national laws

- a. Law n° 27/2001 of 28 April 2001 determining the rights of the child and the protection of children against violence
b. Law n° 13/2009 of 27/05/2009 regulating labor in Rwanda which prohibits employment for children under the age of 16;
c. Law N° 54 of 14/12/2011 relating to the Rights and the protection of the children.
d. Organic Law N° 01/2012/OL of 02/05/2012 instituting the penal code

(iii) And one Ministerial order

- a. Ministerial order N°06 of 13/07/2010 determining the list of worst forms of child labor, their nature, categories of institutions that are not allowed to employ children and preventive mechanisms.

Considerable progress has been achieved in the fight against child labor in Rwanda, mainly through increased school enrollment rates and a better dissemination and application of child labor laws. To sustain its efforts in this direction, Rwanda's Ministry of Public Service and Labor (MIFOTRA) also established the National Policy for the Elimination of Child Labor (NPECL) in 2013.

Vision and actors

The vision of the 2013 NPECL is to achieve a Rwandan society free of child labor in which children enjoy their rights to education, health, and development. The NPECL is articulated around six objectives: (i) to withdraw all children engaged in child labor through the provision of educational opportunities, (ii) to rehabilitate former child laborer via psycho-social counseling, recreation services, skills building sessions and medical care, (iii) to prevent children at risk from engaging in child labor, (iv) to raise community awareness, (v) to strengthen institutional capacity to fight child labor, and (vi) to better monitor and evaluate activities related to child labor.

Although led by MIFOTRA, the policy also involves other ministries such as the Ministries of Local Government (MINALOC), Education (MINEDUC), of Gender and Family Promotion (MIGEPROF), Health (MINISANTE) and of Internal Security (MININTER). It also involves non-governmental actors: families and communities, employer's organizations, trade unions and workers' associations, private sector agencies, civil society organizations and children themselves.

The GoR has developed a multi-level strategy towards tackling child labor. The policy covers strategies rehabilitating ex-child laborers to prevent them from entering or re-entering the labor force, tackling the socio-economic determinants of child labor such as poverty, orphan status, illiteracy, lack of awareness about child labor, empowering the families by covering them under various government schemes, strengthening law enforcement, and administrating dissuasive penalties against offenders.

Implementation

At the national level, the policy is implemented through MIFOTRA, MIGEPROF and MINEDUC, under the leadership of the former. The NCC plays a central role in making children's voices heard; it mainstreams suggestions made at all administrative levels and ensures that they are integrated in updates of the policy. The GoR mobilizes the necessary funds via the central, District-level and partner's budget. It is further helped on financial and technical grounds by international organizations. At the local level, local governments (in Districts, sectors, and cells) have the mandate to implement and coordinate government policies at their respective levels. The policy also relies on cell- and village-level structures to reach out directly to the families, initiate community action against child labor, and monitor the life conditions of rehabilitated ex-child laborers.

The National Steering Committee on Child Labor (NSCCL) and District Steering Committees on Child Labor (DSCCLs) have been put in place to support the coordination and monitoring of interventions aimed at prevention and combatting child labor at respective levels of leadership.

At the community level, employers' organizations have the responsibility to raise awareness about child labor, especially in the informal sector. Faith-Based Organizations and Non-Governmental Organizations reinforce and complement Government interventions through advocacy, resource mobilization and program implementation.

Child labor has not been widely studied in Rwanda. Two of the most recent reports looking into child labor rates in Rwanda both rely on the same primary data collected by National Institute of Statistics Rwanda (NISR) in 2008. These reports include:

- The *Rwanda National Child Labor Survey*, conducted in 2008 and published in 2010 by the Ministry of Public Service and Labor and the NISR;
- The 2011 country report *Understanding Children's Work and Youth Unemployment Outcome in Rwanda* (2011) by the Understanding Children's Work Consortium, which includes ILO, UNICEF and the World Bank Group.

In Rwanda, there are about 5 million children under the age of 18, representing 49.6% of the entire population, according to the 2012 Fourth Rwanda Population and Housing Census (RPHC4). Children within the 6-15 age group are 3.4 million or 31.6% of the entire population. The Rwanda National Child Labor Survey (NCLS 2008) classified child labor to include all persons aged 5 to 17 years who were engaged either in the worst forms of child labor and/or economic activities before the age of 16, with an exception of children in light work.

The NCLS study estimates that **6.6% of children aged 5 to 17 years are in child labor** (a population of 190,935 children), of which 1.3% are engaged in hazardous tasks and the average number of weekly hours in child labor stands at 30 for all children on average. An estimated 11.2% of all children in the 5-17 year age group carry out economic activities. The sector with the highest number of child laborers is the agriculture sector with approximately 70.9% of child laborers engaged in agriculture. The most common workplaces in agriculture are on the informal plantations and smallholder farms.

The 2011 *Understanding Children's Work* report based its findings using the same data as the NCLS. Using a slightly different classification, it finds that child labor affects **8.9% of all Rwandan children between the ages of 5 and 17**. This includes children aged 5-15 years in employment and children aged

16-17 years in hazardous employment. These estimates differ slightly from the 2008 NCLS study as they reflect changes in the child labor legislation, primarily the prohibition of employment of a child in any company, even as an apprentice, before the age of 16.

The 2014 Integrated Household Living Conditions Survey (otherwise known as EICV 4), provides the most recent estimates of child labor rates at the national level in Rwanda. The EICV 4 finds that about 13% of children aged 6 to 17 in 2014 fell in the category of “working children,” while child labor was estimated at 5.5%.

The estimated child labor rates obtained in this study differ from the ones mentioned above. It is important to note that while the previous reports present national statistics (at the province level), the current study is representative of the tea-growing areas concentrated in 12 Districts in Rwanda. Furthermore, variation in child labor estimates can come from different interpretations of the definitions of child labor and hazardous child labor. Estimates of this research are based on the definition of child labor used by the ILO, the International Conference of Labor Statisticians (ICLS) framework as they are adapted to the Rwandan context.

Child labor interventions coordination

In terms of child labor activities coordination, since November 2013, the Ministry of Labor has set up the NSCCL whose main mandate is to coordinate and ensure efficient implementation of child labor interventions at the country level through plans, analysis, and eventually resource inputs. Specifically, the NSCCL provides advice related to ongoing legislation, reviewing legislation on child labor; proposes actions to be undertaken for eradication of child labor, and particularly its worst forms. The NSCCL ensures monitoring, evaluation of all activities aimed at elimination of child labor, and provides advisory support to the DSCCLs. The NSCCL meets once a quarter, while the DSCCLs meets twice a quarter.

Child labor awareness

FERWACOTHE is a federation of tea growers’ cooperatives in Rwanda. The organization was established in 2000 with a mandate of increasing green tea production and improving its quality through improved agricultural technology and transformation and commercialization of tea.

Since July 2014, FERWACOTHE under the Winrock International REACH-T project, in collaboration with MIFOTRA has implemented child labor awareness activities in Rwanda’s 12 tea-growing districts. Through the awareness activities, 15,777 tea growers discussed child labor issues and how education is the best way to keep children out of child labor.

FERWACOTHE has also facilitated the establishment, at the sector level, of Roundtable for the Elimination of Child Labor for Sustainable Tea (REST), a REACH-T supported initiative. REST’s main objective is to create an organized dialogue among Rwandan tea sector actors, with government participation. REST has facilitated discussions between the tea industry and relevant government agencies to enable common goal-setting and understanding, as well as collective initiatives to promote activities that enforce zero tolerance of child labor in tea supply chains including at the smallholder level. These sector-level REST fora meet on a quarterly basis to discuss child labor issues and formulate recommendations to be submitted to DSCCLs for consideration.

All tea cooperatives including those representing *Thé Villagois* have developed internal mechanisms to minimize child labor in tea. Using this framework, all cooperatives and tea plantations have posted visible signs with a clear message banning the use of underage children in tea plantations.

Tea factories have also contributed significantly to the elimination of child labor in tea. Seventy-three percent of Rwanda tea factories (11 of 15) and 74% of tea cooperatives are Rainforest Alliance certified. The absence of child labor is a requirement for certification. Tea factories have also developed five Early Learning Child Centers to provide child care services to women tea laborers.

3. RESEARCH DESIGN

This study combines a number of different research tools: (i) an adult survey focusing on 2,823 completed surveys of households in tea-growing areas; (ii) a child survey focusing on all 5 to 17 year old children in these households, amounting to a total of 6,865 children; (iii) a survey of Village leaders in 179 Villages in tea-growing areas; (iv) observational studies from the field survey team, which was completed after every day of surveying; and (v) a series of semi-structured interviews, with children, parents and officials. The combination of these tools provide insights into the complex dynamics of child labor in tea-growing areas and how children's activities relate to the socio-economic situation of their households. Data collection activities for this study were rolled out from the 15th of October to the 18th of December 2014, with qualitative interviews completed in January 2015.

Despite the fact that data collection was carried out over a two-month period, the size of this study and the fact that tea is not a seasonal crop in Rwanda, suggest that the estimates obtained can provide useful insights into child labor dynamics in Rwanda's tea sector. This is not to say that there is no seasonality in the tea sector. While elements of tea production are carried out throughout the entire calendar year, some activities are seasonal: pruning for example happens every two years, weeding happens twice a year, while tea leaf picking happens throughout the year (high periods for leaf tea picking are in January through March; while low seasons are in July to September).¹⁵

Some of the key components of the research design are introduced in this section. A more detailed description of the methodology can be found in Annexes 1 and 2.

3.1. Quantitative research design

3.1.1. Target population

For the adult survey, the target population for this study are all households in Rwanda tea-growing areas with at least one child aged 5-17. For the child survey, the target population consists of all children aged 5 to 17 living in tea-growing areas. It is important to note that this survey did not target households that farm tea specifically, but rather households in tea-growing areas – regardless of whether they farm tea or not.

In this study tea-growing areas are defined at the Village level – *i.e.* any Village where some tea is grown. The sampling frame utilized for this study consists of a list of tea-growing Villages provided to

¹⁵ Winrock International, "*Child labor in the tea sector – Case study of Nyamasheke, Nyaruguru and Gicumbi*", 2012.

the researchers by the Federation of Rwandan Tea Cooperatives, or “Fédération Rwandaise des Coopératives de Théiculteurs” (FERWACOTHE). These tea-growing Villages were scattered across 12 Districts: Gicumbi, Karongi, Ngororero, Nyabihu, Nyamagabe, Nyamasheke, Nyaruguru, Rubavu, Rulindo, Rutsiro, Rusizi and a couple of Villages in Burera District. **This sample is representative only of tea-growing areas in Rwanda and of tea-growing areas within Districts.** The total number of tea-growing villages is 950 out of 12 districts.

3.1.2. Sampling strategy

This section presents the general characteristics of the sample at the household and child level, in order to provide the reader with an understanding of the surveyed population. Statistics in this section - and the remainder of the report - are weighted using the inverse probability of selection. Weighting by the inverse probability of selection ensures that statistics are closer to the actual structure of the population, as opposed to the structure of the sample. The probability of selection is calculated at multiple levels: (i) the probability of belonging to one of the selected tea-growing villages (of which the total number is known); and (ii) the probability of a household being selected out of all the households in the village (of which the total number is known, through interviews with village leaders). It is important to note that these are extrapolations and are valid on the assumption that: (i) sampling was conducted effectively; (ii) the sampling frame provided accounts for all tea-growing villages in Rwanda; (iii) attrition is accurately accounted for in post-sampling weights. Also note that population estimates can vary slightly because of rounding or because of missing observations.

The objective of the sampling strategy described below is (i) to be in a position to detect a 5% change in child labor overall in tea-growing areas (agriculture and non-agriculture) at the District level between this baseline prevalence study and an end line study to be scheduled towards the end of the REACH-T project.

This study used a two-stage sampling strategy, combining stratification at the District level with clustering at the village level.¹⁶ In practice this involved creating a list of all tea-growing villages per District (this list was provided to the researchers by FERWACOTHE). A number of “tea-growing” villages, in this case the primary sampling unit, were then randomly selected in each District. The number of Villages selected per District, was proportional to the number of tea-growing villages in that District,¹⁷ following a Probability Proportional to Size approach. For cost-efficiency purposes and in line with sample-size calculations, 16 households – here the secondary sampling unit – were then randomly selected and interviewed per village. Households to be interviewed were randomly selected from the official register of households living within that village.

¹⁶ In Rwanda the largest administrative division is Province, followed by District, Sector, Cell and Village. Villages are the smallest administrative division.

¹⁷ Data provided by MINAGRI and cross-checked with the National Institute of Statistics in Rwanda

Table 3-1: Number of households¹⁸ and villages selected within each District

District	Number of Tea-growing Villages Sampled	Total Number of Villages Total (Tea-growing)	Number of HH Sampled
Burera	1	571 (1)	16
Gicumbi	21	628 (121)	336
Karongi	23	538 (129)	368
Ngororero	9	536 (26)	144
Nyabihu	10	428 (39)	160
Nyamagabe	19	527 (98)	304
Nyamasheke	21	585 (118)	336
Nyaruguru	23	373 (136)	338
Rubavu	8	536 (19)	128
Rulindo	13	479 (65)	208
Rusizi	10	594 (50)	160
Rutsiro	21	452 (103)	336
Total	179	6247 (905)	2,864

Note: The Totals include all villages in each district as well as tea-growing villages (in parenthesis).

A detailed explanation of the assumptions used for sampling purposes is included in Annex 1.

3.1.3. Design of quantitative survey instruments

The two main quantitative instruments used in this study were an adult survey and a child survey that were designed to estimate child labor rates in tea-growing areas. The survey instruments were mainly based on the 2008 Rwanda National Child Labor Survey but they also incorporated results from a literature review, focusing in particular on tools used by the International Labor Organization and other questionnaires that had been previously used to measure child labor in other countries.

The adult survey was meant to be conducted with one adult in each household, preferably the household head, and to last for about 45 minutes. The objective was mostly to collect information about the household, but also about the schooling and activities of each child. The main sections included: a household roster with demographic information about each member of the household; information about the occupation of each income earner; a children's roster about their educational attainment, the type of chores they perform and the type of activities they perform; information about perceptions of parents/guardians about children's activities; and finally a section about the socio-economic status of the household.

The child survey was meant to be conducted with all the children between 5 and 17 years old living in the household. Each survey lasted for about 1h30min. It started with a section about educational attainment. The second section covered the types of chores children perform, when, how often, in which situation and whether it caused them any injury. The third section asked similar questions about economic activities, for the last week and in the last 12 months. It also inquired about the employment

¹⁸ 16 households were sampled in each village selected.

conditions if children were working outside of their home. If children were working in tea, they were asked specific questions. The two last sections covered children's motivation, health and safety issues, and the perceptions of children about their activities.

The survey instruments were designed in English and translated into Kinyarwanda, the local language in Rwanda and the language used to conduct the surveys.

3.2. Qualitative research design

The objective of the qualitative part of the study was to collect in-depth information on attitudes and opinions about child labor in tea-growing areas, as well as details on specific tasks, patterns of work over time and how stakeholders in the tea sector understand definitions of child labor. Qualitative interviews also enquired about the worst forms of child labor other than hazardous work, as these could not be covered by the quantitative component. The main focus was on tea-related child labor and hazardous child labor. However, because preliminary results from the quantitative data showed that child labor was more prominent in other agricultural sectors than in tea, the study extended the research to child labor in the agricultural sector overall.

Fourteen qualitative semi-structured interviews were conducted with key informants, who had knowledge about child labor in tea-growing areas. To diversify the sources of information, several types of stakeholders were interviewed holding different roles in society. As such, the research was built around two case studies focusing on two families with at least one working child. Each case study included two siblings; one of their parents/adult guardians; their community leader; a nearby school headmaster; a tea sector management worker from the area; and the District labor inspector. The reason to use case studies was to get comprehensive information at a community level to put the results into context. The objective of interviewing two children in the same household was to study intra-household dynamics. In addition to the two case studies, we conducted two national-level interviews with MIFOTRA (Ministry of Public Service and Labor) and the National Commission for Children (NCC) which is an independent branch of the Ministry of Gender and Family Promotion.

3.2.1. Design of interview guidelines

Interview guidelines were grouped along key research themes that directly stemmed from the quantitative data preliminary results. The guidelines were also tailored to the type of respondent, which means that the study did not cover all the topics with all the respondents. The research themes included:

1. Setting up the Context
2. Prevalence of Child Labor/ Hazardous Child Labor
3. Knowledge of Labor Laws
4. Causes of Child Labor / Hazardous Child Labor
5. Impact of Child Labor/ Hazardous Child Labor
6. Decision-making within the Household
7. Social Norms and Attitudes around Child Labor
8. Interventions targeting Child Labor/ Hazardous Child Labor

3.3. Data collection

Quantitative data collection was rolled out in two phases:

- (i) *Field preparation.* Field preparation was carried out between the 11th of August and the 31st of October 2014 and was a critical component of this project. Field preparation enabled creation of a list of all household with children aged 5 to 17 in the selected tea-growing Villages and to interview Village leaders. These lists served as a basis for the random selection of households.

- (ii) *Data collection.* Data collection itself took a total of 9 weeks, during which 2,823 adults were surveyed and 6,865 children aged 5 to 17 in all 12 tea-growing Districts. Data collection commenced on the 15th of October 2014 in Gicumbi District and ended on the 18th of December 2014, with all teams spread out over various Districts in an effort to interview respondents that the team had not been able to interview earlier. It is important to note that the holiday period started early during the interview process on November 4th, 2015. This was unavoidable because of the delivery schedule of the project.

Data collection was conducted over a 2-3- month period. This provides resolution into what happened during that 2-3- month period (through questions on activities in the past 7 days), and a rough idea as to what might have happened in the preceding 12 months (using questions on other activities that might have been undertaken at other times of the year).

SECTION 2: RESULTS

4. CHILD-WORK IN TEA

The main purpose of this survey was to understand child work in tea and to what extent related activities constitute child labor or hazardous child labor.

It is important to note that the reported statistics are based on the activities children did in the **past week prior the interview**. Focusing on the past week makes it possible to get relatively accurate statistics on the nature of the activities children engage in. Details were obtained on which days of the week activities were conducted, at what time during these days, for how many hours, whether children missed school because of these activities, for whom children worked, whether any tools or machinery were used, under what types of conditions, whether they got injured doing these activities, etc. Children were also asked about other activities they might have engaged in at other times of the year, but the child labor statistics presented in this report are based on the activities that were conducted during the previous week only.

Child labor is not static. There are periods of the year when it is higher (*e.g.* harvest period or school holidays) and periods when it is lower. The types of activities that children engage in also change depending on the period. In this study evidence suggests that even during the 2 months of this survey, the share of working children increased over the span of just two months.

In this study, child labor results are reported using weekly data, the reference period being the 2-3 months during which the survey was conducted. Data is also disaggregated over time.

4.1. Patterns of child work in tea

It is estimated that about 7% of children aged 5 to 17 in tea-growing areas, or over 23 thousand children, were working in tea at the time of the survey (October to December 2014). Tea was the main occupation for about 4.8% (est. 15,839) of all children aged 5-17 (or in other words, the economic activity they spent the most time working on). It is important to remind that “working in tea,” most often on the family plot, does not automatically amount to child labor; certain work conditions can lead to what is defined as “child labor” or “hazardous child labor”, but not all forms of economic activity children engage in fall under that category. See Annex 2 for information on definitions.

Table 4-1: Share of children working in tea by age group

Age group	All Children in Tea-Growing Areas	Children aged 5-17 working in tea out of all children in the area (Pop. est. = 330,684)		Children aged 5-17 working in tea-growing households (Pop. est. = about 115,000)		Children aged 5-17 working in tea in households where tea is major source of income (Pop. est. = 38,064)	
		Est. Number	%	Number	%	Number	%
5 to 12	218,186	4.0%	8,793	8.1%	6,004	14.8%	3,346
13 to 15	75,122	11.0%	8,228	22.8%	6,304	35.7%	3,664
16 and 17	37,375	16.3%	6,092	32.6%	4,348	48.8%	2,506
Total	330,684	7.0%	23,114	14.4%	16,656	25.0%	9,516

Seven percent (23,114) of children aged 5-17 work in tea. 35% of households in tea-growing areas report earning some income from tea. In households that do generate some income from tea, the share of children working in tea is higher. Some key points/statistics to keep in mind:

- Amongst children whose parents generate some income from tea, 13.9% reported having worked in tea-related activities in the week prior to the interview. This number increases to about 25% of children in households whose first or second source of income is tea reported working in tea.
- About 73% of children that report working in tea-related activities also live in households that farm tea. This suggests that there is a substantial number of children that work on tea exclusively outside the household. About 44% of children that farm tea reported working outside the family farm or for other employers.
- Tea farming is slightly more common amongst girls than it is amongst boys. For example, an estimated 15.2% of girls that live in households that report generating some income from tea were engaged in tea farming in the week prior to the interview; this same figure for boys was just 12.6%. As explored later, the types of tea farming activities that boys and girls engage in are different.

The likelihood that a child works in tea increases with age. For example, 4% of children aged 5 to 12 report having worked in tea in the week prior to the interview, compared to 16.5% of children aged 16-17. In households for which tea is the first or second source of income this difference is more pronounced: 15% of children aged 5 to 12 report having worked in tea related activities in the previous week, compared to over 50% of children aged 16-17. In terms of aggregate population numbers, an estimated 38% of the children that farm tea are aged 5-12, compared to about 36% in the 13-15 year age group and about 26% in the 16-17 year group.

So what activities do children in the tea sector engage in? The majority of children (62.4% boys and 65.3% girls) who work in tea farming are involved in plucking tea leaves and weeding (see Table 7-2). About 7% are involved in applying fertilizers/chemicals and 20% in carrying sacks/bags of tea to weighing stations, two activities which constitute hazardous child labor. The main differences between boys and girls, is that girls are almost two times more likely to engage in holing/planting seedlings. Boys are marginally more likely to carry bags of tea to the weighting stations or to prune the trees. Younger children are more likely to be involved in plucking, while older children are more likely to help with weeding, applying fertilizers and holing/planting seedlings. In general, there are not many differences in the type of tea-related activities children engage in between age groups.

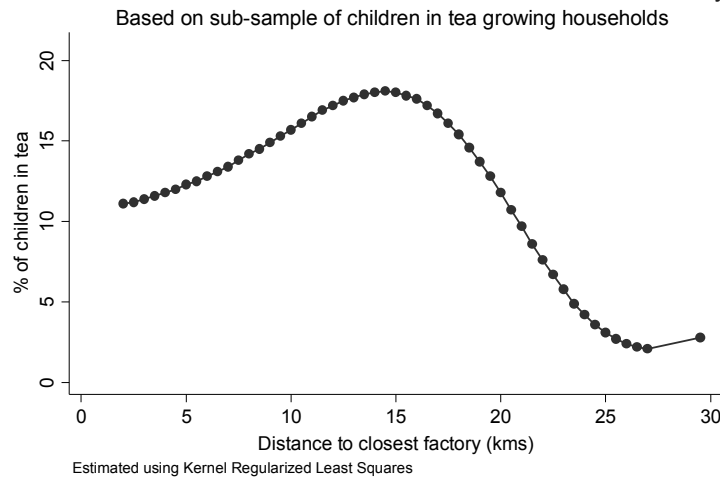
Table 4-2: Activities carried out while working on tea

Activity	Out of boys working in tea Est. = 10,304		Out of girls working in tea Est. = 12,813	
	%	Number	%	Number
Plucking	62.4%	6,430	65.3%	8,367
Weeding	52.9%	5,451	52.1%	6,676
Carrying bags of tea to weighing station	22.0%	2,267	19.2%	2,460
Holing/planting of seedlings	8.6%	886	16.1%	2,063
Applying fertilizers/other chemicals	6.4%	660	6.7%	858
Pruning	3.5%	361	2.8%	359
Fetching firewood to dry tea leaves	3.3%	340	2.4%	308

The share of children farming tea is lower in the vicinity of tea factories, and this despite the fact that the closer a household lives to a tea factory the higher the likelihood that tea will be a major source of income (see Figure 7.1). In the entire sample, there are 3 children that live within 2kms from a tea factory and that report having worked on tea in the week prior to the interview; this corresponds to an estimated 1.6% of children living within 2kms of a tea factory. Furthermore, it is estimated that the likelihood that a child from a tea-growing household would be farming tea is two times higher 10-15 km away from the tea factory, than it is within a 3-4 km radius of the tea factory. This effect, which is statistically significant, could be due to a number of factors, including: a) the fact that households in the vicinity of tea factories are better off on average; b) tea companies and tea cooperatives put more stringent controls in place in and around tea factories/plantations, limiting the number of children working; c) potentially, programs and campaigns aimed at reducing child labor in the tea sector focus

predominantly within the immediate surroundings of tea factors; and d) simply the fact that the immediate vicinity of tea factories is surrounded by tea plantations and staff quarters, and that typically the community lives further away. This is an important focus to keep in mind from a programmatic perspective.

Figure 4-1: Estimated % children working in tea, based on distance to factory

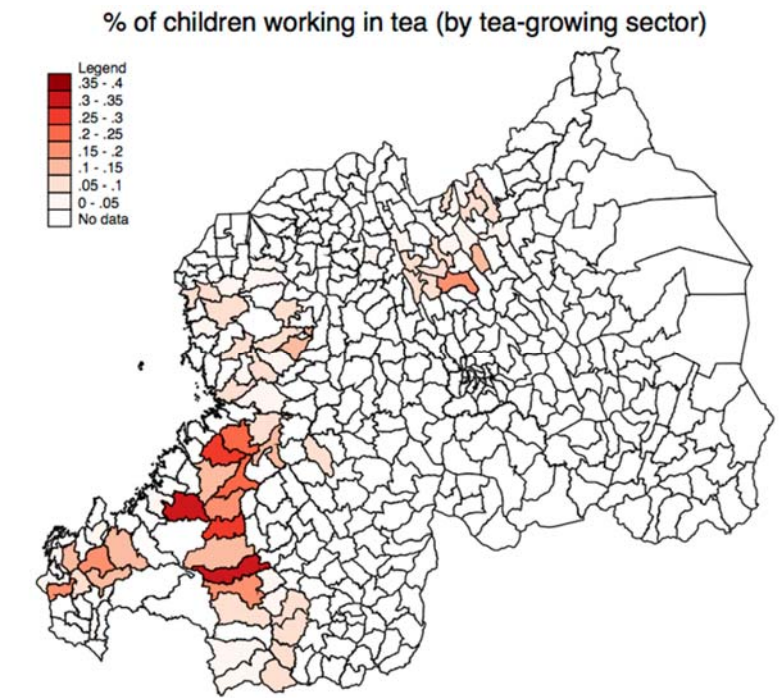


Timing, seasonality and location

Regression analysis suggests that seasonality and holidays do not have a large effect on the share of children working in the tea sector. Unlike the case of activities in general, holidays and the date of the interview are not very good predictors of changes in the share of working children in the tea sector over time. The observed differences over time are explained by differences in geographic location and in particular how tea intensive certain locations are (as measured by the share of households that derive some income from tea and the share of households for whom tea is the first or second source of income).

Nyamasheke, Nyamagabe, and Karongi are the Districts where the share of children engaging in tea-related activities is highest (see Map 4-1 and Table 4-3). It is important to note that these do not always correspond to the areas of the country where the largest share of households grow tea. There might also be fundamental differences in the way cooperatives, tea factories or District/sector officials deal with the issue of schooling / working children in these sectors but this is an hypothesis that cannot be tested in this study. (Note: SORWATHE and ASSOPTHE, in the Rulindo District, are amongst the first companies and cooperatives to have acquired certifications and implemented good practices in combating child labor).

Map 4-1: Illustration of children working in tea



4.2. Understanding the patterns of aggregate child labor and hazardous child labor rates in tea-growing areas

One of the main objectives of this survey was to measure the level of child labor and hazardous child labor in the tea sector. In this section, focused on tea-growing activities, child labor and hazardous child labor rates are calculated following the definitions outlined in Annex 2.

Two estimates of child labor related to tea-growing activities are proposed: (i) statistics based on children for whom tea is the primary occupation; and (ii) statistics for children that claimed to have worked on tea in the week prior to the interview, regardless of whether this was their primary activity or not. This latter estimate can be interpreted as an upper-bound estimate of child labor in tea.

In addition to these two levels of reporting, a distinction is made between: (i) children in general and children from households that earn some income from tea; and (ii) the “formal” tea sector, which is defined as any activity undertaken for a tea factory or plantation, and *thé villageois* which is the more “informal” tea sector.

Child labor rates in the tea sector are presented in Table 4-3. An estimated 3.9% of children aged 5-17 in tea-growing areas (or about 13,000 children) have tea as their primary occupation and are in child labor; 3.4% (or over 11,000) are in hazardous child labor. 5.8% (or over 19,000 children) work in tea, regardless of whether it is their primary occupation.

This is an upper bound estimate of child labor in Rwanda’s tea sector, using as a reference point all children aged 5 to 17 and living in tea-growing areas.¹⁹

¹⁹ Tea-growing areas are defined by a list of 6247 villages identified by FERWACOTHE.

Table 4-3: Child labor and hazardous child labor for children working in tea

	A Children working in tea and in child labor as % of all children aged 5-17		B Children working in tea and in child labor as % of all children aged 5-17 in tea-growing households		C Children in the “formal” tea sector and in child labor as % of all children aged 5-17	
	%	Number	%	Number	%	Number
CL (Tea primary occupation)	3.9%	13,042	8.0%	9,183	0.4%	1,281
CL (All children in tea)	5.8%	19,264	11.7%	13,476	0.5%	1,616
HCL (Tea primary occupation)	3.4%	11,227	6.9%	7,955	0.4%	1,215
HCL (All children in tea)	5.0%	16,661	10.1%	11,717	0.5%	1,549

Note: Weighted estimate of all children aged 5-17 is 330,684 (columns A and C) and all children in tea-growing households is 116,656 (column B)

Three important points to note about child labor in the tea sector are:

- (i) Children belonging to families that earn some income from tea are two times more likely to be in child labor in tea, than children that do not come from households that earn income from tea;
- (ii) Child labor in the formal tea sector comprises 0.4 to 0.5 of one percent of all children aged 5 to 17 in tea-growing area. Most of these children are 13 or older. (This would be mainly hidden forms of child labor performed out of the sight of tea factory/cooperatives managers, whose instructions don’t normally accept CL cases.
- (iii) Child labor rates in tea increase with age and are higher for girls, especially after age 12 (see Table 7-4). Between ages 5 to 12, just 2.4 to 2.5% of girls and boys work in tea (as their primary occupation) and are in child labor. This number increases to about 5% for boys and 8% for girls between the ages of 13 to 15. By ages 16 and 17, 9.7% of girls work in tea and are in child labor, compared to just 5.7% for boys.

Table 4-4: Child labor and hazardous child labor for children working in tea as their primary occupation, by age

Age group	Children working in tea and in child labor				Children working in tea and in hazardous child labor			
	Boys		Girls		Boys		Girls	
	%	Number	%	Number	%	Number	%	Number
5 to 12	2.5%	2,708	2.4%	2,647	2.1%	2,252	2.0%	2,165
13 to 15	4.8%	1,734	8.0%	3,089	4.2%	1,536	6.2%	2,410
16 and 17	5.7%	1,038	9.6%	1,826	5.7%	1,038	9.6%	1,826

Something that is specific about tea and that is confirmed in qualitative interviews is that children working in tea are more likely to work in the very early hours of the morning, between 6 and 8am and also at night, between 8pm and 6am.²⁰ About 6.4% of children working in tea (or 1000 children in total) reported working at night in the week prior to the interview, compared to just 2.5% for other working children (see Table 7-5). Moreover, about 76% of children working in tea claim to work between 6 and 8 am in the morning, compared to just 45.4% for other working children. These are very large and statistically significant differences, putting children that work in tea at a higher risk of working in hazardous conditions: 72% of children that report working in the early morning are also in hazardous child labor, compared to 56% of working children that do not report having worked in the early morning over the past week.

²⁰ This comprises any work done before 6am. If a child reports starting at 5am, it will fall under the time range of 8pm-6am.

Table 4-5: Time of day when children aged 5-17 work in tea sector activities

Time of day	Children working in tea aged 5-17 that reported working at this time of day	Working children aged 5-17 that reported working at this time of day
	%	%
Morning 6 a.m. – 8 a.m.	75.7%	45.3%
Morning 8 a.m. – 12 p.m.	95.8%	83.4%
Midday 12 p.m. – 2 p.m.	61.4%	43.1%
Afternoon 2 p.m. – 6 p.m.	49.0%	42.4%
Evening 6 p.m. – 8 p.m.	4.0%	5.0%
Night 8pm-6am	6.0%	2.5%

Note: Children can work at multiple times in the day, on various days, hence the statistics in this table do not add up to 100%. If a child reports to work at 5 am, or at 7pm to 7:30pm, he/she will fall under the range of 8pm- 6am; it does not mean necessarily that he/she works all the night

These statistics become more pronounced when looking at the sub-set of children that work in tea outside the household or that work in the formal tea sector:

- About 79% of children that work in tea and that work on plots that do not belong to the household, work between 6 and 8am in the morning; 8.4% also work at night.
- An estimated 87% of children that work in the formal tea sector, work between 6 and 8am in the morning; about 20.4% of these children also work at night, a statistic that puts them into hazardous child labor (even though it is based on a small sample of 35 children that reported working in the formal tea sector in the week prior to the interviews).

Children that work in tea are more likely to work at night or in the early morning compared to children that work in other activities (see Table 4-6).

Table 4-6: Early morning-intensity of activities (out of top 10 activities that children engage in)

Activities	Children aged 5-17 that have worked at some point between 8pm and 8am on at least one day during the past week, by primary activity
	%
Tea farming	74.8%
Work as a domestic servant in someone else's home	63.6%
Take care of infants with parents on tea plantations	63.3%
Construction, maintenance of buildings, homes for someone else, offloading	60.0%
Cultivate or harvest other agricultural products	53.8%
Sell articles, newspapers, drinks, food or agricultural products.	52.8%
Transportation of goods to market or for storage (for sales)	42.1%
Herding livestock	35.2%
Fetching firewood/water for other households	16.0%
Collecting scrap metal	11.4%

Two other factors make working in tea potentially more hazardous than other activities on average: (i) a high exposure to chemicals and fertilizers; and (ii) a higher propensity to carry heavy loads. About 18.7% of children that work in tea are considered to be in hazardous child labor because of their exposure to chemicals and fertilizers, compared to 8.7% of the average working child, a difference of more than two-to-one. Moreover, 29.5% of children working in tea are in hazardous child labor because they report carrying heavy loads, compared to about 24.6% for the average working child, a relatively small but nevertheless statistically significant difference.

Child labor rates in the tea sector are the highest in the following Districts: Nyamagabe (8.6%), Nyamasheke (6.4%), and Karongi (5.4%). In all other Districts, the share of child labor in tea-growing areas is less than 4% (see Table 7-7).

Table 4-7: Child labor in tea as primary occupation, by District

District	Children aged 5-17 working in tea and in child labor		Children aged 5-17 working in formal tea sector and in child labor	
	%	Number	%	Number
Nyamagabe	8.6%	3447	0.9%	377
Nyamasheke	6.3%	2694	0.1%	49
Karongi	5.4%	2025	0.8%	289
Rusizi	4.0%	629	0.6%	89
Ngororero	2.8%	332	0.2%	28

District	Children aged 5-17 working in tea and in child labor		Children aged 5-17 working in formal tea sector and in child labor	
Rulindo	2.7%	590	0.4%	80
Gicumbi	2.4%	831	0.5%	159
Nyaruguru	2.3%	1503	0.4%	239
Rutsiro	2.0%	748	0.4%	156
Rubavu	1.4%	101	1.2%	88
Nyabihu	0.9%	142	0.8%	121

5. CONCLUSION, FURTHER RESEARCH, AND RECOMMENDATIONS

This study provides the most detailed estimates to date about child labor patterns in the tea-sector affecting 5 to 17 year-old children in Rwanda's tea-growing areas. Some of the key takeaway messages, potential policy implications or pending questions of this study are discussed below:

Rwanda has an extensive legal and policy framework to deal with issues related to child labor

Over the past decade, Rwanda has put in place an extensive legal and policy framework to tackle child labor. Rwanda's strategy has evolved around: (i) the endorsement of a number of international treaties for the protection of children; (ii) the ratification of laws and the passing of Ministerial orders specifically targeting child labor issues; (iii) the development of a national policy to eradicate child labor; (iv) the strengthening of the institutional framework to tackle child labor (involving the Ministry of Labor, the National Child Commission, the Ministry of Gender and Family, the Ministry of Education, the Rwanda Education Board and Districts); and (v) achieving close to universal education for children between the ages of 8 to 14, where net enrolment rates hover around the 95% mark.

In the tea sector specifically, government, together with tea cooperatives and tea factories have worked together towards the objective of eradicating child labor. Tea factories have also contributed to the reduction of child labor in tea. 73% of Rwanda tea factories (11/15) are Rainforest Alliance certified while certified cooperatives are 74%. The absence of child labor being a requirement to be certified has contributed a lot to the elimination of child labor at factory and large cooperative level. Tea factories have also developed over three Early Learning Child Centers to support women tea laborers with child care. Government officials and Tea cooperatives meet under the REST fora for coordination at the district levels.

Households generating income from tea

This study shows that in tea-growing areas, 33.8% of households on average, or about 44,720 households in total, report generating some income from tea. Moreover, tea is the first source of income for 5.7% of the households, which corresponds to 7,548 households in tea-growing areas.

One interesting question to study - that is beyond the scope of this study - is how households choose to allocate activities across household members and in particular how returns to a given activity play into that equation. Child labor in tea might be lower than in other types of activities because returns to tea are low and households gain more by assigning the time of their children to other activities. The child labor statistics estimated in this study might change for example if returns to tea increase or decrease, following a change in global tea prices or a renegotiation of contracts between farmers, cooperatives and tea factories. Understanding the dynamic relationship between returns to an activity and child labor can provide some valuable insights into the most appropriate policy response to reduce child labor rates in the tea sector even further.

Working in tea and child labor in the tea sector

An estimated 7% of children in this survey report working in tea, while 4.8% of all children aged 5 to 17 in tea-growing areas reported tea farming as their main activity.

An estimated 3.9% of children aged 5-17 in tea-growing areas (or about 13,000 children) have tea as their primary occupation and are in child labor; 3.4% (or over 11,000) are in hazardous child labor. When considering all children that worked on tea in the week prior to the interview, and not only

children that have tea as their primary occupation, child labor estimates increase to about 5.8% (or over 19,000 children). This is an upper bound estimate of child labor in Rwanda's tea sector, using as a reference point all children aged 5 to 17 and living in tea-growing areas. 0.5% of all children aged 5 to 17 report working in the formal tea sector, in plantations owned by tea companies and/or cooperatives. Tea farming is a much greater concern for girls than it is for boys. From age 13 onwards, girls are almost two times more likely to have tea as their main occupation and be in child labor than boys.

RECOMMENDED ACTIONS

- Target primarily girls at all ages, although the likelihood of them being in child labor and working in tea as their primary occupation increases after the age of about 12-13.
- Target children between 5-15kms from tea factories and work with tea factories and cooperatives to sustain the low levels of child labor in the immediate vicinity of tea factories.
- Find new ways to prevent children from working in tea in the early morning or at night. Early morning or night work is a major concern in the tea sector and much more so than in other sectors. About 76% of children that work in tea report having worked on at least one morning between 6 to 8am in the week before the interview, a much higher rate than for children working in other sectors. This increases their risk of being exposed to hazardous working conditions. Note also that working in the early mornings, might be a response to greater inspections and supervision in the tea sector.
- Prevent children from engaging in hazardous tea activities, in particular carrying heavy loads and applying chemicals, which appears to be much higher in the tea sector than it is for other activities.
- Focus on high risk Districts, such as Nyamagabe, Nyamasheke, Karongi and Rusizi.
- Share lessons from tea cooperatives that have prioritized good labor practices in smallholder farms and contributed to efforts to improve livelihoods and access to education.
- Motivate and energize the NSCCL and REST forum at national level to harmonize hazards in tea and improve occupational safety and health for children 16-17 legally working in tea and other agriculture in tea-growing areas.
- Advocate for resources for district child labor committees (DSCCL) to enforce child labor laws through Labor inspection in non-formal sectors.
- Adopt the REACH T ALERT system to enable Labor Inspectors and community leaders to refer child labor instances to the child labor monitoring system.
- Develop a sustainability plan during REACH T with the government for child labor reduction.

6. ANNEXES

6.1. ANNEX 1: SAMPLING STRATEGY

Below is a description of the proposed sampling strategy, based on prior knowledge before the project started.

6.1.1. Research design & sampling strategy

The objective of this baseline prevalence study is to collect representative and insightful baseline data on the prevalence of child labor in Rwanda's tea sector, and not to propose an experimental evaluation strategy that will enable Winrock International to measure the future impact of the REACH-T program. It is important to mention this because the Terms of Reference refers to a before-and-after comparison of prevalence-rates in the treatment districts to estimate change over time, but without a valid experiment it would not be possible to attribute any observed change to the REACH-T project. At this point in time, with limited information on the size of the target population, the selection criteria for inclusion into the treatment group or not, and information on the exact nature of the intervention, it would be almost impossible to propose a valid experimental approach.

The proposed research design for the quantitative component of this baseline is based on identifying the most appropriate sampling frame, sampling strategy and sample size to obtain accurate baseline estimates on the prevalence of child labor in tea producing districts as well as other contextual data.

Population under study

The proposed population for study in this baseline study is all rural households (and children aged 5 to 17 within them) that live in tea producing cells²¹, within the 12 identified tea-growing districts, regardless of whether they are tea producers or not. This will give statistics on child labor in *tea-growing areas*, not necessarily amongst tea-growing families. This is an important distinction to make. This approach makes sense both from a financial and conceptual perspective. Financially it will reduce the cost of recruiting "tea farming households" for this study, which would require an initial listing stage to produce a sampling frame of all tea-farming households. Conceptually this also makes sense because typically tea is not the only crop that households in tea-growing areas farm, so the line between households that farm tea and households that do not can be blurry. Moreover, child labor within tea-growing households can take the form of non-tea related work as well.

Sampling strategy

For this baseline survey, a two-stage sampling strategy is proposed, stratifying at the district level and clustering at the village -level. Stratification at the district level will improve the efficiency of estimates overall and ensure that we are able to obtain representative statistics at district level. The Primary Sampling Unit (PSU) for the proposed baseline survey will be the *village*. Within each district, the first stage sampling frame of *villages* will be drawn only from *villages* identified as tea-producing villages by FERWACOTHE. The Secondary Sampling Unit (SSU) is the household, which will be selected randomly from all households within the selected tea village. All children aged 5 to 17 within each

²¹ If it is possible to identify *ex ante* exactly which village are tea producing, we will adjust the definition of the population under study accordingly to more accurately target tea producing areas.

household will be interviewed. The proposed sample size within each district will be proportional to the number of tea-growing villages in that District, with some adjustments for Districts with very large/small portions of the population under study²².

In order to lower survey costs and in-line with sample-size calculations, it is proposed to interview about 16 households per *village*. Households to be interviewed will be randomly selected from the official register of households living within that *village*. The number of *villages* per district will depend on the targeted sample size for that district. So if for example the study is targeting a sample of 300 households in a given district, the team would then randomly select 18 or 19 “Tea-growing” villages from that district. It is proposed to conduct surveys in about 179 “tea-growing” villages.

Power calculations and proposed sample size

The sample size calculations were calibrated using data from a recent survey of the coffee sector in Rwanda. From the coffee farming population, it is estimated that 15% of children aged 5 to 17 are not enrolled in school, which is proposed as a rough estimate for the prevalence of child labor in Rwanda. This figure is slightly higher than previous estimates of child labor in Rwanda. In addition, intra-cluster correlation across villages was found to be low, suggesting that the loss in precision from employing a clustered design will be relatively low²³. It is possible that child labor is higher in tea producing areas, and that it is relatively concentrated in clusters due to the more centralized nature of the tea industry. As such, the tea study has taken a conservative stance across both variables in the sample calculations.

To detect a 5 percentage point change in child labor over time, taking into account rough assumptions about the prevalence of child labor and the target of interviewing 16 households per village (and about 2.5 children in each), it would require a minimum baseline sample size of about 2780 households or about 230 in each of the 12 tea-growing districts.

Correcting for the resulting small sample sizes in the districts of Rubavu and Burera, **a final sample size of 2864 households (see proposed breakdown by district in table below) is proposed.** This would result in an average sample of about 245 households per district, which should enable an estimation of child labor rates within a 4.5 percentage point margin of error at the district level.

²² Districts with a very small relevant population must be oversampled to ensure reasonably precise estimates at the district level. Very large districts can be under-sampled without compromising precision.

²³ Intra-cluster correlation was estimated at 0.06 using data from the coffee survey.

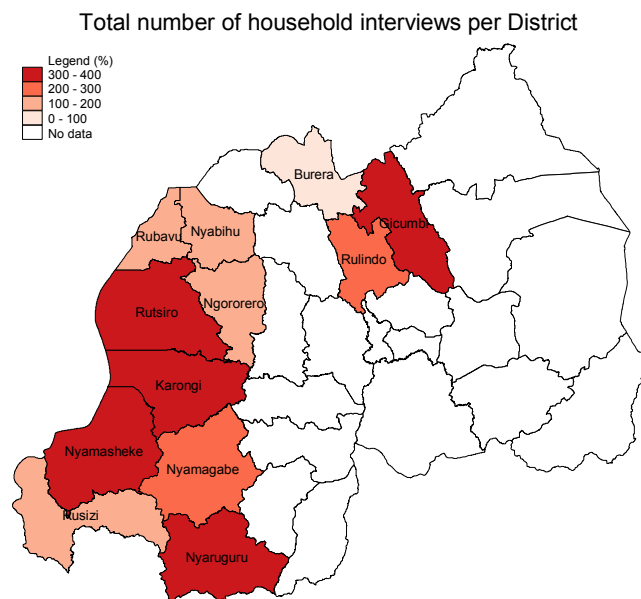
Table 6-1: Target number of households per District

Districts	Number of households	Number of villages
NYAMASHEKE	304	19
RUSIZI	192	12
NYABIHU	192	12
RUBAVU	176	11
RUTSIRO	304	19
KARONGI	240	15
NGORORERO	160	10
NYAMAGABE	240	15
NYARUGURU	304	19
GICUMBI	368	23
RULINDO	272	17
BULERA	112	7
Totals	2,864	179

6.1.2. Understanding the Sample

This study was designed to be representative of Rwandan households living in tea-growing areas and having at least one child between 5 and 17 years old, with sufficient resolution to report statistics on child work in tea - in tea-growing areas - by District. Map 6-1 highlights the number of household interviews, by District. Areas in red are where most interviews were conducted.

Map 6-1: Total number of households interviews per district

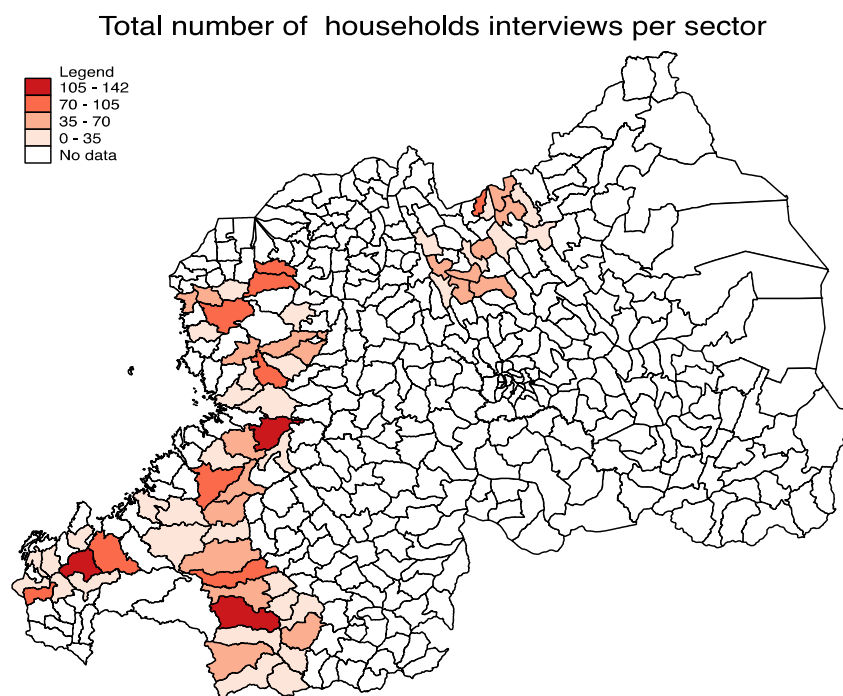


The section starts with presenting household-level data, before focusing on child-level indicators. Note that all questions relating to child work and child labor are dealt with in subsequent sections.

Household characteristics

The household dataset comprises of 2,823 observations in 12 Districts. Within each District a certain number of villages were randomly selected from tea-growing villages and within each village about 16 households were interviewed. Households were randomly selected amongst families with at least one child between the ages of 5-17. Map 6-2 provides a Sector-level breakdown of where interviews were conducted.

Map 6-2: Total number of households interviews per sector



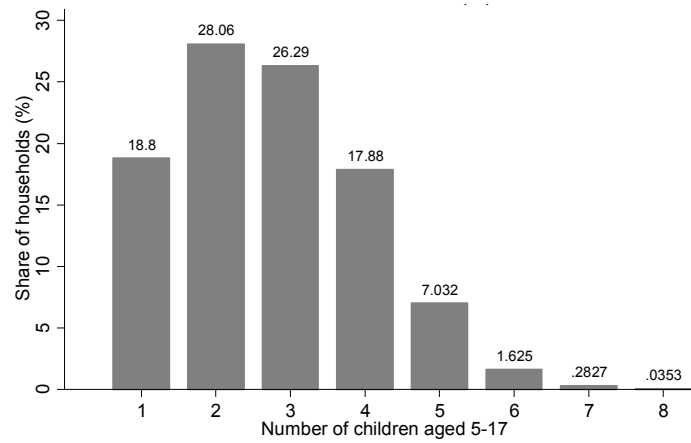
The demographics of households

Household size

The households that were interviewed have 5.9 members on average, including 2.5 adults, and 2.7 children aged 5 to 17. Figure 6.1 shows the distribution of the number of children aged 5 to 17 per household. The figure shows that about 19% of the households interviewed have only 1 child aged 5-17, 28% of households have 2 children aged 5-17, 26% of households have 3 children aged 5 to 17, and so forth. The number of children aged 5 to 17 that households have is closely correlated to the age of the household head and follows an inverted U-shaped curve that peaks at about 45 years of age. Household heads aged 20-29 have about 1.5 children aged 5-17 on average; household-heads aged 30-29 are likely to have 2.6 children in the 5 to 17 age group; household-heads aged 40-49 have about 3.2

children in this aged 5-17; this figure reduced to 2.7 for household heads in their 50s and about 2.1 for older household heads in their 60s.

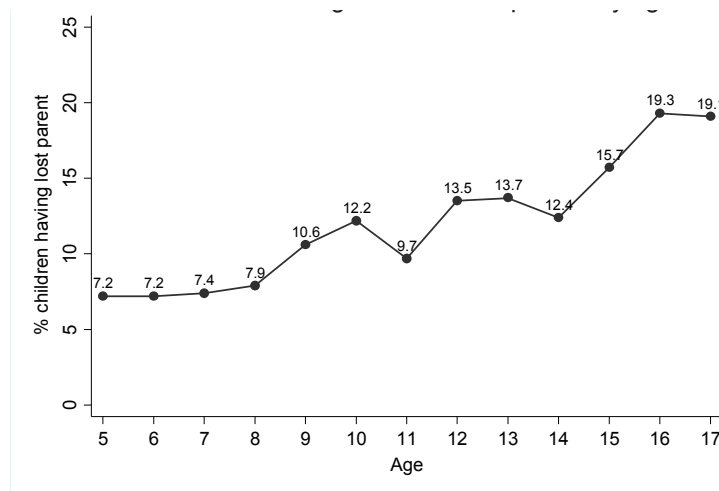
Figure 6-1: Number of children aged 5-17



Parental situation

In this sample, the majority of children have two biological parents alive: 88% have two biological parents alive, 11% have one biological parent alive and 1% of children aged 0-18 are orphans. This statistic varies a lot with age. As shown in Figure 6.2, the older a child, the greater the likelihood that the child would have lost a parent. For example, the likelihood that a 5 year-old would have lost one of his/her parents is 7%, compared to 19% for 16 and 17 year-olds. This demographic reality potentially increases the likelihood that a child engages in child labor.

Figure 6-2: % children having lost at least 1 parent, by age



Children living away from home

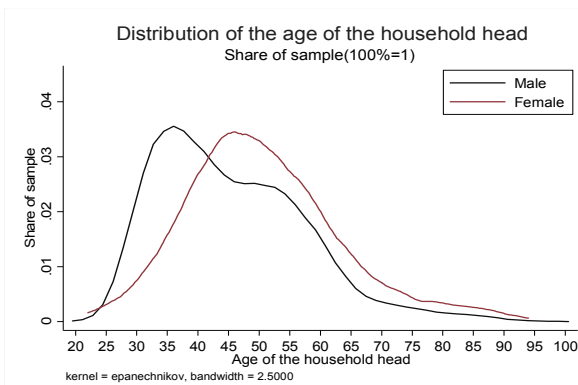
It is also important to note that 13% of the households reported having at least one child under 18 years old living away from home for more than 6 months. These children are not covered in the working and

child labor statistics presented in this report. The majority of the children living away (about 52% of them) are living with relatives whom they are taking care of; 21% are studying and about 19% are working. Out of the children that are away from home because of work, most work as domestic servants - an activity considered hazardous.²⁴ Note however that it represents a small portion of the sample as less than 1% of all children aged 5 to 17 in tea-growing areas live away from home.

Gender of the household head and number of household heads

A key determinant of household well-being is whether a household is single or double-headed. In this sample, 80% of household-heads are male and 20% female. The majority of female-headed households are single-headed and consist of women who were either never married, widowed or divorced. Only 17% of female-headed households are “double-headed”, compared to 95% of male-headed households. With an average age of 50.3, female heads of households are on average 5 years older than male heads of households (see Figure 6-3). The combination of these two factors – age and the fact that they tend to be single-headed – puts female headed households in a much more vulnerable situation. This shows also in terms of their wealth levels: 28% of households in the lowest wealth quintile are female headed, compared to just 9% in the highest wealth quintile.

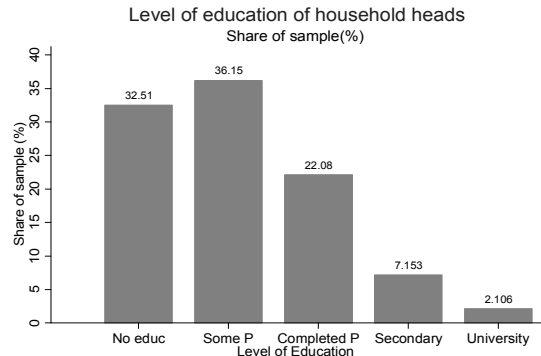
Figure 6-3: Distribution of the age of the household head



Education of the household head

Another factor that has been shown to influence child labor rates in Rwanda is the education of the parent.²⁵ In tea-growing areas, the vast majority of the household heads have low levels of education: 32% reported having no formal education, about 31% reported completing primary and less than 10% have completed secondary school (Figure 6-4 above). Education is one of the strongest determinants of wealth, with large discrepancies observed between household heads that have had no education, primary education, secondary or above. The higher the household head’s education, the better off the household. As Table 6-1 shows, the education of the parent also bears on the schooling of their children. While

Figure 6-4: Level of education of the household head



²⁴ This is an approximation because it is not known precisely how many children live away as the question was: “at least one child lived away”. For each household who said that at least one child was living, it is assumed that only one child was away.

²⁵ See ILO, World Bank and UNICEF, *Understanding Children’s work and youth employment outcomes in Rwanda*, 2011.

about 90% of the children of parents who completed at least early secondary school were enrolled at the time of the survey, this number varied between 75-80% for parents who either had no education or dropped out before primary 5 or 6. Out-of-school children are at a higher risk of being in child labor.

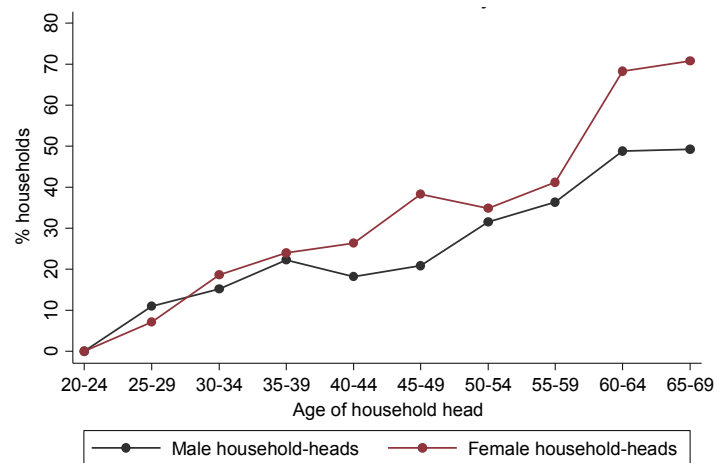
Table 6-2: Enrolment rate of children based on education of parents

Education level of household head	Average Enrollment rate of children aged 5-17
No education	78.5%
Primary 1	75.5%
Primary 2	79.3%
Primary 3	74.4%
Primary 4	78.2%
Primary 5	81.5%
Primary 6	80.9%
Secondary 1	84.5%
Secondary 2	87.9%
Secondary 3	91.5%
Secondary 4 and above	89.5%

Health status of the household head

Finally, the health of the household head is an important factor to take into consideration. A household head who is disabled, unable to work and earn an income for the household could be a potential determinant of child labor. In tea-growing areas, 28% of household-heads reported being “disabled or having a chronic illness preventing them from working”. As shown in Figure 6-5, disability is largely a factor of age: the prevalence of reported chronic illness increases with the age of household members. The average age of heads-of-household with a disability is 51 years old, compared to 43 years for household-heads who do not report having a disability. Approximately 28% of heads of households being disabled may seem high but only 15% of household heads who reported having a chronic illness or disability also reported being unemployed, retired or a student; 73% still considered themselves to be farmers. The question “what is your main occupation” came first, potentially leading to a misinterpretation of either the occupation or disability question.

Figure 6-5: % Household-heads with a disability or chronic illness



Economic determinants

Poverty in tea-growing areas, which are often amongst the most rural and difficult to access areas in the country, is high. To provide an overview of the wealth and material well-being levels in tea-growing area, Table 6-3 summarizes households’ access to basic assets and utilities. Less than one in ten households have access to electricity in these areas (7%), the majority access water via a river/stream or a well (75%) and half of them have a mattress or a radio in the house. Overall, the main assets owned by households in tea-growing areas are land and livestock (95% and 74% respectively).

Three out of four adults in the sample are farmers. An additional 6% work in non-agricultural jobs such as construction or small trade, only 2% work in tea factories or cooperatives and 2% work in other occupations. The remaining 15% do not list any economic occupation as their primary activity: 9% are students, 5% unemployed and 1% retired.

Table 6-3: Households' access to basic assets and utilities

Assets/Utility	% of households owning	Number of households (total = 132,426)
Access to Electricity	7.4%	9,800
Access to drinking Water		
River/stream	40%	52,970
Well	35%	46,349
Pipe elsewhere	21%	27,809
Other	4%	5,297
Household Assets		
Table	69.1%	91,506
Phone	60.1%	79,588
Radio	54.9%	72,702
Mattress	52.9%	70,053
Bicycle	6.2%	8,210
TV	2.2%	2,913
No asset	12.8%	16,951
Farming Assets		
Land	95.4%	126,334
Any livestock	73.8%	97,730
Cow	47.1%	62,373
Goat	27.1%	35,887
Pig	25.1%	33,239
Poultry	25.0%	33,107
Sheep	17.7%	23,439
Rabbits	10.5%	13,905

For almost 80% of households, the primary source of income is staple foods (see Table 6-4). Almost all farming households cultivate some type of seasonal staple food such as maize, wheat, sorghum, potatoes, taro, yam, dry beans, peas, soybeans or groundnuts. About one third of households cultivate seasonal vegetables and permanent crops such as fruits and cassava.

Table 6-4: Main source of household income

Main source of income	% of households	Estimated number of households
Seasonal crops - Staple foods	78.8%	104,352
Subsistence farming	6.3%	8,343
Tea	5.7%	7,548
Permanent crops	5.0%	6,621
Non-farm activities	2.3%	3,046
Seasonal crops - Vegetables	1.3%	1,722
Coffee	0.6%	795

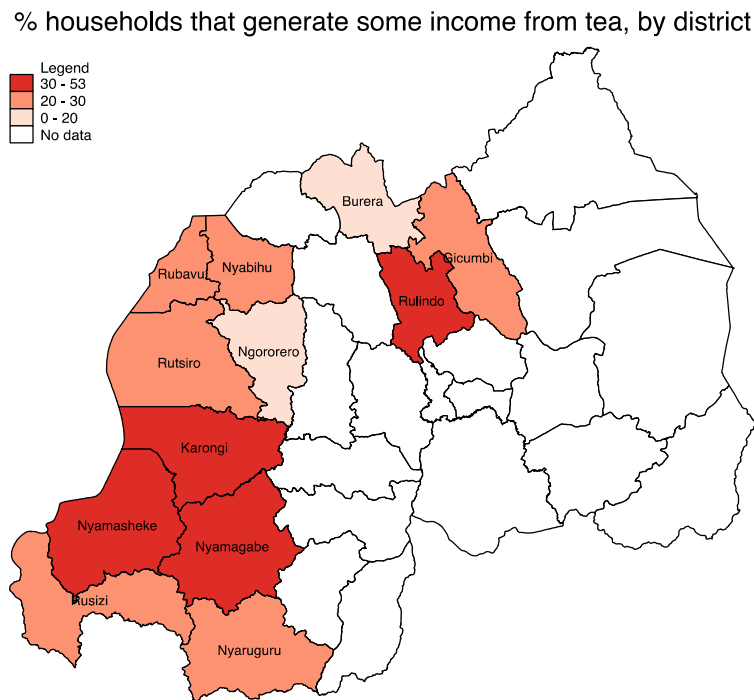
Farming situation of the household head

The farming situation of the household head is another strong determinant of wealth. The majority of household heads (93%) work on their own farm. But a small minority (4.5%) of household heads who work as day laborers only are economically worse off than the rest. Households headed by day laborers are particularly vulnerable and could be considered a priority target group.

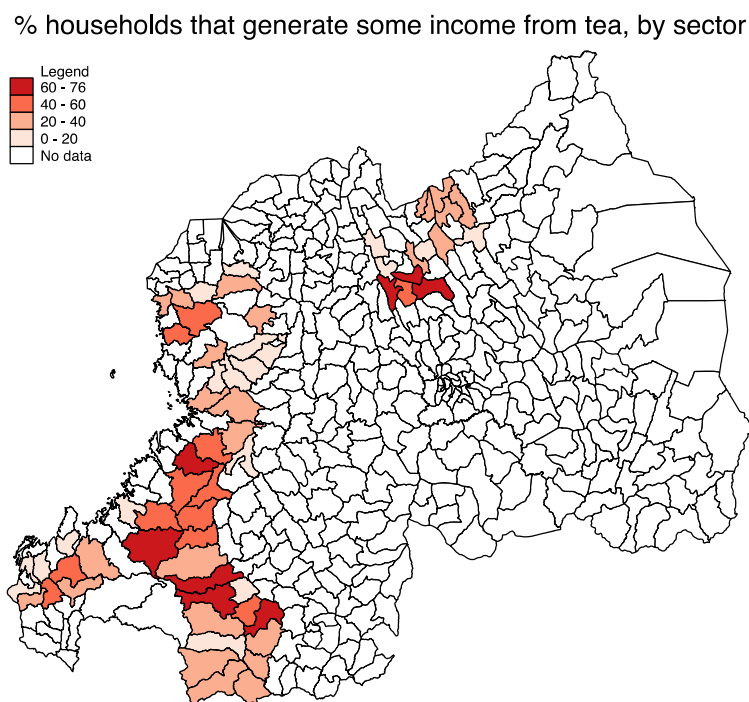
Share of income generated from tea and distance from the tea factory

Despite the fact that interviews were conducted in tea-growing areas only, tea is not one of the main sources of income for most households. About 35% of the interviewed households generate some income from tea. An estimated 21% of households report growing tea. Tea is the first source of income for 6% of the households and the first or second source of income for about 11.4% of households. Maps 6-3 and 6-4 present the share of households that generate some income from tea by District and Sector. The importance of tea as one of Rwanda's main export products is therefore not reflected in the composition of household income in tea-growing areas, where 6% of households list tea as their first source of income.

Map 6-3: % households that generate some income from tea by district



Map 6-4: % households that generates some income from tea by sector



Based on extrapolations from the probability of household selection, the data suggest that there are about 45,000 households that generate some income from tea in Rwanda. The estimated numbers of households generating some income from tea per District are listed in Table 6-5. The Districts of Nyamagabe, Rulindo, Nyamasheke and Karongi are the most tea-intensive in the country.

Table 6-5: Tea-growing intensity, per District

District	Estimated number of households generating income from tea	% of households that generate some income from tea	% of households for which tea is the first or second source of income
Nyamagabe	8,388	52.7%	25.4%
Rulindo	4,958	51.6%	10.1%
Nyamasheke	6,766	40.3%	18.9%
Karongi	6,093	39.1%	13.7%
Gicumbi	3,817	26.4%	5.3%
Nyaruguru	6,217	26.0%	5.8%
Rusizi	1,767	25.8%	13.2%
Nyabihu	1,482	25.3%	4.7%
Rubavu	754	25.3%	2.9%
Rutsiro	3,811	24.8%	3.5%
Ngororero	821	16.9%	3.2%
Totals	44,874		

6.1.3. Child-level insights

It is estimated that there are about 330,000 children aged 5 to 17 living in tea-growing areas. It is possible to estimate population totals using the inverse probability of selection of households in the sample combined with the total sample size of 5 to 17 year-old children obtained.

General characteristics

Enrollment rates

Questions related to the education of children in the household were asked in both the adult and child surveys, making it possible to compare results. As shown in Table 6-6, results were relatively similar on all indicators, albeit with small but statistically significant differences. The high degree of agreement points to the consistency of the data obtained. Questions on which answers between parents and children differed the most included: (i) missing school in the past week where agreement rates between parent and child interviews were only 63%; (ii) whether or not children had repeated a grade, where agreement was 78%; and lastly (iii) which class the child was attending, with an agreement rate of 85%. These differences between parent and child surveys are used analytically in the section on the determinants of child labor. In the ensuing section, unless otherwise specified, the household dataset is used to present results on children education.

Table 6-6: Education statistics based on child and adult surveys

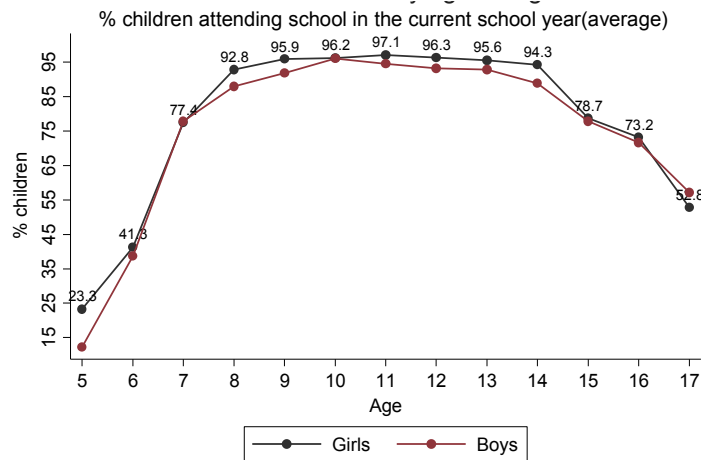
Question		Adult survey	Child survey	Differences statistically significant	% responses that agree
% children currently attending school or pre-school	% Pop	77.40% 255,949	77.50% 256,280	No	96.3%
% children that have interrupted education in past (missing three or more months of education in a given year)	% Pop	7.80% 25,793	5.60% 18,518	Yes	92.5%
% children that have missed a day of school in past week (out of children enrolled and not on holiday)	% Pop	33.30% 110,118	28.00% 92,592	Yes	63.2%
% children previously enrolled (out of children not enrolled)?	% Pop	33.10% 109,456	40.10% 132,604	Yes	90.0%
% repeated a grade (out of enrolled)?	% Pop	64.0% ²⁶ 211,638	67.4% 222,881	Yes	78.4%

An estimated 77.4% of the children between 5 and 17 years old attend school whereas school attendance rates between the ages of 8 and 14 are about 93%. The drop observed before 8 years and after 14 years is due to the fact that school is compulsory between the ages of 7 to 15. In terms of gender, girls have a slightly higher enrolment rate than boys. Figure 6-6 presents children school attendance by age and by gender. The average enrolment rate for girls in tea-growing areas between the ages of 5-17 years is

²⁶ Findings suggest there was a surprisingly high number of children that have repeated a grade. It is assumed that the data is accurate as both children and parents' answers converge on this question. In addition, it was confirmed that the question was accurately asked and that the Kinyarwanda translation was correct.

78.3% compared to 76.7% for boys (controlling for child and household characteristics), a statistically significant difference of more than 1.5 percentage points. It appears that in tea-growing areas in Rwanda, boys are slightly more at risk of dropping out of school and engage in economic activities than girls, at all ages.

Figure 6-6: School attendance, by age and gender



Drop out

Out of the 22.6% of children that were not enrolled in school at the time of the survey, 59% had never attended school and 41% had dropped out. The majority of children that had not yet attended school were too young to attend, with an average age of 6.5. At an average of 14 years of age, children that dropped out of school were older.

The two main reasons children dropped out of school according to the parents were:

- Parents did not want their children to go to school (36%);
- Parents did not consider education to be valuable (34%).

In addition, children provided different reasons for dropping out of school:

- 40% indicated that their parents could not afford it;
- 20% that they were not interested in going to school; and,
- 10% said they dropped out because they were ill or sick.

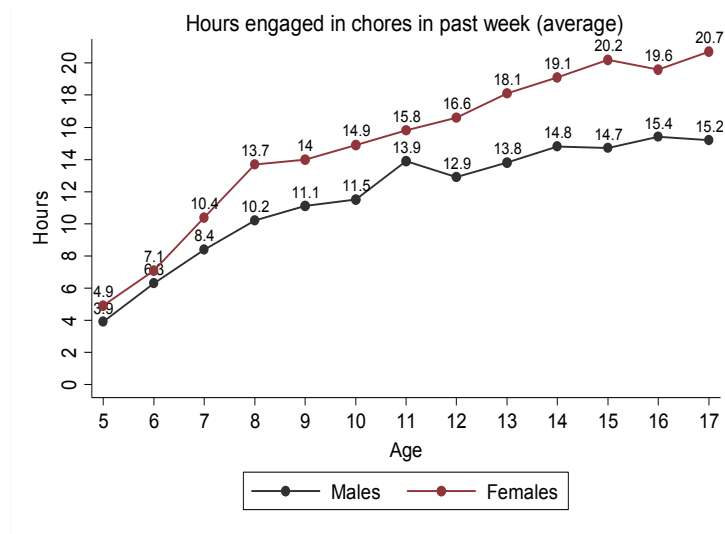
Household chores (activities outside the SNA production boundary)

Almost all children in tea-growing areas, both boys and girls, from the age of 7 onwards, actively participate in household chores. In this study household chores do not enter child labor calculations, as the focus is to better understand the productive activities that children engage in. This is a departure from the report of the 18th ICLS, which recommends that “hazardous unpaid household services in a child’s own household”, otherwise referred to as household chores, also be taken into account in the computation of child labor statistics.

Even though chores are not a central focus of this study, chores are a very important component of children’s lives in rural areas. Some characteristics of the chores children engage are in described in this section.

When it comes to household chores there is a difference between girls and boys. While almost all boys and girls participate in chores, from age 7-8 onwards chores become more of a burden for young girls than for boys (see Figure 6-7). By age 8 girls engage in household chores for an average of about 13.7 hours per week, or almost two hours on each day of the week, compared to 10.2 hours per week for boys. This increases to 20.7 hours per week for girls aged 17, or almost 3 hours per day, compared to 15.2 hours for boys. For girls in particular, who spend about 30% more time on household chores than boys, household chores can amount to an important time burden.

Figure 6-7: Chores, by age and gender



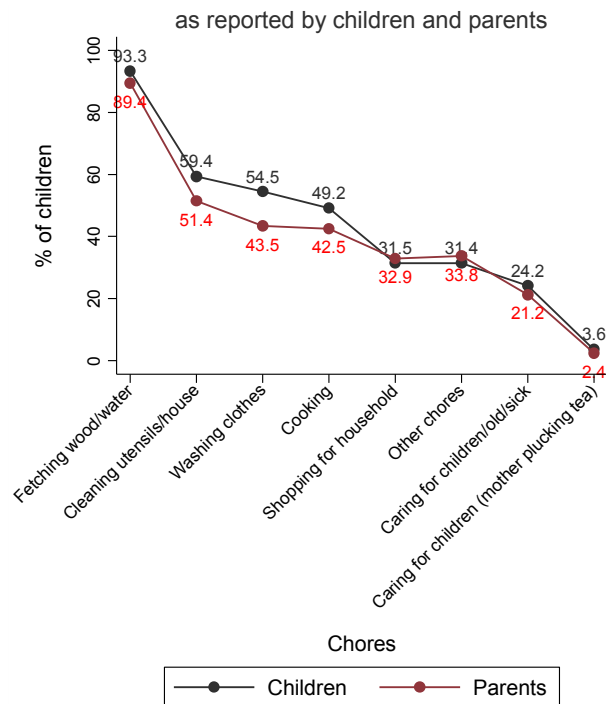
Children tend to work on more than one chore at a time. The average girl aged 5 to 17 conducts almost 4 different types of chores, compared to approximately 3 for boys. The most common chore for both boys and girls is fetching firewood for the household: more than 90% of children reported fetching firewood for their household at least once in the past week. This is followed by cleaning utensils and the house, washing clothes and cooking (see Table 6-7). Girls are almost two times more likely to cook, clean and take of children, than boys are.

Table 6-7: Share of children in tea-growing areas that reported engaging in a given chore in the week prior to the interview

Type of chore	All Children aged 5-17		All Boys aged 5-17		All Girls Aged 5-17	
	%	Number	%	Number	%	Number
Cooking	48.6%	160,773	35.0%	57,362	62.0%	103,410
Shopping for household	31.6%	104,393	27.8%	45,615	35.2%	58,777

Type of chore	All Children aged 5-17		All Boys aged 5-17		All Girls Aged 5-17	
	%	Count	%	Count	%	Count
Cleaning utensils/house	58.9%	194,732	41.4%	67,823	76.1%	126,909
Washing clothes	54.3%	179,518	47.7%	78,156	60.7%	101,362
Caring for children with mother plucking tea (UNPAID)	3.6%	11,770	2.0%	3,255	5.1%	8,515
Caring for children/old/sick at home	24.3%	80,249	17.6%	28,762	30.9%	51,487
Fetching firewood/water (UNPAID)	93.1%	307,994	93.1%	152,479	93.2%	155,516
Other similar household chores	31.3%	103,603	35.1%	57,443	27.7%	46,160

Figure 6-8: Share of children doing chores



Using international reference points, some of the chores children engage in could qualify as hazardous as they involve tools that can be considered dangerous, conditions that can be hazardous to a child’s well-being, and sometimes also injury that can affect children’s schooling. For example, about three quarters of children aged 5 to 17 in tea-growing areas report using tools such as axes, machetes, hoes, knives, and cutters during their chores; about one third report using ropes. These are considered “hazardous” tools. An estimated 45% of children report having been exposed to fumes while conducting chores, presumably cooking. About 15% of children report having been injured while conducting a chore over the past 12 months. The vast majority of injuries related to wounds or deep cuts, but also included back pain, head-aches, and in a few cases broken bones. Most injuries were not serious however and did not affect schooling; an estimated 3% of children aged 5 to 17 in tea-growing areas

did have to miss school over the past 12 months because of chore-related injuries – this corresponds to about 10,000 children.

While time consuming and sometimes hazardous, children do not report household chores as a main reason for missing school or dropping out of school. In the same way as with productive activities / work, chores and schooling do not appear to be substitutes.

6.2. ANNEX 2: RESEARCH FRAMEWORK TO MEASURE CHILD LABOR AND HAZARDOUS WORK IN RWANDA’S TEA-GROWING AREAS

In this section the definitions adopted to measure working children, child labor and hazardous child labor are presented and discussed. This report and the definitions that will be put forward are anchored on Resolution II of the seminal report of the 18th International Conference of Labor Statisticians (ICLS)²⁷, which is the international reference document for child labor statistics. These definitions are adjusted to better fit the Rwandan context and Rwandan legislation on child labor.

Before discussing the details of how working children, child labor and hazardous child labor are defined it is first necessary to define what is considered “work”.

6.2.1. What constitutes work & the System of National Accounts production boundary?

The first question when discussing child labor is determining what constitutes “work”? When can a child be considered to be a working child and when not? In international legalistic language, the term a “productive activity” is preferred to the words “work” or “labor”.

A “productive activity” or economic production *“may be defined as an activity carried out under the control and responsibility of an institutional unit that uses inputs of labor, capital, and goods and services to produce outputs of goods or services. There must be an institutional unit that assumes responsibility for the process of production and owns any resulting goods or knowledge-capturing products or is entitled to be paid, or otherwise compensated, for the change-effecting or margin services provided”*²⁸. While defining work for an external employer does not pose many definitional challenges, the problem is how to classify work that is conducted within the household or for one’s own household? This is where definitions under the internationally accepted “SNA production boundary” come into play.

This “production boundary” of the System of National Accounts (SNA) was first introduced in 1993 and updated in 2008 in a joint effort by the United Nations, the World Bank, the International Monetary Fund, the European Commission and the Organization for Economic Cooperation and Development (OECD). It is the international yardstick that is used to determine what qualifies as work or employment – *i.e.* economic production – and what doesn’t.

²⁷ Extract of the Report of the 18th International Conference of Labour Statisticians, Geneva 2008 International Labour Organization 2009.

²⁸ Commission of the European Communities/Eurostat, International Monetary Fund, Organization for Economic Cooperation and Development, United Nations and World Bank, System of National Accounts 2008. (<http://unstats.un.org/unsd/nationalaccount/docs/SNA2008.pdf>)

The SNA production boundary considers that all economic production activities, except “**activities undertaken by households that produce services for their own use**”²⁹ (which corresponds to household chores), are activities that need to be accounted for in labor statistics and national accounts. Note the definitions make a clear distinction between the “production of goods”, such as farming or weaving clothes, and the production of services, such as cleaning or cooking. The SNA production boundary therefore **does not exclude all activities conducted for one’s own household**, such as farming, but rather all services conducted within the household, which are typically referred to as household chores. For the purposes of this study children are considered to work in tea, if they engage in any tea-related activities, even if these activities are from their own household.

6.2.2. Child labor definitions put forward in this report

The child labor definitions put forward in this report – are derived from Resolution II of the seminal report of the 18th International Conference of Labor Statisticians (ICLS), which is the international reference document for child labor statistics. **Some adjustments to the definitions are made, combining international best practice, the Rwandan law (in particular No 13/2009 of 27/05/2009) and the local context. The resulting definitions are very similar to the ones used in Rwanda’s Integrated Household Living Conditions Survey of 2014.**

This section focuses on defining three concepts in particular: (i) Working Children (WC); (ii) Child Labor (CL); and (iii) Hazardous Child Labor (HCL). This report excludes statistics on the Worst Forms of Child Labor (WFCL), other than what is referred to here as Hazardous Child Labor. It is important to note that while the proposed definitions do take Rwandan law and the Rwandan context into account, delimiting exactly what to include in the definitions and what not to is a delicate task, and the project has addressed this to the best of its ability, taking into account international conventions and Rwandan law. Moreover, Rwandan labor law and Ministerial Orders, are not sufficiently detailed to allow for a separate statistical analysis of child labor rates using Rwandan law only.

The parameters of what constitutes child labor have been defined by several conventions and recommendations issued by the International Labor Organization (ILO) and the United Nations (UN). These include:

- ILO Convention 138, which concerns the minimum age for admission to employment;
- ILO Convention 182, which concerns the Prohibition and Immediate Action for the Elimination of the Worst Forms of Child Labor;
- ILO Recommendation 190 (Hazardous Work), which supplements ILO Convention 182 and defines in more detail what constitutes hazardous child labor and programs of action to eliminate the worst forms of child labor;
- ILO Convention 184, on health and safety in agriculture;
- The UN Convention on the Rights of the Child, ILO Convention 29, focusing on forced labor;
- The UN Supplemental Convention on the Abolition of Slavery; and
- The UN Protocol to Prevent, Suppress and Punish Trafficking in Persons.

These are summarized and combined in the report of the 18th International Conference of Labor Statisticians (ICLS), organized by the ILO. Based on the mix of international resolutions and

²⁹ Commission of the European Communities/Eurostat, International Monetary Fund, Organization for Economic Cooperation and Development, United Nations and World Bank, System of National Accounts 2008. (<http://unstats.un.org/unsd/nationalaccount/docs/SNA2008.pdf>)

recommendations, this reference document provides working definitions of what qualifies a child to be a “working child”, in “child labor”, or in “hazardous child labor” and provides guidance on the measurement of these concepts.³⁰ Key parameters that enter child labor calculations include: (i) the age of the child – three distinct groups of children are considered: children aged 5-12, children aged 13 to 15 and children aged 16 or 17; (ii) the nature of the activities conducted by children; and (iii) the conditions under which these activities are performed, including the duration of the activity.³¹

A summary of the definitions for “working child”, “child labor” and “hazardous child labor” adapted from the 18th ICLS and applied to the Rwandan context are defined in Table 4-1. More detailed definitions are provided below.

Table 6-8: Summary of proposed key child labor definitions

Concept	Definition
Children in productive activities or working children	Includes all children aged 5 to 17 that engage in any activity that falls under the SNA production boundary for more than at least one hour in the week prior to the interview.
Hazardous Child Labor	All children between 5-17 years old who were engaged in a productive activity that is hazardous by nature or circumstance for at least one hour in the week prior to the interview.
Child Labor	All children between the ages of 5 to 17 that are: (i) in employment below the minimum age (as per the SNA production boundary and rules on the total number of hours worked); or (ii) in hazardous child labor.

The definitions proposed here deviate from child labor definitions in Resolution II of the 18th ICLS in the following way:

In line with Rwandan policy and the local context, provisions regarding “light work” are extended to children aged 5-12, as well as children aged 13 to 15. According to Article 7 of ILO Convention No. 138 – of which Rwanda is a signatory - national laws or regulations may permit light work for children aged 13 onwards. In particular, national legislation may “permit the work of persons as from 13 years of age in light work which is: (a) not likely to be harmful to their health or development; and (b) not such as to 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. While a restriction on weekly hours of work is required for this age group, the determination of the maximum number of hours is left to the competent national authorities [...] In determining the hours threshold for permissible light work, national statistical offices should take into consideration the stipulations set forth in national legislation or, in their absence, use a cut-off point of 14 hours during the reference period”.³²

To accommodate national policy - which does not specify age and number of hours thresholds - and to better fit the local context, this study uses more flexible definitions, extending permissible “light work”

³⁰ International Labor Organization (ILO), Report III: Child Labor Statistics, (24 November – December 2008); International Labor Organization (ILO), Resolution Concerning Statistics of Child Labor, (5 December 2008)

³¹ ICLS-R-[2008-12-0006-6]-En.doc/v3 Resolution II concerning statistics of child labor.

³² ICLS-R-[2008-12-0006-6]-En.doc/v3 Resolution II concerning statistics of child labor.

to children below the age of 13 as well. Not doing so would create a very large and artificial discontinuity in child labor figures between the ages of 12 to 13 and would unnecessarily classify many children as being in “child labor”, when contributing “light work” is seen as something positive and necessary to the development of a child in Rwanda. According to the 2013 National Policy on the Elimination of Child Labor (NPECL) in Rwanda “labor initiation” is excluded from the definition of child labor. “Labor initiation” is defined as “acceptable work aimed at socializing children to future economic and social life, and is performed in household with non-dangerous effects to the health of the child. Labor initiation therefore includes work done by children that is non-hazardous, that does not harm their health and personal development or interfere with their education and is considered as a positive learning experience and preparation for adulthood. It must be undertaken in non-exploitative conditions, considering the age and capacity of the child.”

In this study, children aged 5-12 are not considered to be in child labor if they engage in “light work” for their household for less than 14 hours per week; children aged 13 to 15 are not considered to be in child labor if they engage in light work for less than 18 hours per week.

While these deviations from Resolution II of the 18th ICLS do lead to lower estimates of child labor, they were deemed necessary in the context of this study.³³

Children in productive activities or “working children”. This is the broadest child labor concept, as it includes any child that conducted an activity within the SNA production boundary for at least 1 hour in the week prior to the interview. It therefore includes all children aged 5-17 that are in hazardous child labor or in child labor, but also children that are in permissible light work. We focus on three groups of children: children aged 5 to 12, children aged 13 to 15 and children aged 16 to 17. Children that fall exclusively under the category of “working children”, and hence are not in child labor or hazardous child labor, include:

- Children between the ages of 5 to 12 that engage in “permissible light work” for 14 hours per week or less
- Children between the ages of 13 to 15 that engage in “permissible light work” for 18 hours per week or less.
- Children 16 or above years that do not work in hazardous conditions – i.e. only engage in work which is proportionate to the child’s capacity and which does not include nocturnal, laborious, unsanitary³⁴ or dangerous services for child’s health education and morality.³⁵

The proposed definition of “working children” differs from the definition presented in the report of the 18th ICLS, which also includes children that engage in household chores.

Children in “child labor”. In Rwanda’s National Policy for the Elimination of Child Labor (MIFOTRA, 2013), child labor is defined as “any economic activity which deprives children of their childhood, their potential and their dignity, and is harmful to children’s holistic development. Child

³³ The EICV 4 states p.561 Child labor includes: 1- Children aged 5-13 working in non-hazardous conditions; 2- Children aged 14-15 working in non-hazardous conditions for more than 14 hours per week. This is stricter than this Prevalence study as it allows for one hour a week for children 5-13 per ILO convention.

³⁴The same article 6 is translated into French version as insalubrious. The proxy meaning would be unhygienic, unclean, disease ridden, unsafe. The Ministerial order N°6 of 13/07/2010 provides details on the types and conditions of work a child of 16-17 years is not allowed to perform.

³⁵ Idem.

labor refers to any type of work that is mentally, physically, spiritually, socially and/or morally harmful to children, and interferes with children's education by denying them an opportunity to attend school, forcing them to leave school prematurely, or limiting their capacity to benefit from instruction." In this report child labor is defined using a mix of recommendations from the 18th ICLS, while incorporating some elements from Rwanda's policy for the elimination of child labor, in particular the reference to education. The researchers propose to define child labor using the SNA production boundary as the reference, excluding any activities that do not fall within the SNA production boundary.

Children that fall under the category of "child labor" are:

- ***In hazardous child labor***, due an activity that falls within the SNA production boundary and conducted for at least one hour in the week prior to the interview.
- ***In employment below the minimum age***. In Rwanda children below the age of 16 are not permitted to be in employment, because: (i) the age for finishing compulsory schooling, which is 15 years old;³⁶ and (ii) as per the law, the minimum age for admission to employment in 16 years old – and as such it is prohibited to employ a child in any company, even as an apprentice, before the age of 16.³⁷ Therefore any child below the age of 16 that is engaged in a productive activity as per the SNA production boundary for more than 1 hour in the week prior to the interview is considered to be in child labor.

Exception is made for permissible "light work" for children aged below the age of 16. Here children below the age of 16 are considered to be in "light work" if they work in unpaid work in a family enterprise that does not threaten their health and safety, or hinder their education or vocational orientation and training³⁸ for **less than 14 hours per week for children aged 5-12 and 18 hours per week for children aged 13-15**. Unpaid light work needs to meet the following conditions:

- Work that does not place a child's health, safety or morals at risk.
- Activities that are not prohibited by law for underage children.
- Work that is appropriate for their age and maturity, enabling them to learn how to take responsibility, gain skills, and add to their family's income and well-being.
- Work that does not affect children's education, including school or vocational training attendance.
- Work that does not exceed 4 hours per day on school days; or 6 hours per day on non-school days (holidays and weekends).

Children in "hazardous child labor". Hazardous work is any productive activity which, by its nature or the circumstances in which it is carried out, is likely to harm the health, safety or morals of children. According to ILO Recommendation No. 190, the following criteria should be taken into account when determining hazardous work conditions of children at the national level:

- (a) work which exposes children to physical, psychological or sexual abuse;
- (b) work underground, under water, at dangerous heights or in confined spaces;
- (c) work with dangerous machinery, equipment and tools, or which involves the manual handling or transport of heavy loads;

³⁶ According to the MINEDUC policy, 9 years basic education are compulsory and free education, while 12 years are compulsory (but not free).

³⁷ Law regulating Labor in Rwanda No 13/2009 of 27/05/2009 (art4).

³⁸ ILO convention No. 138 on the minimum age for admission to employment and work.

(d) 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;

(e) 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.

The report of the 18th ICLS recommends that the above criteria “*can be used as a base for constructing statistical variables for the measurement of hazardous work by children. Each criterion provides information that will inform the design of survey questions and response categories to be administered in child labor surveys*”.

For the purpose of this prevalence study on child labor in tea-growing area in Rwanda, the following definitions were used in the survey to measure hazardous child labor:

- *Location*
 - Work carried out on the surface or underground aimed at mining, work carried out underneath water, or in places with high heights or congested places.
 - Work carried out in unhygienic places that may expose children to dangerous products and chemicals, conditions of very high or cold temperatures (not outside temperatures), noises and vibrations that may affect the lives of children.
 - In line with international best practice, this was defined as being exposed to at least one of the following: fire, gas, flames; loud noise or vibration; work underground; work at heights; work in water/lake/pond/river; workplace too dark or confined; insufficient ventilation; work in unhygienic or dirty conditions (*e.g.* no or dirty latrines, filthy premises, etc.); pesticides, fertilizer, glues; explosives.
- *Activities*
 - Work carried out in drainage of marshlands or cutting down trees.
 - Work related to construction and demolitions, maintenance of buildings, homes for someone else, off-loading stones.
 - Charcoal making, collecting scrap metal.
 - Work that requires children to carry loads that are heavier than their physical capacity (*e.g.* the equivalent of one large bucket of water).
 - Applying fertilizers or other chemicals
 - Domestic work carried out of children’s family circles for a salary or financial gain.
 - Carrying bags of tea to weighing station or other places.
 - Serving alcoholic drinks in bars/other institutions.
 - Brick/tiles- making or carrying.
- *Conditions*
 - Work performed and carried out over long hours and work performed beyond acceptable work based on child’s age. In Rwanda’s National Child Labor Survey long hours corresponds to children working more than 40 hours per week³⁹.
 - Work performed during school hours.
 - Work performed at night between 8:00 pm and 6:00 am.
 - Work performed without resting for a minimum of twelve consecutive hours between two working periods for employed children between 16 and 17 years old).
 - Unsanitary work or laborious work.

³⁹ Rwanda National Child Labor Survey, 2008 (RNCLS-2008).

- Bad relations with the employer (too much work, too long working time, payment not in time, physical abuse, verbal abuse, sexual abuse).
- Child being either shouted at, insulted, beaten or physically abused, sexually harassed or been dispossessed of things at work site by someone.
- *Use of Products*
 - Work that requires children using fertilizers and pesticides.
 - Work that requires children using other substances or agents damaging to children's health.
- *Use of Machinery and tools*
 - Work that is carried out using machines or other dangerous materials that may affect the health of the child or that require lifting or carrying heavy loads.
 - Work carried out using ropes and other materials, heavy machinery and other dangerous instruments.
 - Following international best practice, hazardous machinery and tools was interpreted to include circular the following: saw/hacksaw/saw/blade, sickle/ axe/pick/machete/ho, knife/cutter, hammer/mallet, shear, welding tools, blow (explosion)/acetylene (gas), torch with fire/blowtorch, bullock/plow, sprayer, ropes, machines that are turned on or off automatically/not protected by supervisors, lifting machines, driving heavy machines/vehicles, visiting or verifying servicing machines that are turned on and don't have protective parts to avoid contact with such parts in motion.
- *Institutions*
 - Institutions that produce and sell alcoholic drinks.
 - Construction institutions.
 - Bricks and tiles manufacturing institutions.
- *Injuries and illness*
 - Child falling ill or being injured at least one time in the last 12 months because of the activities (besides school) carried out.
 - Child having any current injury or illness from the activities performed.
 - Child been injured at least one time in the last 12 months using any of the tools, machinery or equipment.
 - Injuries included back/muscle pains, headache, wounds/deep cuts, breathing problems, eye problems, skin problems, stomach problems, fever, extreme fatigue, snake bites, broken bones.

6.3. ANNEX 3 : LIMITATIONS OF THE RESEARCH

The approach taken in this study is anchored in international best practice and derived from Resolution II of the seminal report of the 18th International Conference of Labor Statisticians (ICLS), which is the international reference document for child labor statistics. Yet there are a number of limitations that are important to highlight.

1) *Making definitions context specific*

While the definitions put forward in this report are anchored in international best practice, it is important to stress that measures of child labor need to be sensitive to the local context. International conventions aim to harmonize the way child labor statistics are calculated to ensure the consistency and comparability of estimates. Despite a range of international agreements aimed at harmonizing child labor laws and child labor statistics, countries have very different socio-economic contexts and different child labor regulations. Children in different countries engage in very different types of activities. In some countries the risk of children working in factories is high; in other countries, like Rwanda, the vast majority of working children work on the farm. In some places work is seasonal, in others it is permanent. Expectations of what is acceptable work and what is not differ. The bottom line is that different conditions, social expectations and regulations in different locations mean that international definitions of child labor and in particular hazardous child labor need to be adjusted to fit the local reality.

2) *How to use parent and child interviews?*

Statistics based on the responses of parents or children, as seen in this study where we interviewed both, can be very different. The parents on the one hand might have a more mature understanding of the kind of activities children engage in and the risks involved; on the other hand, they might also have a greater incentive to under-report the amount of work their children engage in and might simply not know as much about the details of their children's activities, especially in large families. Most child labor surveys, as is this study, report results based on the responses of the children themselves first, and compare these to parental responses.

3) *What time period should child labor rates be based on?*

It is generally accepted that whether a child is currently employed or not should be based on whether he or she has been engaged in a productive activity - under certain parameters - for more than one hour in the past week. It also makes sense to ask children about the details of this activity, such as how many hours they spend on this activity, within the framework of the past week. This is because people's recall periods tend to be short. On some issues however, such as injury or potential abuse by the employer for example, it might make sense to ask about children's experiences over a longer period of time in that same activity. A child might not have been abused by his/her employer over the past week, but might have been regularly abused in the past, thereby putting this child in a very hazardous working environment. A child might have been severely injured while doing a given task several months prior to the interview, thereby making that activity a dangerous activity for the child's health, but not have experienced any specific ailments over the past week.

In this study, child labor statistics are measured as a mix of data from the past 7 days and the past 12 months which is standard procedure. If a child has been engaged in a given activity for more than 1 hour in the past week, that child is considered to be in hazardous child labor if he/she has been injured, abused or mistreated in that same activity over the past 12 months (even if the injury or abuse in question

did not occur over the past week). A child is also considered to do be in child labor if he dropped out of school because of a given activity or has missed school for more than 3 months, even if that child did not drop out of school or miss school over the past 7 days.

While the study used a mix of data from the past seven days and the past 12 months to measure child labor statistics, the reported statistics are based on the primary economic activities children did in the past week prior to the interview (or activity that a child dedicated the most time to). This is the preferred approach in child labor statistics. In the case of tea, the study was not able to determine whether tea was the main activity of working children who reported working in the last 12 months. Therefore, no estimates for children who had worked in tea in the last 12 months are presented.

Focusing on the past week makes it possible to get relatively accurate statistics on the nature of the activities children engage in. Details were obtained on which days of the week activities were conducted, at what time during these days, for how many hours, whether children missed school because of these activities, for whom children worked, whether any tools or machinery were used, under what types of conditions, whether they got injured doing these activities, etc. Children were also asked about other activities they might have engaged in at other times of the year, but the child labor statistics presented in this report are based on the activities that were conducted during the previous week only

If the study wanted to report yearly statistics on child labor, it would have been necessary to conduct the survey over a 12-month period, randomizing interview locations over time, and asking children what they did in the previous week. This would have made it possible to capture seasonal fluctuations in child labor, while maintaining the precision of asking children about what activity they conducted in the past week.

In this study, child labor results are reported using weekly data, the reference period being the 2-3 months during which the survey was conducted.

The timing of the survey

This survey was carried out over a short period of time - between October and December 2014 - thereby also overlapping with the school holiday period and the start of harvest Season A.

While tea is not a seasonal crop in Rwanda - tea activities, and in particular the plucking of tea leaves, are carried all year round - there are ebbs and flows in the tea season. There are times of the year when tea plucking is a bit more intense than others (in particular between January and March), or times of the year when other tea related activities are undertaken, such as weeding or pruning. Moreover, the activities that children working in tea engage in, might be affected by the seasonality of other crops and other work-related responsibilities that they have.

Taking a 3-month snap-shot of child labor dynamics in Rwanda's tea-growing areas therefore provides a good picture, but not a full picture of child labor dynamics in tea year round.

Evidence from this report suggests that within this 3-month period, seasonality was very large in non-tea related activities, in particular because of the start of harvest Season A. Seasonality within this three-month period was also compounded by the effect of holidays.

The data presented in this survey should therefore not be taken as a reference for what happens year round, but as a reference for what happens during this three-month period, which already provides many insights into the nature and type of activities that children engage in.

6.4. ANNEX 4: CHILD LABOR PREVALENCE CONSIDERING THE AREA-BASED APPROACH

6.4.1. The integrated area-based approach and why it is important

The area-based approach targets prevalence of child labor in a defined geographical area. Its aim is making a well-defined geographical or administrative area called a “child labour free zone” thereby facilitating replication and scaling up of child labour free zones (CLFZ) nation-wide. A zone could be a state or a district or a municipality or even a village.⁴⁰

Integrated area-based approach targets all forms of child labor and labor rights within a defined geographic area and *incorporates government-led and project activities to reduce child labor and labor rights violations and increase access to education, training and social protection programs*. This approach aims to increase the effectiveness and sustainability of activities by creating an environment in which children do not move from one hazardous occupation to another, vulnerable households are empowered to address their livelihood situation, and communities take ownership of efforts, all of which is needed to support long-term change.

With respect to the REACH-T study, it mirrors the goal of addressing child labor in tea-growing areas including activities in other agriculture or other forms, and lays the groundwork for a multi-stakeholder integrated approach to address root causes and alternatives to child labor in view of child labor free zones in which tea is grown. This is the main purpose, to shed light and facts on impediments to Rwanda realizing its 2020 vision of education for all children and safe working conditions for youth with social and livelihood opportunities for all families.

The study offers insights and recommendations of the area-based approach that informs stakeholders where social policies and education opportunities can impact the whole of the tea areas.⁴¹ The purpose is several fold: to measure the full impact of the REACH-T program, including externalities (effects that may not have been the primary intention of the program), and targeting a geographic level to include children living in the area but working in non-tea sectors who also benefited from the program, and not have other children in the area replace their labor. It also enables multiple stakeholders to understand what interventions might target the whole “tea area” to address any child labor in the supply chain. Analysis must show children’s economic activities including in non-tea sectors if they live in tea-growing areas.

This Annex provides more detail, key contextual information and other conditions which may affect children’s health, safety and/or morals in the tea-growing villages that will help address and sustain child labor free zones and sustainably sourced tea even in the smallholder, non-formal areas.

⁴⁰Handbook for organizations for the ‘area-based approach’ to eliminate child labor and universalize education, based on M.V. Foundation’s experience in working to create “Child labour free zones”, India (date unknown).

⁴¹ In this study, the 905 villages where tea is grown.

6.4.2. Key contextual information

Children’s activities in Rwanda are complicated. Children are found to be economically active, engaged in child labor, or hazardous work in multiple sectors excluding or including tea. The pattern of CL/HCL accruing from activities increases with age (see Table 7-11 and Figure 7-10). An estimated 36% children aged 5-12 qualify as being in child labor, compared to 55% of children aged 13-15. While child labor rates generally increase with age, the most critical period is between the ages of 5 to 11, during which child labor rates increase from about 12% at age 5 to 50% by age 11. The fastest rate of increase in child labor occurs between ages 5 to 8, when estimated child labor rates triple from 12% of children aged 5 to 36% of children aged 8. From a programmatic perspective, this is an important age group to target.

Table 6-9: Working, Child Labor, and Hazardous Work Estimates by Age Group in tea-growing areas, 5-17 years old, 2014

	All Children in Tea-Growing Areas	Children Working in Tea-Growing Areas		Children in Child Labor in Tea-Growing Areas		Children in Hazardous Child Labor in Tea-growing Areas	
	Number	Number	Percent	Number	Percent	Number	Percent
5-12 years	218,186	108,807	49.9%	77,602	35.6%	64,895	29.7%
13-15 years	75,122	54,960	73.2%	41,661	55.5%	36,494	48.6%
16-17 years	37,375	30,849	82.5%	22,257	59.5%	21,616	57.8%
Total (5-17 years)	330,684	194,616	58.9%	141,520	42.8%	123,005	37.2%

This table can be understood through Figure 6-9.

Figure 6-9 below provides a breakdown of estimated child labor rates / numbers in tea-growing areas by primary occupation during the week prior to data collection. It is important to note a few shortcomings of this breakdown: (i) while children might report one activity as their primary occupation, it might be another activity that is putting them in child labor (isolating which activity contributes to child labor is difficult because of the structure of child labor statistics and the fact that it is often the combination of two activities that puts a child in child labor); (ii) this breakdown also provides an under-estimation of child labor rates by activity, as children can be engaged in multiple activities – for example while about 15,800 report tea farming as their main occupation, there are an estimated 22,000 children working in tea, some of which might also be in child labor because of tea.

Figure 6-9: Breakdown of child labor rates by primary occupation

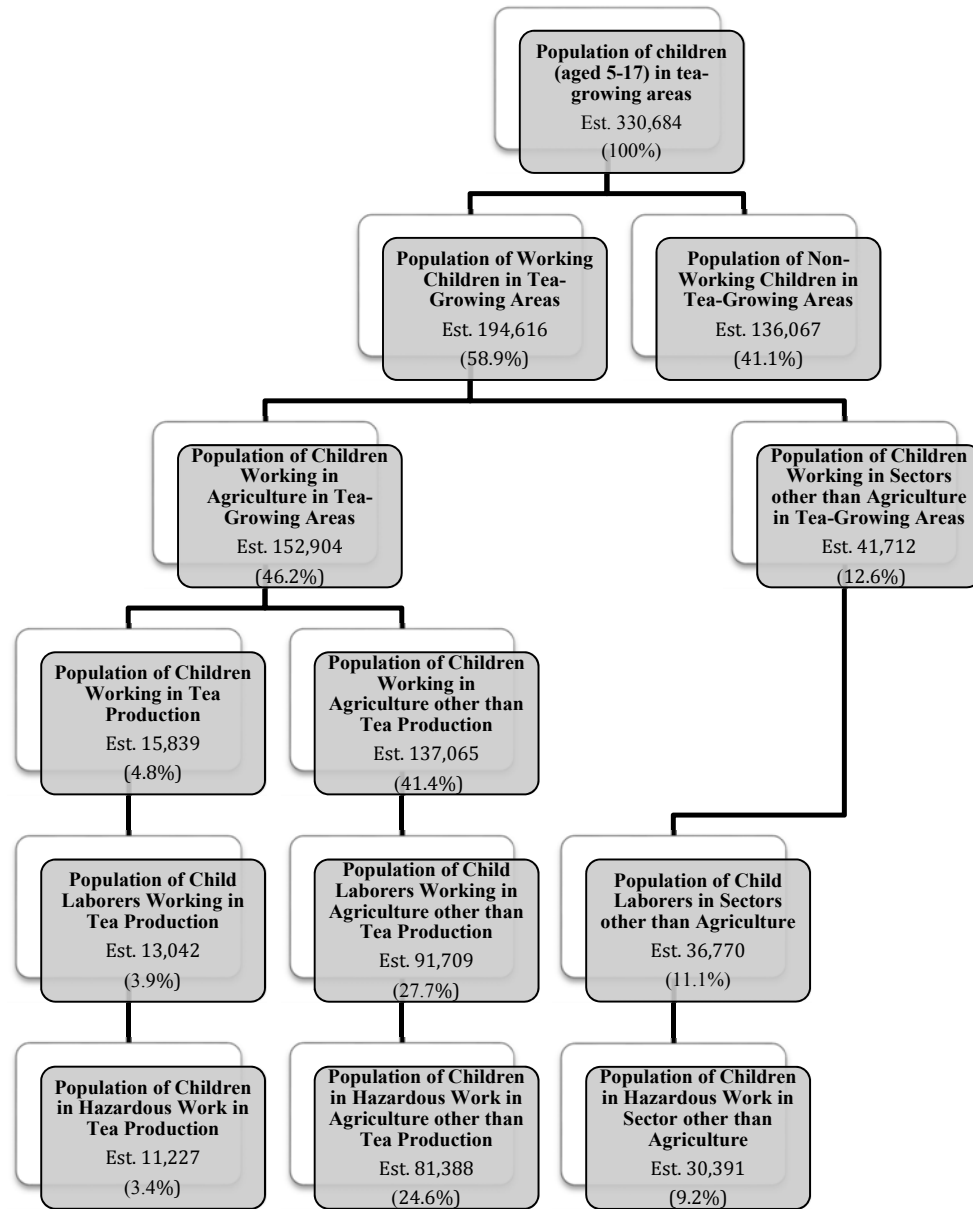


Figure 6-9 above and Table 6-10 below reveal a number of interesting facts:

- Child labor percentage rates are higher for children engaged in non-agricultural activities (an estimated 88% of children in non-agricultural activities are in child labor or 36,770 children, compared to 66% of children in non-tea related agricultural activities, or 91,709);
- Child labor percentage rates are greater in the tea sector than it is in other non-tea related agricultural activities (82% vs 66%), although the absolute numbers show 13,042 in tea and 91,709 in non-tea related agriculture, respectively;
- Around 80% of children that are in child labor are also in hazardous child labor.

Table 6-10: Population Estimates for Children in Tea-Growing Areas, 5-17 Years, Working, Not Working, in Child Labor, and in Hazardous Work, in Rwanda, 2014

Indicator	Number of children aged 5-17 in tea-growing areas	Percentage of total
All Children 5-17 Years	330,684	100.0%
Children engaged in productive activities	194,616	58.9%
Children Not engaged in any productive activity	136,067	41.1%
Children engaged in Agriculture	152,904	46.2%
Children engaged in Sectors other than Agriculture	41,712	12.6%
Children engaged in Tea Production	15,839	4.8%
Children engaged in Agriculture other than the Tea Sector	137,065	41.4%
Child Laborers engaged in Sectors other than Agriculture in Tea- Growing Areas	36,770	11.1%
Children engaged in Hazardous Work in Sectors other than Agriculture in Tea-Growing Areas	30,391	9.2%
Child Laborers engaged in Tea Sector/Production	13,042	3.9%
Child Laborers engaged in Agriculture other than the Tea Sector	91,709	27.7%
Children engaged in the Tea Sector/Production in Hazardous Work	11,227	3.4%
Children engaged in Agriculture other than the Tea Sector in Hazardous Work	81,388	24.6%

6.4.3. Conditions which may affect children’s health, safety and/or morals

The report includes information about children’s working conditions, living conditions, and children’s participation in education in target areas to better understand children’s overall well-being. For working conditions, the report has provided information on hours worked and night hours and hazardous exposures. It also provides below information on conditions that may affect children’s exposures and conditions. It provides numbers of children exposed to view the extent of conditions that need attention (see Table 6-11, Table 6-12, and Table 6-13).

All the factors contributing to these child labor figures are listed in Table 7-16 below. A child that falls in at least one of these categories is considered to be in child labor. Likewise, a child that reported experiencing any of the “hazardous child labor” factors, is considered to be in hazardous child labor. In the ensuing sections the factors that contribute the most to child labor rates are studied in more detail.

Table 6-11: Contributing factors to child labor and hazardous child labor in tea-growing areas

Child Labor Category	Contributing factors to child labor	% children aged 5-17	Estimated Number of children aged 5-17
Hazardous Child Labor	Children exposed to hazardous conditions at work	26.8%	88,779
Child labor	For whom activities are done	16.5%	54,512
Child labor	Children below 16 years who work for pay	12.8%	42,216
Hazardous Child Labor	Children injured while at work	12.5%	41,331
Hazardous Child Labor	Hours spent on work per week	9.6%	31,725
Child labor	Children verbally abused at work	7.4%	24,381
Hazardous Child Labor	Children physically abused at work	7.3%	24,153
Hazardous Child Labor	Children engage in hazardous activities as per law	6.1%	20,244
Child labor	Hours spent on work per day	5.2%	17,063
Hazardous Child Labor	Children who use certain tools at work	5.1%	16,724
Hazardous Child Labor	Location where children work	4.7%	15,377
Child labor	Children missing, dropping out, or repeating classes because of work	2.7%	8,864
Hazardous Child Labor	Children injured while using tools	2.6%	8,701
Hazardous Child Labor	Children working at night	1.5%	4,880
Child labor	Children 16-17 years who work for pay but don't receive it	1.2%	4,054
Hazardous Child Labor	Children who have bad relations with their employer	1.1%	3,506
Hazardous Child Labor	Children dispossessed of their property at work	0.3%	976
Hazardous Child Labor	Children sexually abused at work	0.2%	615
Child labor	Children 5-15 that have an employment contract	0.1%	287

Contributing factor 1: Hazardous working conditions

By far the biggest contributor to child labor and hazardous child labor rates are “hazardous conditions at work”. About 27% of children, or two-thirds of working children, report having experienced at least one out of 11 different conditions that are considered hazardous. As shown in Table 7-17, the most common types of “hazardous conditions” that children reported facing are carrying heavy loads (about 14.3% of children) and using tools that are considered dangerous based on international labor law (about 11.3% of children). Other slightly less common hazardous conditions include working at heights and using/applying fertilizers. Note that “extreme cold”, exposure to “dust and fumes” and “extreme heat” were removed from this list (see explanation in Section 1.4).

Table 6-12: % children aged 5-17 that report being exposed to “hazardous working conditions”

Type of hazardous condition	% children aged 5-17	Estimated Number of children aged 5-17
Carrying heavy loads	14.5%	48,071
Dangerous tools	11.3%	37,313
Work at heights	7.7%	25,500
Other things, processes or conditions bad for your health	5.2%	17,195
Chemicals (pesticides, fertilizer, glues, etc.)	4.7%	15,661
Work in water/lake/pond/river/pond	4.0%	13,353
Loud noise or vibration	1.7%	5,625
Insufficient ventilation	1.6%	5,281
Workplace too dark or confined	1.2%	4,056
Work underground	1.2%	3,969
Fire, gas, flames	0.9%	2,960
Operate any machinery/heavy equipment	0.3%	941
Explosives	0.0%	0

The likelihood of being exposed to hazardous conditions increases with age, but not by much (see Table 7-18). About 42% of working children report being exposed to hazardous conditions between the ages of 5 to 12, compared to 52% for working children aged 16-17. Differences in exposure between girls and boys are minimal (45.3% for working girls vs 45.8% for working boys).

Table 6-13: Exposure to hazardous conditions by age group

Age group	% children aged 5-17	Estimated Number of children aged 5-17
5-12 years	41.6%	45,226
13-15 years	50.1%	27,515
16-17 years	52.0%	16,037

Even though “extreme cold” was removed from the list of hazards, it is important to note that 40% of working children complained about cold conditions while working. The factor that is the most strongly linked to the feeling of cold conditions is working in the early morning or at night (see Table 7-19). Children that work at night or between 6 a.m. and 8 a.m. in the morning, are about 40% more likely to claim they experience extreme cold during work. While defining “extreme cold” is a challenge and can lead to misinterpretations, the link between early morning work and cold confirms that this is a feeling that is linked to something real and is not simply lost in translation.

Table 6-14: Time of day when children work

Time of day	% working children that reported working at this time of day	Number of children that reported working at this time of day
Morning 6 a.m. – 8 a.m.	45.3%	88,139
Morning 8 a.m. – 12 p.m.	83.4%	162,217
Midday 12 p.m. – 2 p.m.	43.1%	83,816
Afternoon 2 p.m. –6 p.m.	42.4%	82,471
Evening 6 p.m. – 8 p.m.	5.0%	9,639
Night 8 p.m. – 6 a.m.	2.5%	4,880