



Child Labor in Agriculture in the Northern Province of Rwanda

TASK ORDER I AND TASK ORDER III:
QUANTITATIVE RESEARCH AND DATA COLLECTION

August 2012



Submitted to:
United States Department of Labor
Office of Child Labor, Forced Labor, and Human Trafficking
Frances Perkins Building
200 Constitution Avenue NW
Washington, DC 20210

Submitted by:

ICF

INTERNATIONAL

ICF Macro, Inc.

11785 Beltsville Drive, Suite 300

Calverton, MD 20705

Tel.: (301) 572.0200

Fax: (301) 572.0999

www.icfi.com



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EXECUTIVE SUMMARY

ICF International carried out a survey of child labor in Rwanda for the U.S. Department of Labor (USDOL) in August 2011. The main population of interest consisted of children ages 7 to 17 who were involved in agriculture. The primary objective of the study was to estimate the prevalence of children working in agriculture in the Northern Province of Rwanda, and to obtain representative information on the working conditions of these children, with a focus on workplace hazards.

To collect these data, ICF International conducted a quantitative household survey in the Northern Province of Rwanda. The household survey included interviews with adult informants about the household and its members, as well as interviews with all the children ages 7 to 17 living in the household. The sample, which was representative of rural areas in the Northern Province, included a total of 1,000 interviews with adult household members and 1,839 interviews with children.

Based on this representative sample, the study estimates that approximately 214,000 people (ages 7 and older) in the Northern Province of Rwanda participated in agriculture for at least one hour in the previous 12 months. Out of these 214,000, approximately 183,000 were active in the previous seven days. Based on the household survey, approximately 40.6 percent of agricultural workers who had worked in the last seven days were children. Reports from adults indicated that fewer children were working compared to child self-reports (74,353 versus 90,967 in the last seven days). Approximately half of child workers in agriculture were male (48.8 percent), and half were female (51.2 percent). Working children were distributed fairly evenly by age.

This study found that the majority of working and nonworking children were living with both parents (90.2 and 93.7 percent, respectively). The heads of household for nonworking children tended to be younger than those for working children, having a median age of 41.0 compared to age 45. The marital status of the heads of household for the two groups were similar and indicated that most (84.4 percent) of the children's households were headed by married individuals. Around 40 percent of the children's heads of household had completed primary school or higher (41.7 percent for working children and 41.4 percent for nonworking children). The families of children working in agriculture tended to have a higher socioeconomic status than the families of nonworking children.

The vast majority (92.0 percent) of surveyed children were attending school at the time of the survey. Among those not attending school, by far the most commonly cited reason was lack of financial means (71.4 percent). While daily attendance appeared to be high for both children working in agriculture and those not working in agriculture, with 94.1 percent of all children reporting attending school every day during the last week school was in session, working children had higher attendance and participation rates than children not working in agriculture. However, working in agriculture was associated with poorer school performance. Children working in agriculture had an average 1.0 age-grade delay compared to 0.0 for nonworking children. Overall, 13.5 percent of children working in agriculture and attending school reported

that their work interfered with their studies, and 10.3 percent reported having missed school for work once per week or more often.

Most children had performed household chores in the week preceding the survey, and the majority of children had performed each of the chores investigated. Collecting water was the mostly commonly performed chore (89.5 percent), followed by washing clothes (80.9 percent), and collecting firewood (80.2 percent). Children working in agriculture were significantly more likely to perform every task than nonworking children. Girls reported doing most chores significantly more often than boys. Children working in agriculture typically work on chores every day of the week. The median time children working in agriculture spent doing chores was one hour for boys and one and a half hours for girls in the day preceding the survey.

Children were found to engage in all of the crop-related activities investigated by the study. Children who were currently active (last seven days) were primarily involved in fertilizing the fields (56.1 percent) and putting produce in the sun to dry (52.5 percent). Most currently active children collected food or water for animals (69.9 percent), and the percentage increased slightly when the time period was expanded to the last 12 months (73.9 percent). Beans were by far the most commonly reported crop for children to be involved in (89.5 percent), followed by maize (54.8 percent) and sweet potatoes (43.4 percent). More than half of children tended a chicken (63.7), with similar rates for tending a cow (59.0 percent).

Children typically worked in agriculture all 12 months of the year, and they worked every week during the months that they worked. The median number of days worked during a working week was seven. The median number of hours children spent working on school days was two, compared with five hours on non-school days. When asked where they carry out their work, most children working in agriculture responded that they work on family farms (78.5 percent). These children also reported carrying out work in the family dwelling (72.2 percent). The vast majority of children, 77.9 percent, reported working without pay.

The main hazards reported by children were exposure to dust or smoke (55.1 percent), extreme cold (44.9 percent), and insects (35.3 percent). Children working in agriculture reported using a wide range of tools, and the majority (85.9 percent) reported using some type of dangerous tool. The most common types of protective clothing were long pants or skirts (67.7 percent), long-sleeved shirts (42.6 percent), and sandals (37.5 percent). Only a little over a quarter (28.2 percent) of children were supervised by an adult in their work. This study estimated that 100 percent of working children were involved in hazardous work.

No statistically significant difference was found in the rates of recent illness between working and nonworking children, and working children reported few work-related illnesses. It may be that working children have higher rates of illness ultimately due to a delay between exposure to hazards and development of symptoms, but examining this lagged effect was outside the scope of this study.

Children working in agriculture were more than twice as likely as children not working in agriculture to report having been injured in the past 12 months (69.0 percent versus 27.4). Around a quarter of children working in agriculture (26.3 percent) reported having ever been

injured while working. Legs (20.1 percent) and arms (19.6 percent) received the most injuries, followed by hands/wrists/fingers (18.3 percent) and feet/ankles/toes (10.4 percent). Nearly half of injuries (46.3 percent) were scrapes, cuts, or punctures, followed by bruises (14.5 percent), and burns or blisters (12.4 percent). The agricultural activity most associated with injuries was tending animals, where one-fifth (20.7) of children were injured.

This study estimated that indicators of forced labor conditions were present for 0.1 percent of the sampled working children and that none were involved in bonded labor. The investigation of trafficking suggests that indicators of possible trafficking existed for 0.1 percent of working children.

In conclusion, children working in agriculture represent a significant population in the Northern Province of Rwanda, both in absolute numbers and as a proportion of the total workforce employed by the sector. These children work in hazardous conditions, either because they use dangerous tools such as machetes, they work long hours, or they are exposed to some other hazardous agent or process. Working in agriculture appears to affect children's welfare opportunities, including implications for their education and serious consequences for their health.

I INTRODUCTION

The agriculture sector is the main employer of children in the world, accounting for 60 percent of an estimated 215 million child laborers.¹ Many of these children work long hours and are often exposed to toxic pesticides, dangerous tools, and extreme weather conditions.² Agriculture is considered by the International Labour Organization (ILO) to be among the three most dangerous sectors for children, along with construction and mining.³ Besides the health risks, long days and heavy work often leave children with no time or energy to focus on their education.⁴ With limited education and low skill levels, children working in agriculture are often condemned to be trapped in the rural poverty cycle when they become adults.⁵

Of the 11 percent of Rwandan children engaged in child labor, 79 percent are employed by agriculture, according to Rwanda's most recent survey of child labor.⁶ Rwandan agricultural is characterized by inefficiency in its small plot sizes and lack of technology,⁷ and this inefficiency results in a need for a significant labor force. According to expert interviews, children play a significant role in agriculture by supporting their families in the preparation of land, planning, harvesting, and processing of crops. Experts note that the important role children play in Rwandan agriculture is considered by many Rwandans to be an essential part of their developmental experience, as these children will eventually become Rwanda's next generation of agricultural workers.⁸

However, Rwandan law and international law advocate reducing or eliminating the contribution of children to the sector. In Rwanda, all work by children under 16 is illegal, with no exceptions for light work or agricultural work.⁹ Children ages 16 and 17 are permitted to work if their work is not hazardous and is not one of the worst forms of child labor.¹⁰ However, child labor in agriculture is typically hazardous, often involving exposure to pesticides, sharp tools, and other risks.¹¹

The divergence between the cultural emphasis on the child's contribution to the family economy in Rwanda's agricultural societies and the reality of Rwandan law and the risks children in agriculture face makes this an important field of study. While child labor has received significant

¹ ILO (2010). Accelerating Action Against Child Labour.

² ILO -IPEC. 2006. Tackling hazardous child labour in agriculture: Guidance on policy and practice. Geneva, ILO.

³ Ibid.

⁴ Ibid.

⁵ Ibid.

⁶ Rwandan National Institute of Statistics, National Child Labor Survey 2008

⁷ Understanding Children's Work (2011). Understanding children's work and youth employment outcomes in Rwanda.

⁸ For examples of parental attitudes, see New Times. (2009, May 13). Matongo's Nocturnal Market; New Times. (2009, June 1). Cattle keepers' amazing stick value;

⁹ Government of Rwanda, Law regulating Labour in Rwanda, Law No. 51/2001 (December 30, 2001), article 4, 6, 72.

¹⁰ Government of Rwanda, Ministerial Order determining the list of worst forms of child labour; their nature, categories of institutions that are not allowed to employ them and their prevention mechanisms, No. 06 (July 13), article 4-8.

¹¹ U.S. Department of Labor. (2011). Findings on the Worst Forms of Child Labor.

attention in Rwanda recently,¹² there has been no study of the prevalence of child labor in agriculture and the specific risks and consequences involved in this sector.

A Aim of the Study

This study aims to estimate the prevalence of children working in agriculture in the Northern Province of Rwanda and to obtain representative information on the working conditions of these children, with a focus on workplace hazards. A secondary goal is to develop a broader understanding of child work in agriculture by analyzing household level variables.

The specific objectives of this research are to estimate:

1. The prevalence of child labor;
2. The demographics of households and individuals;
3. The relationship between child work and education;
4. Conditions of child work, particularly in regard to hazardous work; and
5. The prevalence of exposures to hazards and the outcomes of such exposure.

This research is expected to contribute to the international discourse on exploitive child labor, to raise awareness about the issues related to child labor in agriculture in Rwanda, and to inform current and future technical assistance efforts of the U.S. Department of Labor's (USDOL) Office of Child Labor, Forced Labor, and Human Trafficking (OCFT).

B Research Team

This study was executed by ICF International under its "Research Services in Support of USDOL's Office of Child Labor, Forced Labor and Human Trafficking" contract with USDOL. ICF International designed the methodology, developed the instruments, secured approval from ICF's ethics review board, supervised data collection, analyzed the data, and wrote the report. The ICF International team comprised an officer in charge, a project director, a research manager, two data analysts, a sampling expert, and a mapping specialist.

ICF International's regional partner in this research was Synovate Uganda, which was responsible for carrying out data collection and data entry. Synovate has conducted numerous research studies in Rwanda with a wide variety of clients, including multinational companies, NGOs, and private businesses. The company is well versed with the geography of the country and has a permanent team of researchers based in Rwanda. Synovate's technical team consisted of a lead survey manager who provided context for the design of the methodology and helped to secure authorization for the research, an operations manager who was responsible for monitoring all survey processes and ensuring quality control, a field manager who was responsible for fieldwork logistics, and a data manager who was in charge of formatting the questionnaire and leading data entry. The field data collectors consisted of 10 field supervisors and 35 interviewers.

¹² Examples include: New Times. (2011, April 23). Rwanda: Govt intensifies fight against child labour; New Times. (2011, July 30). Govt ratified the most significant conventions – ILO; New Times. (2011, August 20). Mining co-op closed over employing children; Understanding Children's Work. (2011). Understanding children's work and youth employment outcomes in Rwanda.

ICF International worked closely with Synovate during the planning and execution of fieldwork. The ICF International research manager traveled twice to Rwanda to conduct exploratory research for the study, help secure governmental approval for the study, provide training to the international research team, and oversee the launch of fieldwork.

II BACKGROUND INFORMATION/LITERATURE REVIEW

Rwanda is a small country in the Great Lakes region of Africa. With a population of over 11 million and an area of 26,338 square kilometers, Rwanda is the most densely populated country in Africa.¹³ Rwanda is one of the poorest countries in the region with a Human Development Index rank of 152.¹⁴ The country is still recovering from the 1994 civil war and genocide during which up to 1 million people were killed; however, strides toward recovery have been significant, and the level of tourism in the country is rising.¹⁵

Known as the “land of one thousand hills,” Rwanda’s elevation ranges from 950 meters to 4,519 meters.¹⁶ The rainy seasons are typically February to April and November to January. The topography presents a challenge to agriculture, which Rwandans partially address through the use of extensive terracing. Erosion remains a significant problem.

A Sector Background

Approximately 90 percent of the population works in agriculture, and most of this is subsistence farming.¹⁷ Agriculture represents 34 percent of Rwanda’s GDP.¹⁸ Coffee and tea are the country’s primary agricultural exports. Other important products are bananas, beans, sorghum, potatoes, and livestock.¹⁹ Plots of land are highly fragmented; families own an average of just under two acres spread across four plots. Across Rwanda, 70 percent of farmers own animals, and most of these animals are raised in stalls given the law prohibiting free grazing.²⁰

Given Rwanda’s high population density coupled with its small size, the government of Rwanda has increasingly focused on increasing productivity in agriculture. The country’s Economic Development and Poverty Reduction Strategy and Vision 2020 plans give agriculture a central role in the continuing development of the country. An initial step in increasing productivity was the Crop Intensification Program, which promoted the use of improved seeds and fertilizers.²¹ The government has also embarked on an ambitious plan to increase agricultural productivity by consolidating land.

Through an extensive network of cooperatives, the government facilitates the growth of the same crop on adjoining plots of land. Further, seeds and fertilizers are delivered to the groups, which then synchronize planting and harvesting. Rwanda, unlike its neighbors, is now considered food secure, reportedly as a result of these policies.²²

¹³ CIA World Factbook: Rwanda <https://www.cia.gov/library/publications/the-world-factbook/geos/rw.html>

¹⁴ UNDP: <http://hdrstats.undp.org/en/countries/profiles/RWA.html>

¹⁵ US Department of State: http://travel.state.gov/travel/cis_pa_tw/cis/cis_1007.html

¹⁶ Supra note 12.

¹⁷ Supra note 12.

¹⁸ <http://www.ilo.org/public/english/employment/ent/coop/africa/countries/eastafrika/rwanda.htm>

¹⁹ National Agricultural Survey: <http://statistics.gov.rw/images/PDF/agricole2008.pdf>

²⁰ Supra note 6.

²¹ <http://www.odi.org.uk/resources/details.asp?id=5712&title=crop-intensification-program-rwanda-sustainability-analysis>

²² <http://allafrica.com/stories/201012300160.html>

Cooperatives play an important role in the agricultural sector and are typically formed around a particular product. The most institutionalized cooperatives are the rice growing, tea planting, and coffee growing cooperatives.²³ Many serve as savings and lending institutions in addition to aggregating land and labor. In interviews, child protection and labor experts suggested that cooperatives have also played an important role in reducing child labor by creating formal policies against child labor, and sanctioning or eliminating members who engage in child labor.²⁴

B Previous Research

Child labor is thought to be a widespread issue in agriculture in Rwanda. The National Child Labor Survey (NCLS) conducted in 2008 investigated the rate of child labor in all sectors across Rwanda and concluded that 11 percent of children ages 5 to 17 were engaged in economic activities. Of these children, 79 percent were engaged in agriculture. The factors associated with higher rates of child labor included child age, lack of school attendance, lower household income, living with a head of household who is less educated, and living with a female head of household.²⁵

In 2011, Understanding Children's Work released a report using data from the NCLS-2008 that related the current challenges of child labor to the future challenges of work preparation and opportunities for young people. In addition to elaborating on the causes of child labor mentioned above, this report focused on the link between children's employment and youth labor market outcomes. The authors argued that child labor in Rwanda limits children's school attendance and achievement and that this has a measurable and significant effect on their potential for employment later in life.

More recent data on child labor in Rwanda come from the 2010 baseline survey for the Rwanda Education Alternatives for Children (REACH) project. This study was conducted in seven districts, including one Northern district. While the study provided both qualitative and quantitative information about child labor in these areas, the intentional sampling techniques used in the survey do not allow the results to be interpreted more broadly.

This study aims to fill several gaps. First, the study provides updated representative data about the prevalence of child labor in agricultural communities in the Northern Province of Rwanda. Additionally, the study provides more detailed representative data about specific household and agricultural activities in which children are engaged. The issue of hazards and injuries faced by children has been given particular attention.

²³ <http://www.ilo.org/public/english/employment/ent/coop/africa/countries/eastafrica/rwanda.htm>

²⁴ Interview with UNICEF

²⁵ National Institute of Statistics of Rwanda: National Child Labour Report
http://statistics.gov.rw/images/PDF/Rwanda_child_labour_report_english_NISR.pdf

C Legal Framework

In recent years, Rwandan law has been strengthened against child labor. The minimum working age is 16 with no exceptions for light work.²⁶ A 2009 Ministerial Order prohibits hazardous work under age 18.²⁷ Children under age 18 are also prohibited from work at night and any work that is “difficult, unsanitary, or dangerous.”²⁸

	C138, Minimum Age	Yes
	C182, Worst Forms of Child Labor	Yes
	CRC	Yes
	CRC Optional Protocol on Armed Conflict	Yes
	CRC Optional Protocol on the Sale of Children, Child Prostitution, and Child Pornography	Yes
	Palermo Protocol on Trafficking in Persons	Y
	Minimum Age for Work	16
	Minimum Age for Hazardous Work	18
	Compulsory Education Age	16
	Free Public Education	Yes

Source: USDOL Trade Development Act Report Findings on the Worst Forms of Child Labor (2010)

Additionally, the law prohibits children from working in the worst forms of child labor as defined by the International Labor Organization (ILO). These include slavery or similar practices, forced or bonded labor, the use or recruitment of children into armed conflicts, illicit activities, prostitution, and any work that is detrimental to the health, security, or morals of the child. The law specifically prohibits children from working in industrial institutions, domestic service, mining and quarrying, construction, brick making, and application of fertilizers and pesticides.²⁹

²⁶ Government of Rwanda, Law regulating Labour in Rwanda, Law No. 51/2001 (December 30, 2001), article 4, 6, 72.

²⁷ Government of Rwanda, Ministerial Order determining the list of worst forms of child labour; their nature, categories of institutions that are not allowed to employ them and their prevention mechanisms, No. 06 (July 13), article 4-8.

²⁸ Government of Rwanda, *Law regulating Labour in Rwanda*, Public Law Number 13/2009, (May 27, 2009), article 4, 6; available from <http://www.mifotra.gov.rw/documents/Laws/NEW%20LABOUR%20LAW%20N13.2009%20OF%2027.5.2009.pdf>.

²⁹ Ibid.

The consequences for violating the law against the worst forms of child labor are severe, with fines and incarceration for up to 20 years.³⁰ Some districts have passed additional bylaws prohibiting child labor and allowing sanctions against employers and parents.³¹

The government's efforts against child labor are coordinated by the National Advisory Committee on Child Labor. This body encourages other governmental institutions to include child labor policies in development plans, manages the implementation of child labor initiatives, and helps to raise awareness of and evaluate levels of child labor by conducting field visits. The Ministry of Public Service and Labor has 30 labor inspectors who investigate cases of child labor within districts. Monitoring on a local level is undertaken by 149 Local Child Labor Committees.³²

Rwanda is signatory to all fundamental human rights conventions concerning child labor, including:

- *ILO Convention 29–Forced Labor Convention.*
- *ILO Convention 105–Abolition of Forced Labor Convention.*
- *ILO Convention 138–Minimum Age Convention.*
- *ILO Convention 182–Worst Forms of Child Labor Convention.*
- *UN 2000 Protocol to Prevent, Suppress and Punish Trafficking in Persons, Especially Women and Children, Supplementing The United Nations Convention Against Transnational Organized Crime (Palermo Protocol).*

³⁰ Government of Rwanda, *Law regulating Labour in Rwanda*, article 168.

³¹ US Dept. of State, *Trafficking in Persons Report – 2010: Rwanda*

³² Nicolls and Witherite, *Independent Final Evaluation of the Combating Exploitive Child Labor Through Education in Kenya, Uganda, Rwanda, and Ethiopia Together (KURET) Project*, 24.

III KEY DEFINITIONS

- **Household:** A household is defined using the same criteria that are used in ILO Statistical Information and Monitoring Programme on Child Labour (SIMPOC) surveys, as “a person or group of persons who live together in the same house or compound, share the same housekeeping arrangements and are catered for as one unit.” Members of a household are not necessarily related by blood or marriage. For example, a domestic servant that sleeps in the same compound as the other household members and eats with them most days of the week would be considered a household member. There may also be single-person households or households where none of the members are related by blood or marriage. Finally, not all those related in the same house or compound are necessarily part of the same household.

Also following SIMPOC guidelines, an individual must reside with the other members of the household for a substantial period of the year in order to be considered a member of the household. Using this definition, children who were home on vacation from boarding school but live primarily at school were excluded from the household roster.

- **Child:** A child is “a human being below the age of 18 years unless under the law applicable to the child, majority is attained earlier,” according to Article one of the United Nations Convention on the Rights of the Child,³³ to which Rwanda is a signatory. Studies of child labor typically include children ages 5 to 17;³⁴ however, this study includes children ages 7 to 17. This study raises the lower limit to age 7 because the National Child Labor Study conducted in 2008 in Rwanda found that 5- and 6-year-olds “are shy” and “hardly responded to the questions” (p. 13). The authors of that study theorized that since children in Rwanda do not begin school until age 7, they are not used to communicating with strangers. Therefore, the operational definition of child for this study is anyone between the ages of 7 and 17.
- **Work:** For the purpose of this study, work is defined as it is by the ILO. ILO defines work among children as those in an economically active population with the exception of those who are currently unemployed and seeking work. According to ILO, the economically active population “comprises all persons of either sex who furnish the supply of labor for the production of economic goods and services as defined by the United Nations system of national accounts and balances during a specific time referenced period.”³⁵

This definition includes paid employees who are paid in cash or in kind, self-employed persons, own-account workers, apprentices who receive payment in cash or in kind, and unpaid family workers who produce economic goods or services for their own household consumption.³⁶ This definition excludes household chores, including fetching wood

³³ Available at: <http://www2.ohchr.org/english/law/crc.htm>

³⁴ See, for example, International Labour Organization—International Programme on the Elimination of Child Labour. (2004). *Manual for child labor data analysis and statistical reports*. Geneva: ILO.

³⁵ Current international recommendations on labor statistics: 2000 edition (Geneva: ILO), 2000.

³⁶ Manual for child labor data analysis and statistical reports (Geneva: ILO, 2004).

and/or water³⁷ and activities that are part of schooling. While this definition of work is in line with international standards, there is currently an intense debate surrounding the exclusion of household chores, which can have a direct impact on child welfare, particularly in the case of girls who may spend more time on household chores than boys spend on economic activities.³⁸

- **Agriculture:** This study uses the joint ILO/World Health Organization definition of agriculture, which includes “all forms of activities connected with growing, harvesting and primary processing of all types of crops, with the breeding, raising and caring for animals, and with tending gardens and nurseries.”³⁹ While some definitions of agriculture include forestry and fisheries, these activities are outside the scope of this study. Examples of primary processing investigated by this report include putting produce in the sun to dry and shelling beans.
- **Agricultural Work:** All work that meets the qualifications for “work” and “agriculture” defined above is considered agricultural work. The measurement of agricultural work was operationalized by the question, “Have you engaged in (*comprehensive list of agriculture-related activities*) for at least one hour in the past 12 months?” A person is considered to have worked in agriculture-related activities if she/he has done any activity for at least one hour in the last 12 months. As a goal of the study was to compare children working in agriculture with nonworking children, children who did not engage in any agricultural activity were asked whether they had a job in order to identify children who belong to neither comparison group.
- **Reference Period:** In line with child labor conventions, the reference periods used in this study are the preceding seven days and the preceding 12 months. The seven-day reference period helps to determine regular work patterns among children and facilitates respondent’s recollection of detailed questions on working conditions, allowing for a more in-depth analysis.⁴⁰ The 12-month reference period provides a measure of seasonal work flows, children who work only during school holidays or sporadically as demanded by family needs, and other children who are involved in work only intermittently.

³⁷ SIMPOC supported surveys have considered fetching wood and water as a work activity. However, in the Rwandan context it was considered that including those activities as household chores would facilitate understanding of the difference between work and chores.

³⁸ In order to address some of these concerns, in 2008 the International Conference of Labor Statisticians adopted a resolution aimed at promoting the measurement of hazardous household chores. Several international experts and institutions are also promoting the inclusion of household chores above a certain number of hours in the definition of child work. The United Nations Children’s Fund (UNICEF), for example, considers domestic chores performed 28 or more hours per week as child labor. Policy research on this topic is beyond the scope of this project, but the interested reader can refer for example to the review on definitions of child labor conducted by Edmonds (2008) for ILO-IPEC for a theory-driven perspective (see <http://www.ilo.org/ipecinfo/product/viewProduct.do?productId=11247>), or the review of the comparability of different child labor instruments done by Guarcello et al. (2010) for UCW for a more applied perspective (see http://www.ucw-project.org/Pages/bib_details.aspx?id=12245&Pag=0&Year=-1&Country=-1&Author=-1).

³⁹ <http://www.ilo.org/public/english/standards/relm/ilc/ilc88/rep-vi-1.htm>

⁴⁰ International Labour Organization—International Programme on the Elimination of Child Labour. (2004). *Manual for child labor data analysis and statistical reports*. Geneva: ILO.

The reference period for agricultural work was determined by the question “When was the last time you engaged in (agriculture-related activities performed in the last 12 months)?”

- For the “last 7 days” reference period, the responses “yesterday or today” and “in the last 7 days” are aggregated.
 - For the “last 12 months” reference period, the responses “yesterday or today,” “in the last 7 days,” “in the last month,” “in the last 3 months,” and “in the last 12 months” are aggregated.
- **Prevalence:** One of the key research objectives of this study is to obtain an estimate of the prevalence of child work in the agriculture sector in the Northern Province of Rwanda. Prevalence is usually defined in the epidemiological literature as the ratio of the total number of cases with a certain condition (e.g., children working in agriculture) to a total population (e.g., agricultural workers).

In this study, prevalence is defined as the percentage of all workers in the agricultural sector who are children and is calculated as the number of children working in the agricultural sector divided by the total number of workers in the agricultural sector.

- **Worst Forms of Child Labor:** The worst forms of child labor (WFCL) as defined by ILO Convention No. 182 Article Three include forced labor, commercial sexual exploitation, work in illicit activities, and hazardous work. Only the first and last of these components could apply to agricultural work. Children in worst-forms conditions in the agricultural sector would be therefore either those involved in forced labor, bonded labor, trafficking, or hazardous work. Definitions for these sub-categories are provided below. .
- **Forced Labor:** Article 2 of ILO Convention 29⁴¹ defines forced labor as “all work or service which is exacted from any person under the menace of any penalty and for which the said person has not offered himself voluntarily.” The 1956 Supplementary convention includes in the definition of practices similar to slavery “any institution or practice whereby a child or young person under the age of 18 years, is delivered by either or both of his natural parents or by his guardian to another person, whether for reward or not, with a view to the exploitation of the child or young person or of his labour.”⁴²
- **Bonded Labor:** The UN’s 1956 supplementary convention⁴³ defines debt bondage as “the status or condition arising from a pledge by a debtor of his personal services or of those of a person under his control as security for a debt, if the value of those services as reasonably assessed is not applied towards the liquidation of the debt or the length and nature of those services are not respectively limited and defined” (p. 1) and classifies it as a practice similar to slavery or forced labor.

⁴¹ ILO Convention 29 concerning Forced or Compulsory Labour. (Geneva: ILO), 1930.

⁴² United Nations. (1956). *Supplementary Convention on the Abolition of Slavery, the Slave Trade, and Institutions and Practices Similar to Slavery*. Geneva: UN, p. 2.

⁴³ Supplementary Convention on the Abolition of Slavery, the Slave Trade, and Institutions and Practices Similar to Slavery. (Geneva: UN), 1956.

- **Hazardous Work:** Hazardous work is work which, by its nature or the circumstances in which it is performed, is likely to harm the health, safety, or morals of children.⁴⁴ Recommendation No. 190⁴⁵ specifies that particular consideration should to be given to:
 - Work that exposes children to physical, psychological, or sexual abuse;
 - Work underground, underwater, at dangerous heights, and in confined spaces;
 - Work with dangerous machinery, equipment, and tools, or which involves the manual handling or transport of heavy loads;
 - 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; and
 - 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.

- **Child Trafficking:** Child trafficking is defined by the Palermo Protocol⁴⁶ as “the recruitment, transportation, transfer, harbouring or receipt of a child for the purpose of exploitation.” It is not necessary for the means of recruitment, transportation, transfer, harboring or receipt of the person to include fraud and coercion in the case of children.

⁴⁴ [ILO: A future without child labour, Global Report under the follow-up to the ILO Declaration on Fundamental Principles and Rights and Work](#) (Geneva, 2002).

⁴⁵ Recommendation concerning the prohibition and immediate action for the elimination of the worst forms of child labour adopted by the conference at its eighty-seventh session. (Geneva: ILO), 1999.

⁴⁶ Protocol to Prevent, Suppress and Punish Trafficking in Persons Especially Women and Children, supplementing the United Nations Convention against Transnational Organized Crime. (Geneva: United Nations), 2000.

IV METHODOLOGY

A Research Questions

The study was designed to address the following research questions:

Prevalence of child labor in the sector

- How prevalent is child labor in the sector?

Demographic characteristics of children working in the sector and their families

- What are the demographic characteristics of children working in the sector and their families?
- What are the household demographics, working status, and socioeconomic status of working children's families?

Educational status of children working in the sector

- What is the educational status of children working in the sector?
- Are there particular educational barriers that make children more vulnerable to working in the sector?

Characteristics of the sector with a focus on working conditions of children

- What particular aspects of the sector encourage or discourage the use of children?
- What occupational safety and health hazards do children working in the sector face and to what extent?
- What percentage of children work for their families versus work as hired labor?
- What are the typical hours of work?
- How are children paid?
- Does forced child labor or child trafficking exist in the sector and if so, to what extent?
- To what extent do children migrate for work in the sector?

B Description of Research Methodologies

A provincially representative sample of 1,000 households was selected. Information about the employment, education, domestic work, and health of all household members was collected via a Household Questionnaire. All children ages 7 to 17 who are usual residents of the selected households were eligible for the Child Questionnaire, which elicited similar information from the perspective of the child. The methodology was designed to produce representative estimates for the main indicators for the Northern Province.

C Questionnaires

This study used two questionnaires to collect data. A **household questionnaire** was administered to a knowledgeable adult member of the household; the English translation is available in Appendix X.b. A knowledgeable adult was any household member at least 18 years old who was knowledgeable about the work habits and health of all members of the household. This questionnaire contains seven main sections, including household composition and characteristics; education and school attendance; work status; housekeeping activities; child health status; household assets, dwelling characteristics, and debt; and perceptions about work.

A **child questionnaire** was administered to children ages 7 to 17 identified in the household survey, and the English translation is available in Appendix X.c. This survey collected information on demographics, education, housekeeping activities, work, working conditions, health, migration and trafficking, and forced labor.

These questionnaires, developed by ICF International in collaboration with USDOL, were designed in alignment with international child labor standards and definitions (see section IV) and integrated original items developed by ICF International with items and inputs from other sources, including:

- Model household and child questionnaires for SIMPOC National Child Labor Surveys (2007) by ILO-IPEC;⁴⁷
- Work and Health modules from the Demographic Health Survey (DHS) questionnaires by ICF International;⁴⁸
- Childhood Agricultural Injury Survey Among Youth on Farms in the United States (1998) by CDC/NIOSH;⁴⁹
- SIMPOC Survey on children ages 5 to 17 in the Philippines (2001) by ILO-IPEC;⁵⁰ and
- Guidelines on Methodologies to Estimate the Prevalence of Forced Labour of Adults and Children (2011) by ILO-IPEC.⁵¹

The questionnaires were drafted in English and then translated to Kinyarwanda by a local translator hired by Synovate.

D Sampling

This study aimed to develop estimates for key indicators, such as prevalence of child workers in the agricultural sector, which were representative of the Northern Province. It was thus necessary to develop a scientific sampling approach based on a probability sample, that is, a sample where all elements in the population have a known, non-zero probability of being included in the

⁴⁷ Available at: <http://www.ilo.org/ipeinfo/product/viewProduct.do?productId=4946>

⁴⁸ Available at: <http://www.measuredhs.com/What-We-Do/Survey-Types/DHS-Questionnaires.cfm>

⁴⁹ Available at: www.cdc.gov/niosh/docs/2001-154/pdfs/2001154.pdf

⁵⁰ Available at: <http://www.ilo.org/ipeinfo/product/viewProduct.do?productId=5084>

⁵¹ Available at: <http://www.ilo.org/ipeinfo/product/viewProduct.do?productId=16495>

sample. Using a probability sample permitted the projection of the sample data to the total population of interest with a known confidence level.

i. Sampling Frame

The sampling frame for this survey was the list of 2,744 natural villages in the Northern Province identified during the national ID card project effected in 2007–2008. These data may suffer somewhat of an under coverage compared to the population projection effected in 2009 by Rwanda’s National Institute of Statistics (no province projection available), but the population distribution by province is consistent with the 2002 census. Though it would have been preferable to work with a frame consisting of Enumeration Areas (EA) because the natural villages are too variable in size, such a frame was not available at the time of the study. The sampling frame of the 2002 Rwanda Population and Housing Census (RPHC 2002) was outdated and problematic due to the reform of administrative units undertaken in 2006 throughout the country. The old EA maps were no longer available, and therefore, the old EAs were no longer identifiable. On the other hand, since the cartographic work of the new census was not finished, the new EA frame had not been created yet.

The 2006 reform of Rwanda’s administrative units reduced the number of provinces from 11 to 5, compared to the last population census conducted in 2002. According to the reformed administrative units, Rwanda is divided into provinces, each province is sub-divided into districts, each district into sectors, each sector into cells, and each cell into villages. In the Northern Province, 5 districts are subdivided into 89 sectors containing 494 cells.

After the reform of administrative units, the Department of Local Government (DLG) had not released the urban-rural definition of the villages at the time of the study. Therefore, there was no urban-rural specification in the sampling frame. To address this challenge, the field team was instructed to make a judgment call upon arrival at each EA and to replace any clearly urban EA with a randomly selected village in the same district. Given the predominately agricultural nature of the province, a replacement rate of less than 10 percent was expected.

ii. Sampling Plan and Final Sample

Sample size was calculated to be 1,000 households within the Northern Province to ensure an adequate representation of working children between ages 7 and 17. The sample was selected in two stages. Villages were selected in the first stage, and households (HHs) within villages were selected in the second stage. The sampling frame data contained the number of households for each village. This number could then be used as a measure of size (MOS) for the selection with the probabilities proportional to size (PPS) approach used in the first stage of sampling.

The sample was designed to generate a self-weighting—that is, to generate an equal probability sample of households—by selecting villages with PPS and a fixed number of HHs (n=10) within each sample village. Self-weighting samples have a number of statistical advantages, including greater precision (design effects near 1.0). Thus, confidence intervals within +/- 5 percent for all estimates based on n=1,000 participating HHs were expected.

The first stage PPS sampling was implemented with a systematic random sampling that adopted implicit stratification of the frame by geography—that is, by sectors and by cells within sectors. By sorting the frame by these factors, the method ensured that the sample was distributed across all cells and all sectors.

A backup sample was also selected that was matched to the primary sample. The backup sample was selected to generate substitutions in case a given sample village was not rural. In practice, all of the selected EAs were rural. However, five EAs were replaced due to inaccessibility.

Within each village, households in which the main economic activity was agriculture were selected. The questionnaire included a screener to exclude households in which the main economic activity was not agriculture. As a result, individuals, including children, who worked in agriculture in households whose main economic activity was not agriculture were not included in the sample. However, since interviewer records indicated that more than 99 percent of households approached were primarily agricultural, the number of agricultural workers excluded due to this methodology is likely to be minimal.

Households were chosen by a random walk. A fixed landmark within the EA was identified, and the interviewer was instructed to go left selecting every fifth inhabited dwelling on his/her route. In an effort to include each selected household to prevent sampling bias, inhabited dwellings where all adult members were absent at the time of the visit had to be revisited until the interview was completed, with a maximum of two additional visits, before being replaced. Replacement households were selected by selecting the next household according to the random route.

In each household, an adult knowledgeable about the members of the household provided responses to the household questionnaire. The interviewer identified and interviewed all children ages 7 to 17 in the selected households. If a child was not available at the time of the interview, the interviewer was instructed to return to the household until all children had been interviewed, with a maximum of three total visits to the household.

One thousand household interviews were completed, and 1,839 children were interviewed. Limitations due to the implementation and design of the sampling plan can be found in Sections VII and IX.

iii Weighting

The sample was designed to generate equal probabilities of selection for households (i.e., to be self-weighting). Sampling weights were approximately equal for households; the only deviation occurred in those villages where fewer or more than 10 households were interviewed.

Sampling weights were computed as the reciprocal of the probabilities of selection for the two stages of sampling: 1) sampling villages in the first stage and 2) sampling households within villages in the second stage. Overall sampling weights are the products of the two-stage sampling weights.

Child weights were adjusted by a factor to account for child nonresponse, which was 9 percent. The factor was computed as the number of eligible children listed divided by the number of children interviewed. This adjustment was computed at the village level (i.e., nonresponse adjustment classes were villages).

A final adjustment, a post-stratification step, was performed to ensure that estimated totals are in line with population data. The best available population estimates are derived from the 2005 DHS data. Specifically, these estimates suggest that 90.6 percent of the population is rural, so the weights were deflated (adjusted down) to account for this additional eligibility factor.

E Fieldwork

i. Interviewer and Supervisor Training

Interviewer and supervisor training was conducted between July 22 and 27, 2011 in Kigali, Rwanda. Training was designed by ICF International and conducted by the ICF International Research Manager and the Synovate operations and field managers.

The training was conducted in a mix of French, English, and Kinyarwanda and included an overview of the project; a detailed explanation of the survey concepts and questions, research ethics, and the informed consent process; and a review of good interviewing practices, both for adults and children. After these introductory topics, the training was eminently applied, with a review of sampling methodologies, survey forms, and questionnaires immediately followed by hands-on group exercises. Specific focus was given to the item-by-item review of the questionnaires to ensure:

- Adequate understanding of the survey procedures and questionnaire items.
- Review and discussion of all questions and terms on the questionnaires to ensure adequate understanding of specific terms and the appropriateness of the Kinyarwanda translations.

Each of these reviews was followed by role-play interviews, with trainees interviewing one another. After the role-playing sessions, a debriefing session was held to provide critical feedback on common mistakes and receive input and suggestions from the interviewers. A training manual was developed to support the training.

Additional training was conducted with field supervisors to review fieldwork management practices and quality control procedures.

ii. Questionnaire Piloting

After training, the interviewers conducted a pilot test of the questionnaires in a rural area outside Kigali. This pre-test was conducted to identify potential problem areas, such as whether:

- The coded response categories on the questionnaires were sufficient, or whether new categories needed to be added;

- Respondents were willing to answer questions, given the way they had been asked;
- The questions were easily understood;
- The sequence of questions presented to respondents was logical;
- Questionnaires were clear in terms of both coding and instructions to enumerators;
- Any of the questions were particularly difficult or sensitive; and
- The average amount of time required per interview was appropriate.

All of the interviewers and supervisors participated in the pilot test. Each interviewer was expected to conduct one interview with the household questionnaire and one interview with the child questionnaire.

The pilot test identified additional corrections to the translation of the questionnaire and a need for additional interviewer practice, particularly with random walk methodology and the household questionnaire. The project decided to add another day of interviewer practice before launching fieldwork to ensure interviewers were sufficiently trained.

iii. Fieldwork Supervision

Fieldwork was launched on July 13 and was completed on August 31, 2011. Each of the five districts had a team of nine, including two field supervisors. During the first week of fieldwork, the ICF International Research Manager provided direct supervision of fieldwork to ensure a smooth launch, to monitor the work of the field supervisors, and to clarify any last minute questions or difficult cases. Besides this direct supervision, ICF International demanded rigorous quality protocols for quantitative surveys. The following quality control procedures were applied by the field supervisors:

- Spot checks of at least 10 percent of all interviews by field supervisor.
- Back-checks to verify information collected in a random selection of at least 10 percent of questionnaires. When possible, back checks were done by telephone.

Once questionnaires had been completed and checked on the field, they were processed centrally in Synovate's Uganda office. The following procedures were used for data processing:

- Office editing: Every completed questionnaire was inspected by the office editors to check for adequate completion, missing data, and legibility of open-ended items.
- Coding of open-ended items: After thorough editing of questionnaires, common themes for open-ended items were identified and coded in office.

iv. Challenges during Fieldwork

There were some challenges during fieldwork:

- It took significantly longer than expected to secure approval for the study from the government of Rwanda. As a result, the training interviewers received was no longer

fresh by the start of fieldwork. Additionally, several of the trained interviewers and supervisors were no longer available by the actual start date and had to be replaced with field staff who received less thorough training just before deploying. Finally, the delay caused significant strain to the fieldwork budget.

- While in most cases participants were welcoming to interviewers and pleased by the prospect of visitors, in some cases villagers ran away at the arrival of the interviewers. The field team theorized that in remote areas, villagers remain frightened of strangers as a lingering effect of the 1994 genocide.
- Weather during the data collection period was unusually rainy and cold, which made accessing villages difficult and time-consuming on rough roads. As a result, fewer than the expected number of interviews were completed each day, and five villages had to be replaced because of inaccessibility.
- Rwandans typically entertain visitors in the outdoor space around the home, so most interviews were conducted in the rain. Several interviewers fell ill, and some field materials became wet and difficult to read or torn.
- Children were often not at home, and some could not be located despite two callbacks. This led to a nonresponse rate of 9 percent among children. While this rate was acceptable, nonresponse might be correlated with specific variables of interest since children who are working are likely to spend less time at home.

v. Data Processing

Questionnaires were specifically designed for electronic data entry. This system offers a fast turnaround and reduces errors of incorrect entry or omission. Before data capture, all of the questionnaires were coded and edited. Data capture was done using scanners that used the FOMRIC program. To ensure accuracy, 15 percent of questionnaires were rescanned and 10 percent physically checked for consistency.

In addition to the benefits offered by electronic data entry, there were also limitations. Questionnaires that became wet, torn, or dirty had to be manually entered. The scanning software reads English-style numbers, while the interviewers preferred French-style numbers. Despite training in writing English-style numbers, interviewers sometimes used French-style numbers. These had to be corrected manually, which likely introduced some error. “Other” responses had to be coded manually in order to be scanned electronically, and therefore, some of this data may not have been entered.

After scanning, data were exported to SPSS for cleaning and quality control assurance by Synovate. ICF International conducted further quality control measures on the final datasets to check for match to sample plan, duplicate records, data completeness (e.g., variables, labels, missing data), data validity (e.g., frequency distribution anomalies, out-of-range values), and data consistency (e.g., correspondence between number of interviews at each level, skip patterns). Finally, ICF International created all computed variables, including variable recodes (e.g., age, education), work status variables, and a household wealth index, as well as population weights for each dataset.

vi. Data Analysis

Data in this report are presented in simple tables with the analytic variables presented as rows and the comparison groups as columns. The first rows present both the weighted population estimate (N) and the unweighted sample base (n). The sample base varies across the tables because of missing data due to interviewer error or respondent's inability or unwillingness to respond. For columns with a sample base of $n < 30$, results are omitted (shown as "X").

Results are shown as percentages or medians. Percentages are always column percentages. The totals are the sums for the entire sample. Note that sometimes totals may not add up to 100 percent. Column totals may not add up because of rounding or because of multiple items or multiple-response items being reported in the same table. N and n may not add up to the row total when a group is omitted. The occupational status of some children could not be determined because of item nonresponse. These cases were not included in any of the comparison groups by occupational status but were included in the totals.

Significant difference tests between groups (columns) were run using normalized weights to adjust for the impact of weights on standard errors. Significant differences for percentages were tested using the chi-square homogeneity test. In the case of variables with multiple response categories, significant differences between specific cells are located by examining the adjusted standardized residuals (ASRs). Since reporting ASRs for each cell would make tables too cumbersome, significant differences between cells are only mentioned in the analytical text accompanying the tables.

In the case of continuous variables (shown in tables with their median or average values), significance was tested using Analysis of Variance (ANOVA). The p -value refers in this case to the F statistic. The standard 95 percent confidence interval was used for all statistical tests. Significant results are flagged at the 95 percent confidence level (*) and at the 99 percent confidence level (**). In the case of multiple group comparisons, significant differences between specific pairs of groups were located by examining posthoc tests. Since reporting posthoc tests for each pair of groups would make reporting too cumbersome, the specific group differences driving significant F-tests are only mentioned in the body of the report.

V RESULTS

Figures presented in this section summarize the results of the household and children interviews in the Northern Province of Rwanda. Since different reference periods and informants are used in different sub-sections, an early clarification is provided to aid interpretation:

- **Choice of Informant:** There are several sections of the report where data on children were available from both adult household informants and children interviews. Except in cases where the comparison of both reports is critical, such as the estimation of child labor prevalence in the agricultural sector (Section VI.a), only one informant was chosen. Wherever it was necessary to choose between adult and child reports, child reports were chosen because adult informants seemed to underestimate the involvement of children in work-related activities or to ignore the details.
- **Reference Period:** The reference period was work in the last seven days or last 12 months. The comparison groups were formed on the basis of their occupational status in the last seven days, and this reference period is used for much of the report. There are, however, some sections where work in the last 12 months was used to analyze seasonal variations, including prevalence of agricultural work (Section VI.a); frequency of agricultural activities (Section VI.e.ii.1); and seasons, months, days, and hours worked (Section VI.e.ii.2). For other subsections, such as the health status of working children (Section VI.f) and educational activities (Section VI.d), work in the last 12 months was used to broaden the sample base of children that could be analyzed.
- **Comparison groups:** This study attempts to provide information on child work in agriculture through the use of comparison groups. When the seven day reference period is used, children working in agriculture are compared to nonworking children. When the 12 month reference period is used, children working in agriculture are compared to children not working in agriculture, since children were only asked whether they had worked in any other sectors over the past 7 days. In cases where the results relate specifically to work and nonworking children were not questioned, the report compares male and female child workers.

A Estimated Prevalence of Children Working in Agriculture

This study estimated that approximately 214,000 people (ages 7 and older) in the Northern Province of Rwanda have participated in agriculture for at least 1 hour in the previous 12 months. Out of these 214,000, approximately 183,000 were active in the previous 7 days. Based on the household survey, approximately 40.6 percent of agricultural workers who had worked in the last 7 days were children. Reports from adults indicated that fewer children were working compared to child self-reports (74,353 versus 90,967 in the last 7 days).

Approximately half of child workers in agriculture were male (48.8 percent) and half were female (51.2 percent). Working children were distributed fairly evenly across ages, with 25.3 percent of children ages 7 to 9, 27.6 percent ages 10 to 12, 28.2 percent ages 13 to 15, and 18.9 percent ages 16 and 17. The median age of child workers was 12.

Table VI-1: Prevalence Estimates and Demographic Features of Child Workers in Agriculture

	Child Reports ¹		Adult Reports ²	
	Worked in Past 7 days	Worked in Past 12 Months	Worked in Past 7 days	Worked in Past 12 Months
Total Estimated N of <u>Agricultural Households</u>	—	—	49,026	52,389
Total Estimated N of <u>Agricultural Workers</u>	—	—	182,966	214,284
Total Estimated N of <u>Child Agricultural Workers</u>	90,967	95,518	74,353	91,483
Sector Prevalence of Child Workers (%) ³	—	—	40.6%	42.7%
Sex of Child Agricultural Workers				
Male	48.8	48.5	50.9	50.7
Female	51.2	51.5	49.1	49.3
Age of Child Agricultural Workers				
7–9 years	25.3	25.7	23.8	24.5
10–12 years	27.6	27.8	27.0	27.9
13–15 years	28.2	27.9	29.9	28.4
16–17 years	18.9	18.6	19.3	19.2
Median Age	12.0	12.0	12.0	12.0
Sample Base (n) of Child Agricultural Workers	1,577	1,655	1,415	1,741

¹Source: Rwanda Children Survey (August 2011).

²Source: Rwanda Household Survey (August 2011).

³Computed as a) Total Estimated N of Child Agricultural Workers over b) Total Estimated N of Agricultural Workers.

B. Attitudes toward Child Work and Education

The adult respondent in each household was asked several questions to elicit his or her attitude towards child work and education. The results were analyzed by child in order to use the child work status reference groups. Since adult respondents were not always the parents of all or any of the children in the household, the results refer to the adult “associated” with each child, meaning the adult respondent interviewed for the child’s household.

Nearly three-quarters (71.2 percent) of adult respondents associated with working children reported thinking that it is beneficial for children to work in agriculture. A significantly lower proportion, 56.3 percent, of adult respondents associated with nonworking children reported that it is beneficial for children to work. The generally positive attitude toward work may be attributed to the fact that these children work on the family farm and, by working, they have contributed to their families’ economic wellbeing. Parents or the children’s guardians may also feel that working allows children to gain skills.

Adult respondents associated with child agricultural workers reported believing that girls should start farm work at age 14 and boys at age 13, while adult respondents associated with nonworking children thought that both girls and boys should start farm work at age 15. When asked their opinion on the highest level of school girls and boys should complete, 82.3 percent of adult respondents thought that girls should complete university, and 84.6 thought boys should complete university. In the case of girls, more adults associated with nonworking girls felt that girls should complete university than adults associated with girls working in agriculture (88.7 versus 80.8 percent).

Table VI-2: Adult Attitudes Toward Child Agricultural Work and Education by Child's Work Status in the Past 7 Days

	HH Reports	HH Reports Matched to Individual Children			p-value
	Total	Total	Children working in agriculture	Nonworking Children	
N=	52,546	106,144	74,353	7,935	
n=	1,000	2,020	1,415	151	
Is it beneficial for children to farm and tend animals? (% "Yes")	68.0	69.0	71.2	56.3	<0.01**
Ages for Work and Schooling Attainment (Median)					
At what age do you think girls should start farming and tending animals?	14.0	14.0	14.0	15.0	0.41
At what age do you think boys should start farming and tending animals?	14.0	14.0	13.0	15.0	0.77
Schooling Attainment					
What is the highest level of school girls should complete? (%)					
Primary	1.1	1.1	1.2	2.0	0.41
Lower secondary	2.6	2.7	2.6	2.0	0.64
Upper secondary	9.1	9.5	10.2	6.6	0.16
University	82.3	82.1	80.8	88.7	<0.05*
DK/RTA ⁵²	4.9	4.6	5.2	0.7	<0.05*

⁵² DK represents "don't know" and RTA represents "refused to answer." This convention is used in tables throughout the report.

	HH Reports		HH Reports Matched to Individual Children		
What is the highest level of school boys should complete? (%)					
Primary	0.7	0.8	1.0	1.3	0.70
Lower secondary	1.9	1.8	1.8	0.7	0.29
Upper secondary	8.0	8.2	8.6	10.6	0.40
University	84.6	85.0	83.7	86.8	0.34
DK/RTA	4.8	4.3	4.9	0.7	<0.05*

Source: Rwanda Household Survey (August 2011)

C Demographic Characteristics of Children and Their Households

While adult agricultural workers are more likely to be female than male,⁵³ this study found that male and female children were equally likely to engage in agricultural work (with 50.4 percent and 49.6 percent respectively). Children of all ages eligible for this study were found to perform agricultural activities; however, working children were older on average than nonworking children. The median age of working children was 12 as opposed to 10 for nonworking children. Around half (49.2 percent) of children working in agriculture were between ages 13–17, while under one-quarter (23.1 percent) of nonworking children fell in this range. The percentage of nonworking children decreases as their age grows, which indicated that children increasingly begin to work as they get older.

While orphans represented a significant proportion of children in the years following the genocide, the majority of the children of genocide victims have now reached adulthood. Literature suggests that Rwanda still has around 690,000 orphans, partially due to genocide incarcerations and HIV/AIDs.⁵⁴ This study found that the majority of working and nonworking children lived with both their parents (90.2 and 93.7 percent, respectively). In 6.1 percent of cases, the child's father was deceased or absent, and in 0.8 percent of cases, the child's mother was deceased or absent. Both parents were deceased or absent in 2.5 percent of cases.

On average, the households of working children were significantly larger than the households of nonworking children. The median household size for working children was six members including three children, compared to five members including two children for the households of nonworking children.

⁵³ Rwanda Demographic Health Survey 2005.

⁵⁴ UNICEF, 2009 http://www.unicef.org/infobycountry/rwanda_statistics.html

Table VI-3: Socio-Demographic Characteristics of Children by Working Status in the Past 7 Days

	Total	Children working in agriculture	Nonworking Children	p-value
N=	82,288	74,353	7,935	
n=	1,566	1,415	151	
Socio-demographic Indicators	%	%	%	
Sex				
Male	50.4	50.9	45.7	0.23
Female	49.6	49.1	54.3	
Age				
7–9 years	26.2	23.8	48.3	<0.01**
10–12 years	27.1	27.0	28.5	
13–15 years	28.3	29.9	13.2	
16–17 years	18.4	19.3	9.9	
Median Age	12.0	12.0	10.0	<0.01**
Parental death/absence				
Both parents alive and present	90.5	90.2	93.7	<0.05*
Father deceased or absent	6.1	6.6	2.4	
Mother deceased or absent	0.8	0.6	2.4	
Two parents deceased or absent	2.5	2.6	1.6	
Household size				
Median number of household members	6.0	6.0	5.0	<0.01**
Median number of children in the household	3.0	3.0	2.0	<0.01**

Source: Rwanda Household Survey (August 2011).

Most households in this study were headed by men (82.6 percent), with similar proportions of male headed households for working and nonworking children. The heads of household for nonworking children tended to be younger than those for working children, having a median age of 41.0 compared to age 45. The marital status of the heads of household for the two groups were similar and indicated that most (84.4 percent) of the children's households were headed by married individuals. Around 40 percent of the children's heads of household had completed primary school or higher (41.7 percent for working children and 41.4 percent for nonworking children).

Table VI-4: Head of Household Demographics by Child's Work Status in the Past 7 Days

	Total	Children working in agriculture	Nonworking Children	p-value
N=	103,622	74,353	7,935	
n=	1,972	1,415	151	
HoHH Socio-demographic Indicators	%	%	%	
Sex				
Male	82.6	81.5	82.8	0.72
Female	17.4	18.5	17.2	
Age				
Median Age	45.0	45.0	41.0	<0.01**
Marital Status				
Married/living together	84.4	84.6	85.7	0.25
Divorced/separated	2.1	2.1	0.7	
Widowed	11.4	11.1	13.8	
Never married/never lived together	1.5	1.6	0.0	
DK/RTA	0.6	0.6	0.0	
Educational Attainment				
No Education	29.3	29.8	26.2	<0.01**
Pre-school or some pre-school	1.9	1.4	2.1	
Some primary	25.1	24.6	28.3	
Primary complete	32.6	33.4	27.6	
Lower secondary complete	5.6	5.7	6.9	
Secondary complete	1.9	1.6	3.4	
University	0.4	0.1	2.1	
Nonstandard curriculum	1.1	0.9	1.4	
DK/RTA	2.3	2.5	2.1	

Source: Rwanda Household Survey (August 2011).

Numerous studies have attempted to draw a definitive link between poverty and child labor. Many studies have found that household socioeconomic status, and poverty in particular, is positively associated with child work.⁵⁵ However, some research has found no effect or the opposite effect, with child labor increasing as poverty decreases.⁵⁶ Despite the lack of accord, investigating the relationship between household socioeconomic status and child labor remains a worthwhile endeavor, as the association seems to vary by country and sector.

Household socioeconomic status, however, is difficult to capture accurately through surveys. Indicators that are common in the developed world, such as income or expenditures, are usually hard to capture, not appropriate, or unreliable in developing countries. Such explicit measures of socioeconomic well-being are liable to response biases. Households may fear taxation or robbery, expect future benefits from aid programs targeted at the poor, or aspire to appear to have a higher status and represent themselves as more or less wealthy than they actually are. Expenditures are also notoriously difficult to measure, given that they are highly volatile and incurred by different members of the household, and respondents may not accurately know the expenditures of other household members.⁵⁷

ICF International, with support from the World Bank, developed the wealth index using household asset data from DHS, conducted in more than 75 countries throughout the developing world, in order to overcome the limitations of expenditure or income-based measures. This methodology uses principal component analysis (PCA), a multivariate data reduction technique, to create a composite wealth factor score out of household asset variables, which are used as indicators of wealth.

For this study, ICF International collected data on source of water, toilet type, ownership of durable goods, construction materials, number of rooms used for sleeping, land ownership, and livestock ownership. These variables were dummy-coded and entered into the PCA. The linear combination that explains the most variation is called the first principal component, which is used as a wealth index. Each household was assigned a score for each asset, and the scores were summed for each household. The sample was then ranked into quintiles from one (lowest) to five (highest), and individuals were ranked according to the score of the household in which they resided.⁵⁸ This measure of economic status is more permanent than either income or consumption. Income or consumption (particularly discretionary spending) can be highly

⁵⁵ See, for example, Chiwaula, L. (2010). Household poverty and child labor decisions in Malawi. *Research in Labor Economics* 31:33-51; Edmonds, E., & Schady, N. (2011). Poverty alleviation and child labor; Gilligan, B. (2003). An analysis of the determinants of child labour in Nepal, the policy environment and response. *Understanding Children's Work*; ILO. (2007). *Les déterminants du travail et de la scolarisation des enfants: Les enseignements des enquêtes biographiques du Burkina Faso et du Mali*.

⁵⁶ See, for example, Dumas, C. (2007). Why do parents make their children work? A test of the poverty hypothesis in rural areas of Burkina Faso. *Oxford Economic Papers* 59: 301-329; Kambhampati, U., & Rajan, R. (2005). Economic growth: A panacea for child labor?; Ray, R. (2000). Analysis of child labour in Peru and Pakistan: A comparative study. *Journal of Population Economics* 13(1): 3-19.

⁵⁷ Rutstein, S. O., and K. Johnson. (2004). *The DHS Wealth Index*. DHS Comparative Reports No. 6. Calverton, Maryland: ICF Macro Inc.

⁵⁸ For complete methodological details, see Rutstein, S. O., and K. Johnson. 2004. *The DHS Wealth Index*. DHS Comparative Reports No. 6. Calverton, Maryland: ICF Macro Inc.

volatile depending on both seasonal and random factors or shocks, whereas household assets will be more stable, indicating medium- and long-term wealth. Household assets were also more easily measured; much of the information could be gathered by observation or with simple questions, whereas measuring expenditures or income would require long batteries that might be difficult for many respondents.

Using this wealth index, it was clear that nonworking children's households were less wealthy than the households of working children. Specifically, nearly half (45.7 percent) of nonworking children's households were in the lowest two quintiles, while two-fifths (42.1 percent) of working children's households were in the highest two quintiles. Household informants were also asked whether their income was sufficient so that no one in the household went to sleep hungry. The results of the wealth index were supported by the results of this question. While nearly one-third (31.8 percent) of the nonworking children's households reported not having sufficient income so that nobody went to sleep hungry, less than one-fifth (17.1 percent) of working children's households fell in this category.

The descriptive nature of this research does not permit an in depth exploration of this finding, but several explanations are possible. One possibility is that families in a higher socioeconomic class have greater access to farm work for their children, either through land ownership or rental, or through social, professional, or familial networks. Indeed, the households of working children have significantly higher rates of land ownership than those of nonworking children (91.8 versus 75.6 percent). This proposition is supported by the findings of Bhalotra and Heady (2003) who, using data from Ghana and Pakistan, argued that children in households with land are more likely to work than those in households without land.⁵⁹ Alternatively, considering the largely subsistence farming nature of agriculture in the Northern Province, which relies mostly on human labor, this finding could indicate that having children engaged in agricultural activities contributes to the improvement of the household livelihood. This could create an economic incentive for the families to allow, if not encourage, their children to engage in agricultural activities.

⁵⁹ Bhalotra, S., & Heady, C. (2003). Child farm labor: The wealth paradox. *World Bank Economic Review* 17(2): 197-227.

Table VI-5: Socioeconomic Status of Children's Households by Child's Work Status in the Past 7 Days

	Total	Children working in agriculture	Nonworking Children	p-value
N=	82,288	74,353	7,935	
n=	1,566	1,415	151	
Socioeconomic Indicators	%	%	%	
Is the income your household makes sufficient to maintain a household where nobody goes to sleep hungry?				
Always	13.1	13.1	13.2	<0.01**
Usually	66.3	67.6	55.0	
Never	18.5	17.1	31.8	
DK/NR	2.0	2.3	0.0	
Wealth Index Quintiles				
1 (Poorest)	17.8	17.7	18.5	<0.01**
2	19.4	18.6	27.2	
3	22.1	21.6	27.2	
4	20.8	22.1	8.6	
5 (Wealthiest)	19.9	20.0	18.5	
Median Wealth Index Score	-22.6	-21.7	-36.2	0.12

Source: Rwanda Household Survey (August 2011)

D Education and Child Work

Primary education is compulsory in Rwanda. In 2006, the country adopted a nine-year basic education policy that extended basic education by three years. Nearly all children enroll in primary school, but completion rates are low, with a little over half of children completing primary school in 2008. There are significant rural-urban disparities in access to educational resources and in school enrollment and completion.⁶⁰

The education system is organized into preprimary education, primary education, *tronc commun*, upper secondary, and higher learning. Preprimary school is not widely available. Primary education lasts six years and typically enrolls children ages 7 to 12. *Tronc commun* is lower

⁶⁰ World Bank. (2011). Rwanda Education Country Status Report. http://www-wds.worldbank.org/external/default/WDSContentServer/WDSP/IB/2010/11/29/000350881_20101129112950/Rendered/PDF/579260SR0P11151353788B01PUBLIC10Web.pdf

secondary school and lasts three years. Upper secondary is an additional three years, and more than half of upper secondary schools are boarding schools.⁶¹

In previous literature, child work has been linked with decreased school achievement, lower school attendance, higher dropout rates, and grade-age delays. Children's work affects the decision households make on whether to send children to school or not, and even for those children who work and attend school, a few hours of work per day can hinder school achievement.⁶² This section analyzes the relationship between agricultural work and school performance, including school participation, attendance, absenteeism, progress/age-grade delay, and self-reported interference of work with education. Tables in this section use the 12-month reference period and compare children working in agriculture to children not working in agriculture, which includes children who do not work and those who work in other sectors.

i. School Participation and Attendance of Children

The vast majority (92.0 percent) of surveyed children were attending school at the time of the survey. However, contrary to conventional wisdom that work interferes with children's schooling, children working in agriculture had a higher rate of attendance than those not working in agriculture. While 93.0 percent of children working in agriculture were currently in school, only 82.9 percent of children not working in agriculture were currently attending school. The lower socioeconomic status of nonworking children's families may explain this finding. While school fees have been abolished in Rwanda, there are other indirect costs that continue to limit enrollment of children from low-income families.⁶³

An examination of the differences by age group revealed that the only statistically significant gap in school attendance between children working in agriculture and those not working in agriculture appears within the youngest age group (96.5 versus 77.9 percent). One possibility is that the young children who neither work in agriculture nor go to school could represent developmentally-delayed children. The rates of attendance were nearly the same for the 10-to-12 age group. There were too few cases for a strong comparison as the children reach secondary school, but among the children sampled, attendance rates were lower for children not working in agriculture than for children working in agriculture.

The rate of attendance for girls working in agriculture was nearly the same as for boys working in agriculture (93.1 percent and 92.9 percent, respectively); however, there was a gap between the attendance rates of girls and boys not working in agriculture. While 85.7 percent of these girls were currently attending school, only 79.1 percent of boys in this group were attending school.

⁶¹ World Bank. (2011). Rwanda Education Country Status Report. http://www-wds.worldbank.org/external/default/WDSContentServer/WDSP/IB/2010/11/29/000350881_20101129112950/Rendered/PDF/579260SR0P11151353788B01PUBLIC10Web.pdf

⁶² Rosati, F. & Rossi, M. (2001). *Children's Working Hours, School Enrolment and Human Capital Accumulation: Evidence from Pakistan and Nicaragua*. UCW Working Paper 8. Rome: Understanding Children's Work.

⁶³ World Bank. (2011). Rwanda Education Country Status Report. http://www-wds.worldbank.org/external/default/WDSContentServer/WDSP/IB/2010/11/29/000350881_20101129112950/Rendered/PDF/579260SR0P11151353788B01PUBLIC10Web.pdf

Table VI-6: Current School Attendance of Children by Age, Gender, and Working Status in the Past 12 Months

	Total	Children working in agriculture	Children not working in agriculture	p-value
N=	106,242	95,636	9,552	
n=	1,839	1,656	165	
Are you attending school this school year? (% "Yes")	%	%	%	
Total	92.0	93.0	82.9	<0.01**
Age				
7–9 years	93.2	96.5	77.9	<0.01**
10–12 years	96.3	96.5	95.7	0.65
13–15 years	94.8	95.0	85.7	0.27
16–17 years	79.1	80.2	63.6	0.39
Gender				
Male	91.7	92.9	79.1	<0.01**
Female	92.3	93.1	85.7	<0.05*

Source: Rwanda Children Survey (August 2011)

Base: Children who have achieved the age of mandatory attendance in primary school (7 years old or above). Base includes children that have never attended school.

Children not currently attending school were asked whether they had ever attended school. While the sample base of nonworking children was too small to draw conclusions, the responses to this question demonstrated the same general pattern of greater school participation by working children than nonworking children. Among working children not currently enrolled in school, more than half (60.3 percent) had attended school at some point, with similar participation rates for boys and girls.

Table VI-7 below shows the demographic characteristics of children working in agriculture by current school attendance status. While the number of working children who were not attending school in the sample was small, these results suggest that age is an important factor in school attendance. More than three-quarters of the children who were working in agriculture and not attending school were secondary school aged (13–17 years, 77.4 percent), while less than half (44.5 percent) of the working children who attended school were in this age group. The genders were distributed evenly between the groups.

Table VI-7: Demographic Characteristics of Children Working in Agriculture by School Attendance

	Total	Children working in agriculture and attending school	Children working in agriculture and not attending school	p-value
N=	95,636	88,921	6,169	
n=	1,656	1,539	108	
Age	%	%	%	
7–9 years	25.7	26.6	11.3	<0.01**
10–12 years	27.8	28.8	11.3	
13–15 years	27.9	28.5	20.8	
16–17 years	18.6	16.0	56.6	
Gender				
Male	48.5	48.5	51.4	0.56
Female	51.5	51.5	48.6	

Source: Rwanda Children Survey (August 2011).

Base: Children who have achieved the age of mandatory attendance in primary school (7 years old or above) and worked in agriculture in the last 12 months.

Children who were not currently attending or had never attended school were asked the reasons for their lack of attendance (see Table X-1 in Appendix X.a). By far the most commonly cited reason was lack of financial means (71.4 percent).

As shown in Table VI-8, below, among children attending school, daily attendance appeared to be high for both children working in agriculture and those not working in agriculture, with 94.1 percent of all children reporting attending school every day during the last week school was in session. In the youngest age group, 7 to 9 years, children working in agriculture had a higher rate of attendance (95.9 percent) than children not working in agriculture (90.5 percent). As discussed above, one possibility is that nonworking children have that status because they lag behind their peers in development and thus miss school more frequently. The second age group showed similar attendance rates for working and nonworking children, and while there were very few cases of older children not working in agriculture, all of those included in the sample attended school every day in the week preceding the survey. There were no significant differences in attendance rates by gender.

Among children who did not attend school every day school was in session, the median number of days absent was two, and the most common reasons were illness (45.5 percent) and household chores (28.5 percent) (see Table X-3 in Appendix X.a).

Table VI-8: School Absence of Children by Age and Gender by Working Status in the Past 12 Months

	Total	Children working in agriculture	Children not working in agriculture	p-value
N=	97,738	88,921	7,921	
n=	1,689	1,539	135	
During the last week school was in session, did you go to school every day school was open? (% "Yes")	%	%	%	
Total	94.1	94.2	93.4	0.21
Age				
7–9 years	94.9	95.9	90.5	<0.01**
10–12 years	94.7	94.4	95.5	0.76
13–15 years	93.8	93.6	100	0.85
16–17 years	92.1	91.9	100	0.89
Gender				
Male	93.9	94.1	94.3	0.11
Female	94.1	94.2	92.9	0.75

Source: Rwanda Children Survey (August 2011).

Base: Children who have achieved the age of mandatory attendance in primary school (7 years old or above) and are currently attending school.

ii. Progress in School

While children working in agriculture had higher rates of school attendance, they also had greater age-grade delays. Children working in agriculture had an average 1.0 age-grade delay compared to 0.0 for children not working in agriculture. The age-grade delay for working children increased with their age, reaching 3.0 for the 16- and 17-year-old age group. The gap in age-grade delay was greater among boys than girls.

It is possible that agricultural work may have affected children's progress in education, although the reverse causal effect is also possible, with children who are less interested in school starting to work at greater rates than children who are interested in school. However, the higher rate of attendance for working children weakens the second possibility and supports the premise that agricultural work has a negative impact on children's performance in school.

Table VI-9: Median Age-Grade Delay of Children by Age, Gender, and Working Status in the Past 12 Months

	Total	Children working in agriculture	Children not working in agriculture	p-value
N=	96,842	88,921	7,921	
n=	1,674	1,539	135	
Median Age-Grade Delay				
Total	1.0	1.0	0.0	<0.01**
Age				
7–9 years	-1.0	-1.0	-1.0	0.75
10–12 years	1.0	1.0	0.0	0.72
13–15 years	2.0	2.0	1.0	<0.01**
16–17 years	3.0	3.0	0.0	<0.01**
Gender				
Male	1.0	1.0	-1.0	<0.01**
Female	0.0	1.0	0.0	<0.01**

Source: Rwanda Children Survey (August 2011).

Base: Children who have achieved the age of mandatory attendance in primary school (6 years old or above) and are currently attending school.

iii. Interference of Work with Education

Overall, 13.5 percent of children working in agriculture and attending school reported that their work interferes with their studies. When asked how often they missed school for work, 10.3 percent indicated that they miss school once per week or more, and 12.5 percent indicated that they miss school once or twice per month. A small proportion of children reported missing school once or twice per year (4.8 percent), and the majority of children reported missing school never or almost never (67.3 percent).

Table VI-10: Interference of Work with Education for Working Children by Gender

	Total children working in agriculture	Boys working in agriculture	Girls working in agriculture	p-value
N=	88,921	43,083	45,838	
n=	1,539	744	795	
Interference indicators	%	%	%	
Does your work interfere with your studies? (% Yes)	13.5	15.0	12.1	0.40
How often do you miss school for work?				
Once per week or more	10.3	10.7	9.9	0.23
Once or twice per month	12.5	11.8	13.2	
Once or twice per year	4.8	5.4	4.3	
Never or almost never	67.3	66.0	68.5	
DK/RTA	5.1	6.2	4.0	

Source: Rwanda Children Survey (August 2011).

Base: Children who have achieved the age of mandatory attendance in primary school (7 years old or above), worked in agriculture the last 12 months, and are currently attending school.

The results presented in the table above show that at least a tenth of working students felt that their work interferes with their education, and a similar percentage reported missing school once per week or more. While these statistics are directly related to work and therefore only available for working children, both working and nonworking children were asked whether they have adequate time for homework and studying. Children not working in agriculture indicated that they have enough time slightly more often than working children (94.9 versus 89.3 percent), but this difference is not statistically significant. Overall, 89.8 percent of children responded that they do have enough time to do homework and study at home.

Table VI-11: Adequate Time for Homework and Studying by Working Status in the Past 12 Months

	Total	Children working in agriculture	Children not working in agriculture	p-value
N=	97,738	88,921	7,921	
n=	1,689	1,539	135	
	%	%	%	
Do you have enough time to do homework and study at home? (% Yes)	89.8	89.3	94.9	0.08

Source: Rwanda Children Survey (August 2011).

Base: Children who have achieved the age of mandatory attendance in primary school (7 years old or above) and are currently attending school.

E. Activities of Children

This section presents an overview of children’s activities in the survey population, including noneconomic activities (household chores), economic activities (work), and the characteristics of these activities. Other activities of a noneconomic nature that children may perform (e.g., leisure activities or rest) are not discussed in this report.

i. Household Chores

Children often spend a significant amount of their time doing household chores. These activities, while not economic in nature, can represent a significant burden for the child and add to the negative impact of work on children’s welfare opportunities. More specifically, ignoring household chores may underestimate the impact on girls in particular, who tend to be responsible for a disproportionately large share of domestic activities. This section analyzes the types of household chores that children usually perform and the time devoted to them, with a focus on differences by occupational group and gender.

1. Activities Performed

Household chores are often defined as “domestic or personal services provided by unpaid members of the household,”⁶⁴ activities that fall outside the System of National Accounts (SNA) boundaries. Household chores, as defined in this report, include—

- Housekeeping activities, such as sweeping, mopping, shopping, washing clothes, preparing and serving meals, washing dishes, and fetching water and firewood;
- Caring for children and sick or elderly people in the own home; and
- Making small repairs in one’s own house.

Most children performed household chores in the week preceding the survey, and the majority of children performed each of the chores investigated. Collecting water was the mostly commonly performed chore (89.5 percent), followed by washing clothes (80.9 percent), and collecting firewood (80.2 percent). Children also reported frequently cooking for their families, serving meals, and washing dishes (75.9 percent), mopping or sweeping (68.4 percent), and shopping for their households (51.9 percent).

Children working in agriculture were significantly more likely to perform every task than nonworking children. For example, while 92.0 percent of children working in agriculture collected water in the past seven days, only 58.5 percent of nonworking children did so. Similarly, 83.0 percent of children working in agriculture collected firewood in the past seven days, but only 43.9 percent of nonworking children did so. During preliminary research and while collecting data, researchers observed that parents did not draw a firm distinction between

⁶⁴ International Labour Organization—International Programme on the Elimination of Child Labour. (2004). *Manual for child labor data analysis and statistical reports*. Geneva: ILO, p. 35.

household chores and agricultural work; rather, all of these tasks were grouped together as chores. It is therefore not surprising that children who do not work in agriculture perform fewer household chores.

Table VI-12: Household Chores Done in the Last Week by Working Status in the Past 7 Days

	Total	Children working in agriculture	Nonworking Children	p-value
N=	98,214	91,080	7134	
n=	1697	1574	123	
	%	%	%	
Since last (day of the week), did you ____? (% "Yes")				
Mop or sweep	68.4	70.1	46.6	<0.01**
Wash clothes	80.9	83.2	51.3	<0.01**
Cook for family, serve meals, wash dishes	75.9	78.4	43.8	<0.01**
Shop for household	51.9	54.1	24.7	<0.01**
Collect water	89.5	92.0	58.5	<0.01**
Collect firewood	80.2	83.0	43.9	<0.01**
Do minor household repairs	40.3	42.3	15.3	<0.01**
Care for children/old/sick	32.2	34.2	6.5	<0.01**
None	0.0	0.0	0.0	-
DK/RTA	3.9	1.8	30.6	<0.01**

Source: Rwanda Children Survey (August 2011).

Note: Multiple response items, totals may not add up to 100%.

This study also found clear distinctions by gender. Girls reported doing most chores significantly more often than boys, including washing clothes (85.0 versus 74.9 percent); mopping or sweeping (80.3 versus 54.8 percent); cooking for their family, serving meals, or washing dishes (78.3 versus 68.8 percent); shopping for the household (53.1 versus 47.3 percent); and caring for children or the elderly/sick (35.7 versus 25.6 percent). Boys were more likely than girls to perform minor household repairs (42.5 versus 36.1 percent).

Table VI-13: Household Chores Done in the Last Week by Gender

	Total	Male	Female	p-value
N=	106,242	50,894	55,348	
n=	1,839	879	960	
	%	%	%	
Since last (day of the week), did you ____? (% "Yes")				
Mop or sweep	68.1	54.8	80.3	<0.01**
Wash clothes	80.1	74.9	85.0	<0.01**
Cook for family, serve meals, wash dishes	73.7	68.8	78.3	<0.01**
Shop for household	50.3	47.3	53.1	<0.01**
Collect water	88.6	87.3	89.8	0.06
Collect firewood	78.9	80.6	77.3	0.07
Do minor household repairs	39.2	42.5	36.1	<0.01**
Care for children/old/sick	30.8	25.6	35.7	<0.01**
None	0.0	0.0	0.0	-
DK/RTA	4.4	4.4	4.3	0.95

Source: Rwanda Children Survey (August 2011).

Note: Multiple response items, totals may not add up to 100%.

2. Time Spent on Household Chores

The distinction between work and chores is mostly a technicality derived from the UN system of national accounts, which is subject to an ongoing debate. Performing household chores can have the same effect as work, jeopardizing children's health or their ability to perform adequately in other areas, most importantly school. There is no clear evidence regarding the health effects of household chores on children,⁶⁵ but there is sufficient proof of a link between time spent on household chores and school performance.⁶⁶ Analyzing the time children spend on household chores is therefore necessary to establish the overall impact of economic and noneconomic activities on children's welfare opportunities.

Children working in agriculture typically work on chores every day of the week. In order to establish time spent on both chores and other tasks, children were asked to provide their daily diary for the day preceding the survey. This method was designed to aid recall and boost the reliability of the children's self-reports, using *yesterday* as a generally representative reference period equivalent to "any given day." Children listed each work activity, including household chores, farm work, tending animals, and other work, as well as the time they started and stopped

⁶⁵ Francavilla, F. & Guarcello, L. (2003). *Household chores and child health: preliminary evidence from six countries*. Rome: Understanding Children's Work.

⁶⁶ See Hazarika, G. & Bedi, A.S. (2003). Schooling Costs and Child Work in Rural Pakistan. *Journal of Development Studies* 39(5): 29–64 and Assaada, R., Levison, D. & Zibani, N. (2010). The Effect of Domestic Work on Girls' Schooling: Evidence from Egypt. *Feminist Economics*, 16(1), pp. 79-128.

each task.⁶⁷ Since this battery was part of the working child module, the data presented here are only available for working children.

Using this method, the median reported time spent doing chores for children working in agriculture was one hour for boys and one hour and 40 minutes for girls. Using this estimate of the number of hours per day and the estimated number of days per week, children working in agriculture spend on average a total of eight hours and 10 minutes on household chores each week.

Table VI-14: Days and Hours Spent on Chores by Gender

	Total	Boys working in agriculture	Girls working in agriculture	p-value
N=	87,884	42,819	45,065	
n=	1,523	742	781	
Median Values				
Number of days spent on chores since last week	7.0	7.0	7.0	0.34
Number of hours spent on chores yesterday	1:25	1:00	1:40	<0.01**
Estimated hours spent on chores per week	8:10	7:00	10:30	<0.01**

Source: Rwanda Children Survey (August 2011).

Base: Children who worked in agriculture in the last 7 days and did at least one chore in the last 7 days.

ii. Working Conditions of Children in Agriculture

This section analyzes the characteristics of the agricultural activities performed by children, including tasks performed, working seasons, days and hours, work locations, earnings, and the presence of hazardous working agents and processes.

In this section, the currently active population (i.e., those who worked for at least one hour in the previous seven days) is analyzed in order to facilitate respondent's recollection of detailed questions about working conditions, except in the case of tasks performed and working seasons, days, and hours, where the 12-month reference period is used in order to obtain measures of frequent compared to overall tasks, the total time spent working during the year, and seasonal work flows. This type of analysis is particularly relevant in agriculture-related activities, as seasonality in this sector is often pronounced.

1. Tasks Performed

Children were found to engage in all of the crop-related activities investigated by the study. These activities included digging irrigation trenches; creating terraces; preparing the land for planting; fertilizing the fields; sowing, pruning, weeding, thinning, and guarding produce; taking lunch or

⁶⁷ Children who couldn't recall the exact times were asked whether they spent "a little," "some," or "all" of the morning, afternoon, and night doing chores. For computation purposes, these responses were respectively imputed the 25th, 50th, and 75th percentile of the times reported by the children who could recall exact times.

water to family in the field; harvesting and processing produce; transporting produce; selling produce; collecting water and food for animals; moving animals from place to place; and replacing animal's sleeping grass. Children who were currently active (last seven days) were primarily involved in fertilizing the fields (56.1 percent) and putting produce in the sun to dry (52.5 percent). Children who participated in farming activities in the last year were still primarily involved in fertilizing the fields (77.6 percent) and drying produce (73.0 percent), but they were also heavily involved in harvesting (76.2 percent). Most currently active children collected food or water for animals (69.9 percent), and the percentage increased slightly when the time period was expanded to the last 12 months (73.9 percent).

While children of both genders reported carrying out all of the agricultural tasks investigated, there were significant differences by gender for many of the activities, particularly when looking across the last 12 months. Boys were more likely than girls to perform mobile, isolated, or physically demanding activities, including guarding produce (57.0 versus 48.4 percent), digging irrigation trenches (23.2 versus 17.3 percent), and performing all tasks related to animals (for example, 75.6 versus 71.5 percent for collecting food or water). Girls were more likely than boys to prune (67.2 versus 53.0 percent) and sow crops (63.5 versus 53.6 percent), tasks that are less taxing physically and generally take place near the home or with parents.

Table VI-15: Agriculture-related Activities Performed by Children in the Last 7 Days and Last 12 months by Gender

	Last 7 days ¹				Last 12 months ²			
	Total	Male	Female	p-value	Total	Male	Female	p-value
N=	91,080	44,466	46,614		95,636	46,409	49,227	
n=	1574	768	806		1656	803	853	
Agriculture-related activities	%	%	%		%	%	%	
Dig irrigation trenches	10.0	11.2	8.9	.70	20.2	23.2	17.3	<0.01**
Create terraces	4.5	5.4	3.5	.15	8.8	9.8	7.7	0.11
Prepare the land for planting (clear land, till the soil)	32.9	33.9	31.9	.40	43.6	44.7	42.6	0.22
Fertilize the fields	56.1	54.9	57.3	.53	77.6	76.7	78.4	0.63
Sow/plant	24.9	25.0	24.7	<0.05**	58.7	53.6	63.5	<0.01**
Prune	21.2	21.1	21.3	<0.01**	60.3	53.0	67.2	<0.01**
Weed and thin (remove unwanted plants)	39.7	40.8	38.6	.42	62.9	64.3	61.5	0.12
Guard the produce	26.2	29.3	23.4	.43	52.6	57.0	48.4	<0.01**
Take lunch/water to family in field	36.3	34.5	37.9	.91	48.9	46.9	50.8	0.14
Harvest/collect food from the fields	36.5	36.4	36.5	.55	76.2	75.3	77.1	0.80
Process produce (remove shells/husk; remove stones; winnow)	27.3	27.2	27.3	.59	54.7	54.2	55.3	0.84
Put produce in sun to dry	52.5	51.3	53.5	.58	73.0	72.2	73.8	0.69

	Last 7 days ¹				Last 12 months ²			
	Total	Male	Female	p-value	Total	Male	Female	p-value
Carry produce to market or factory	14.4	15.2	13.7	.12	23.6	23.0	24.2	0.78
Sell produce in market	12.5	12.4	12.6	.52	19.8	18.7	20.8	0.45
Collect food/water for animal	69.9	72.5	67.4	.32	73.9	76.5	71.5	<0.05*
Move animal from place to place	28.6	32.4	24.9	.76	32.1	35.7	28.6	<0.01**
Replace the animal's sleeping grass	54.3	58.3	50.4	.10	57.1	61.2	53.3	<0.01**

Source: Rwanda Children Survey (August 2011).

Note: Multiple response items, totals may not add up to 100%.

¹Base: Children that performed at least one agriculture-related activity in the last 7 days.

²Base: Children that performed at least one agriculture-related activity in the last 12 months.

In addition to specific activities, children were asked the specific crops they were involved in producing over the last year. Beans were the most commonly reported crop (89.5 percent), followed by maize (54.8 percent) and sweet potatoes (43.4 percent). Children were also asked about the types of animals they tended. More than half of children tended a chicken (63.7), with similar rates for tending a cow (59.0 percent). Most crops and all of the animals had similar rates for boys and girls; however, boys were more likely to participate in banana farming (18.5 versus 13.1 percent), and girls were more likely to participate in sorghum farming (37.2 versus 32.8 percent).

Table VI-16: Crops and Animals Children Who Worked in the Last 7 days Were Involved in During the Last 12 Months by Gender

	Total children working in agriculture	Boys working in agriculture	Girls working in agriculture	p-value
N=	91,080	44,466	46,614	
n=	1574	768	806	
	%	%	%	
Were you involved in producing _____?				
Bananas	15.7	18.5	13.1	<0.01**
Beans	89.5	89.7	89.2	0.63
Cabbage	13.2	13.8	12.6	0.56
Cassava	20.8	20.3	21.3	0.50
Coffee	1.9	2.0	1.8	0.89
Irish potatoes	39.3	40.6	38.1	0.47
Maize	54.8	54.5	55.1	0.57
Peas	10.0	9.8	10.2	0.70
Pineapple	2.2	2.1	2.3	0.69
Pyrethrum	3.5	3.6	3.5	0.97

	Total children working in agriculture	Boys working in agriculture	Girls working in agriculture	p-value
Sorghum	35.1	32.8	37.2	<0.05*
Sugarcane	10.7	9.3	12.1	0.05
Sweet potatoes	43.4	41.7	45.1	0.11
Tea	0.3	0.0	0.5	0.05
Other	2.6	2.5	2.6	0.85
DK/RTA	1.1	1.6	0.5	0.03
Have you tended a _____?				
Cow	59.0	59.3	58.7	0.54
Goat	41.4	40.8	42.0	0.82
Sheep	24.9	25.2	24.7	0.73
Pig	11.7	12.1	11.3	0.57
Rabbit	34.0	33.6	34.3	0.97
Chicken	63.7	64.2	63.3	0.42
Other	1.3	1.4	1.1	0.57
DK/RTA	1.4	1.4	1.3	0.92

Source: Rwanda Children Survey (August 2011).

Note: Multiple response items, totals may not add up to 100%.

Base: Children who worked in agriculture in the last 7 days.

2. Working Seasons, Days, and Hours

Excessive hours constitute hazardous work for children. The amount of time a child spends working has a direct bearing on the likelihood that the child will experience a work-related injury or illness, lower school attendance, and poorer educational achievement.⁶⁸ Obtaining an adequate measure of the amount of time a child spends working is therefore critical to determining whether she or he is involved in hazardous work. This section analyzes the number of months, weeks, days, and hours children spend on farming to determine the extent of children's involvement throughout the year and whether children work excessive hours.

Children typically reported working in agriculture all 12 months of the year and working every week during the months that they work. The median number of days worked during a work week was seven. The finding that the average child working in agriculture is continuously active throughout the year is not surprising given the nature of agriculture in Rwanda. A number of crops grown in Rwanda, such as bananas and tea, are harvested continually throughout the year.

⁶⁸ Rosati, F. & Rossi, M. (2001). *Children's Working Hours, School Enrolment and Human Capital Accumulation: Evidence from Pakistan and Nicaragua*. UCW Working Paper 8. Rome: Understanding Children's Work.; ILO Convention on the Worst Forms of Child Labour, 1999 (ILO 182), and its corresponding Recommendation No. 190 single out work under particularly difficult conditions such as work for long hours or work at night as hazardous labor.

Many others have multiple harvests, including up to four for the widely grown potato. Agricultural work outside harvest season includes maintenance of the crops, such as weeding and pruning, and preparation of the fields for future crops.

Children were also asked for an estimation of the number of hours they work on a typical school day and a typical nonschool day. This distinction is clearly relevant, as the median number of hours children reported working on school days was two, compared with five hours on nonschool days.

Table VI-17: Months, Weeks, Days, and Hours Worked by Children Who Worked in the Last 12 Months by Gender

	Total children working in agriculture	Boys working in agriculture	Girls working in agriculture	p-value
N=	95,636	46,409	49,227	
n=	1656	803	853	
Median number of months worked ¹	12	12	12	0.11
Median number of weeks worked in a typical month ¹	4	4	4	0.93
Median number of days worked last week ¹	7	7	7	0.90
Median number of hours worked on days child goes to school ²	2	2	2	0.25
Median number of hours worked on days child does not go to school ¹	5	5	5	0.48

Source: Rwanda Children Survey (August 2011).

¹Base: Children who worked in agriculture in the last 12 months.

²Base: Children who worked in agriculture in the last 12 months and are currently attending school.

As an alternative means of estimating the number of hours spent working, children were asked to share the details of their daily schedule for the day preceding data collection. As mentioned above in the discussion of chores, children were asked to describe their work tasks throughout the day and the time spent on each task. Table VI-18 presents the time spent tending animals and farming crops the day preceding the survey. The median number of hours spent farming crops was three, and the median number of hours spent tending animals was one. The amount of time spent on each task was similar for boys and girls, although boys spent slightly more time tending animals.

Table VI-18: Hours Worked by Children Who Worked Yesterday by Gender

	Total children working in agriculture	Boys working in agriculture	Girls working in agriculture	p-value
N=	43,033	25,337	17,696	
n=	759	442	317	
	hrs	hrs	hrs	
Median number of hours worked tending animals yesterday ¹	1:00	1:10	1:00	<0.05*
Median number of hours worked in farming crops yesterday ²	3:00	3:00	3:21	0.77

Source: Rwanda Children Survey (August 2011).

¹Base: Children who worked in tending animals yesterday and could describe their schedule.

²Base: Children who worked in farming crops yesterday and could describe their schedule.

3. Work Locations

Most children working in agriculture reported working on family farms (78.5 percent). Children also reported carrying out work in the family dwelling (72.2 percent). Some agricultural activities took place in or around the dwelling, such as caring for animals and shelling beans. A little under a quarter of children reported working in the woods (22.1 percent), which is where children seek grass and leaves to feed animals.

Table VI-19: Work Locations of Children Who Worked in the Last 7 days by Gender

	Total children working in agriculture	Boys working in agriculture	Girls working in agriculture	p-value
N=	91,080	44,466	46,614	
n=	1574	768	806	
	%	%	%	
Where does your work take place?				
Family farm	78.5	79.5	77.5	0.36
Someone else's farm	4.3	4.7	4.0	0.49
In the woods	22.1	24.1	20.2	0.07
Family dwelling	72.2	70.8	73.5	0.21
Shop/Market/Kiosk	1.4	1.0	1.8	0.11
Other	0.0	0.0	0.0	-
DK/RTA	2.0	1.8	2.2	0.56

Source: Rwanda Children Survey (August 2011)

Base: Children who worked in agriculture in the last 7 days.

4. Earnings from Work

More than three-quarters of children reported working without pay. Of the 22.1 percent who responded in the affirmative when asked whether they receive anything in exchange for their work, the most common forms of payment were clothing (43.8 percent) and food (40.5 percent). Qualitative discussions conducted during the exploratory phase of this study suggested that in many cases, the food and clothing children were referring to in responding to these questions were treats or gifts, rather than formalized payments of food or clothing for subsistence in exchange for work. A little more than a quarter of children (28.9 percent) indicated that they received education in exchange for their work, and about a fifth of children (20.6 percent) received cash. When asked about payment terms, the majority (77.8 percent) reported being paid on a piece rate. Among children paid in cash, the median weekly compensation was 400 francs (about \$0.65). Very few children (0.8 percent) indicated that someone else was paid on their behalf.

Table VI-20: Earnings of Children Who Worked in the Last 7 Days by Gender

	Total children working in agriculture	Boys working in agriculture	Girls working in agriculture	p-value
N=	89,658	43,689	45,969	
n=	1550	755	795	
	%	%	%	
Do you receive anything in exchange for your work? (% "Yes")	22.1	20.1	24.0	.06
What do you get in exchange for your work?¹				
Cash	20.6	24.3	17.6	0.14
In kind	3.3	2.4	4.1	0.44
New skill	6.4	6.3	6.4	0.91
Education	28.9	26.9	30.5	0.49
Shelter	19.7	24.4	16.0	0.06
Food	40.5	40.4	40.6	0.98
Clothing	43.8	39.6	47.1	0.16
Medical support	2.0	3.7	0.6	<0.05*
DK/RTA	2.0	2.3	1.8	0.94
How is your pay determined? ²				
Piece rate	77.8	81.8	73.1	0.27
Hourly	0.0	0.0	0.0	-
Daily	15.7	10.9	21.1	0.26
Weekly	2.7	2.5	2.9	0.95

	Total children working in agriculture	Boys working in agriculture	Girls working in agriculture	p-value
Monthly	4.0	7.4	0.0	0.09
Other	0.0	0.0	0.0	
DK/RTA	1.3	0.0	2.9	0.29
Median Weekly Earnings (In Rwandan Francs)²	400	556.82	200.00	0.22

Source: Rwanda Children Survey (August 2011).

¹Base: Children who worked in agriculture in the last 7 days and are paid.

²Base: Children who worked in agriculture in the last 7 days and are paid in cash.

5. *Estimated Prevalence of Children in Hazardous Labor*

Children were in general unaware of the risks they face at work. Only 13.6 percent of children believed that their work is dangerous. When asked about specific hazards, however, they demonstrated greater awareness. The main hazards reported by children were exposure to dust or smoke (55.1 percent), extreme cold (44.9 percent), and insects (35.3 percent). Temperatures in Northern district rarely reach below 50° F, so extreme cold is a relative concept and is usually associated with rain in this setting. Extreme heat is a similarly relative concept, with 30.2 percent of children reporting exposure in a province where temperatures rarely exceed 80° F. Between one-quarter and one-third of children responded that they are exposed to slipping, tripping, or falling hazards (27.5 percent); snakes (26.7 percent); and contaminated water (25.1 percent).

Less commonly reported hazards included carrying heavy loads and applying pesticides and fertilizer. While children carrying large bags and baskets of produce are a common sight in the rural Northern Province, only 5.7 percent of children reported carrying heavy loads. This contradiction may result from a social desirability bias, with children reluctant to admit a perceived weakness. Rwandan law specifies pesticides and fertilizer as hazardous (2010 Ministerial Order).⁶⁹ Children reported greater exposure to chemical fertilizers (18.3 percent) than to pesticides (11.3 percent).

Exposure to hazards was similar for girls and boys working in agriculture. Girls reported greater risk of being burned by fire (15.1 versus 11.6 percent), presumably due to their greater role in cooking, since most households in rural areas use firewood as the heat source for cooking, as well as greater exposure to chemical fertilizers (20.4 versus 16.7 percent).

⁶⁹ 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 them, and their prevention mechanisms.

Table VI-21: Exposure to Workplace Hazards for Children Who Worked in the Last 7 Days by Gender

	Total children working in agriculture	Boys working in agriculture	Girls working in agriculture	p-value
N=	91,080	44,466	46,614	
n=	1574	768	806	
Workplace Hazards	%	%	%	
Chemical Hazards				
Dust/smoke	55.1	53.1	56.9	0.06
Pesticides	11.4	12.7	10.3	0.28
Chemical fertilizers	18.6	16.7	20.4	<0.05*
Physical Hazards				
Extreme heat	30.2	30.5	29.9	0.90
Extreme cold	44.9	43.7	46.0	0.20
Prolonged exposure to sunlight	20.8	21.0	20.6	0.92
Getting burned by fire	13.4	11.6	15.1	<0.05*
Slipping, tripping or falling	27.5	27.6	27.4	0.76
Cuts	7.0	6.8	7.3	0.54
Carrying heavy loads	5.7	5.8	5.5	0.93
Dangerous heights	6.1	6.5	5.6	0.58
Biological Hazards				
Insects	35.3	36.9	33.9	0.51
Snakes	26.7	26.6	26.8	0.69
Contaminated water	25.1	23.5	26.6	0.11

Source: Rwanda Children Survey (August 2011).

Note: Multiple response items, totals may not add up to 100%.

Base: Children who worked in agriculture in the last 7 days.

Children working in agriculture reported using a wide range of tools, and the majority (85.9 percent) reported using some type of dangerous tool. The most widely used tools were the hoe, which was used by 84.9 percent of children, and the machete, also known as a panga, which was used by 66.3 percent of children. A little over half of children (52.5 percent) reported using a knife in their work. Half of children indicated using a tool known as a “half hoe,” a hoe broken to make the end sharp and rough which is used for working in rocky soil. A similar percentage of children (50.0 percent) used a sickle, which is most commonly used to cut grass to feed animals.

Table VI-22: Use of Tools by Children Who Worked in the Last 7 Days by Gender

	Total children working in agriculture	Boys working in agriculture	Girls working in agriculture	p-value
N=	91,080	44,466	46,614	
n=	1574	768	806	
Tools	%	%	%	
Do you use _____ in your work?				
Machete/panga*	66.3	68.1	64.5	.17
Sickle*	50.0	50.5	49.6	.78
Hoe	84.9	84.3	85.5	.41
Half hoe	50.4	47.6	53.0	<0.05*
Saw*	11.8	11.6	11.9	.83
Axe*	37.5	37.5	37.5	.98
Pick*	17.0	17.3	16.8	.79
Knife*	52.5	50.2	54.7	.07
Shovel	11.8	11.8	11.9	.89
DK/RTA	1.3	1.3	1.2	.92
Total using dangerous tools	85.9	86.2	85.6	.72

Source: Rwanda Children Survey (August 2011).

Base: Children who worked in the last 7 days in agriculture.

Note: Multiple response items, totals may not add up to 100%.

*Tools considered dangerous.

In line with the companion to Convention 182, Recommendation 190, this study also explored whether children were exposed to physical, psychological, or sexual abuse by asking whether children are treated well at work. The vast majority (97.9 percent) of children indicated positive treatment.

In an effort to shed light on working conditions, the study investigated the types of clothing worn by children while working. Long sleeves, long pants or skirts, hats, gloves, and footwear help to protect children from exposure to the sun, from minor cuts and bruises during work in the fields or forest, and from contact with fertilizer or pesticides. In a setting where many children work barefoot, sandals can be considered protective clothing because they protect the soles of the feet. The most common types of protective clothing were long pants or skirts (67.7 percent), long-sleeved shirts (42.6 percent), and sandals (37.5 percent), which offer some degree of protection relative to the bare feet typically observed. Some items of protective clothing varied significantly by gender. Girls were more likely to wear long pants or skirts than boys (72.1 and 62.9 percent, respectively), who are commonly observed in shorts. Boys reported wearing both hats/caps (20.7 versus 11.5 percent) and boots (12.4 versus 3.1 percent) more often than girls.

Adult supervision represents another protective measure. Only a little over a quarter (28.2 percent) of children reported being supervised by an adult in their work. Children were often observed working without supervision during fieldwork, either collecting grass for the animals along the road or in the woods or working on the family farm while their parents worked elsewhere. Among those children who were supervised, most (86.4 percent) were supervised by a parent or guardian and a few by an elder sibling (15.1 percent) or employer (5.4 percent).

Table VI-23: Protective Measures for Children Who Worked in the Last 7 Days by Gender

	Total children working in agriculture	Boys working in agriculture	Girls working in agriculture	p-value
N=	91,080	44,466	46,614	
n=	1574	768	806	
Protective Measures	%	%	%	
While working, do you usually wear _____?¹				
Hat/cap	15.9	20.7	11.5	<0.01**
Long-sleeved shirt	42.6	43.5	41.7	.76
Long pants or skirt	67.7	62.9	72.1	<0.01**
Gloves	0.5	0.5	0.5	.95
Boots	7.6	12.4	3.1	<0.01**
Shoes	15.4	13.5	17.1	.07
Sandals	37.5	37.3	37.7	.70
Are you supervised by an adult in your work? (% Yes)¹	28.2	27.9	28.5	.80
By Whom?²				
Parent/guardian	86.4	85.2	87.5	.50
Elder brother/sister	15.1	14.5	15.6	.70
Other relatives	1.6	2.3	0.9	.22
Employer	5.4	7.0	3.9	.16

Source: Rwanda Children Survey (August 2011).

¹Base: Children who worked in the last 7 days in agriculture.

²Base: Children who worked in the last 7 days in agriculture and are supervised by an adult.

Note: Multiple response items, totals may not add up to 100%.

Paraphrasing Convention 182, the workplace hazards discussed earlier in this section represent the different types of work that, by the nature or circumstances in which they are carried out, are likely to harm the health, safety, or morals of children, and can therefore be considered hazardous work. The hazards explored represent an exhaustive inventory of the specific types of hazardous work mentioned by ILO Recommendation 190 relevant to the context of agricultural work in the Northern Province, which include:

- Work which exposes children to physical, psychological, or sexual abuse;
- Work with dangerous machinery, equipment, and tools, or which involves the manual handling or transport of heavy loads;
- 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; and
- 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.

In order to determine the total proportion of children in hazardous work, a summary measure was developed to take into account exposure to any of the workplace hazards mentioned above. If a child was exposed to any of the hazardous agents or processes listed on Table VI-21, used any dangerous tools, or was exposed to abuse, that child was considered to be in hazardous work. Though excessive hours also constitute hazardous work for children, long hours were not incorporated into the summary measure since Rwandan law does not define excessive hours. Based on this summary measure, 100 percent of working children were in hazardous work. This is not surprising considering the many hazards involved in agricultural work. Based only on one component (use of dangerous tools), 85.9 percent of children would already be in hazardous work. Hazardous work is clearly widespread in the agricultural sector.

Table VI-24: Prevalence of Hazardous Work Among Children Who Worked Yesterday by Gender

	Total children working in agriculture	Boys working in agriculture	Girls working in agriculture	p-value
N=	84,032	41,676	42,356	
n=	1,452	719	733	
	%	%	%	
Hazardous work	100.0	100.0	100.0	-
Nonhazardous work	0.0	0.0	0.0	-
Total	100.0	100.0	100.0	-

Source: Rwanda Children Survey (August 2011).

Base: Children who worked yesterday in agriculture.

F. Health Status of Working Children

As discussed in the previous section, Rwandan children working in agriculture are exposed to hazardous working conditions that can be a threat to their short- and long-term health and wellbeing. While this causal link appears obvious, establishing the impact of work on health outcomes is not always feasible. In addition to risks that have immediate health consequences, children who work in agriculture may be exposed to a set of hazardous factors that may not immediately impact their health, but rather accumulate over time. The final long-term impact may interact with other factors, such as education,⁷⁰ and the relative contribution of each factor may be difficult to quantify. Though this study does not aim to perform a causal analysis, the health measures used in this research try to identify some link between work and health by asking children if they had been injured or sick as a result of work. These measures are in any case based on self-reports, and are only as accurate as the insight children may have had about the cause of their injuries or illnesses.

i. Work-related Illnesses

All children interviewed were first asked whether they had recently experienced an illness. No statistically-significant difference in illness rates was found between working and nonworking children (see Table X-4 in Appendix X.a). Working children were asked whether they had experienced that illness due to work.⁷¹ Only 7.5 percent of children reported having experienced an illness due to work, and among these children, the illnesses most commonly experienced were mild respiratory illnesses (30.2 percent), skin diseases (27.0 percent), and body aches or pains (25.0 percent). Those who had experienced an illness due to work were asked how long their normal activities were restricted as a result of the most severe illness. Most children responded with less than seven days, with 11.6 percent reporting no restriction, 6.8 reporting a restriction of less than one day, and 36.5 percent reporting a restriction of more than one and less than seven day.

Table VI-25: Work-Related Illnesses Among Children Who Worked in the Last 12 Months by Gender

	Total children working in agriculture	Boys working in agriculture	Girls working in agriculture	p-value
N=	95,636	46,409	49,227	
n=	1,656	803	853	
Protective Measures	%	%	%	
Have you ever experienced an illness like this due to work? (% Yes)¹	7.5	8.6	6.4	.31
Which of the following illnesses did you suffer from?²				

⁷⁰ O'Donnel, O., Rosati, F. & van Doorslaer, E. (2002). *Child Labour and Health: Evidence and Research Issues*. UCW Working Paper 1. Rome: Understanding Children's Work.

⁷¹ This prompting was necessary because the Kinyarwanda words for injury and illness are often used interchangeably, particularly by children.

	Total children working in agriculture	Boys working in agriculture	Girls working in agriculture	p-value
Skin diseases (skin allergy, eczema, etc.)	27.0	29.4	24.1	.51
Severe respiratory illness (asthma, tuberculosis, pneumonia, etc.)	10.1	7.5	12.7	.33
Body aches/pains (head, back, etc.)	25.0	25.4	23.6	.83
Mild respiratory illness (i.e., cold, flu)	30.2	32.8	27.3	.51
Stomach illness (diarrhea, vomiting)	15.5	16.2	14.5	.80
Vision problems	1.5	2.9	0.0	.20
Hearing problems	3.0	1.5	5.5	.22
Others	3.9	4.4	3.6	.83
DK/RTA	14.8	14.9	14.5	.95
How long were your normal activities restricted as a result of the most severe illness? ²				
No restriction	11.6	10.3	12.7	.85
Less than 1 day	6.8	8.8	3.6	
Less than 7 days	36.5	35.3	36.4	
Less than 14 days	10.2	11.8	9.1	
Less than 1 month	11.6	8.8	16.4	
1 month or more	14.7	14.7	14.5	
Permanently disabled	2.3	2.9	1.8	
DK/RTA	6.3	7.4	5.5	

Source: Rwanda Children Survey (August 2011).

¹Base: Children who worked in agriculture in the last 12 months.

Note: Multiple response items, totals may not add up to 100%.

²Base: Children who worked in agriculture in the last 12 months and have ever suffered a work-related illness.

ii. All Injuries

Data on the number and type of injuries experienced in the last year were collected from all children, which allowed for a comparison between children working in agriculture and children not working in agriculture. Overall, children working in agriculture were more than twice as likely to report having been injured in the past 12 months (69.0 versus 27.4 percent for children not working in agriculture). Children working in agriculture were significantly more likely to report injuries to their head or skull (11.5 versus 2.4 percent); arms (25.3 versus 6.5 percent); hands, wrists, or fingers (21.7 versus 4.8 percent); legs (33.9 versus 15.3 percent); and feet, ankles, or toes (21.8 versus 5.7 percent).

Table VI-26: Prevalence of Injuries Among Children by Working Status in the Past 7 days

	Total	Children working in agriculture	Children not working in agriculture	p-value
N=	98,214	91,080	7,134	
n=	1,697	1,574	123	
	%	%	%	
Have you been injured in the past 12 months? (% Yes)¹	66.0	69.0	27.4	<0.01**
Have you had an injury to your_____?				
Head/Skull	10.9	11.5	2.4	<0.01**
Face	3.6	3.6	4.1	.77
Neck	1.4	1.5	0.0	.18
Shoulder/Chest/Back	3.5	3.7	0.8	.09
Abdomen	2.8	3.0	0.0	.05
Pelvic region	1.1	1.1	0.0	.23
Arm	23.9	25.3	6.5	<0.01**
Hand/Wrist/Fingers	20.5	21.7	4.8	<0.01**
Leg	32.5	33.9	15.3	<0.01**
Foot/Ankle/Toes	20.6	21.8	5.7	<0.01**
Internal injuries	0.6	0.7	0.0	.35

Source: Rwanda Children Survey (August 2011).

¹ If a child indicated "Yes" to any injury in the in the past 12 months.

Note: Multiple response items, totals may not add up to 100%.

iii. Work-related Injuries

Around a quarter of children (26.3 percent) reported having ever been injured while working. Among these children, 25.0 percent were injured in the last seven days, 35.7 percent were injured in the last month, 19.0 percent were injured in the last three months, and 8.7 percent were injured in the last year.

Table VI-27: Prevalence and Frequency of Work-related Injuries Among Children Who Worked in the Last 12 Months by Gender

	Total children working in agriculture	Boys working in agriculture	Girls working in agriculture	p-value
N=	95,636	46,409	49,227	
n=	1,656	803	853	
Protective Measures	%	%	%	
Have you ever been injured while working? (% Yes)¹	26.3	28.6	24.1	.06

	Total children working in agriculture	Boys working in agriculture	Girls working in agriculture	p-value
When was the last time you were injured while working? (%)²				
In the last 7 days	25.0	27.0	22.8	.38
Last month	35.7	33.9	37.4	
In the last 3 months	19.0	18.7	19.4	
In the last 12 months	8.7	9.6	7.8	
Longer ago	7.6	5.7	9.7	
DK/RTA	4.0	5.2	2.9	

Source: Rwanda Children Survey (August 2011).

¹Base: Children who worked in agriculture in the last 12 months.

²Base: Children who worked in agriculture in the last 12 months and suffered work-related injury in the last 12 months.

To aid recall, children were prompted with a list of body parts and asked about injuries to each part. Legs (20.1 percent) and arms (19.6 percent) received the most injuries, followed by hands/wrists/fingers (18.3 percent) and feet/ankles/toes (10.4 percent). Nearly half of injuries were scrapes, cuts, or punctures (46.3 percent), followed by bruises (14.5 percent) and burns or blisters (12.4 percent).

Table VI-28: Types of Work-related Injuries Among Children Who Worked in the Last 12 Months by Gender

	Total children working in agriculture	Boys working in agriculture	Girls working in agriculture	p-value
N=	95,636	46,409	49,227	
n=	1,656	803	853	
Protective Measures	%	%	%	
Have you had an injury to your _____?				
Head /Skull	5.5	5.0	6.0	.37
Face	1.6	2.2	1.1	.06
Neck	1.0	1.1	0.9	.72
Shoulder/Chest/Back	2.8	3.6	2.1	.07
Abdomen	1.5	1.1	1.9	.21
Pelvic region	0.8	0.9	0.7	.70
Arm	19.6	18.3	20.8	.21
Hand/Wrist/Fingers	18.3	16.8	19.6	.14
Leg	20.1	20.4	19.8	.78
Foot/Ankle/Toes	10.4	9.3	11.4	.17
Internal injuries	0.5	0.6	0.5	.67

	Total children working in agriculture	Boys working in agriculture	Girls working in agriculture	p-value
What type of injury occurred?				
Scrape/Cut/Puncture	46.3	43.3	49.1	.09
Bruise/Contusion	14.5	15.0	14.0	.68
Sprain/Strain	9.0	9.9	8.1	.35
Broken bone/Fracture	4.2	5.3	3.1	.10
Dislocation	3.4	3.9	3.1	.52
Loss of body part	1.7	2.4	1.1	.13
Burn /Blister/Scald	12.4	10.4	14.3	.09
Other ⁷²	35.8	35.4	36.2	.80
DK/RTA	4.4	4.4	4.4	.98

Source: Rwanda Children Survey (August 2011).

Note: Multiple injuries, parts of the body and types of injury possible. Totals may not add up to 100%.

For each body part injured, children were asked their activity at the time of the injury. The most common activity was playing (30.4 percent), with a greater percentage of boys reporting being injured by playing than girls (34.6 percent versus 26.4 percent). This trend reversed for injuries sustained while doing household chores, where 33.7 of girls and 24.8 percent of boys were injured. The agricultural activity most associated with injuries was tending animals, where one-fifth (20.7 percent) of children were injured. One-tenth of working children (10.8 percent) were injured while bringing lunch or water to other workers. The activities the child was involved in related to agriculture were similar for boys and girls, except girls were significantly more likely than boys to be clearing/tilling land at the time of the injury (5.3 versus 2.5 percent).

Table VI-29: Activity Performed When Injured Among Children Who Worked in the Last 12 Months by Gender

	Total children working in agriculture	Boys working in agriculture	Girls working in agriculture	p-value
N=	65,098	32,218	32,880	
n=	1,115	550	565	
	%	%	%	
What activity were you doing when your injury occurred?				
Digging trenches	0.9	0.9	1.1	.79
Creating terraces	0.8	0.9	0.7	.72
Clearing/Tilling	3.9	2.5	5.3	<0.05*

⁷² Interviewers indicated that the high rate of “other” on this question related to the lack of distinction between injury and illness, for example, rashes and dizziness were often listed as injuries.

	Total children working in agriculture	Boys working in agriculture	Girls working in agriculture	p-value
Fertilizing the fields	1.2	1.6	0.9	.27
Sowing/Planting	1.4	1.6	1.2	.59
Pruning	2.8	2.0	3.5	.11
Weeding/Thinning	3.9	4.5	3.3	.32
Keeping the Birds Away	0.9	1.1	0.7	.51
Brining lunch/water to workers	10.8	10.2	11.4	.53
Harvesting	5.4	4.8	6.0	.40
Removing shells/husking	1.5	1.3	1.8	.49
Drying produce	1.7	1.6	1.8	.85
Carrying produce	4.1	3.4	4.7	.26
Other farming work	4.2	3.9	4.4	.71
Tending to animals	20.7	23.0	18.5	.06
Going to agricultural work	3.5	3.8	3.3	.70
Other work	11.3	12.2	10.5	.38
Doing chores	29.3	24.8	33.7	<0.01**
Playing	30.4	34.6	26.4	<0.01**
Other nonwork	13.4	12.4	14.4	.32
DK/RTA	8.4	10.6	6.3	<0.01**

Source: Rwanda Children Survey (August 2011).

Base: Children who worked in agriculture in the last 12 months and suffered an injury in the last 12 months.

Note: Multiple injuries possible. Total may not add up to 100%.

iv. Impact of Work-related Injuries on Household Income

Children's work-related injuries are first and foremost harmful to children's health, but they may also be detrimental to their households' income. This impact can be the result of foregone incomes if children have to stop working and/or if someone else in the household has to stop working to look after them. Lost income can also be the result of the total cost of health care, including medical expenses, drugs, and transportation.

This study attempted to estimate the impact of children's work-related injuries on household incomes by collecting data on these cost elements from household informants. Interestingly, but unfortunately, household informants only reported a fraction of the injuries identified by children. This finding was in line with the overall discounting of children's work-related activities by adults; it also further underlined the fact that most work-related injuries suffered by children are not severe enough to register with adults in the households.

Only 91 working children were identified by household informants as injured in the last 12 months. ICF International attempted to measure the impact of work injuries on household income. Most respondents (69.2 percent) reported that the child's injury had no impact on the household. Among those who did report an impact, there was an insufficient sample base for analysis. While the results obtained from the limited sample are at best qualitative, the main impact from these work-related injuries was reportedly lost income.

Although the sample is too small to draw any conclusions, it is possible that household informants only noticed the truly severe injuries that had a real impact on the household's income, in which case the estimated impact of work-related injuries on household incomes would be unbiased and very small.

G. Estimated Prevalence of Children in Forced Labor, Bonded Labor, and Trafficking

A review of the literature and discussions with Rwandan officials suggest that bonded labor is very uncommon in Rwanda. However, there have been reports of forced labor and trafficking of children, particularly in domestic servitude and prostitution.⁷³ Because children working in the agricultural sector work primarily in a family context within their communities, worst forms of child labor, other than hazardous work, seem a priori unlikely in this environment. Nevertheless, this section analyzes the existence of any working conditions that may be indicators of forced labor, bonded labor, or child trafficking among child agricultural workers in the Northern Province of Rwanda.

i. Forced/Bonded Labor

ILO Convention 29 defines forced labor as “any work or service which is exacted from any person under the menace of any penalty and for which said person has not offered himself voluntarily.”⁷⁴ This definition becomes problematic when the person is a child and the employer her or his parent. In this case, the 1956 Supplementary Convention is helpful, as it clarifies that forced labor includes “any institution or practice whereby a child or young person under the age of 18 years, is delivered by either or both of his natural parents or by his guardian to another person, whether for reward or not, with a view to the exploitation of the child or young person or of his labour.” It is therefore necessary to establish first that the child works for someone other than a parent. As Table VI-30 indicates, only 4.7 percent of children reported working for a third party other than a parent.

⁷³ U.S. Department of State. (2011). Trafficking in Persons. <http://www.state.gov/g/tip/rls/tiprpt/2011/164233.htm>

⁷⁴ ILO Convention 29 concerning Forced or Compulsory Labour. (1930). Geneva: ILO

Table VI-30: Employer of Children Who Worked in the Last 12 Months by Gender

	Total children working in agriculture	Boys working in agriculture	Girls working in agriculture	p-value
N=	95,636	46,409	49,227	
n=	1656	803	853	
Employer	%	%	%	
Do you mostly work for ___ ?				
Your parents	91.8	91.6	92.0	.72
Another family member	3.5	3.4	3.5	.86
A nonrelative	1.2	1.3	1.0	.56
Yourself	1.6	1.7	1.5	.73
Other	0.0	0.0	0.0	
DK/RTA	2.0	2.0	1.9	.99

Source: Rwanda Children Survey (August 2011).

Base: Children who worked in agriculture in the last 12 months.

Following ILO C. 29 and the latest guidance from the ILO,⁷⁵ this study identified two main components of forced labor, including coercion (“menace of any penalty”) and deceptive recruitment (“not offered voluntarily”).⁷⁶ As an indicator of coercion, children who did not work for their parents or themselves were asked the risks they would face if they refused to work for their current employer (see item 903 in the child questionnaire, Appendix X.c). Deceptive recruitment was established by whether any promises from the employer about the job were broken after the child began working (see items 901 and 902 in the child questionnaire, Appendix X.c). Using these qualifications, this study estimated that indicators of possible forced labor conditions were present for 0.1 percent of the sampled children.

Bonded labor is a sub-category of forced labor with three main components, each measured by specific indicators on the child questionnaire (see Appendix X.c):

- Pledge of personal services as security for debt (item 907);
- Value of services not being reasonably applied toward liquidation of the debt (items 908, 909, 910); and
- Length and nature of those services not respectively limited and defined (item 911).

⁷⁵ International Labour Organization—International Programme on the Elimination of Child Labour. (2011). Meeting of Consultants on Methodologies to Estimate the Prevalence of Forced Labour of Adults and Children. Geneva: ILO.

⁷⁶ Survey questions by the ILO (2011) have 3 conditions: deceptive recruitment, coercion, and impossibility to leave. The definition of forced labor according to C. 29 only has 2 components: not offered voluntarily (deceptive recruitment) and menace of penalty (coercion). Impossibility of leaving is in fact a function of menace of penalty; if the menace of a penalty can be established, impossibility of leaving is established implicitly. This study does not therefore include impossibility of leaving explicitly in the operational definition of forced labor.

None of the children in this study met these conditions; therefore, the estimated rate of bonded labor among children in agriculture is 0.0 percent.

Table VI-31: Prevalence of Forced and Bonded Labor Indicators Among Children Who Worked in the Last 12 Months by Gender

	Total children working in agriculture	Boys working in agriculture	Girls working in agriculture	p-value
N=	95,636	46,409	49,227	
n=	1,656	803	853	
	%	%	%	
Forced labor	0.1	0.1	0.0	0.20
Bonded labor	0.0	0.0	0.0	
Nonforced labor	99.8	99.6	100.0	
DK/NR	0.1	0.2	0.0	
Total	100.0	100.0	100.0	

Source: Rwanda Children Survey (August 2011).

Base: Children who worked in agriculture in the last 12 months.

Note: Multiple items, totals may not add up to 100%.

ii. Labor Migration and Trafficking

There were high levels of internal displacement and emigration in the years surrounding the 1994 genocide. In the years following the genocide, returning refugees lacked land on which to settle, and many spent considerable time in makeshift settlements and camps, some of which are still in use. The challenge of permanent placement for internally and externally displaced refugees continues to the present day.⁷⁷ The gradual placement of refugees and changes in land ownership due to court decisions regarding genocide crimes account for some of Rwanda's internal population movement. Additionally, there is a high degree of rural to urban migration in Rwanda, with the rate of urban population growth around seven percent.⁷⁸

The low rate of population movement in rural areas is reflected in the table below. Only 3.1 percent of children reported being born in a different district from where they currently live. The analysis of labor migration among child workers is important, as it may be an indicator of child trafficking situations. It is necessary, however, to prove that this movement was for the purpose of labor exploitation. Most of the children born in a different district moved to the current location with their families, with only 10.9 percent of working children coming from a different district without a parent or spouse.

⁷⁷ <http://www.rema.gov.rw/soe/chap2.php>

⁷⁸ <http://uaps2007.princeton.edu/download.aspx?submissionId=70442>

Table VI-32: Migration Among Children Who Worked in the Last 12 Months by Gender

	Total children working in agriculture	Boys working in agriculture	Girls working in agriculture	p-value
N=	95,636	46,409	49,227	
n=	1,656	803	853	
	%	%	%	
Where you born in this district or elsewhere? (% Elsewhere)	3.1	3.5	2.7	.44
When you came here, did a parent or spouse come to live with you? (% No)	10.9	12.2	7.9	.69

Source: Rwanda Children Survey (August 2011).

Base: Children who worked in agriculture in the last 12 months.

In order to determine the total proportion of children for which the study found evidence of possible trafficking conditions, a summary measure was developed to take into consideration the various aspects of the definition. Children were identified as vulnerable to trafficking if they moved without their parents (items 801 and 802, Appendix X.c), were not living with their parents or spouse (item 806, Appendix X.c), and were not working for their parents or themselves (item 523, Appendix X.c). The movement of the child was classified as possible trafficking if the child reported he had a job waiting on him before the move (item 810, Appendix X.c), if a labor contractor was involved (item 812, Appendix X.c), and if someone received something in exchange for his move (item 813, Appendix X.c). Finally, the case was classified as exploitation if it met the conditions for either forced or hazardous work described above. Similar to forced labor, 0.1 percent of children matched these qualifications and demonstrated indicators of possible child trafficking.

Table VI-33: Prevalence of Child Trafficking Indicators Among Children Who Worked Yesterday by Gender

	Total children working in agriculture	Boys working in agriculture	Girls working in agriculture	p-value
N=	84,032	41,676	42,356	
n=	1,452	719	733	
	%	%	%	
Trafficking	0.1	0.3	0.0	0.15
Not Trafficking	99.9	99.7	100.0	
Total	100.0	100.0	100.0	

Source: Rwanda Children Survey (August 2011).

Base: Children who worked in agriculture in the last 12 months.

VI CONCLUSIONS

Children working in agriculture represent a significant population in the Northern Province of Rwanda, both in absolute numbers and as a proportion of the total workforce employed by the sector. Adult respondents reported generally positive attitudes towards child work in agriculture. Children carry out a wide variety of agricultural tasks. While none of the tasks are exclusively carried out by boys or girls, the study found that boys tend to complete tasks that take place away from the home or in isolated environments or that require significant physical force. The work that girls perform more often generally takes place near the home or with other adults. Children work on a variety of crops and with many types of animals, but the most frequently cited were beans, maize, chickens, and cows.

An investigation of the demographics of working children and their families revealed that children tend to work more as they grow older. Children working in agriculture tend to live in households with more members than the households of nonworking children. More unexpectedly, the study found that child agricultural laborers tend to live in households with higher socioeconomic status than children who do not work.

Children working in agriculture are working in hazardous conditions either because they are using dangerous tools such as machetes or they are exposed to some other hazardous agent or process, such as dust or smoke, extreme temperatures, slipping or tripping hazards, or insects.

Working in agriculture appears to affect children's welfare opportunities, with implications for their education and health. Working children demonstrate slower progress in school and a greater age-grade delay. Overall, 13.5 percent of children who are attending school reported that work interferes with their studies, and as many as 10.3 percent reported having missed school for work once per week or more often. However, working children have higher attendance and participation rates than children not working in agriculture.

Children working in agriculture reported significantly more injuries than those not working in agriculture. About one in four children working in agriculture (26.3 percent) reported having been injured at work, and one quarter of these children were injured in the last seven days. Most injuries included cuts or lacerations to the upper and lower extremities. No difference was found in the rates of recent illness between working and nonworking children, and working children reported few work related illnesses, which may be due to a delay between exposure to hazards and development of symptoms.

One area for future research would be a study of child labor in agriculture in Rwanda that investigates the effects of child labor using an experimental or longitudinal design. The intention of this work was to gather descriptive statistics about children's work in agriculture, their demographics, education, and health. However, this study cannot determine whether agricultural work has a negative or positive impact on children's welfare because the characteristics measured are occurring naturally in the population (i.e., the causal impact of agricultural work has not been isolated from the impact of other variables that affect a child's welfare). While the use of reference groups provides information about differences between children working and

not working in agriculture, the degree to which agricultural work explains those differences is unknown. We can merely hypothesize causal relationships, based on theoretical and logical assumptions. Future research using an experimental or longitudinal design could provide valuable findings on the causes and consequences of child labor in this setting.

Another potential area for further research is a qualitative exploration of child labor in agriculture in Rwanda. Such a study would allow for a deeper understanding of the motivations and attitudes of parents and children regarding child labor and could shed light on some of the unexpected findings in this study, including the higher school attendance rates and socioeconomic statuses of children working in agriculture compared to those not working in agriculture. A study incorporating ethnographic interviews and observations could also yield a more nuanced understanding of the injuries and illnesses related to child labor in the sector.

VII LIMITATIONS OF THE STUDY

This study had a number of limitations, resulting both from design and fieldwork challenges that must be taken into account when evaluating the study results. Four limitations in particular merit comment:

The first limitation resulted from nonresponse to children interviews. Although child nonresponse rates were acceptable (9 percent), nonresponse is never desirable for two main reasons: First, it reduces the sample available for analysis of children responses, increasing the margin of error of the estimates derived from such responses. Second, although nonresponse can be adjusted to match known population parameters, the direction of the error is unknown for variables where the population parameter is not known, and so in these cases nonresponse bias cannot be known or adjusted.

Second, the study was able to conduct only one pre-test of the study instruments. The wording of several questions was changed after pre-testing, and so these questions were not pre-tested in their final form.

Third, interviewer error in some instances led to missing cases in the data set. While some interviewer error is to be expected, particularly in the developing country context, the challenges of fieldwork described above led to greater than desired interviewer error. While some errors could be corrected, this was a time-consuming process, and some mistakes remained. There are three significant issues in this case. First, interviewers were challenged by the complex questionnaire and struggled to properly follow the skip instructions, particularly for the household questionnaire. Second, mistakes in recording or failure to record the household questionnaire number and line number on the child questionnaire led to difficulties in matching the child questionnaires to their respective household questionnaires. While most of the questionnaires were eventually matched through manual sorting, six unmatched questionnaires remain, and there is some doubt about the accuracy of the matching in some cases. Additionally, interviewers made many errors in recording the daily diaries. While a manual review of the questionnaires helped to resolve some issues, many data points had to be removed because times overlapped or were otherwise incorrect. As a result, the hours worked on chores and agriculture as reported in the daily diaries must be interpreted with caution.

Finally, both the exclusion of agricultural workers in nonagricultural households and the limited amount of population data available for the Northern Province of Rwanda make it impossible to extrapolate the results to the population with precision. As mentioned, only households where agriculture was the main economic activity were included in the sample, meaning that agricultural workers in nonagricultural households were excluded from the sample. An additional challenge was that currently available data do not distinguish rural from urban, nor is there information available on the percentage of the population involved in agriculture. As a result, this study uses DHS data to roughly estimate the rural portion of the population in order to extrapolate the results.

VIII LESSONS LEARNED

One lesson learned concerns nonresponse and missing data. Future surveys expecting significant nonresponse or missing data due to “don’t know” answers and refusals to answer at the child level should include specific methods to mitigate the effects of these biases. There are several approaches that could be implemented to this end.

The first one would be to include time and budget buffers in the project to allow fieldwork teams as many callbacks as necessary to reach all or most children and to establish the trust of the child respondent. While this approach would be ideal from a research perspective, it would introduce significant uncertainty in the project budget and schedule.

A second approach would be to collect completely overlapping data from household and child informants, as is the practice in some National Child Labor Surveys. Biases could be adjusted using population parameters from household interviews. This approach is however problematic for two reasons: First, it is expensive and inefficient. Most overlapping data will eventually not be used, representing an unnecessary burden to respondents, interviewers, supervisors, data processing teams, and analysts. Second, even if the overlapping data are used, it is uncertain that overlapping data collected from household informants can be used as a reliable population parameter to adjust for child nonresponse and missing data. While basic demographic information about children in the household will probably be reliable, information on more specific aspects may not be. For example, in the current project, demographic data collected from household informants was reliable and could be used to adjust for nonresponse. However, data on other aspects, such as the number of injuries suffered by children, were likely under-reported by adult informants and would lead to biased adjustments.

A third approach would be to estimate both the magnitude and direction of nonresponse error due to children’s absence using methods such as response-probability adjustments.⁷⁹ Response-probability adjustments collect data from respondents on their likelihood to be at home for k similar periods. Respondents are weighted by the reciprocal of the estimated likelihood to give a greater weight to respondents who are less likely to be at home. This method is more economic than the two previous alternatives, although it does not address the problem of reduced sample sizes, and it may also result in large weights with the corresponding increase in variance.

An additional lesson learned relates to the inclusion criteria of households. Defining an agricultural household as a household primarily supported by agriculture, rather than a household in which any member worked for an hour or more in the previous year, may lead to the exclusion of some agricultural workers. Future surveys should be certain to clearly define inclusion and exclusion criteria and be cognizant of the limitations therein. One resolution would be to develop a more fully inclusive approach. In this case, no household screening process would have been used, and a sample of all children ages 7 to 17 in the region would have been interviewed.

⁷⁹ Politz, A. & Simmons, W. (1949). An attempt to get the ‘not at homes’ into the sample without callbacks. *Journal of the American Statistical Association*, 44, 9-31.

However, a fully inclusive approach must be considered with caution in settings where the sector under study is not the main sector in a region, since this could overly limit the number of respondents engaged in the sector of interest.

A final lesson learned concerns allowing for ample time to prepare for and complete fieldwork. Bureaucratic delays can greatly extend the time needed to prepare for a study and must be actively anticipated. There are few experienced researchers available on short notice, and as a result, assembling a strong team requires advance planning. Additionally, translating into Kinyarwanda was challenging and time-consuming, as direct translations of many questions were impossible. Finally, fieldwork itself was time-consuming as a result of the rain, limited infrastructure, and reluctance of some villages to receive strangers.

APPENDICES

A ADDITIONAL RESULTS

Table X-1: School Participation of Children by Age, Gender, and Working Status in the Past 12 Months

	Total	Children working in agriculture	Children not working in agriculture	p-value
N=	7,697	6,169	1,475	
n=	136	108	27†	
Have you ever attended school? (% “Yes”)	%	%	%	
Total	53.2	60.3	X	-
Age				
7–9 years	16.7	16.7	X	-
10–12 years	53.3	58.3	X	-
13–15 years	72.0	69.6	X	-
16–17 years	63.5	66.1	X	-
Gender				
Male	52.9	58.2	X	-
Female	53.0	63.5	X	-

Source: Rwanda Children Survey (August 2011).

Base: Children who have achieved the age of mandatory attendance in primary school (7 years old or above) and are not currently attending school.

† Insufficient sample size.

Table X-2: Reasons for Not Attending School for Children by Working Status in the Past 12 Months

	Total	Children working in agriculture	Children not working in agriculture	p-value
N=	7,697	6,169	1,475	
n=	136	108	27†	
	%	%	%	
What are the reasons that you don’t go to school?				
Illness/Illness/Disability	13.9	12.1	X	-
No school/School too far	2.8	3.7	X	-
Lack of means (financial)	71.4	75.7	X	-
Family does not promote schooling	5.4	6.5	X	-
To work	5.6	7.5	X	-
Not interested in school	17.8	21.5	X	-

	Total	Children working in agriculture	Children not working in agriculture	p-value
Lack of understanding	13.0	15.1	X	-
Low quality of school	2.8	0.9	X	-
To do household tasks	3.6	4.7	X	-
Not old enough	11.5	0.9	X	-
DK/RTA	3.4	4.7	X	-

Source: Rwanda Children Survey (August 2011).

Note: Multiple responses, totals may not add up to 100%.

Base: Children who have achieved the age of mandatory attendance in primary school (7 years old or above) and are not attending or have not attended school.

† Insufficient sample size.

Table X-3: Characteristics of School Absence by Working Status in the Past 12 Months

	Total	Children working in agriculture	Children not working in agriculture	p-value
N=	3,687	3,393	224	
n=	61	56	4†	
How many days of school did you miss? (Median)				
	2	2	X	-
Why did you miss school on these days? (%)				
School was closed	0.0	0.0	X	-
Teacher absent	4.2	4.6	X	-
To do farm work	8.0	8.7	X	-
To take care of animals	3.2	3.5	X	-
To do household chores	28.5	27.7	X	-
Other work	7.7	8.3	X	-
No transportation available	1.5	1.6	X	-
Bad weather conditions	3.2	3.5	X	-
Illness	45.5	45.6	X	-
Injury/Disability	1.6	1.8	X	-
Other	4.4	4.7	X	-
DK/RTA	4.3	3.1	X	-

Source: Rwanda Children Survey (August 2011).

Base: Children who have achieved the age of mandatory attendance in primary school (7 years old or above), are currently attending school, and did not go to school every day school was open in the last week school was in session.

† Insufficient sample size.

Table X-4: Illnesses Among Children by Working Status in the Past 7 Days

	Total	Children working in agriculture	Children not working in agriculture	p-value
N=	106,301	91,080	7,134	
n=	1,707	1,574	123	
	%	%	%	
Which of the following illnesses have you had in the last two weeks?				
Skin diseases (skin allergy, eczema, etc.)	7.3	6.9	8.1	.59
Severe respiratory illness (asthma, tuberculosis, pneumonia, etc.)	1.9	2.0	2.4	.73
Body aches/pains (head, back, etc.)	6.1	6.3	7.3	.67
Mild respiratory illness (e.g., cold, flu)	30.4	30.8	29.8	.83
Stomach illness (diarrhea, vomiting)	42.0	42.3	38.7	.44
Vision problems	2.6	2.8	2.4	.81
Hearing problems	1.8	1.6	2.4	.52
Others	<1	<1	0.0	.35
DK/RTA	10.1	9.1	14.6	<0.05*

Source: Rwanda Children Survey (August 2011).

Note: Multiple response items, totals may not add up to 100%.

Table X-5: Treatment for Work-Related Illnesses Among Children Who Worked in the Last 12 Months by Gender

	Total children working in agriculture	Boys working in agriculture	Girls working in agriculture	p-value
N=	7,069	3,902	3,167	
n=	124	69	55	
	%	%	%	
Did you receive any treatment for your latest work-related illnesses? % Yes)¹	71.5	67.6	76.4	.49

	Total children working in agriculture	Boys working in agriculture	Girls working in agriculture	p-value
What type of treatment did you receive?²				
Community health worker	6.8	10.9	2.4	.12
Visit to clinic/hospital	88.6	89.1	88.1	.88
Overnight stay at clinic/hospital	8.0	10.9	4.8	.29
DK/RTA	2.3	0.0	4.8	.13

Source: Rwanda Children Survey (August 2011).

¹Base: Children who worked in agriculture in the last 12 months and have ever suffered a work-related illness.

²Base: Children who worked in agriculture in the last 12 months, have ever suffered a work-related illness, and received treatment for their illness.

Note: Multiple response items, totals may not add up to 100%.

Table X-6: Treatment for Work-Related Injuries Among Children Who Worked in the Last 12 Months by Gender

	Total children working in agriculture	Boys working in agriculture	Girls working in agriculture	p-value
N=	22,229	11,867	10,362	
n=	384	206	178	
	%	%	%	
Did you receive any treatment for your last work-related injury? (% Yes)¹	48.3	49.8	46.7	.62
What type of treatment did you receive?²				
Community health worker	10.0	15.2	4.1	<0.01**
Visit to clinic/hospital	87.9	82.0	94.8	<0.01**
Overnight stay at clinic/hospital	3.8	5.4	2.1	.21
DK/RTA	2.4	2.7	2.1	.77

Source: Rwanda Children Survey (August 2011).

¹Base: Children who worked in agriculture in the last 12 months and have suffered a work-related injury in the last 12 months.

²Base: Children who worked in agriculture in the last 12 months, have suffered a work-related injury in the last 12 months, and received treatment for their latest injury.

Note: Multiple response items, totals may not add up to 100%.

Table X-7: Children’s Involvement in the Production of Crops and Attendance of Animals During the Last 12 Months by Injury Status

	Total children working in agriculture	Children working in agriculture who were injured in the last 12 months	Children working in agriculture who were not injured in the last 12 months	p-value
N=	95,636	22,229	72,120	
n=	1,633	38	1,595	
	%	%	%	
Were you involved in producing _____?				
Bananas	15.4	22.9	15.3	.22
Beans	89.8	81.6	90	.30
Cabbage	12.7	2.7	13	.07
Cassava	20.7	20.1	20.8	.92
Coffee	1.8	2.5	1.8	.66
Irish potatoes	39.3	24.7	39.7	.08
Maize	54.1	53.3	54.1	.86
Peas	9.9	10.5	9.8	.80
Pineapple	2.1	7.4	2	<0.01**
Pyrethrum	3.4	0	3.5	.26
Sorghum	34.6	21.1	35	.12
Sugarcane	11.0	22.4	10.7	<0.05*
Sweet potatoes	43.0	32.5	43.3	.25
Tea	0.3	0	0.4	.73
Other	2.4	7.6	2.3	<0.05*
DK/RTA	0.9	0	0.9	.58

	Total children working in agriculture	Children working in agriculture who were injured in the last 12 months	Children working in agriculture who were not injured in the last 12 months	p-value
Have you tended a _____?				
Cow	58.8	55.9	58.9	.74
Goat	41.2	38	41.3	.64
Sheep	24.0	25.3	24	.81
Pig	11.6	11.9	11.6	.97
Rabbit	34.4	45	34.2	.16
Chicken	64.1	74.8	63.9	.23
Other	1.3	2.6	1.2	.39
DK/RTA	1.3	0	1.3	.49

Source: Rwanda Children Survey (August 2011).

Note: Multiple response items, totals may not add up to 100%.

Base: Children who worked in agriculture in the last 12 months.

Table X-8: Recipient of Payment for Children Who Worked in the Last 7 Days by Gender

	Total children working in agriculture	Boys working in agriculture	Girls working in agriculture	p-value
N=	91,080	44,466	46,614	
n=	1574	768	806	
	%	%	%	
Is someone else paid on your behalf (%Yes)¹	0.8	0.7	1.0	.44
Who receives payment for your work?²				
Mother	X	X	X	-
Father	X	X	X	-
Other relatives	X	X	X	-
Friend	X	X	X	-
Other	X	X	X	-
DK/RTA	X	X	X	-

Source: Rwanda Children Survey (August 2011).

¹Base: Children who worked in agriculture in the last 7 days.

²Base: Children who worked in agriculture in the last 7 days, and someone else receives money on their behalf. Insufficient sample size.

Table X-9: Severity of Work-Related Injuries Among Children Who Worked in the Last 12 Months by Gender

	Total children working in agriculture	Boys working in agriculture	Girls working in agriculture	p-value
N=	22,229	11,867	10,362	
n=	384	206	178	
	%	%	%	
How long were your normal activities restricted as a result of this injury?				
No restriction	47.8	48.5	46.9	.75
Less than 1 day	16.4	15.0	17.9	.45
Less than 7 days	33.2	31.1	35.8	.33
Less than 14 days	12.5	11.7	13.4	.62
Less than 1 month	10.7	11.2	10.1	.71
1 month or more	10.9	11.2	10.6	.85
Permanently disabled	2.9	3.4	2.2	.49
DK/RTA	13.5	13.1	14.0	.81

Source: Rwanda Children Survey (August 2011).

Base: Children who worked in agriculture in the last 12 months and suffered a work-related injury in the last 12 months.

Note: Multiple injuries (up to 3) possible. Totals may not add up to 100%.

Table X-10: Impact of Most Severe Work-Related Injuries Among Children on Household Income by Gender

	Total children working in agriculture	Boys working in agriculture	Girls working in agriculture	p-value
N=	91,483	45,137	46,346	
n=	385	207	178	
	%	%	%	
What impact did (NAME)'s injury have on the household? (% Yes)¹				
Lack of food due to inability to farm	0.0	0.0	0.0	
Lost income	11.0	9.8	12.5	.68
Medical expenses	4.4	3.9	5.0	.80
No impact	69.2	74.5	62.5	.22
DK/RTA	16.5	11.8	22.5	.17

	Total children working in agriculture	Boys working in agriculture	Girls working in agriculture	p-value
Was the reduction in food mild, moderate, or severe?²				
Mild	0.0	0.0	0.0	
Moderate	0.0	0.0	0.0	
Severe	0.0	0.0	0.0	
DK/RTA	0.0	0.0	0.0	
Money lost due to most severe injury (median amount)²				
Income loss	7000	8500	5000	
Cost of medical expenses	8625	8625	11000	

Source: Rwanda Household Survey (August 2011).

¹Base: Children who worked in agriculture in the last 12 months and suffered a work-related injury in the last 12 months.

²Base: Children who worked in agriculture in the last 12 months, suffered a work-related injury in the last 12 months and reported that the injury had an impact on the household.

Note: Multiple response items, totals may not add up to 100%.

Table X-11: Exposure to Abuse at Work by Children Who Worked in the Last 7 Days by Gender

	Total children working in agriculture	Boys working in agriculture	Girls working in agriculture	p-value
N=	91,080	44,466	46,614	
n=	1574	768	806	
	%	%	%	
Are you treated well when working?¹ (% Yes)	97.9	97.5	98.4	.23
In what way are you not treated well?²				
Scolded using profanity	X	X	X	-
Scolded without profanity	X	X	X	-
Hit	X	X	X	-
Touched in unwanted way (sexual abuse)	X	X	X	-
Punished through deductions from payment	X	X	X	-
Other	X	X	X	-

Source: Rwanda Children Survey (August 2011).

¹Base: Children who worked in the last 7 days in agriculture.

²Base: Children who worked in the last 7 days in agriculture and report not being treated well while working. Insufficient sample size.

Note: Multiple response items, totals may not add up to 100%.

Table X-12: Household Assets by Wealth Quintiles

	Total	Poorest	2	3	4	Richest
N=	52,546	10,509	10,509	10,509	10,509	10,509
n=	1,000	200	200	200	200	200
	%	%	%	%	%	%
Main Roofing Material						
Sod	1.4	4.0	1.0	1.0	1.0	0.0
Metal/Iron sheet	54.3	41.7	48.0	52.8	56.3	72.7
Ceramic tiles	41.9	51.8	47.5	43.7	41.7	24.7
Main Material of the Walls						
Dirt	34.8	50.0	39.2	34.9	35.9	14.5
Bamboo with mud	3.9	2.6	6.2	4.1	4.7	2.0
Stone with mud	3.4	1.5	0.5	1.0	6.8	7.0
Uncovered adobe	20.1	21.4	26.8	21.0	16.7	14.5
Reused wood	1.2	1.5	1.5	1.0	0.5	1.5
Cement	5.3	0.0	0.0	1.5	4.7	20.0
Stone with lime/Cement	1.8	0.0	0.0	0.0	0.5	8.5
Bricks	1.1	0.0	0.0	0.0	0.0	5.5
Covered adobe	26.7	19.4	24.7	32.8	30.2	26.5
Main Flooring Material						
Earth/Sand	83.9	100.0	98.0	95.4	87.9	38.4
Dung	2.0	0.0	0.0	2.6	3.0	4.5
Cement	10.9	0.0	0.0	0.0	3.5	51.0
Main Type of Toilet						
Ventilated improved latrine	23.8	25.8	24.9	22.3	21.7	24.4
Pit latrine with slab	48.4	20.7	41.6	49.2	66.7	64.0
Pit latrine without slab/open pit	22.2	48.5	24.9	22.8	8.1	6.6
Main Source of Drinking Water						
Piped to yard/plot	1.2	0.0	0.0	0.0	0.0	6.0
Public tap/standpipe	53.9	46.0	46.0	54.5	59.6	63.3
Tube well or borehole	1.2	2.5	1.0	0.5	0.5	1.5
Protected spring	21.4	20.0	22.5	24.7	21.7	18.1
Unprotected spring	14.9	20.5	20.5	13.1	13.1	7.0
Surface water	5.2	10.0	7.0	6.1	2.0	1.0

	Total	Poorest	2	3	4	Richest
Household-owned Durable Goods						
Electricity	7.4	0.0	0.0	2.1	7.7	27.1
A radio	70.0	24.1	65.0	76.1	89.8	95.5
A television	1.9	0.0	0.0	0.0	0.5	9.0
A mobile telephone	24.7	4.6	13.3	28.1	36.0	41.2
Wrist watch	33.9	5.1	15.2	32.5	54.6	62.4
A bicycle	22.0	0.5	4.6	13.7	38.3	53.6
A bank account	34.1	2.5	9.4	27.8	54.7	76.4
Mean heads of livestock						
Cattle	0.9	0.2	0.6	0.8	1.1	1.9
Goats	0.5	0.1	0.2	0.4	0.7	0.9
Sheep	0.2	0.1	0.2	0.3	0.3	0.2
Chickens	0.5	0.0	0.2	0.3	0.5	1.3
Pigs	0.1	0.0	0.0	0.1	0.1	0.5
Rabbits	0.3	0.1	0.2	0.3	0.5	0.6
Cattle	0.9	0.2	0.6	0.8	1.1	1.9
Mean number of rooms for sleeping	3.0	2.3	2.8	3.0	3.4	3.6

Source: Rwanda Household Survey (August 2011).

Section I		Household Composition and Characteristics									
<p>Read out: We are interested in learning about your household. A Household is defined as a person or group of persons who live together in the same house or compound and share the same cooking arrangements. Members of a household are not necessarily related (by blood or marriage).</p>											
Household Members		What is the relationship of (Name) to the head of the household?	Is (Name) Male or Female? 1. Male 2. Female	How old is (Name)? <i>Interviewer: For individuals 95 or older, write 95. If only year of birth is known, enter age using chart below:</i>						Eligibility	
A1. Please circle the Person Number of the individual providing the information	Can you please provide (first) names of all persons who normally reside in this household, beginning with the Head of the Household, and then going from older to younger members? <i>Interviewer: -Include people who are temporarily absent for any reason. -List children from older to younger</i>	01 Head 02 Wife or husband 03 Son or daughter 04 Son in law or daughter in law 05 Grandchild 06 Parent 07 Parent in law 08 Brother or sister 09 Other relative 10 Adopted/foster/stepchild 11 Not related 12 Domestic worker 98 Don't know 99 Refused		2010's	2000's	1990's	1980's	1970's	1960's	1950's	Circle Person Number if (Name) is ages 7 to 17 years
					2009=2 2008=3 2007=4 2006=5 2005=6 2004=7 2003=8 2002=9 2001=10 2000=11	1999=12 1998=13 1997=14 1996=15 1995=16 1994=17 1993=18 1992=19 1991=20 1990=21	1989=22 1988=23 1987=24 1986=25 1985=26 1984=27 1983=28 1982=29 1981=30 1980=31	1979=32 1978=33 1977=34 1976=35 1975=36 1974=37 1973=38 1972=39 1971=40 1970=41	1969=42 1968=43 1967=44 1966=45 1965=46 1964=47 1963=48 1962=49 1961=50 1960=51	1959=52 1958=53 1957=54 1956=55 1955=56 1954=57 1953=58 1952=59 1951=60 1950=61	
Line N ^o	Ask of all household members.										
	A2	A3	A4	A5						A6	
01			1 2							01	
02			1 2							02	
03			1 2							03	
04			1 2							04	
05			1 2							05	
06			1 2							06	
07			1 2							07	
08			1 2							08	
09			1 2							09	
10			1 2							09	

List All Eligible Children from the Household Survey (7 through 17 years old):					
	Child's Name	Household Member Number (A1)	Child's Age (A6)	Is one of child's parents/guardians present? 1. Yes 2. No	Has parent/guardian given consent for participation of the child? 1. Yes 2. No
1		_ _	_ _	_ _	_ _
2		_ _	_ _	_ _	_ _
3		_ _	_ _	_ _	_ _
4		_ _	_ _	_ _	_ _
5		_ _	_ _	_ _	_ _
6		_ _	_ _	_ _	_ _
7		_ _	_ _	_ _	_ _
8		_ _	_ _	_ _	_ _

Instructions to Interviewer: We want you to attempt to interview all children in the household ages 7–17 years old. This same form may be used to obtain parental consent for more than one child. Read the following statements to a parent/ guardian of the children residing in the household and answer any questions the individual(s) may have. **Do not begin to interview a child until all questions have been addressed, the parent/guardian has agreed to let the child/children participate in the study, and the child has agreed to be interviewed.**

- We would like to ask some questions of [*child's/children's name(s)*] about their schooling, participation in farming, and health.
- Your *child/children* does/do not have to answer the questions, and they may stop at any time.
- Your *child's/children's* answers will be kept private and used only for this research.
- Your *child's/children's* name(s) will not be used in any reports.
- The interview with each child will take about 35 minutes.
- Do you have any questions of us before we talk with your child/children?
- May we talk with your *child/children* in private?

Interviewer Certification of Consent:

My signature affirms that I have read the verbal informed consent statement to the parent/guardian, and I have answered any questions asked about the study. The respondent consented to the children being interviewed.

_____ Respondent agreed

_____ Respondent did not agree

Print Interviewer's Name _____

Interviewer's Signature _____ Date _____

Section I		Household Composition and Characteristics				
Transfer Person Number and Age from Section I, Column A5		What is (Name)'s current marital status? <i>(Single response. Read out.)</i> 1. Married or living together 2. Divorced/separated 3. Widowed 4. Never married and never lived together 98. Don't know 99. Refused	Is (Name)'s natural mother alive? 1. Yes 2. No> A10 98. Don't know> A10 99. Refused> A10	Does (Name)'s natural mother live in this household? 1. Yes 2. No 98. Don't know 99. Refused	Is (Name)'s natural father alive? 1. Yes 2. No > A12 98. Don't know > A12 99. Refused> A12	Does (Name)'s natural father live in this household? 1. Yes 2. No 98. Don't know 99. Refused
	Transfer	12+ years	Under 18 years			
				A8 = 1		A10=1
	PN	Age	A7	A8	A9	A10
	01		1 2 3 4 98 99	1 2 98 99	1 2 98 99	1 2 98 99
	02		1 2 3 4 98 99	1 2 98 99	1 2 98 99	1 2 98 99
	03		1 2 3 4 98 99	1 2 98 99	1 2 98 99	1 2 98 99
	04		1 2 3 4 98 99	1 2 98 99	1 2 98 99	1 2 98 99
	05		1 2 3 4 98 99	1 2 98 99	1 2 98 99	1 2 98 99
	06		1 2 3 4 98 99	1 2 98 99	1 2 98 99	1 2 98 99
07		1 2 3 4 98 99	1 2 98 99	1 2 98 99	1 2 98 99	
08		1 2 3 4 98 99	1 2 98 99	1 2 98 99	1 2 98 99	
09		1 2 3 4 98 99	1 2 98 99	1 2 98 99	1 2 98 99	
10		1 2 3 4 98 99	1 2 98 99	1 2 98 99	1 2 98 99	

Section II		Education and School Attendance					
<i>Transfer Person Number and Age from Section I, Column A5</i>		Has (Name) ever attended school? 1. Yes 2.No>A16 98. Don't know>A17 99. Refused>A17	What is the highest level of school that (NAME) has completed? 1. Pre-school or some pre school 2. Some primary 3. Primary 4. Lower secondary 5. Senior secondary 6. University 7. Non Standard Curriculum 98. Don't Know 99. Refused	Is (Name) currently attending school? 1. Yes >A17 2. No 98. Don't know>A17 99. Refused >A17	What is the main reason why (NAME) is not attending or never attended school? And the second most important reason? And the third most important reason? <i>(Spontaneous. Record in order of importance up to a maximum of three responses.)</i> 1. Disabled/illness 2. No school/school too far 3. Lack of means (financial) 4. Family does not promote schooling 5. Not interested in school 6. Lack of understanding 7. Low quality of school 8. To work 9. Help at home with household tasks 10. Not old enough 11. Other 98. Don't know 99. Refused		
		Transfer	All 7+	All 7+ A12=1	Children 7 -17 A12=1	Children 7-17 A12 = 2 or A14=2	
PN	Age	A12	A13	A14	A16		
					1 st	2 nd	3rd
01		1 2 98 99	1 2 3 4 5 6 7 98 99	1 2 98 99			
02		1 2 98 99	1 2 3 4 5 6 7 98 99	1 2 98 99			
03		1 2 98 99	1 2 3 4 5 6 7 98 99	1 2 98 99			
04		1 2 98 99	1 2 3 4 5 6 7 98 99	1 2 98 99			
05		1 2 98 99	1 2 3 4 5 6 7 98 99	1 2 98 99			
06		1 2 98 99	1 2 3 4 5 6 7 98 99	1 2 98 99			
07		1 2 98 99	1 2 3 4 5 6 7 98 99	1 2 98 99			
08		1 2 98 99	1 2 3 4 5 6 7 98 99	1 2 98 99			
09		1 2 98 99	1 2 3 4 5 6 7 98 99	1 2 98 99			
10		1 2 98 99	1 2 3 4 5 6 7 98 99	1 2 98 99			

Section III		Activity Status of all Household Members (7 year +)						
Person Number Of all persons ages 7+	In the past 12 months, did (NAME) ____? <i>(Multiple responses. Read out.)</i> 1. Dig irrigation trenches 2. Create terraces 3. Prepare land for planting (clear/till) 4. Fertilize the fields 5. Sow/plant 6. Prune 7. Weed and thin 8. Harvest 9. Remove shells/husk 10. Dry produce 11. Carry produce to market/factory 12. Sell produce in the market 13. Tend animals 14. Other farming activities 15. None> A19 98. Don't know> A19 99. Refused> A19		When was the last time (NAME) engaged in one of these activities? 1. Yesterday or today 2. In the last 7 days 3. In the last month 4. In the last 3 months 5. In the last 12 months 98. Don't know 99. Refused Go to >>>A24	Did (NAME) work since last (day of the week 7 days ago)? 1. Yes> A28 2. No 98. Don't know 99. Refused	Even if (NAME) did not work since last (day of the week), did (NAME) have a job, business, or enterprise from which (he/she) was temporarily absent for leave, illness, injury, vacation, maternity leave or any other such reason? 1. Yes > A28 2. No 98. Don't know 99. Refused	As you know, some people have jobs for which they are paid in cash or kind. Others sell things, have a small business or work on the family farm or in the family business. Since last (day of the week), has (NAME) done any of these things or any other work? 1. Yes> A28 2. No 98. Don't know 99. Refused	Has (NAME) done any work for at least one hour since August last year? 1. Yes > A28 2. No 98. Don't know 99. Refused	As you know, some people have jobs for which they are paid in cash or kind. Others sell things, have a small business or work on the family farm or in the family business. Since August last year, has (NAME) done any of these things or any other work? 1. Yes> A28 2. No> A36 98. Don't know> A28 99. Refused> A28
	Transfer	All (7+)	A17 ≠ 15	A17=15	A19>1	A20>1	A21>1	A22 >1
PN	Age	A17	A18	A19	A20	A21	A22	A23
01		1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 98 99	1 2 3 4 5 98 99	1 2 98 99	1 2 98 99	1 2 98 99	1 2 98 99	1 2 98 99
02		1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 98 99	1 2 3 4 5 98 99	1 2 98 99	1 2 98 99	1 2 98 99	1 2 98 99	1 2 98 99
03		1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 98 99	1 2 3 4 5 98 99	1 2 98 99	1 2 98 99	1 2 98 99	1 2 98 99	1 2 98 99
04		1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 98 99	1 2 3 4 5 98 99	1 2 98 99	1 2 98 99	1 2 98 99	1 2 98 99	1 2 98 99
05		1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 98 99	1 2 3 4 5 98 99	1 2 98 99	1 2 98 99	1 2 98 99	1 2 98 99	1 2 98 99
06		1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 98 99	1 2 3 4 5 98 99	1 2 98 99	1 2 98 99	1 2 98 99	1 2 98 99	1 2 98 99
07		1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 98 99	1 2 3 4 5 98 99	1 2 98 99	1 2 98 99	1 2 98 99	1 2 98 99	1 2 98 99
08		1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 98 99	1 2 3 4 5 98 99	1 2 98 99	1 2 98 99	1 2 98 99	1 2 98 99	1 2 98 99
09		1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 98 99	1 2 3 4 5 98 99	1 2 98 99	1 2 98 99	1 2 98 99	1 2 98 99	1 2 98 99
10		1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 98 99	1 2 3 4 5 98 99	1 2 98 99	1 2 98 99	1 2 98 99	1 2 98 99	1 2 98 99

Section III		Activity Status of all Household Members (7 year +)				
Transfer age from A5	Is farming (NAME)'s main means of support?	Does (NAME) spend most of his/her time on crops, livestock, or both?	Which crop does (NAME) spend the most time on? (Single response.)			Are the products (NAME) is involved in mostly consumed by the household or sold?
	1. Yes 2. No >A28 98. Don't Know >A28 99. Refused >A28	(Single response.) 1. Crops 2. Livestock 3. Both 98. Don't know 99. Refused	1. Bananas 2. Beans 3. Cabbage 4. Cassava 5. Coffee 6. Irish potatoes 7. Maize 8. Peas 9. Pineapple 10. Pyrethrum 11. Sorghum 12. Sugarcane 13. Sweet potatoes 14. Tea 15. Other (specify) 16. None 98. Don't know 99. Refused			(Single response.) 1. Consumed 2. Sold 98. Don't know 99. Refused Go to >>>A30
Transfer	A17 ≠ 15	A24=1	A24=1			A24=1
PN	Age	A24	A25	A26		A27
				Response	Specify Other	
01		1 2 98 99	1 2 3 98 99	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 98 99		1 2 98 99
02		1 2 98 99	1 2 3 98 99	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 98 99		1 2 98 99
03		1 2 98 99	1 2 3 98 99	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 98 99		1 2 98 99
04		1 2 98 99	1 2 3 98 99	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 98 99		1 2 98 99
05		1 2 98 99	1 2 3 98 99	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 98 99		1 2 98 99
06		1 2 98 99	1 2 3 98 99	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 98 99		1 2 98 99
07		1 2 98 99	1 2 3 98 99	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 98 99		1 2 98 99
08		1 2 98 99	1 2 3 98 99	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 98 99		1 2 98 99
09		1 2 98 99	1 2 3 98 99	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 98 99		1 2 98 99
10		1 2 98 99	1 2 3 98 99	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 98 99		1 2 98 99

Section III		Activity Status of all Household Members (7 year + and working in past 12 months)										
Transfer age from A5	<p>Could you please describe the work that (NAME) spent the most time on since July last year?</p> <p><i>“Main” refers to the work that (Name) spent most of the time of the week. If same number of hours used in more than one work, consider the one where s/he earns the most money</i></p> <p>Do not include domestic chores or school.</p>		<p>What products or services does (NAME) work on?</p>		<p>Does (NAME) farm and tend animals primarily for a family member, for someone else, or is (NAME) self-employed?</p> <p><i>(Single response.)</i></p> <p>1. For family member 2. For someone else 3. Self employed 98. Don't know 99. Refused</p>		<p>Is (NAME) paid in cash or kind or not paid at all?</p> <p>1. Cash only 2. Cash and kind 3. In kind only>A33 4. Not paid >A33 98. Don't know>A33 99. Refused>A33</p>		<p>How much does (NAME) earn each week?</p> <p>If not farming, Go to>>A36</p>	<p>How many hours per day does (NAME) usually spend farming or tending livestock?</p>	<p>How many days does (NAME) usually farm or tend livestock per week?</p>	<p>At what age did (NAME) start to participate in farming and tending livestock?</p>
	Transfer	A24=2 or A17=15				Farming	Working	A31<3	Farming & 7-17 years			
PN	Age	A28	Code (In office)	A29	Code (In office)	A30	A31	A32	A33	A34	A35	
01						1 2 3 98 99	1 2 3 4 98 99					
02						1 2 3 98 99	1 2 3 4 98 99					
03						1 2 3 98 99	1 2 3 4 98 99					
04						1 2 3 98 99	1 2 3 4 98 99					
05						1 2 3 98 99	1 2 3 4 98 99					
06						1 2 3 98 99	1 2 3 4 98 99					
07						1 2 3 98 99	1 2 3 4 98 99					
08						1 2 3 98 99	1 2 3 4 98 99					
09						1 2 3 98 99	1 2 3 4 98 99					
10						1 2 3 98 99	1 2 3 4 98 99					

Section IV		Housekeeping activities of all Household Members (7+ years)				
Transfer age from A5	Since last (day of the week) did (Name) do household chores such as cooking, cleaning, washing clothes, fetching water or caring for children?	How many hours per day does (Name) usually spend on these household chores?	How many days per week does (NAME) usually spend on these household chores?	When does (Name) usually carry out these activities? <i>(Multiple responses. Read out.)</i>	Which household chores was (Name) mainly carrying out? <i>(Multiple responses. Read out.)</i>	
	1. Yes 2. No>>A41 98. Don't Know>>A41 99. Refused>A41			1. In the morning 2. In the afternoon 3. At night 4. Weekends 98. Don't know 99. Refused	1. Mopping or sweeping 2. Washing clothes 3. Cooking for family, serve meals, wash dishes 4. Shopping for household 5. Collecting water 6. Collecting firewood 7. Minor household repairs 8. Caring for children/old/sick 98. Don't know 99. Refused	
Transfer	All 7+	A36=1				
PN	Age	A36	A37	A38	A39	A40
01		1 2 98 99			1 2 3 4 98 99	1 2 3 4 5 6 7 8 98 99
02		1 2 98 99			1 2 3 4 98 99	1 2 3 4 5 6 7 8 98 99
03		1 2 98 99			1 2 3 4 98 99	1 2 3 4 5 6 7 8 98 99
04		1 2 98 99			1 2 3 4 98 99	1 2 3 4 5 6 7 8 98 99
05		1 2 98 99			1 2 3 4 98 99	1 2 3 4 5 6 7 8 98 99
06		1 2 98 99			1 2 3 4 98 99	1 2 3 4 5 6 7 8 98 99
07		1 2 98 99			1 2 3 4 98 99	1 2 3 4 5 6 7 8 98 99
08		1 2 98 99			1 2 3 4 98 99	1 2 3 4 5 6 7 8 98 99
09		1 2 98 99			1 2 3 4 98 99	1 2 3 4 5 6 7 8 98 99
10		1 2 98 99			1 2 3 4 98 99	1 2 3 4 5 6 7 8 98 99

Section V		Child health status (7 -17 years)							
Transfer age from A5		<p>Has (NAME) had any of the following illnesses in the last two weeks?</p> <p><i>(Multiple responses. Read out.)</i></p> <p>1. Diarrhea 2. Ill with fever 3. Ill with cough 4. Other 5. None 98. Don't know 99. Refused</p>	<p>Has (NAME) ever been ill due to farming or tending animals?</p> <p>1. Yes 2. No>A45 98. Don't know>A45 99. Refused >A45</p>	<p>Did (NAME) ever have _____ because of farming or tending animals?</p> <p><i>(Multiple responses. Read out.)</i></p> <p>1. Skin diseases (skin allergy, eczema, etc.) 2. Body aches/pains (head, neck, back, hand, wrist, joints) 3. Eye strain/eyesight impairment 4. Hearing impairment 5. Severe respiratory diseases (eg.; asthma, tuberculosis, pneumonia, etc.) 6. Minor respiratory disease (eg. cold, flu) 7. Stomach disease (eg.; vomiting, diarrhea, etc.) 9. Other 98. Don't know 99. Refused</p>	<p>How long were (NAME's) normal activities restricted as a result of this illness? (most recent illness)</p> <p><i>(Spontaneous.)</i></p> <p>1. No restriction 2. Less than 1 day 3. Less than 7 days 4. Less than 14 days 5. Less than 1 month 6. 1 month or more 7. Permanently disabled 98. Don't know 99. Refused</p>	<p>Has (NAME) ever been injured?</p> <p>1. Yes 2. No>B1 98. Don't know>B1 99. Refused >B1</p>	<p>When was the last time (NAME) was injured?</p> <p><i>(Single response. Spontaneous.)</i></p> <p>1. In the past 7 days 2. In the past 1 month 3. In the past 3 months 4. In the past 12 months 5. Longer ago 98. Don't know 99. Refused</p>	<p>Has (NAME) ever been injured while farming or tending animals?</p> <p>1. Yes 2. No>B1 98. Don't know>B1 99. Refused>B1</p>	
	Transfer	All 7-17 years	Farming	A42=1		All 7-17 years	A45=1	A45=1 & Farming	
	PN	Age	A41	A42	A43	A44	A45	A46	A47
	01		1 2 3 4 5 98 99	1 2 98 99	1 2 3 4 5 6 7 8 9 98 99	1 2 3 4 5 6 7 98 99	1 2 98 99	1 2 3 4 5 98 99	1 2 3 4 5 6 98 99
	02		1 2 3 4 5 98 99	1 2 98 99	1 2 3 4 5 6 7 8 9 98 99	1 2 3 4 5 6 7 98 99	1 2 98 99	1 2 3 4 5 98 99	1 2 3 4 5 6 98 99
	03		1 2 3 4 5 98 99	1 2 98 99	1 2 3 4 5 6 7 8 9 98 99	1 2 3 4 5 6 7 98 99	1 2 98 99	1 2 3 4 5 98 99	1 2 3 4 5 6 98 99
	04		1 2 3 4 5 98 99	1 2 98 99	1 2 3 4 5 6 7 8 9 98 99	1 2 3 4 5 6 7 98 99	1 2 98 99	1 2 3 4 5 98 99	1 2 3 4 5 6 98 99
	05		1 2 3 4 5 98 99	1 2 98 99	1 2 3 4 5 6 7 8 9 98 99	1 2 3 4 5 6 7 98 99	1 2 98 99	1 2 3 4 5 98 99	1 2 3 4 5 6 98 99
	06		1 2 3 4 5 98 99	1 2 98 99	1 2 3 4 5 6 7 8 9 98 99	1 2 3 4 5 6 7 98 99	1 2 98 99	1 2 3 4 5 98 99	1 2 3 4 5 6 98 99
	07		1 2 3 4 5 98 99	1 2 98 99	1 2 3 4 5 6 7 8 9 98 99	1 2 3 4 5 6 7 98 99	1 2 98 99	1 2 3 4 5 98 99	1 2 3 4 5 6 98 99
08		1 2 3 4 5 98 99	1 2 98 99	1 2 3 4 5 6 7 8 9 98 99	1 2 3 4 5 6 7 98 99	1 2 98 99	1 2 3 4 5 98 99	1 2 3 4 5 6 98 99	
09		1 2 3 4 5 98 99	1 2 98 99	1 2 3 4 5 6 7 8 9 98 99	1 2 3 4 5 6 7 98 99	1 2 98 99	1 2 3 4 5 98 99	1 2 3 4 5 6 98 99	
10		1 2 3 4 5 98 99	1 2 98 99	1 2 3 4 5 6 7 8 9 98 99	1 2 3 4 5 6 7 98 99	1 2 98 99	1 2 3 4 5 98 99	1 2 3 4 5 6 98 99	

Section V		Child health status (7 -17 years)				
Transfer age from A5	When was the last time (NAME) was injured while farming or tending animals?	I would like to ask you about the most severe injury that (NAME) had while farming or tending animals since August last year. What body part was injured? <i>(Multiple responses. Spontaneous.)</i>	What type of injury occurred to the _____ (specify body part)? <i>(Multiple responses. Spontaneous.)</i>	How long were (NAME's) normal activities restricted as a result of this injury? <i>(Single response. Spontaneous.)</i>	Where was (NAME) treated for this injury? <i>(Multiple responses. Read out.)</i>	
	<ol style="list-style-type: none"> 1. In the past 7 days 2. In the past 1 month 3. In the past 3 months 4. In the past 12 months 5. Longer ago>B1 98. Don't know>B1 99. Refused>B1 	<ol style="list-style-type: none"> 1. Head/skull 2. Face 3. Neck 4. Shoulder/Chest/Back 5. Belly/Abdomen 6. Pelvic region 7. Arm 8. Hand/Wrist/Fingers 9. Leg 10. Foot/Ankle/Toes 11. Internal Injuries 12. Other 98. Don't know 99. Refused 	<ol style="list-style-type: none"> 1. Scrape/Cut/Puncture 2. Bruise/Contusion 3. Sprain/Strain/Torn Ligament 4. Broken Bone/Fracture 5. Dislocation 6. Loss of Body Part 7. Burn /Blister/Scald 8. Other 98. Don't know 99. Refused 	<ol style="list-style-type: none"> 1. No restriction 2. Less than 1 day 3. Less than 7 days 4. Less than 14 days 5. Less than 1 month 6. 1 month or more 7. Permanently disabled 98. Don't know 99. Refused 	<ol style="list-style-type: none"> 1. Community health worker 2. Day visit to clinic/hospital 3. Overnight stay at clinic/hospital 4. Dentist 5. Other 6. None 98. Don't know 99. Refused 	
Transfer	A47=1	A48 < 5				
PN	Age	A48	A49	A50	A51	A52
01		1 2 3 4 5 98 99	1 2 3 4 5 6 7 8 9 10 11 12 98 99	1 2 3 4 5 6 7 8 98 99	1 2 3 4 5 6 7 98 99	1 2 3 4 5 6 98 99
02		1 2 3 4 5 98 99	1 2 3 4 5 6 7 8 9 10 11 12 98 99	1 2 3 4 5 6 7 8 98 99	1 2 3 4 5 6 7 98 99	1 2 3 4 5 6 98 99
03		1 2 3 4 5 98 99	1 2 3 4 5 6 7 8 9 10 11 12 98 99	1 2 3 4 5 6 7 8 98 99	1 2 3 4 5 6 7 98 99	1 2 3 4 5 6 98 99
04		1 2 3 4 5 98 99	1 2 3 4 5 6 7 8 9 10 11 12 98 99	1 2 3 4 5 6 7 8 98 99	1 2 3 4 5 6 7 98 99	1 2 3 4 5 6 98 99
05		1 2 3 4 5 98 99	1 2 3 4 5 6 7 8 9 10 11 12 98 99	1 2 3 4 5 6 7 8 98 99	1 2 3 4 5 6 7 98 99	1 2 3 4 5 6 98 99
06		1 2 3 4 5 98 99	1 2 3 4 5 6 7 8 9 10 11 12 98 99	1 2 3 4 5 6 7 8 98 99	1 2 3 4 5 6 7 98 99	1 2 3 4 5 6 98 99
07		1 2 3 4 5 98 99	1 2 3 4 5 6 7 8 9 10 11 12 98 99	1 2 3 4 5 6 7 8 98 99	1 2 3 4 5 6 7 98 99	1 2 3 4 5 6 98 99
08		1 2 3 4 5 98 99	1 2 3 4 5 6 7 8 9 10 11 12 98 99	1 2 3 4 5 6 7 8 98 99	1 2 3 4 5 6 7 98 99	1 2 3 4 5 6 98 99
09		1 2 3 4 5 98 99	1 2 3 4 5 6 7 8 9 10 11 12 98 99	1 2 3 4 5 6 7 8 98 99	1 2 3 4 5 6 7 98 99	1 2 3 4 5 6 98 99
10		1 2 3 4 5 98 99	1 2 3 4 5 6 7 8 9 10 11 12 98 99	1 2 3 4 5 6 7 8 98 99	1 2 3 4 5 6 7 98 99	1 2 3 4 5 6 98 99

Section V		Child health status (7 -17 years)			
<i>Transfer age from A5</i>		What impact did (NAME)'s injury have on the household? (Multiple responses. Read out.) 1. Lack of food due to inability to farm 2. Lost income 3. Medical expenses 4. No impact >B1 98. Don't know> B1 99. Refused>B1	(If there was a reduction in food) Was the reduction in food mild, moderate, or severe? 1. Mild 2. Moderate 3. Severe 98. Don't know 99. Refused	How much income loss resulted from (NAME) injury? (In local currency)	What was the cost of medical expenses incurred as a result of (NAME) injury? (In local currency)
	Transfer	A47 =1	A53=1	A53 = 2	A53 = 3
PN	Age	A53	A54	A55	A56
01		1 2 3 4 98 99	1 2 3 98 99		
02		1 2 3 4 98 99	1 2 3 98 99		
03		1 2 3 4 98 99	1 2 3 98 99		
04		1 2 3 4 98 99	1 2 3 98 99		
05		1 2 3 4 98 99	1 2 3 98 99		
06		1 2 3 4 98 99	1 2 3 98 99		
07		1 2 3 4 98 99	1 2 3 98 99		
08		1 2 3 4 98 99	1 2 3 98 99		
09		1 2 3 4 98 99	1 2 3 98 99		
10		1 2 3 4 98 99	1 2 3 98 99		

Section VI		Household Assets, Dwelling Characteristics, and Shocks & Coping
S.N	Questions	Codes and Responses
B1	<p>What is the main source of drinking water for members of your household?</p> <p><i>(Single response. Spontaneous.)</i></p>	<p>Piped water</p> <p>Piped into dwelling1</p> <p>Piped to yard/plot2</p> <p>Public tap/standpipe.....3</p> <p>Tubewell or borehole.....4</p> <p>Dug well</p> <p>Protected well.....5</p> <p>Unprotected well6</p> <p>Water from spring</p> <p>Protected spring7</p> <p>Unprotected spring8</p> <p>Rainwater.....9</p> <p>Tanker truck10</p> <p>Cart with small tank.....11</p> <p>Surface water(river/dam/lake/pond/stream/canal/irrigation channel).....12</p> <p>Bottled water13</p> <p>Other.....14</p> <p>Don't know.....98</p> <p>Refused.....99</p>
B2	<p>Where is that water source located?</p> <p><i>(Single response. Read out.)</i></p>	<p>In own dwelling1</p> <p>In own yard/plot2</p> <p>Elsewhere3</p> <p>Don't know.....98</p> <p>Refused.....99</p>
B3	<p>What kind of toilet facility do members of your household usually use?</p> <p><i>(Single response. Spontaneous.)</i></p>	<p>Flush or pour flush toilet</p> <p>Flush to piped sewer system.....1</p> <p>Flush to septic tank2</p> <p>Flush to pit latrine3</p> <p>Flush to somewhere else.....4</p> <p>Flush, don't know where5</p> <p>Pit latrine</p> <p>Ventilated improved pit latrine6</p> <p>Pit latrine with slab7</p> <p>Pit latrine without slab/open pit8</p> <p>Composting toilet.....9</p> <p>Bucket toilet10</p> <p>Hanging toilet/hanging latrine11</p> <p>No facility/bush/field12</p> <p>Other: _____.....13</p> <p>Don't know.....98</p> <p>Refused.....99</p>

B4	Do you share this toilet facility with other households?	Yes1 No2 Don't know.....98 Refused.....99
B5	Does your household have____? <i>(Multiple responses. Read out.)</i>	Electricity1 A radio2 A television.....3 A mobile telephone4 A non-mobile telephone5 A refrigerator.....6 A computer7 Don't know.....98 Refused.....99
B6	MAIN MATERIAL OF THE FLOOR. RECORD OBSERVATION. <i>(Single response.)</i>	Natural floor Earth/sand.....1 Dung2 Rudimentary floor Wood planks.....3 Palm/bamboo.....4 Finished floor Parquet or polished wood5 Vinyl or asphalt strips6 Ceramic tiles.....7 Cement8 Carpet9 Other: _____.....10 Don't know.....98 Refused.....99
B7	MAIN MATERIAL OF THE ROOF. RECORD OBSERVATION. <i>(Single response.)</i>	Natural roofing No roof.....1 Thatch/palm leaf/leaf2 Sod3 Rudimentary roofing Rustic mat/plastic.....4 Palm/bamboo.....5 Wood planks.....6 Cardboard7 Finished roofing Metal/iron sheet8 Wood9 Calamine/cement fiber10 Ceramic tiles11 Cement.....12 Roofing shingles13 Other: _____.....14

<p>B8</p>	<p>MAIN MATERIAL OF THE EXTERIOR WALLS.</p> <p>RECORD OBSERVATON.</p> <p><i>(Single response.)</i></p>	<p>Natural walls</p> <p>No walls.....1</p> <p>Cane/palm/trunks2</p> <p>Dirt3</p> <p>Rudimentary walls</p> <p>Bamboo with mud.....4</p> <p>Stone with mud.....5</p> <p>Uncovered adobe.....6</p> <p>Plywood7</p> <p>Cardboard.....8</p> <p>Reused wood.....9</p> <p>Finished walls</p> <p>Cement.....10</p> <p>Stone with lime/cement11</p> <p>Bricks.....12</p> <p>Cement blocks.....13</p> <p>Covered adobe14</p> <p>Wood planks/shingles15</p> <p>Other:16</p>					
<p>B9</p>	<p>How many rooms in this household are used for sleeping?</p>	<p style="text-align: center;"> _ _ rooms</p>					
<p>B10</p>	<p>Does any member of this household own___?</p> <p><i>(Multiple responses. Read out.)</i></p>	<p>A wrist watch.....1</p> <p>A bicycle2</p> <p>A motorcycle or motor scooter3</p> <p>An animal-drawn cart4</p> <p>A car or truck.....5</p> <p>A boat without a motor.....6</p> <p>A boat with a motor.....7</p>					
<p>B11</p>	<p>Does any member of this household own any agricultural land?</p>	<table border="0"> <tr> <td>Yes1</td> <td rowspan="4" style="vertical-align: middle; padding-left: 10px;">} GO to B13</td> </tr> <tr> <td>No2</td> </tr> <tr> <td>Don't know98</td> </tr> <tr> <td>Refused.....99</td> </tr> </table>	Yes1	} GO to B13	No2	Don't know98	Refused.....99
Yes1	} GO to B13						
No2							
Don't know98							
Refused.....99							
<p>B12</p>	<p>How many hectares of agricultural land do members of this household own?</p> <p>IF 95 OR MORE, CIRCLE '95.0'</p>	<p style="text-align: center;"> _ _ . </p> <p>95 or more hectares95.0</p> <p>Don't know99.8</p> <p>Refused.....99.9</p>					

B13	Does this household own or tend any livestock, herds, other farm animals, poultry?	Yes1 No2 Don't know.....98 Refused.....99	} GO to B15
B14	READ OUT: Sometimes people tend animals that they don't own. We'd like to know how many animals your household tends and also how many animals your household owns. Please only include adult animals. <i>Interviewer: If an individual owns 95 or more of an animal, record as 95. Write '98' for Don't know. Write '99' for Refused.</i>	a. How many ____ does your household tend? Cattle Goats Sheep Chickens Pigs Rabbits	b. How many ____ does your household own?
B15	Does any member of this household have a bank account?	Yes1 No2 Don't know.....98 Refused.....99	
B16	Is there anybody in this household who has acquired any debt, whether to purchase an item for personal use, to buy a home or land, to expand or maintain a business, to conduct a ceremony, or for something else?	1. Yes 2. No 98. Don't know 99. Refused	} GO to B25
B17	How much would you estimate the household still owes? <i>(Estimate in local currency)</i>	_ _ _ _ _ _ _ _ _ 9998. Don't know 9999. Refused	
B18	Why did anybody in this household borrow money (last debt)? <i>(Single response. Spontaneous.)</i>	1. Purchase house or to expand or improve existing house 2. Purchase of land 3. To expand family business 4. To celebrate festival, wedding or funeral of family member 5. To purchase appliance for domestic use 6. To purchase a vehicle (car or motorcycle) 7. To pay off another debt 8. To go abroad (foreign employment) 9. Other: _____ 98. Don't know 99. Refused	
B19	Who loaned money (last borrowed money) to you or anyone in the household? <i>(Multiple responses. Spontaneous.)</i>	1. Agent that purchases products produced in household business 2. Employer 3. Family member 4. Local money lender 5. Bank/Finance company 6. Store from which purchase was made 7. Individual from which purchase was made 8. Cooperatives/Community organizations/Saving and	

		credit groups 9. Other: _____ 98. Don't know 99. Refused	
B20	Does household pay off any debt by directly providing labor or workers to the issuer of the debt?	1. Yes 2. No 98. Don't know 99. Refused	GO to B22
B21a	Which household members have ever provided labor to pay off household debt? Could you please name the person?	B21b <i>Fill in person line number from A1.</i>	B21c When was the last time __ provided labor to pay off household debt? 1. Yesterday/Today 2. In the past 7 days 3. In the past 1 month 4. In the past months 5. In the past 12 months 6. Long ago 98. Don't know 99. Refused
		1. _____	_____
		2. _____	_____
		3. _____	_____
		4. _____	_____
		5. _____	_____
		6. _____	_____
		7. _____	_____
		8. _____	_____
B22	In the past 12 months has your household had any difficulty paying off debt?	1. Yes 2. No 98. Don't know 99. Refused	GO to B25
B23	What made it difficult to pay off debt? <i>(Multiple responses. Spontaneous.)</i>	1. Lost job/Left job 2. Household member was injured or sick and couldn't work 3. Agricultural production lower than expected 4. Death in Family 5. Unexpected expenses 6. Lower than expected income from enterprise 7. Other (Specify): _____ 98. Don't know 99. Refused	

B24	What are the consequences if you are unable to make your payments? <i>(Multiple responses. Spontaneous.)</i>	1. Accumulate fees/debt 2. Loss of land 3. Loss of house 4. Higher interest rate 5. Loss of business assets/money 6. Loss of personal assets 7. Provide labor to creditor 8. Provide goods to creditor 9. Threats from creditor 10. Other (Specify): _____ 98. Don't know 99. Refused
B25	Is the income your household makes sufficient to maintain a household where nobody goes to sleep hungry? <i>(Read out.)</i>	1. Always 2. Usually 3. Never 98. Don't know 99. Refused

Section VII		Perceptions about work
S.N	Questions	Codes and Responses
C1	At what age do you think girls should start farming and tending animals?	_ _ years
C2	At what age do you think boys should start farming and tending animals?	_ _ years
C3	What is the highest level of school girls should complete?	1. Primary 2. Lower secondary 3. Upper secondary 4. University 98. Don't know 99. Refused
C4	What is the highest level of school boys should complete?	1. Primary 2. Lower secondary 3. Upper secondary 4. University 98. Don't know 99. Refused
C5	Is it beneficial for children to farm and tend animals?	1. Yes 2. No 98. Don't know 99. Refused

Interview end time |_|_|:|_|_|

Respondent's telephone number _____

END OF INTERVIEW

C CHILD QUESTIONNAIRE

Rwanda Child Questionnaire

A. General Information

S.N	Questions	Codes and Responses
101	District Name and Code	_____ __
102	Sector Name and Code	_____ __
103	Cell Name and Code	_____ __
104	Village Name and Code	_____ __
105	Supervisor Name and Code	_____ __
106	Household Serial Number (Copy from household interview) __ __
107	Child's Line Number (Copy from household roster) __
108	Interview Start time: (Use 24 hour clock)	__ : __ (Hour) (Minutes)

B. Child Assent

Name of Child: _____

Instructions to Interviewer: This form is to be used to obtain assent from a respondent over the age of 12 and younger than 18 years. Assent must be obtained for each respondent, in addition to parental consent, which must be attained first. Read the following statements to the selected respondent and answer any questions the respondent may have. **DO NOT** begin the interview until a parent has given consent, all questions have been addressed, and the respondent has agreed to participate in the study. Do not interview the respondent if he/she does not give assent, even if the parent has given consent.

- Hello, my name is _____. I am talking with children who live in communities where most people are farmers. The information I collect will be used in a study about the activities of children in agricultural families in Rwanda.
- Your mother/father has given me permission to talk with you, but you don't have to participate.
- I would like to ask you some questions about your education, health and the activities that you may do inside and outside your home.
- You can choose not to answer any question, and you can stop the interview at any time.
- Your answers to the questions will be kept private, and no one else will know what you said.
- Your name will not be used in any reports.
- It will take about 35 minutes to talk with me.
- [If the parent has agreed for the child to be interviewed alone] Is it ok with you if we talk in private?
- Do you have any questions about the study?
- May we begin?

Interviewer Certification of Consent:

My signature affirms that I have read the verbal informed consent statement to the child, and I have answered any questions asked about the study. The respondent agreed to be interviewed.

Interviewer Name

||_|
Interviewer Code

Interviewer Signature

||_|/_|_|_|/_|_|_|
Date

Note: If child does not agree to be interviewed, code as 'refused' on Fieldwork Control Sheet, and do not sign consent statement for this child. End interview.

C. Demographics

S.N	Questions	Codes and Responses	Go to
201	How old are you? (Age in Completed Years)	Age (Completed Years) _ _ Don't Know 98 Refused.....99	→ 203
202	We can try to figure out your age together. Do you think that you may be around... (Read out.)	1-6 Years1 7-9 Years2 10-12 Years3 13-15 Years4 16-17 Years5 18 Years and Above6 Don't Know 98 Refused.....99	→ End } End
203	Child's Sex: (Mark as observed.)	Male1 Female2	

D. Education

S.N	Questions	Codes and Responses	Go to
301	Are you attending school this school year?	Yes 1 No 2 DK98 Refused99	} 306
302	Do you have enough time to do homework and study at home?	Yes 1 No 2 DK 98 Refused..... 99	
303	During the last week school was in session, did you go to school every day school was open?	Yes 1 No 2 DK.....98 Refused 99	→ 308 } 308
304	How many days of school did you miss?	_ Days DK 98 Refused.....99	

305	Why did you miss school on these days? (Multiple responses. Spontaneous.)	School was closed 1 Teacher absent 2 To do farm work 3 To take care of animals4 To do household chores..... 5 Other work 6 No transportation available 7 Bad weather conditions 8 Illness..... 9 Injury/disability10 Other: _____ 96 Don't Know98 Refused 99	} 308																														
306	What are the reasons that you don't go to school? (Multiple responses. Spontaneous.)	Illness/injury/disability..... 1 No school/school too far..... 2 Lack of means (financial)..... 3 Family does not promote schooling..... 4 To work..... 5 Not interested in school 6 Lack of understanding 7 Low quality of school.....8 To do household tasks 9 Not old enough.....10 Other:_____ 96 Don't Know98 Refused 99																															
307	Have you ever attended school?	Yes 1 No 2 DK98 Refused99	} 401																														
308	What is the highest grade and level that you have completed? (If exact A. Grade unknown, probe to obtain B. Level)	<table border="1"> <thead> <tr> <th data-bbox="722 1220 1006 1260">A. Grade</th> <th data-bbox="1006 1220 1291 1260">B. Level</th> </tr> </thead> <tbody> <tr> <td data-bbox="722 1260 1006 1291">Grade 1 1</td> <td data-bbox="1006 1260 1291 1291">Lower Primary 1</td> </tr> <tr> <td data-bbox="722 1291 1006 1323">Grade 2 2</td> <td data-bbox="1006 1291 1291 1323"></td> </tr> <tr> <td data-bbox="722 1323 1006 1354">Grade 3 3</td> <td data-bbox="1006 1323 1291 1354"></td> </tr> <tr> <td data-bbox="722 1354 1006 1386">Grade 4 4</td> <td data-bbox="1006 1354 1291 1386">Upper Primary2</td> </tr> <tr> <td data-bbox="722 1386 1006 1417">Grade 5 5</td> <td data-bbox="1006 1386 1291 1417"></td> </tr> <tr> <td data-bbox="722 1417 1006 1449">Grade 6 6</td> <td data-bbox="1006 1417 1291 1449"></td> </tr> <tr> <td data-bbox="722 1449 1006 1480">Grade 7 7</td> <td data-bbox="1006 1449 1291 1480">Junior Secondary.....3</td> </tr> <tr> <td data-bbox="722 1480 1006 1512">Grade 8 8</td> <td data-bbox="1006 1480 1291 1512"></td> </tr> <tr> <td data-bbox="722 1512 1006 1543">Grade 9 9</td> <td data-bbox="1006 1512 1291 1543"></td> </tr> <tr> <td data-bbox="722 1543 1006 1575">Grade 10 10</td> <td data-bbox="1006 1543 1291 1575">Senior Secondary4</td> </tr> <tr> <td data-bbox="722 1575 1006 1606">Grade 11 11</td> <td data-bbox="1006 1575 1291 1606"></td> </tr> <tr> <td data-bbox="722 1606 1006 1638">Grade 12 12</td> <td data-bbox="1006 1606 1291 1638"></td> </tr> <tr> <td data-bbox="722 1638 1006 1669">Don't Know 98</td> <td data-bbox="1006 1638 1291 1669">Don't Know 98</td> </tr> <tr> <td data-bbox="722 1669 1006 1701">Refused..... 99</td> <td data-bbox="1006 1669 1291 1701">Refused..... 99</td> </tr> </tbody> </table>	A. Grade	B. Level	Grade 1 1	Lower Primary 1	Grade 2 2		Grade 3 3		Grade 4 4	Upper Primary2	Grade 5 5		Grade 6 6		Grade 7 7	Junior Secondary.....3	Grade 8 8		Grade 9 9		Grade 10 10	Senior Secondary4	Grade 11 11		Grade 12 12		Don't Know 98	Don't Know 98	Refused..... 99	Refused..... 99	
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Grade 12 12																																	
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Refused..... 99	Refused..... 99																																

E. Household Chores

S.N	Questions	Codes and Responses	Go to
401	<p>Since last (day of the week), did you ____ ?</p> <p>(Multiple responses. Read out.)</p>	<p>Mop or sweep1</p> <p>Wash clothes.....2</p> <p>Cook for family, serve meals, wash dishes3</p> <p>Shop for household4</p> <p>Collect water5</p> <p>Collect firewood6</p> <p>Do minor household repairs7</p> <p>Care for children/old/sick.....8</p> <p>None97</p> <p>Don't Know98</p> <p>Refused99</p>	<p>} 501</p>
402	<p>Did you do these tasks every day since last (day of the week)?</p>	<p>Yes 1</p> <p>No 2</p> <p>DK98</p> <p>Refused99</p>	<p>→ 501</p> <p>} 501</p>
403	<p>Which days did you do these tasks since last (day of the week)? Did you do them last ____?</p> <p>(Multiple responses. Read out.)</p>	<p>Monday 1</p> <p>Tuesday..... 2</p> <p>Wednesday..... 3</p> <p>Thursday 4</p> <p>Friday..... 5</p> <p>Saturday..... 6</p> <p>Sunday..... 7</p> <p>None 97</p> <p>DK..... 98</p> <p>Refused 99</p>	

F: Employment

	501. In the past 12 months, did you ____ for at least one hour? (Multiple responses. Read out.) Yes.....1 No 2 DK.....98 Refused 99	502. When was the last time you engaged in this activity? (Spontaneous.) Yesterday or today 01 In the last 7 days..... 02 In the last month 03 In the last 3 months..... 04 In the last 12 months ... 05 Don't know 98 Refused 99	502a. On which of these activities do you spend the most time? And next? (Continue until three are ranked)
1. Dig irrigation trenches	_ _	_ _	_
2. Create terraces	_ _	_ _	_
3. Prepare the land for planting (Clear land, till the soil)	_ _	_ _	_
4. Fertilize the fields	_ _	_ _	_
5. Sow/plant	_ _	_ _	_
6. Prune	_ _	_ _	_
7. Weed and thin (remove unwanted plants)	_ _	_ _	_
8. Guard the produce	_ _	_ _	_
9. Take lunch/water to family in field	_ _	_ _	_
10. Harvest/collect food from the fields	_ _	_ _	_
11. Remove shells/husk; remove stones; winnow	_ _	_ _	_
12. Put produce in sun to dry	_ _	_ _	_
13. Carry produce to market or factory	_ _	_ _	_
14. Sell produce in the market	_ _	_ _	_
15. Collect food/water for animal	_ _	_ _	_
16. Move animal from place to place	_ _	_ _	_
17. Replace the animal's sleeping grass	_ _	_ _	_
18. Any other farming related activity? (Specify) _____	_ _	_ _	_

INTERVIEWER: IF CHILD DID NOT DO ANY FARMING ACTIVITY LISTED IN 501, THEN SKIP TO #507.

S.N	Questions	Codes and Responses	Go to
503	<p>Now I'd like to understand which crops you were involved in producing since last August. Were you involved in producing _____?</p> <p>(Multiple responses. Read out.)</p>	Bananas 1 Beans 2 Cabbage 3 Cassava 4 Coffee..... 5 Irish potatoes 6 Maize..... 7 Peas..... 8 Pineapple..... 9 Pyrethrum..... 10 Sorghum..... 11 Sugarcane 12 Sweet potatoes 13 Tea 14 Other: 15 Other: 16 None..... 97 DK 98 Refused 99	
504	<p>Since last August, which animals have you tended? Have you tended a _____?</p> <p>(Multiple responses. Read out.)</p>	Cow..... 1 Goat 2 Sheep 3 Pig 4 Rabbit..... 5 Chicken 6 Guinea pig..... 7 Other: 8 None..... 97 DK 98 Refused..... 99	
505	<p>Since last (day of the week) did you have another job besides farming and tending animals and household chores?</p>	Yes 1 No 2 DK 98 Refused 99	} 512
506	<p>Do you spend more time on farming/tending animals or the other job?</p>	Farming/tending animals..... 1 Other job..... 2 DK 98 Refused 99	} 512 } 508 } 512
507	<p>Other than household chores in your own home, did you work since last (day of the week 7 days ago)?</p>	Yes 1 No 2 DK 98 Refused 99	} 705

S.N	Questions	Codes and Responses	Go to
508	Please describe the main job/task you were performing	<hr/> <p>(To be coded in office)</p> <p>Industry Code _ _ _ </p> <p>Occupation Code _ _ _ </p>	
509	Since last (day of the week), how many hours did you work in this job?	<p> _ _ hours</p> <p>DK98</p> <p>Refused99</p>	
510	Did you do any other work since last (day of the week)?	<p>Yes 1</p> <p>No 2</p> <p>DK98</p> <p>Refused99</p>	} 512
511	Please describe the main job/task you were performing	<hr/> <p>(To be coded in office)</p> <p>Industry Code _ _ _ </p> <p>Occupation Code _ _ _ </p>	

INTERVIEWER: IF CHILD DID NOT DO ANY FARMING ACTIVITY LISTED IN 501, THEN SKIP TO #705.

G: Working Conditions

Daily Diary

Interviewer: Ask the child to describe his/her day yesterday, starting with when s/he woke up, using the following probes:

- “What did you do when you first woke up?”
- “What time did you start to do that? What time did you finish?”
- “What did you do next?”

Record the start and stop times for any work tasks, and indicate the type of work.

If child is unable to give the starting and ending time for tasks, skip to 515.

	Work Activity	512. Task start time	513. Task end time	514. Activity type Farming task.....1 Tending animals.....2 Household chores.....3 Other work.....4
1.		_ _ : _ _	_ _ : _ _	_ _
2.		_ _ : _ _	_ _ : _ _	_ _
3.		_ _ : _ _	_ _ : _ _	_ _
4.		_ _ : _ _	_ _ : _ _	_ _
5.		_ _ : _ _	_ _ : _ _	_ _
6.		_ _ : _ _	_ _ : _ _	_ _
7.		_ _ : _ _	_ _ : _ _	_ _
8.		_ _ : _ _	_ _ : _ _	_ _
9.		_ _ : _ _	_ _ : _ _	_ _

515	Interviewer: Circle appropriate response	Child provided a daily diary including time.....1 → 525 Child did not provide a daily diary including time.....2
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Alternate Daily Diary

Interviewer: Complete alternate daily diary below only if child could not offer daily schedule with times above.

Read out: We would like to know about the time you spend working, either helping in the fields, around the house, with animals, or in another job.

516	Did you work in the morning yesterday?	Yes 1 No 2 DK 98 Refused..... 99	} 519
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517	Did you work a lot of the morning, some of the morning, or only a little?	A lot 1 Some 2 A little 3 DK98 Refused.....99	
518	What kind of work did you do in the morning? (Multiple responses. Spontaneous.)	Farming tasks.....1 Tending animals.....2 Household chores.....3 Other work.....4 DK98 Refused.....99	
519	Did you work in the afternoon yesterday?	Yes 1 No 2 DK98 Refused.....99	} 522
520	Did you work a lot of the afternoon, some of the afternoon, or only a little?	A lot 1 Some 2 A little 3 DK98 Refused.....99	
521	What kind of work did you do in the afternoon? (Multiple responses. Spontaneous.)	Farming tasks.....1 Tending animals.....2 Household chores.....3 Other work.....4 DK98 Refused.....99	
522	Did you work at night yesterday?	Yes 1 No 2 DK98 Refused.....99	} 525
523	Did you work a lot of the night, some of the night, or only a little?	A lot 1 Some 2 A little 3 DK98 Refused.....99	
524	What kind of work did you do in the night? (Multiple responses. Spontaneous.)	Farming tasks.....1 Tending animals.....2 Household chores.....3 Other work.....4 DK98 Refused.....99	

Read out: In the questions below about work, your work on the farm and with animals is the work we are interested in, including your work to _____ [read checked list from 501].

S.N	Questions	Codes and Responses	Go to
525	Did you work every day in the past 7 days?	Yes 1 No 2 DK 98 Refused..... 99	→ 527 } 527
526	Did you work last____? (Multiple Responses. Read out.)	Monday..... 1 Tuesday..... 2 Wednesday 3 Thursday 4 Friday..... 5 Saturday..... 6 Sunday..... 7 None 97 DK..... 98 No response..... 99	
527	On days you <u>go to school</u> , how many hours do you normally work?	_ _ hours Don't go to school 97 DK..... 98 Refused..... 99	
528	On days you <u>do not go to school</u> , how many hours do you normally work?	_ _ hours DK..... 98 Refused..... 99	
529	Did you work every month since last August?	Yes 1 No 2 DK 98 Refused..... 99	→ 531 } 531
530	Which months did you work <u>in the past 12 months</u> ? (Multiple Responses. Read out.)	August 2010 1 September 2010..... 2 October 2010..... 3 November 2010..... 4 December 2010 5 January 2011 6 February 2011 7 March 2011 8 April 2011 9 May 2011..... 10 June 2011 11 July 2011..... 12 DK..... 98 Refused..... 99	

S.N	Questions	Codes and Responses	Go to
531	(On the months that you work), how many weeks do you usually work per month? (Read out)	One 1 Two 2 Three 3 Four 4 DK 98 Refused 99	
532	Do you mostly work _____? (Single response. Read out.)	For your parents 1 For another family member 2 For a non-relative 3 For yourself 4 Other: 5 DK 98 Refused 99	
533	Do you receive anything in exchange for your work?	Yes 1 No 2 DK 98 Refused 99	} 537
534	What do you get in exchange for your work? (Multiple responses. Spontaneous.)	Cash 1 In kind (part of the product) .. 2 New Skill 3 Education 4 Shelter 5 Food 6 Clothing 7 Medical support 8 Not paid 97 DK 98 Refused 99	} 537
535	How much do you get paid on a typical week? <i>(in local currency)</i>	_ _ _ _ _ _ _ Francs DK 98 Refused 99	
536	How is your pay determined? (Multiple responses. Spontaneous.)	Piece rate 1 Hourly 2 Daily 3 Weekly 4 Monthly 5 Other: 6 DK 99 Refused 99	
537	Is someone else paid on your behalf?	Yes 1 No 2 DK 98 Refused 99	} 539

S.N	Questions	Codes and Responses	Go to
538	Who receives payment for your work? (Multiple responses. Spontaneous.)	Mother 1 Father..... 2 Other relatives..... 3 Friend..... 4 Other: 5 Don't know.....98 Refused..... 99	
539	Where does your work take place? (Multiple responses. Spontaneous.)	Family Farm 1 Someone else's farm 2 In the woods..... 3 Family dwelling 4 Shop/Market/Kiosk..... 5 Other: 6 Don't know 98 Refused..... 99	
540	Do you use _____ in your work? (Multiple Responses. Read out.)	A panga/machete..... 1 A sickle 2 A hoe..... 3 A half hoe..... 4 A saw 5 An axe 6 A pick 7 A knife..... 8 A shovel.....9 None.....97 Don't Know98 Refused..... 99	
541	Do you think your work is dangerous?	Yes 1 No 2 DK.....98 Refused99	543
542	If Yes, why? (Multiple responses. Spontaneous.)	May cut myself 1 May get burned..... 2 May fall..... 3 May get bitten..... 4 May get hit by car or in car accident..... 5 May get sick..... 6 May be verbally abused..... 7 May be physically abused.... 8 Other: 9 DK.....98 Refused 99	

S.N	Questions	Codes and Responses	Go to
543	While working, are you often exposed to ___ ? (Multiple Responses. Read out.)	<p><u>Chemical Hazards</u> Dust/smoke..... 1 Pesticides 2 Chemical fertilizers 3</p> <p><u>Physical Hazards</u> Extreme heat..... 4 Extreme cold..... 5 Prolonged exposure to sunlight..... 6 Getting burned by fire..... 7 Slipping, tripping, or falling..... 8 Cuts..... 9 Carrying heavy loads..... 10 Dangerous heights..... 11</p> <p><u>Biological Hazards</u> Insects..... 12 Snakes..... 13 Contaminated water 14</p> <p>Other things that can hurt you: _____..... 15 None..... 97 Don't Know..... 98 Refused..... 99</p>	
544	When working, do you usually wear _____ ? (Multiple responses. Read out.)	Hat/cap 1 Long-sleeved shirt..... 2 Long pants or skirt..... 3 Gloves 4 Boots 5 Shoes 6 Sandals 7 None..... 97 DK..... 98 Refused..... 99	
545	Are you supervised by an adult in your work?	Yes 1 No 2 DK..... 98 Refused 99	547
546	By whom? (Multiple responses. Spontaneous.)	Parent/guardian..... 1 Elder brother/sister 2 Other relatives 3 Employer 4 Other: _____ 5 DK 98 Refused 99	

S.N	Questions	Codes and Responses	Go to
547	At what age did you start to work?	<p style="text-align: center;"> _ _ years</p> DK.....98 Refused.....99	
548	What are the reasons you work? (Multiple response. Read out.)	My parents ask me to help.....1 I am old/strong enough to help.....2 To supplement family income 3 To help my family with their work..... 4 To learn new skill 5 For personal expenses, food, clothing..... 6 Cannot afford school fees 7 To pay outstanding family debt..... 8 Other: 9 DK.....98 Refused.....99	
549	Is your work boring always, sometimes, seldom, or never?	Always 1 Sometimes 2 Rarely..... 3 Never..... 4 DK.....98 Refused.....99	

G: Employment and School [For children who work and attend school]

S.N	Questions	Codes and Responses	Go to
601	During the school year, does work interfere with your studies?	Yes 1 No 2 DK 98 Refused 99	
602	During the school year, how often do you miss school to work? (Single response. Read out.)	Once or twice per week.....1 Once or twice per month.....2 Once or twice per year3 Never4 DK.....98 Refused99	

H: Health

S.N	Questions	Codes and Responses	Go to
701	Have you ever been injured while working?	Yes..... 1 No..... 2 DK..... 98 Refused..... 99	705
702	When was the last time you were injured while working? (Spontaneous.)	In the past 7 days..... 1 In the past 1 month..... 2 In the past 3 months..... 3 In the past 12 months..... 4 Longer ago..... 5 DK..... 98 Refused..... 99	
703	Did you receive any treatment for your last work-related injury?	Yes..... 1 No..... 2 DK..... 98 Refused..... 99	705
704	What type of treatment did you receive? (Multiple responses. Read options.)	Community health worker..... 1 Visit to clinic/hospital..... 2 Overnight stay at clinic/hospital..... 3 DK..... 98 Refused..... 99	

Read out: Now I would like to ask you some questions about **any** injuries you may have had since last August.

(Start with the most recent injury and continue in order until you list all the injuries in last 12 months)

	705. Have you had an injury to your ____? (Multiple responses. Read out.) Yes 1 No2	706. What type of injury occurred to the _____ (specify body part)? (Multiple responses. Spontaneous.) Scrape/Cut/Puncture1 Bruise/Contusion2 Sprain/Strain3 Broken Bone/Fracture.....4 Dislocation5 Loss of Body Part.....6 Burn /Blister/Scald.....7 Other8 DK.....98 Refused.....99	707. What activity were you doing when your injury occurred? (Spontaneous.) Digging trenches.....1 Creating terraces.....2 Clearing/tilling3 Fertilizing fields.....4 Sow/plant.....5 Pruning.....6 Weeding/thinning.....7 Keeping birds away.....8 Bringing lunch/water to workers.....9 Harvesting.....10 Removing shells/husk.11 Drying produce.....12 Carrying produce.....13 Other farming work.....14 Tending to animals.....15 Going to work (farm/animals).....16 Other work.....17 Doing chores.....18 Playing.....19 Other non-work.....20 DK.....98 Refused99	708. How long were your normal activities restricted as a result of this injury? (Spontaneous.) No restriction 1 Less than 1 day2 Less than 7 days3 Less than 14 days4 Less than 1 month.....5 1 month or more.....6 Permanently disabled.....7 DK.....98 Refused.....99
1. Head/skull	_ _	_ _	_ _	_ _
2. Face	_ _	_ _	_ _	_ _
3. Neck	_ _	_ _	_ _	_ _
4. Shoulder/cheat/back	_ _	_ _	_ _	_ _
5. Abdomen	_ _	_ _	_ _	_ _
6. Pelvic region	_ _	_ _	_ _	_ _
7. Arm	_ _	_ _	_ _	_ _
8. Hand/wrist/fingers	_ _	_ _	_ _	_ _
9. Leg	_ _	_ _	_ _	_ _
10. Foot/ankle/toes	_ _	_ _	_ _	_ _
11. Internal injuries	_ _	_ _	_ _	_ _
12. Other: (specify) _____	_ _	_ _	_ _	_ _

S.N	Questions	Codes and Responses	Go to
709	Which of these injuries were the most severe in your opinion? <i>(Note injury number from 705 table)</i>	<div style="text-align: center;"> <input type="checkbox"/> <input type="checkbox"/> </div> No injury.....97 DK.....98 Refused.....99	
710	Which of the following illnesses have you had in the last two weeks? <i>(Multiple responses. Read out.)</i>	Skin diseases (skin allergy, eczema, etc.)..1 Severe respiratory illness (asthma, TB, pneumonia, etc.).....2 Body aches/pains (head, back, etc.).....3 Mild respiratory illness (cold/flue).....4 Stomach illness (diarrhea, vomiting).....5 Vision problems.....6 Hearing problems.....7 Other: _____ 8 None.....97 DK.....98 Refused.....99	
Instructions to interviewer: For children who do no work, end interview.			
711	Have you ever experienced an illness like this due to work?	Yes.....1 No.....2 DK.....98 Refused.....99	} 716
712	Which of the following illnesses did you suffer from? <i>(Multiple responses. Read out.)</i>	Skin diseases (skin allergy, eczema, etc.)..1 Severe respiratory illness (asthma, TB, pneumonia, etc.).....2 Body aches/pains (head, back, etc.).....3 Mild respiratory illness (cold/flue).....4 Stomach illness (diarrhea, vomiting).....5 Vision problems.....6 Hearing problems.....7 Other: _____ 8 DK.....98 Refused.....99	
713	How long were your normal activities restricted as a result of the most severe illness? <i>(Spontaneous.)</i>	No restriction 1 Less than 1 day2 Less than 7 days3 Less than 14 days4 Less than 1 month.....5 1 month or more.....6 Permanently disabled.....7 DK.....98 Refused.....99	

S.N	Questions	Codes and Responses	Go to
714	(Regarding most recent work-related illness) Did you receive any treatment for the most recent work-related illness?	Yes.....1 No.....2 DK.....98 Refused.....99	716
715	What type of treatment did you receive? (Multiple responses. Read options.)	Community health worker1 Visit to clinic/hospital2 Overnight stay at clinic/hospital3 DK.....98 Refused.....99	
716	[only ask if child is alone] Are you treated well when working?	Yes.....1 No.....2 DK.....98 Refused.....99	801 801
717	[only ask if child is alone] In what way are you not treated well? (Multiple responses. Spontaneous.)	Scolded using profanity.....1 Scolded without profanity.....2 Hit.....3 Touched in an unwanted way (sexual abuse).....4 Punished through deductions from payment5 Other:6 DK.....98 Refused.....99	

I: Trafficking

S.N	Questions	Codes and Responses	Go to
801	Were you born in this district or elsewhere?	In this district.....1 Elsewhere2 DK.....98 Refused.....99	901
802	When you came here, did a parent or spouse come to live with you?	Yes.....1 No2 DK.....98 Refused99	901
803	Where were you living prior to coming here? (If from another country, specify country only. If from within this country, specify details.)	Country _____ (Ask for details only if from this country.) Province _____ District _____ Community _____	

S.N	Questions	Codes and Responses	Go to
804	When did you come here?	__ __ (Month) __ __ __ __ (Year) DK.....98 Refused.....99	
805	What was the main reason you came to this village, town, or locality? <i>(Single response. Spontaneous.)</i>	Death of parent.....1 Parents couldn't support me.....2 To be closer to school3 Job transfer or found a job.....4 Looking for a job5 Marriage or divorce.....6 Came as a refugee.....7 Other:8 Don't know98 Refused99	
806	Whom do you live with now? <i>(Multiple responses. Read out.)</i>	Mother.....1 Father2 Husband/wife3 Brother(s)/ Sister(s)4 Uncle(s)/Aunt(s)5 Grandparent (s).....6 In-laws.....7 Other relatives8 With friends9 Alone.....10 Other:11 DK.....98 Refused99	} 810
807	How often do you visit your parents/home?	Never.....1 Every month.....2 Every 6 months3 Every year4 Other:5 DK.....98 Refused99	
808	Would you like to visit your parents/home more often?	Yes.....1 No2 DK.....98 Refused99	
809	Why can't you visit your parents/home more often? <i>(Multiple responses. Spontaneous.)</i>	Not enough money1 Not enough time.....2 Employer would not let me3 Other:4 DK.....98 Refused99	

S.N	Questions	Codes and Responses	Go to
810	Did you have a job waiting for you when you arrived here?	Yes..... 1 No 2 DK..... 98 Refused 99	} 813
811	Who helped you find a job before coming here? <i>(Multiple responses. Spontaneous.)</i>	Father..... 1 Mother 2 Other relative..... 3 Friend..... 4 Employer 5 Labor contractor 6 Alone 7 Other: 8 Don't Know..... 98 Refused..... 99	→ 813
812	Was a labor contractor/recruiter involved in finding you a job?	Yes..... 1 No 2 DK..... 98 Refused 99	
813	In exchange for your move, did anyone ____? (Multiple responses. Read out)	Receive Money..... 1 Pay a debt..... 2 Receive something else: 3 DK..... 98 Refused 99	

J: Forced/Bonded Labor

[ONLY ASK IF CHILD IS ALONE]

ONLY APPLICABLE IF CHILD DOES NOT WORK FOR PARENTS OR SELF

(SEE ITEM 532)

IF CHILD WORKS FOR PARENTS OR SELF, GO DIRECTLY TO SECTION K

901. At the time of your recruitment, did you receive promises regarding ___?
(Read out.)

902. **(Ask for each promise made)**
Compare the work you had to do in the first few days with what you were told or promised before starting the job. Would you say that the reality is ____ **(Read options)**

- 01. Worse
- 02. The same
- 03. Better
- 98. Don't know
- 99. Refused

Education

1

|_|_|

Living conditions	2	_ _
Frequency of visits to parents	3	_ _
Nature of the job	4	_ _
Location of the job	5	_ _
Employer	6	_ _
Wages	7	_ _
Quantity of work (per day/week/month/year)	8	_ _
Social benefits (insurance, retirement)	9	_ _

S.N	Questions	Codes and Responses	Go to
903	<p>What risk would you face if you refused to work for this employer?</p> <p>(Multiple responses. Spontaneous.)</p>	<p>Family would lose some privileges (land, housing, etc.) 1</p> <p>Other family members would lose their job 2</p> <p>This employer would tell other employers in the area not to hire me..... 3</p> <p>This employer would tell other employers in the area not to hire my relatives..... 4</p> <p>Physical violence on me or on other family members 5</p> <p>My parents could not have loans from employer/landowner anymore..... 6</p> <p>To be without resources..... 7</p> <p>Nothing 97</p> <p>DK 98</p> <p>Refused 99</p>	
904	<p>Would you be able to leave your job if you wanted to?</p>	<p>Yes..... 1</p> <p>No 2</p> <p>Don't know 98</p> <p>Refused 99</p>	→ 907
905	<p>If not, why?</p> <p>(Multiple responses. Spontaneous.)</p>	<p>I am too far away from family 1</p> <p>I am isolated and had no one to contact to ask for help..... 2</p> <p>Parents had received money and I can't leave until I pay it back..... 3</p> <p>Employer threatened those who wanted to leave 4</p> <p>Employer was violent 5</p> <p>Other (Specify: ____). 6</p> <p>DK..... 98</p> <p>Refused 99</p>	

S.N	Questions	Codes and Responses	Go to
906	How does your employer prevent you from leaving your job? (Multiple responses. Spontaneous.)	Locked in living place..... 1 Under constant surveillance 2 By violence or threats of violence..... 3 Working place is totally isolated..... 4 Id confiscated 5 Other (Specify: ____). 6 DK..... 98 Refused 99	
907	Are you working to pay back any debt with your employer? (including personal debt and family debt)	Yes..... 1 No 2 Don't know 98 Refused 99	} Section K
908	How much money do you owe your employer? (In local currency)	_ _ _ _ _ _ _ Don't know..... 98 Refused..... 99	
909	Is your salary sufficient to cover your living expenses and repay your debt?	Yes 1 No..... 2 Don't know..... 98 Refused..... 99	
910	Has your debt with your employer increased or decreased over the last 3 months?	Increased 1 Decreased 2 DK 98 Refused 99	
911	How long do you need to work before your debt is cancelled?	_ _ Months _ _ Years DK 98 Refused..... 99	

K. Interview Notes

S.N	Questions	Codes and Responses	Go to
1101	Interview End time: (Use 24 hour clock)	_ _ : _ _ (Hour) (Minutes)	
1102	Was there anyone else present during this interview?	Yes 1 No..... 2 →	1103
1103	Who was present? (Multiple responses.)	Parents..... 1 Other adult family members..... 2 Siblings 3 Non-family adults..... 4 Other non-family children 5	
1104	During or immediately after the interview, did anyone __? (Multiple responses.)	Coach the child 1 Answer for the child..... 2 Verbally reprimand the child..... 3 Hit the child 4 None..... 97	
1105	Comments:		