

“Traffic Signs, Save Lives”
Addis Ababa, Ethiopia
Reed College
Nebiyat Esubalew '21
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Background: The lives of approximately 1.35 million people are cut short every year as a result of a traffic crash, and between 20 and 50 million more people suffer non-fatal injuries, with many incurring a disability as a result of their injury. More than 90% of these road traffic deaths occur in low and middle-income countries and are the leading cause of death for children and young adults aged 5-29 years. Like many African countries, Ethiopia has one of the highest rates of Road Traffic Accidents (RTAs) where thousands of road users are killed each year and an even higher number are severely injured. According to a WHO data published in 2018, RTA deaths in Ethiopia reached 29,386 or 4.81% of total deaths, with an age adjusted death rate of 36.78 per 100,000 population. These numbers look grim considering most of these RTAs are preventable, many of which are caused by reckless driving behaviors including speeding and distracted driving, driving under the influence, failure to enforce traffic laws, and unsafe road infrastructure. Despite these numbers, road safety remains for the most part a neglected issue in Ethiopia and previous efforts made to minimize RTAs - outdoor advertising banners and increased fines for traffic offenses to mention a few- have been ineffective compared to designing a safer infrastructure setting and/or enforcing laws relating to key risks. Even though there isn't a fix-all solution to minimizing RTA occurrences and the approach taken should be holistic, there are basic road safety features that can be implemented in Ethiopia including school zone pedestrian crossings as well as wider pedestrian lanes to curb RTAs. The leading cause of fatal, unintentional injuries among children are road-traffic injuries (25%) according to a study published in 2018. Consequently, it would make sense to take measures to ensure pedestrian safety, particularly in areas where children and young adults are prevalent such as school zones where school crossing signs are inexistent. To that end, this project is proposed to address the safety of vulnerable road users, particularly children and young adults, by installing school zone crossing signs around large public and private schools in Addis Ababa, Ethiopia.

Overview of the Project: To help implement my project, I will be working closely with Admassu Assefa, a Road Safety Director at National Transport Authority and have already gained their permission to work on this project. The project involves installing School Crossing signs in school zones involving 11 public and private schools in Addis Ababa, Ethiopia: Lideta Catholic Cathedral School, Sandford International School, Ethio-parents' Highschool (two branches), Hillside School, Nazareth School, School of Tomorrow, Greek Community School, Ayer Tena Secondary & Preparatory School, Vision Academy, and El-Bethel Middle School. These schools were chosen based on the number and age of students they serve, the width of the street and the number of lanes of traffic the students must cross, and the volumes of traffic and pedestrians. I am familiar with most of the schools and have previously attended two of them. The first step will be identifying locations around the schools where school crossing signs are most needed which I will do by visiting each school a few times and observing which roads are most utilized by their current students. The plan is to place two to three school crossing signs per school on roads that are frequented by the students. The school crossing sign packages (.080" fluorescent yellow-green reflective aluminum signs that last 10+ years), costing about 115\$ each, will be purchased from the U.S. and shipped to Ethiopia a month prior to my departure. To make shipping cheaper (~650\$) and more convenient, only the sign plates will be purchased from here and the sign posts that will be used to mount them will be purchased in Ethiopia. The welding will take place there as well. The mounting process itself wouldn't be demanding and will be done by myself alongside friends and volunteers which I will recruit by means of social media. I plan on working with day laborers as well to help with transporting the materials, lifting/carrying heavy objects, and so forth.

Although a simple solution, planting road safety signs near school zones ensures that lives are not lost and that school going children are safe. Road safety signs with dynamic motion signal an oncoming motorist to beware of crossing school, will encourage drivers to be extra careful, and to drive at a slower speed. RTAs are the leading cause of post-traumatic stress disorder (PTSD) in Ethiopia. Survivors of RTAs have to learn to cope with the psychological trauma to be able to lead a normal life again. Adolescence is a time when children are the most impressionable and vulnerable. Creating a safe and peaceful environment which they can thrive in is necessary for children to be able to lead normal lives as adults.

Goal: the goal of this project is twofold: 1. To help children, as well as other pedestrians, safely cross the street as they walk or bicycle to and from school 2. To encourage other authorities to follow suit by mounting school crossing signs as well as school speed limit signs adjacent to their schools to ensure a safer environment for their students.

Why this Project? Growing up in Ethiopia, it's uncommon to come across someone who hasn't been affected by RTAs one way or another, whether that means being directly involved in an accident or knowing someone that has been affected by them. I am fortunate enough to not have been involved in one myself, but I have witnessed the aftermaths of two motor vehicle accidents - one of which was fatal. Even though my family hasn't been affected by traffic accidents firsthand, it's painful to think of those who have. RTAs often affect the breadwinners of the family (nearly two-thirds of the victims in Ethiopia are males), either claiming their lives or leaving them with permanent disabilities and unable to provide for their families. In addition to coping with losing a loved one, families of RTA victims including children, have to work on finding peace after an automobile accident. The leading cause of fatal and unintentional injuries among children are road-traffic injuries – most of which are easily preventable. School crossing signs would have greatly helped diminish my fear of crossing the street as kid and I strongly believe that they can help save lives and prevent injuries by making drivers more attentive.

I understand peace as the absence of conflict – both internal and external, and I believe a big part of it involves living in the absence of fear. Cars are supposed to add value to our lives and we must learn to use them responsibly if we are to avoid accidents whose aftermath and traumas last a lifetime, particularly when they involve the safety of the most vulnerable group of our society.

Desired Outcomes/ Potential Impacts and Sustainability: Upon project completion, eleven public and private schools across the capital will have been equipped with at least two school crossing signs. Not only will these signs significantly reduce potential traffic accidents, but they will also help encourage children as well as other pedestrians to cross streets without fearing for their safety. Another equally important outcome is to encourage other schools as well as institutions to follow suit. Making effective use of traffic signs is invaluable in reducing preventable MVAs. I would consider my project a success if/when the data starts to show RTA rate declines around these schools. I will continue to work with Mr. Admassu as well as other National Transport Authority officials after the completion of this project to track the effectiveness of the signs and if the results look promising, to use that data as a way to get other schools to implement similar projects. Furthermore, I will reach out to at least one school official at each of the schools to help further this project. Most importantly, this project is self-sustaining. Once these aluminum signs are put in place, they are there to stay as most signs last over ten years outdoors depending on the weather, quality, and location. Considering these signs are standardized to overcome language barriers and are pretty intuitive, we won't have to worry about training the public on what they mean. However, I plan on running radio advertisements to make sure most people are aware of what the signs mean as well as to encourage the use of school zone road signs. Even though effective traffic signs are only part of the solution to preventing RTAs, they can bring about a significant change when it comes to road peace in a country like Ethiopia if implemented right.

Tentative Schedule for Events: May 23rd – August 26th

May 23 rd – June 15 th	Meeting with Admassu Assefa and other National Transport Authority Officials to visit the target sites and identify locations
June 18 th – June 25 th	Prepare school crossing signs for erection and arranging transportation as well as volunteers
June 28 nd – July 4 st	Erect signs at Lideta Catholic Cathedral School and Sandford International School
July 6 th – July 10 th	Erect signs at Ethio-parents' Highschool (Gullele) and Ethio-Parents' Highschool (Gurji)
July 11 th – July 14 th	Erect signs at Hillside School and Nazareth School
July 16 th – July 20 th	Erect signs at School of Tomorrow and Greek Community School
July 20 th – August 1	Erect signs at Ayer Tena Secondary School, Vision Academy, & El-Bethel Middle School
August 3 rd – 26 th	Wrap up, farewell dinner with volunteers, and work on summary report