Building the Capacity of Relevando Peligros with New Resources

STANFORD UNIVERSITY SSLP TEAM

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DISCLAIMER

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Contents

Executive Summary

Since 2010, Relevando Peligros (RP), a registered non-profit organization, has worked in the province of Cordoba, Argentina to identify and resolve electrical hazards in public spaces. In the past seven years, the organization has achieved three major goals: the passage of Law 10281 (The Law of Electrical Security) in the province of Cordoba, the development of the JACIAR web-based platform for reporting electrical hazards in public spaces, and the creation of educational curriculum to teach primary and secondary school students about public safety and civic engagement. At the time of this report, Law 10281 had just gone into effect in the province of Cordoba and RP's role in detecting and reporting electrical hazards was to become more critical. Additionally, the organization identified three overarching desires for the coming years: to address and report more types of public safety hazards, to start a chapter of RP in another province, and to pass Law 10281 at the national level.

This report summarizes the work and findings of the Stanford Summer Service Learning Program Team (henceforth called the Stanford Team) during five weeks of field work completed from August 13 to September 15, 2017. During the first three weeks of field work, the Stanford Team met with all members of the RP team and with a set of stakeholders involved in electrical infrastructure in Cordoba province (henceforth called Relevant Entities, or REs). In the final two weeks of field work, the Stanford Team gathered data from internal and external sources, met with additional stakeholders, and performed analyses of gathered data and information.

The team identified six key goals for short-, medium-, and long-term development of RP and created resources to support RP in achieving these goals. This report summarizes the development of these six goals, the creation of the resources, and the application of these resources towards RP's goals.

The information provided in this report and appendices is meant to guide Relevando Peligros as it gains more prominence on the provincial level and attempts to gain footing at the national level. The Stanford Team highly recommends that the organization create a task force to review this report and the resources provided.

0.0 Introduction

Relevando Peligros was founded in 2010 by Sandra Meyer a few months after her son Juan passed away from electrocution on a street in Cordoba. She established the organization with the intent of identifying electrical hazards in public spaces in Cordoba and reporting the hazards to the responsible parties. RP's core mission has developed over the years and now states that RP "works with the public and private sectors to neutralize hazards in public spaces in an effort to foment the responsibility and active participation of society."[1]

The organization has been successful on many fronts and has received positive press for its endeavors. Three of their most notable successes have been the passage of Law 10281 (The Law of Electrical Security) in the province of Cordoba, the development of the JACIAR web-based platform for reporting electrical hazards in public spaces, and the creation of educational curriculum to teach primary and secondary school students about public safety and civic engagement. These three successes have all occurred since 2014.

RP's leadership has also expressed interest in three avenues of growth:

- The broadening of their portfolio of work to include (a) non-electrical hazards in addition to electrical hazards, and (b) privately-owned places of public access in addition to public spaces
- The founding of a chapter of the organization in another province of Argentina
- The passage of Law 10281 at the national level

With this ever-broadening scope of work and increased publicity due to the recent implementation of the law, it is vitally important that RP is well organized, thinks carefully about its growth, strengthens its capacity, and maintains its strong presence in the community.

The Stanford Summer Service Learning Program Team worked with RP as part of a University-funded international service learning program. The program included a quarter-long course at Stanford and a five-week site visit in Cordoba, Argentina that took place between August 13 and September 15. The Stanford Team, comprised of 10 engineering students representing all disciplines and degree levels, applied their technical skills and a systematic approach to study and consult with RP. While in Cordoba, the Stanford Team's tasks included evaluating RP´s current areas of work and future expansion, defining project objectives, collecting data, meeting with relevant stakeholders, producing final deliverables, and presenting to the entire RP team. Sandra, the president of the organization, and Vir, the communications director, arranged the agenda for all visits and meetings during the first three weeks. In the final two weeks, Stanford Team members requested additional meetings as needed to support project goals (the list of meetings can be found in Appendix A2).

Based on the ideas for growth and expansion explicitly expressed by the RP leadership team, conversations with all RP members, and meetings with local stakeholders, the Stanford Team

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[1] Mission statement has been translated from the original Spanish by members of the Stanford Team

identified six specific goals for Relevando Peligros to pursue as it continues to develop in Cordoba and beyond.

The goals are as follows:

1. Improve the process for identifying and addressing hazards in public spaces
2. Establish a system to quantify and report hazards in privately-owned places of public access
3. Increase understanding of hazards amongst members of the community
4. Establish RP in another province
5. Pass a national Law of Electrical Security
6. Strengthen the organization

The development of each goal stems from the following sources: Goal 1 builds upon the success of the JACIAR web-based platform for identifying and reporting hazards in public spaces and recognizes the need to expand the platform's capacity and improve its interface. Goal 2 was created because of the recent formation of the Health & Safety Team, which seeks to address hazards in areas of public access. Goal 3 develops a plan to scale up the education initiatives of RP in light of the pilot program conducted by the Stanford Team in September. Goals 4 and 5 were considered by members of RP to be 'desires for the future' and 'long-term objectives' of the organization, but no real plan existed for either goal; this report lays out the specific steps and resources needed to work towards these goals. Goal 6 was created based on needs recognized by the Stanford Team after interviewing all members of RP.

For each of the six goals, numerous objectives and short-term tasks were identified and carefully defined to help RP work incrementally towards long-term goals. Additionally, the Stanford Team created a set of resources to help the organization understand and capitalize on its strengths. The types of resources provided by the Stanford Team include infographics, data visualization tools, and administrative tools. This report highlights how the six goals of the organization can be achieved through understanding, using, and maintaining these resources.

0.1 General Methodology

0.1.1 Infographics

Purpose

Infographics are visually appealing images that transmit information rapidly. The goal is to stimulate reader interest by employing the familiarity and approachability of pictures, diagrams, and compact word blocks. By keeping text concise and clear, infographics can engage readers with limited time and/or limited levels of literacy. These images are conducive for sharing on social media sites and can capture reader interest as viewers quickly scroll through media feeds in search of vibrant, easy-to-read content. The unique viral capability of an infographic presents an incredible opportunity for RP to share information with the public.

Development

Two members of the Stanford Team formed the infographic task force. They generated a list of potential infographic topics and, after consulting with RP team members, produced the final list of five topics. The task force then conducted interviews and research to develop the text and curate images. The RP team members most familiar with each topic consulted closely with the task force to refine the infographics.

Use

The five infographics created by the Stanford Team support many of the specific goals of the organization. Additionally, as a whole, the infographics increase the transparency and public image of RP by showing the public exactly what RP does and what it has accomplished in the past seven years. The infographics also transmit safety and legal information to citizens and make citizens more likely to be proactive and participatory in the work of RP by decreasing the confusion around complicated technical information. Finally, these graphic displays of the work and mission of RP can contribute to securing grants and funding in the future because they are strong and attractive representations of the work of the organization.

0.1.2 Data Visualization

Purpose

Data analysis can help direct and refine the organization's goals and objectives. Although RP has collected important data since its founding, there has not been a concerted effort to aggregate and analyze the data to communicate the serious nature of unresolved hazards. Maps help identify the extremity of an issue and can direct attention to geographic areas that suffer disproportionately. The graphs provided in this document tell a holistic story of RP's work by showing trends over time and the extent of each type of hazard. The tables convey data and allow a reader to compare hazards across time, category, and resolution.

Development

Four members of the Stanford Team created the data visualization task force. They gathered data from the back-end of the JACIAR system and from the city morgue. The maps were made using ArcGIS software, while tables and graphs were developed in Microsoft Excel.

Use

The data visualization tools provided in this document include maps, graphs, and tables that can help identify barriers, track progress, and facilitate internal evaluation of the organization. The results can be shared externally on the website, social media, or in publications (on behalf of RP or local media sources). The results can also be used for internal distribution such as quarterly reports for RP volunteers and financial backers. The Stanford Team advises that maps, graphs, and tables be updated regularly with data as it is gathered throughout the year.

0.1.3 Administrative Tools

Purpose

Organizations are complex entities that must balance stakeholder needs, member talents and strengths, available resources, and future planning and direction. Within this document there are several administrative tools that help to clarify the organizational structure and the roles and responsibilities of all members.

Development

Four members of the Stanford Team made up this task force. They conducted interviews of nearly every member of RP to gain an understanding of how the organization is run and members' hopes and visions of the future. The task force then developed the goal matrix and additional supporting materials.

Use

These administrative tools include planning documents for expansion, detailed tasks to achieve specific future goals, concrete steps to develop current projects, and suggestions of measures to improve communication for the team. It is recommended that RP review all documents and use the suggestions to create a strategic plan for growth and development.

1.0 Improve the process for identifying and addressing hazards in public spaces

Since RP was founded, one of its primary objectives has been to identify electrical hazards in public spaces[2] and communicate them to Relevant Entities (RE)[3] to get the hazards repaired. During the first years of the organization, Cordobans could report hazards via email, the RP website, and social media accounts. In 2015, RP formalized the reporting process with the launch of a mobile application in which users take photos of hazards spotted in Cordoba, record the location, and submit it to RP.[4] This system, called JACIAR, compiles all the submitted hazards, which are then regularly reviewed by an RP team member who sends each hazard via email to the correct RE. For example, broken lampposts are typically the jurisdiction of the municipality and exposed wires are that of the electricity company.

Goal 1 was developed after extensive conversations with Germán, Nicolas, and Mariano: Germán is the current RP team member who reviews all the hazards; the latter two are the creators of JACIAR. The goal seeks to improve the user experience and interface of the RP

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[2] Called "Vía Pública" in Spanish, these areas include roads, sidewalks, pedestrian zones and streets, and plazas

[3] Relevant Entities are public and private organizations that are accountable for the installation and maintenance of infrastructure within public spaces in Cordoba; this includes various electricity companies, the municipal government, and Civil Defense, to name a few

[4] The entire web-based system, which includes the mobile application, is called JACIAR and was created by a group of university students as their thesis project.

application with the hope of indirectly inspiring more citizens to use the app. This goal also has the indirect effect of improving RP's ability to expand to another province as an improved tool for communicating with users and REs will be vital to disseminate RP's name and mission. The following objectives are included under this goal:

1.1	Identify the barriers to hazard denunciation and resolution
1.2	Improve communication and relationships with Relevant Entities
1.3	Increase app use through clarity and comfort
1.4	Measure the success of achieving Goal 1
1.5	Develop strategies to prioritize RP's future efforts in response to progress or trends conveyed via internal data

The following sections take a deep dive into explaining objectives 1.1, 1.3, and 1.5 and show how infographics and data visualization tools can be used to accomplish the objectives, and in turn accomplish Goal 1.

1.1 Identify the barriers to hazard denunciation and resolution

Because identifying and eliminating inefficiencies in order to streamline a process leads to improved outcomes, RP must work to target and remove the barriers to hazard reporting and resolution. Data analysis can reveal trends that highlight barriers in a system. The Stanford Team started the process of identifying barriers by analyzing three types of data: 1) the hazards that have already been corrected, 2) the categories of hazards that are commonly reported, and 3) the REs associated with the hazards.

1.1.1 Resources Provided

Tables of Hazards Reported and Resolved per Year
The Stanford Team aimed to identify temporal trends in the reporting and resolution of hazards to understand the impact of RP's actions and the barriers to realizing their goals. In 2011, RP began reporting hazards and soliciting public denouncement of hazards through its Facebook page and website. In 2015, RP created the Android application as a tool specifically for denouncing hazards. According to all the data thus far, there have been 2,582 reported hazards and 659 resolved hazards. However, RP has never extracted or organized the hazards reported and resolved each year. The Stanford Team analyzed RP's pre-existing data and compiled a yearly distribution of the denounced and resolved hazards as seen in the following tables and graphs.

The most evident observation is that hazard reporting increased significantly in 2015 and 2016 with the launch of the RP app, but hazard resolution fell sharply in 2016.

Año	Cantidades de Peligros Reportados	% Aumento Anual
2011	60	-
2012	98	63%
2013	258	163%
2014	192	-26%
2015	618	222%
2016	862	39%
2017	475	-
TOTAL	2563	

**19 entradas de datos sin fechas han sido excluidas*
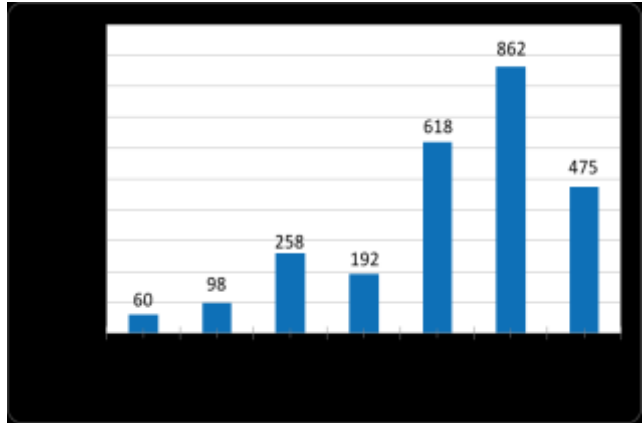
Table 1: Total Reported Hazards by Year

Año	Cantidades de Peligros Solucionados	% Aumento Anual
2011	43	-
2012	75	74%
2013	186	148%
2014	147	-21%
2015	131	-11%
2016	11	-92%
2017	47	-
TOTAL	640	

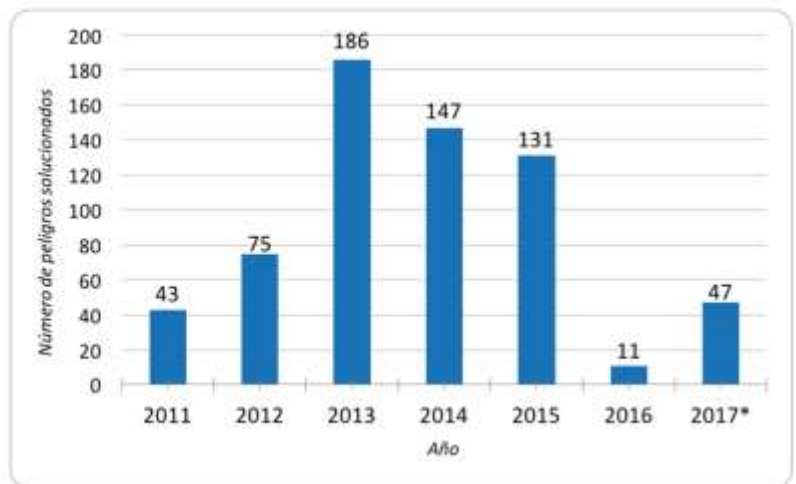**19 entradas de datos sin fechas han sido excluidas*

Table 2: Total Resolved Hazards by Year

10

Año	Cantidades de Peligros Solucionados	Cantidades de Peligros Reportados	% Solucionado / Reportado
2011	43	60	72%
2012	75	98	77%
2013	186	258	72%
2014	147	192	77%
2015	131	618	21%
2016	11	862	1%
2017	47	475	10%
TOTAL	640	2563	

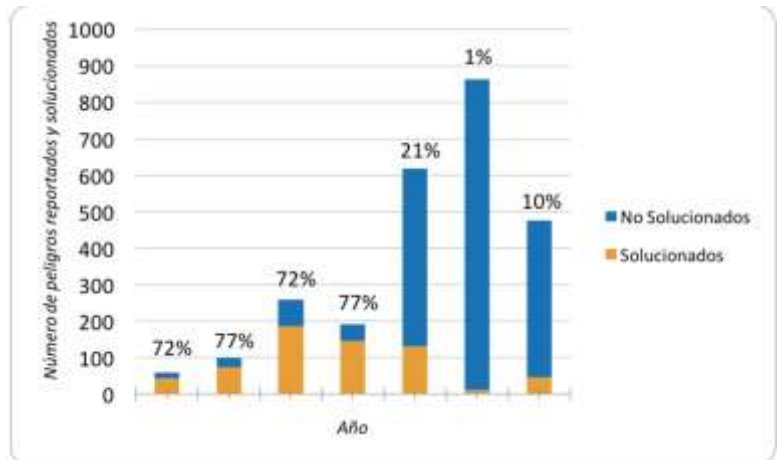****19 entradas de datos sin fechas han sido excluidas**

Table 3: Total Reported and Resolved Hazards by Year

**See Appendix C4 for a further breakdown of Reported and Resolved Hazards according to neighborhood.

Furthermore, a comparison of reported and resolved hazards produced surprising results. Before the creation of the application, 70% of the total reported hazards were resolved. After 2015, a much smaller percentage of the hazards were resolved, which may be due to the following reasons: 1) REs' inability to keep up with the rapid influx of reported hazards, 2) technical issues with the app or database that prevented the tracking of resolved hazards, and 3) resolved hazards that are not reported back to RP or updated in the database.

This data should guide RP in evaluating whether the app is improving the reporting of hazards, what trends exist in hazard resolution, and how different approaches to hazard resolution could be implemented.

While it is important to increase the number of application users and reported hazards, it is also imperative that RP focuses on improving the process of hazard reporting.

Map of Reported Hazards per Category
The Stanford Team classified the electrical risks reported into 12 distinct categories. Previously, all denunciations on the app were classified into two categories: electrical and non-electrical. The detailed categorization of hazards reveals the types of hazards that were reported most often. Since REs have limited resources to improve all potential electrical risks, this map can help direct efforts to improve the most salient hazards. A spatial representation of the categories also proves useful since zones with high frequencies of each hazard type can be identified.

Classification into the 12 categories was manually conducted by viewing each submitted hazard photo and assigning category. All data were obtained from the JACIAR app and RP's databases.
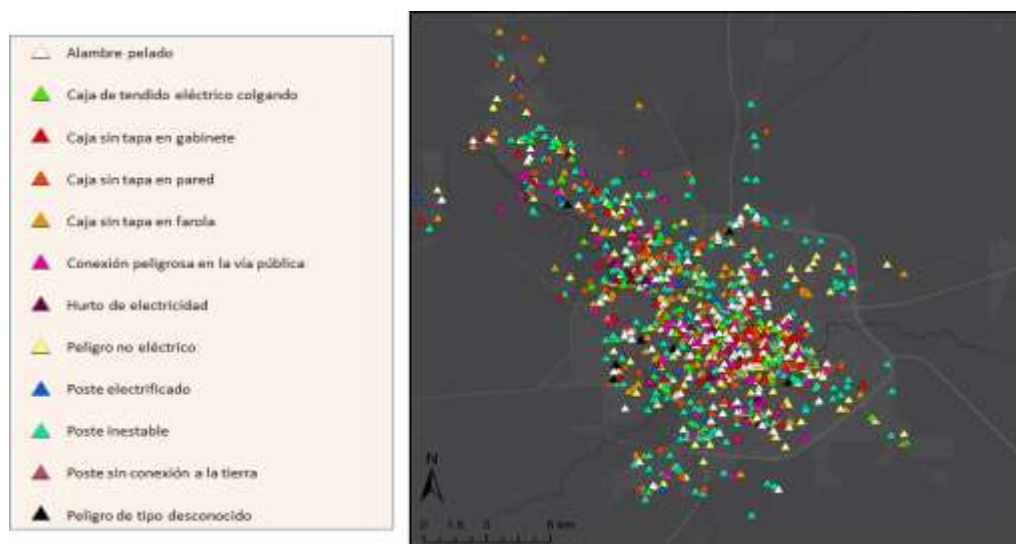

Figure 1: Map of Reported Hazards per Category

**See Appendix C1 & C2 to view disaggregated maps of Reported Hazards per Category and to view tables of Reported Hazards per Category per Year*

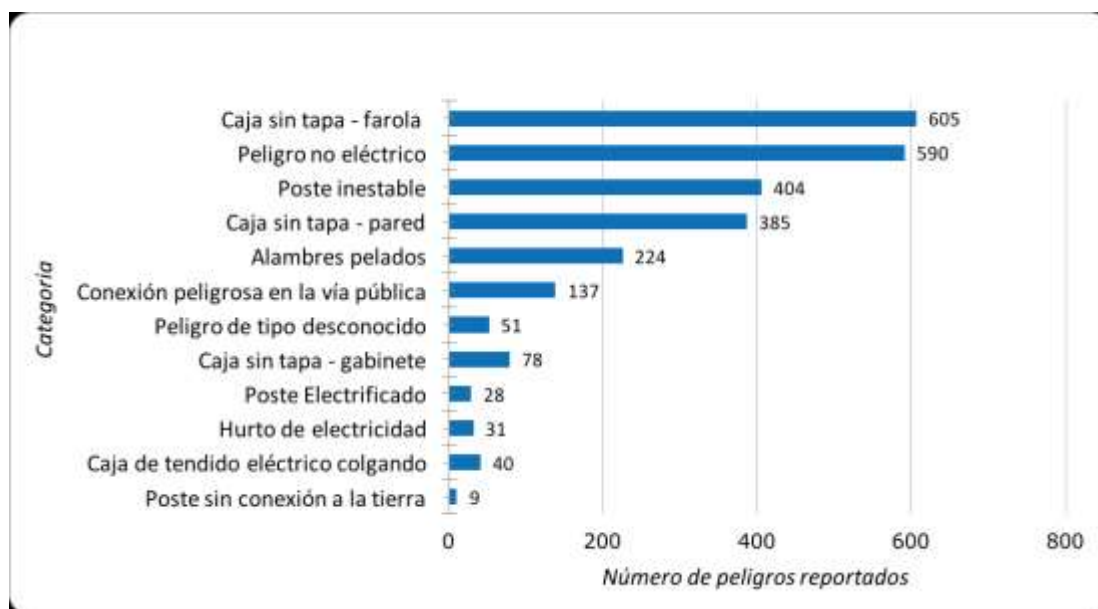Figure 2: Reported Hazards per Category

Table of Reported Hazards per Responsible Entity

The Stanford Team attributed each resolved hazard to the distinct REs to further investigate barriers in the resolution process. With the pie chart below, RP can identify the REs that appear to neglect public electrical safety and pursue better relationships with these entities. The data also demonstrates that some public and private entities are not meeting public safety needs.

It is important to note that the sample size for this classification is only 22.5% of the total reported hazards within RP's database. This analysis would be more useful if the associated entity were recorded consistently with all transmitted hazards.
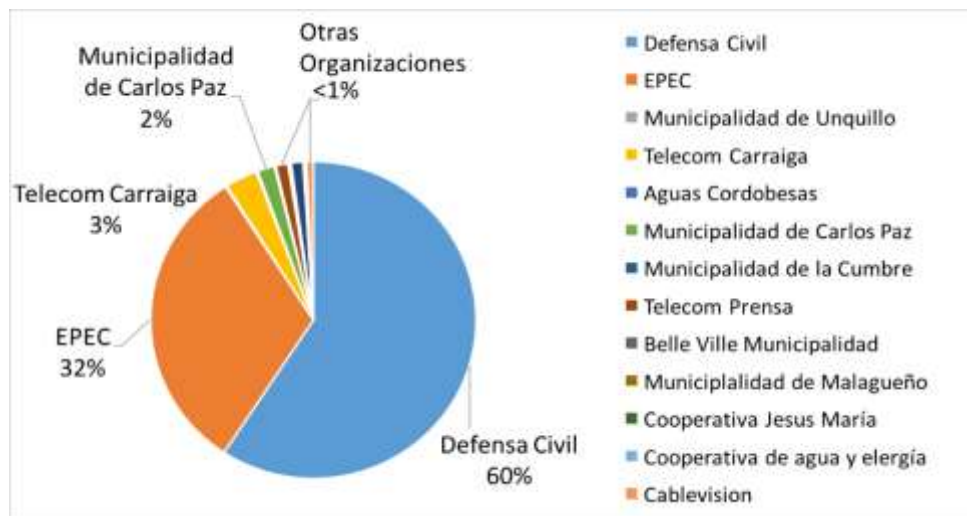
Figure 3: Percent of Reported Hazards Pertaining to Each RE

1.3 Increase app use through clarity and comfort

Although the RP application for reporting public safety hazards has been simplified from earlier iterations, there are still existing barriers that impede usage. The Stanford Team identified and began to address two such barriers to promote usage of the application. These two barriers are (i) the lack of transparency of the hazard-reporting process and (ii) the learning curve for identifying a hazard.

> (i) Although the electrical service providers and the municipality are required to fix electrical hazards under Law 10281, the entities are not held accountable for locating the hazards themselves. Therefore, citizens must report the hazards that need to be fixed. Because this process is extremely complicated, RP fills an important gap and connects citizens to the REs. More people will use the application if they understand the critical role individuals play in making infrastructure safer.

> (ii) Although many citizens seem to have a basic understanding of electrical hazards, few people besides electrical professionals recognize the multitude of hazards that exist in public spaces. Furthermore, the RP application does not provide visual or written cues

to help users recognize what is and is not a hazard. This learning curve could pose a barrier to the use of the app in that users may feel discouraged if they are confused; RP predicts that users who feel confident that they can report hazards accurately will be more likely to use the application.

1.3.1 Resources Provided

There is no available information on the RP website to inform citizens about electrical hazards and ways to resolve them. The Stanford Team prepared two infographics to fill the content gap.

JACIAR Process Infographic
Document located in [Appendix B1](#)

This addresses the first barrier: the complexity of the hazard-reporting process. The diagram demonstrates the process of hazard reporting and outlines the role of each entity, including EPEC, ERSeP, RP, and the Municipality. The members of the JACIAR Team provided a significant amount of information and support in creating this resource.

Public Spaces Infographic
Document located in [Appendix B2](#)

This addresses the second barrier: the lack of understanding about hazards. The resource is a list of the most common electrical and non-electrical hazards that citizens can report via the RP application. Each hazard is accompanied by a description and a picture so that citizens can familiarize themselves with potential hazards encountered in public spaces. The Stanford Team found the most common hazards reported in the data from the JACIAR system. The featured images are all taken from previous reports processed by JACIAR.

1.3.2 Additional Tasks

These recommended additional tasks can be completed by RP to achieve this objective.

1) Add user features to the app to facilitate use
2) Create social campaign strategies to promote downloading and using the app
3) Create a reliable feedback loop so that individuals who submit hazards via JACIAR know when a hazard is resolved
4) Target audiences who would benefit from the app (police, sanitation workers, etc.)

1.5 Develop strategies to prioritize RP's future efforts in response to progress or trends conveyed via internal data

RP must approach its growth into another province systematically. While the process may be daunting, RP has collected a wealth of data since its initiation which can used to visualize RP's past progress, understand its current strengths and weaknesses, and predict its future trajectory. By investigating any patterns that occur in the data, RP can identify areas for growth and prioritize the issues that will comprise the bulk of its future efforts.

Developing resources to prioritize future efforts will involve, among other tasks, 1) identifying areas of high risk due to other contributing factors (ex. population density, flood risk, etc.), and 2) analyzing and visualizing trends in hazard resolution over time. The following resources describe how the process of analyzing data can reveal avenues through which RP may navigate future initiatives.

1.5.1 Resources Provided

Hazards Risk Map
While electrical hazards exist throughout Cordoba, the level of risk is not uniform because frequently flooded and highly trafficked areas could be prone to worse hazards and higher probabilities of occurrence. By focusing efforts on these areas of highest risk, RP may be able to prevent injuries and deaths more effectively.
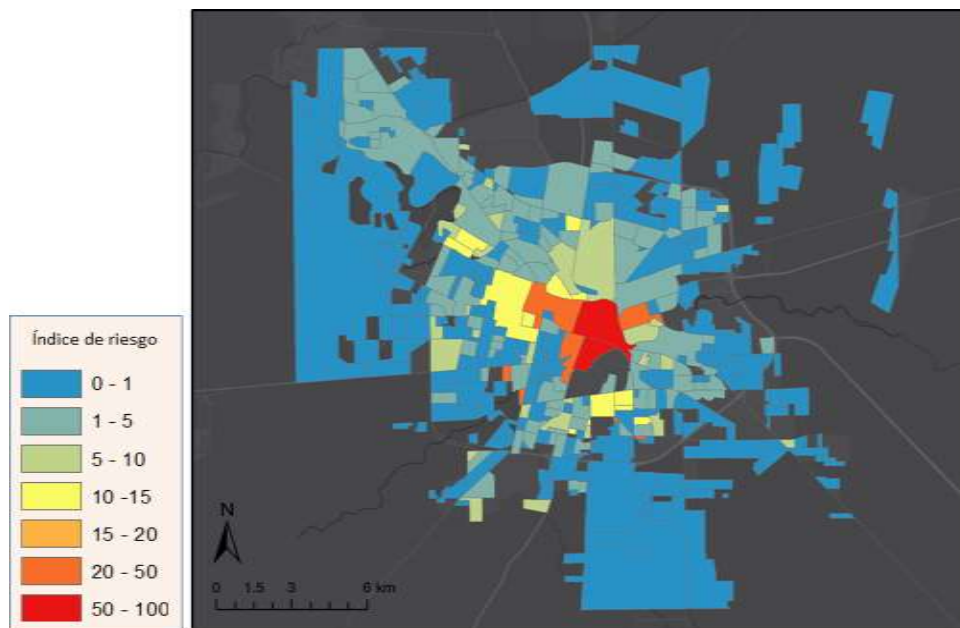
Figure 4: Hazard Risk Map

The Stanford Team developed an index, which combined flood risk, population density, and reported hazard density, and mapped the index values across the neighborhoods of the city. Average values for each type of risk were normalized to a scale from one to ten and multiplied together for each neighborhood. The map shows the values per neighborhood, with greater values representing higher risk. The flood risk data came from the Civil Defense department, population density data from the Municipality of Cordoba, and density of hazards came from RP's database.

The index shows Nueva Cordoba and the Centro to be the neighborhoods with the highest risk levels, while the neighborhoods farther from the center tend to have lower values. The variation

in risk values could help inform RP's decisions about where to focus efforts and it could put extra pressure on the REs to fix hazards in high-risk areas.

Unfortunately, the quality of available input data limits the utility of the index. Most significantly, it is very likely that the density of hazards does not accurately represent the number of hazards in an area but rather the amount of effort that went into recording hazards in that area. Nueva Cordoba and the Centro have very high-risk index values primarily because many hazards have been reported within these neighborhoods. If these neighborhoods do not actually have more hazards, but instead are simply the most monitored, then putting special effort into resolving hazards in these areas would not be particularly effective. A risk map, such as the one provided here, would be useful with more consistent data. The Stanford Team has included this map as an example of what RP might produce in the future to inform decisions.

Map of Resolved Hazards per Category
Categorizing resolved hazards speaks to the trends in RP's ability to improve public safety. The Stanford Team consolidated information of resolved hazards into two resources: a map and a table of resolved hazards per category. These tools help RP determine internal and external actions that can be taken to reduce risks.
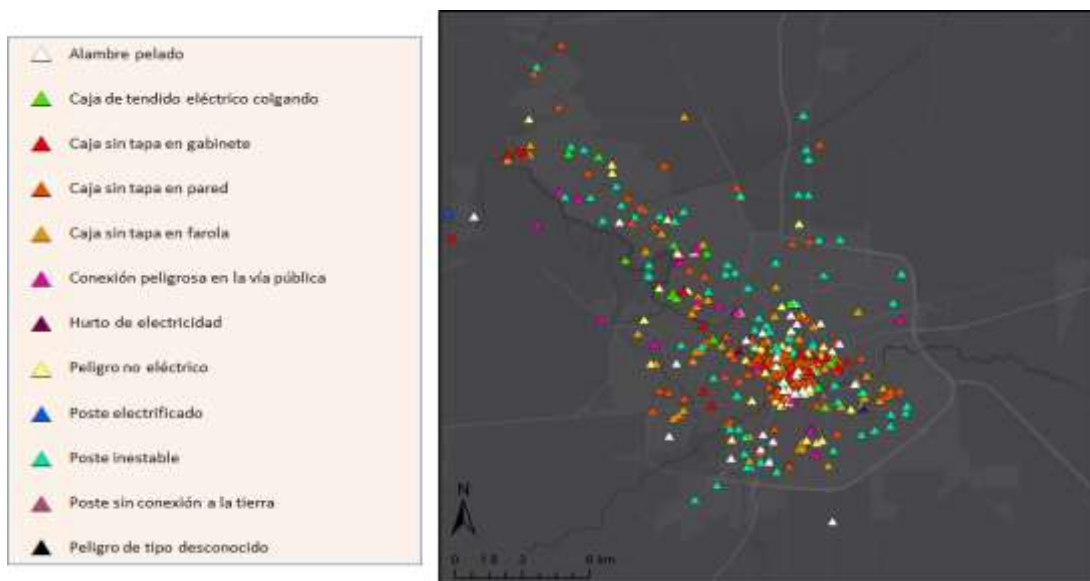
Figure 5: Map of Resolved Hazards per Category

The Stanford Team used ArcGIS to map resolved hazards, which allows RP to examine the distribution of hazards in Cordoba and to monitor the REs as they resolve hazards. For example, one noticeable pattern is the cluster of resolved 'caja sin tapa en gabinete'[5] hazards in populated areas of the urban center. There are also many resolved 'postes inestables'[6] throughout the capital. This may indicate that the REs responsible for these hazards respond

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[5] Electrical cabinet (on street lamp) without a cover
[6] Unstable tall lamppost

faster than other REs. Another conclusion could be that certain categories of hazards warrant a faster response from REs. Understanding the reasons for trends such as these will aid RP in appealing to REs to fix problems will and how to promote hazard resolution more evenly throughout the city.

To view a map of reported hazards according to each category, consult Appendix C1.
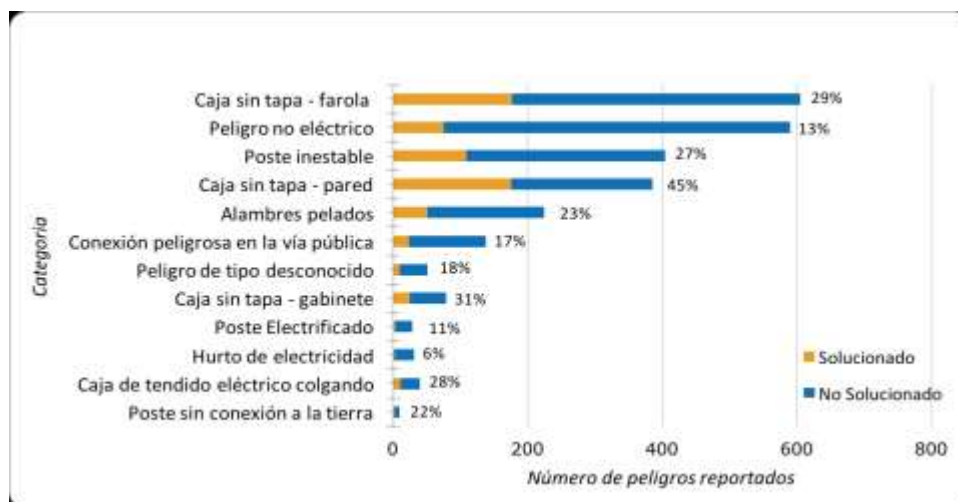
Figure 6: Percent Resolved vs. Unresolved Hazards per Category

The figure quantifies the most commonly reported and resolved hazards. The figure allows RP to spot inconsistencies between reported and resolved hazards. For example, 'peligro no electrico'[7] is the second most commonly reported hazard, but it falls way below the other three most commonly reported hazards in terms of percent resolved. Not only is this analysis a progress check for RP's impact, it also informs REs of areas where they can improve their ability and timeliness in resolving hazards.

By examining the location, category, frequency, and resolution of hazards, RP and REs can make well-informed decisions to prioritize the most persistent hazards or the most vulnerable parts of the capital. The Stanford Team recommends that this assessment be conducted each year with the data collected through JACIAR.

2.0 Establish a system to quantify and report hazards in privately-owned places of public access

Recently, RP has extended its portfolio of work to include hazards in privately-owned places of public access. These spaces, unlike pure public spaces, are not owned by public entities and include movie theaters, grocery stores, gyms, stadiums, and other shops, just to list a few. The Hygiene and Safety Team was formed in mid-2017 to develop a comprehensive framework for approaching public access spaces, including quantitating risks for various types of hazards and calculating appropriate response rates for REs. The Stanford Team met with members of the

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[7] Non-electric hazard

Hygiene and Safety Team to discuss these ideas; ultimately, however, the Stanford Team chose not to develop a robust plan or resources for Goal 2 and to, instead, note several objectives that should be included, while leaving the overall vision for the goal to RP.

2.1   Create a risk matrix for electrical and non-electrical hazards
2.2   Identify process for reporting hazards to REs
2.3   Create public awareness of new app features

This goal would benefit from more planning and development on behalf of the H&S team. Appendix A1 shows a set of objectives and tasks that can be used as examples of potential ways to achieve Goal 2.

3.0 Increase understanding of hazards amongst members of the community

Since RP's founding, education programs have been central to RP's outreach efforts. In the past few years, RP has dedicated a great deal of resources towards the creation of the *Yo Relevo* curriculum for primary and secondary students and the development of the *Una Mano* video game for first- through fourth-grade students. The primary school material focuses on increasing awareness of electrical and non-electrical hazards both at home and in public spaces, as well as teaches students to advise an adult of any hazard. The secondary school material strives to help students develop a sense of social responsibility and collective consciousness for public safety and civic involvement. Students learn to use the RP app, identify roles of stakeholders, gather and transmit statistics, and create a social campaign. The objectives for this goal build upon the previous work of RP and provide a framework to launch, assess, improve, and expand these in-school programs. Additionally, this goal seeks to increase the general public's understanding of risks/hazards via educational materials targeted at adults. The following objectives are included under this goal:

3.1   Improve and expand the education program for students
3.2   Develop educational resources for the public

The Stanford Team developed an evaluation document and infographics that will help RP tackle both objective 3.1 and 3.2. The following sections explain how to use these tools to accomplish Goal 3.

3.1 Improve and expand the education program for students

RP has continually expressed the importance of education outreach in creating an active, conscientious society that values life and builds safe spaces. To accomplish this goal, RP must implement education programs with age-relevant content beginning in primary school and build upon these lessons for the students as they grow. Objective 3.1 seeks to both improve and expand the education program, which are desires clearly-expressed by multiple members of RP. First, to improve the program, the content and structure should be reevaluated considering the feedback from the recent pilot program. With improvements made to the curriculum, RP can

more easily convince educators to host the courses at their school. Second, to expand the program, RP should consider various avenues for implementation (top-down vs. bottom-up) and evaluate the advantages and disadvantages of each. They can simultaneously pursue both strategies and record lessons learned in each.

3.1.1 Resources Provided

Education Pilot Program Feedback and Suggestions
Document can be found in [Appendix A5](#)

The *Yo Relevo* curriculum and the *Una Mano* video game were both completed in the year prior to the Stanford Team's visit to Cordoba. As neither had been tested in schools, Sandra asked that the Stanford Team prepare, lead, and evaluate a pilot program in both a primary school (with first through sixth grade students) and a secondary school (with third year students). The Team used the *Yo Relevo* curriculum booklets to create detailed lesson plans for the classes: one 80-minute class for primary school students and two three-hour classes for secondary school students. The Team then consolidated their observations into the following categories: Evaluative Tools, Content, Activities, and Video Game. They wrote a document to detail the successes and areas of improvement for both the primary and secondary programs. For each area of improvement, at least one specific suggestion was given that could ameliorate the shortcoming.

The team identified two broad recommendations to aid RP's further development of the education program. First, the curriculum should be made more robust and developed into detailed lesson plans so that future docents of the program are not guided merely by the "Key Words" and "Specific Objectives" sections. Second, more materials, such as handouts, slideshows, or videos, and more participative activities should be developed for both primary and secondary students. This second recommendation would make the classes less lecture-heavy and engage students more.

Once RP builds up the education team, the Stanford Team recommends that the new members start by reading the provided assessment and discussing the observations and recommendations made. The assessment should be used to inform the modifications made to the current program before it gets launched again. The Stanford Team also recommends that the framework for assessment (with categories, strengths, weaknesses, specific suggestions, and general suggestions) be repeated after each iteration of the education program.

3.1.2 Additional Tasks

1) Review the provided assessment and work to improve the *Yo Relevo* program according to the suggestions
2) Create a guide to train teachers and docents who can teach the course to students
3) Continue to run trials of the program in schools with which they already have a relationship; evaluations and improvement can be made after each trial

4) Pursue implementation on a larger scale by approaching the appropriate offices within the Ministry of Education and determining the feasibility of a city-wide or province-wide launch
5) Try to coordinate with existing events (child-centered, education-centered, safety-centered) to integrate parts of the education program into these events

3.2 Develop educational resources for the public

RP has spent a great deal of time and effort developing a robust education program for primary and secondary school students. However, it has few educational resources available for adult citizens on electrical hazards and safe practices. Because the legal system is slow and ineffective in protecting victims of accidents, it is important for individuals to take precautions to prevent electrical accidents from ever happening. These infographics help citizens protect themselves at home and out in their communities.

3.2.1 Resources Provided

Households Infographic
Document located in [Appendix B3](#)

The purpose of this infographic is to educate residents on safe electrical practices in homes through photos of proper and improper installations that serve as reference for viewers. Although Law 10281 in Cordoba will require all households to comply with the specified standards, including double insulated supply tubing, there are other recommended actions that should be carried out as well. These actions are the focus of the infographic. The document is compiled of information from a variety of internet sources and experts.

Testimonies Infographic
Document located in [Appendix B4](#)

The purpose of this infographic is to communicate the potential consequences of electrical hazards and encourage preventative behavior. The case studies of three students who have lost their lives to accidental electrocution are presented in a compassionate tone to link the human aspect and emotional pain (in part caused by frustration of the judicial process) to hazardous behaviors and objects that the public may not recognize.

The infographic will be particularly useful to gain support for expanding and improving electrical safety in a social, judicial, and legal setting. The information displayed in the document was collected from interviewing the family of each victim. More testimonies can be added in the future.

Public Safety Infographic
Document located in [Appendix B2](#)

The primary objective of the public safety infographic is to assist the JACIAR hazard reporting system, as explained in Objective 1.2. However, it also contributes to the objective of providing educational material for citizens. The infographic outlines common hazards in outdoor public

spaces, which are often overlooked by pedestrians. By identifying these hazards, the readers will more easily be able to recognize the existence and frequency of these hazards and make additional efforts to avoid them.

3.2.2 Additional Tasks

1) Upload material to the website
2) Identify vulnerable neighborhoods and audiences for RP to concentrate their outreach efforts

4.0 Establish RP in another province

As part of achieving its vision, RP is interested in expanding the organization into other provinces. Despite RP's success in Cordoba, there are strategic and logistical considerations for growth into other locations. This goal begins to address the steps that RP (and most specifically the Executive Team) must take to work towards the organization's expansion. The following objectives are included under this goal:

4.1   Determine strategies for expansion
4.2   Consolidate and document processes and activities

The following sections elaborate upon objectives 4.1 and 4.2 of this goal.

4.1 Determine strategy to expand

There are many considerations for deciding how RP should expand beyond the province of Cordoba. This objective creates a plan for interested members within RP to follow a systematic approach for deciding how to create new chapters. Without a plan, RP could compromise its own mission and reputation.

4.1.1 Resources Provided

Strategies for Expansion Document
This resource (located in Appendix A4) outlines a few considerations for achieving this objective. The information provided should help RP determine the factors that are most important for chapter expansion. The document lists the advantages and disadvantages of three strategies for chapter expansion into another province.

4.1.2 Additional Tasks

1) Create a task force responsible for planning chapter expansion
2) Have this task force consider and analyze various strategies for expansion and identify essential person

4.2 Consolidate and document RP's processes and activities

To establish RP in other provinces of Argentina, it is critical to consolidate and record the activities and processes involved in RP's operations in Cordoba. These documents can be utilized by interested individuals in other provinces to facilitate the process of creation and expansion to avoid some of the initial challenges that Sandra faced when founding RP.

4.2.1 Resources Provided

All of the infographics and accompanying guides that are included in the resources of this project will contribute to achieving this objective. By collaborating with RP in Cordoba, budding organizations will benefit from borrowing and utilizing the infographic documents and strategies.

4.2.2 Additional Tasks

1) Collect information on operations as new chapters are formed and grown
2) Create a legacy of administrative structure documents for future chapter expansion
3) Document the process and activity relating to the growth and establishment of RP in an infographic to easily convey organizational procedures

5.0 Pass a national Law of Electrical Security

RP was the driving force behind Law 10281's passage at the provincial level. The law is the first of its kind in Argentina to promote electrical safety and it lays the legal foundation for lowering electrocution risk in two ways. First, all new electrical connections in public and private buildings must be authorized by a government-trained electrician before the owner can have their building connected to the grid. Second, ERSeP, a utilities regulatory body, has the right to levy fines against any RE that doesn't repair an electrical hazard. The law was passed two years ago at which time a two-year grace period began to let all REs improve the electrical infrastructure in Cordoba. On September 1, 2017, the requirement for an electrician authorization form went into effect. In February 2018, the grace period will end and ERSeP will be allowed to levy fines.

The passage of the law at the national level is an implicit goal of RP. The organization does not want to be the sole driving force, but recognizes its role in supporting the passage of the law. Therefore, it is essential that RP understand the impact of the provincial law and apply lessons learned to the national level. The following objectives are included under this goal:

5.1   Identify ways to improve Law 10281
5.2   Provide resources for victims of electrocution and their families
5.3   Build a support network at the national level
5.4   Demonstrate that the law functions at the provincial level

The following sections take a deep dive into explaining objective 5.4 and show how specific resources can be used to accomplish the objectives, and in turn accomplish Goal 5.

5.4 Demonstrate that the law functions at the provincial level

Provincial Law 10281 is one of RP's biggest accomplishments; it is a legal validation of the right to electrical safety. However, outside of RP and REs, few people know what the law means. If citizens are unaware of the law's existence and requirements, it is unlikely that it will function effectively. The text of the law is dense and there is an education barrier in understanding the vital nuances of the law. Therefore, it is imperative that a resource exists that can accurately and concisely relay the information of the new law.

5.4.1 Resource Provided

Law Infographic
Document located in [Appendix B5](#)

Continuing with the infographic approach, we have included a document that's sole purpose is to explain Law 10281. The document not only describes the main points of the law, but summarizes the major impacts each related party will experience with its implementation. For these reasons, this resource can also be used to achieve Objectives 5.1 and 5.2.

This resource was created from a compilation of notes taken from Law 10281, a presentation given by ERSeP on the law, and discussions with persons educated in the details of the law.

5.4.2 Additional Tasks

1) Hold a meeting with REs to improve the law
2) Demonstrate that the law has decreased hazards in Cordoba

6.0 Strengthen the organization

RP has been successful with its past goals and objectives and is in a prime position to develop its capacity and work towards new objectives. Goal 6 was developed by the Stanford Team to outline ways for RP to solidify its internal structure, improve its external presence, and grow for the future. The following objectives are included under this goal:

6.1   Make mission and vision clear
6.2   Build RP brand and social media presence
6.3   Create a long-term plan for the organization
6.4   Increase funding for RP
6.5   Grow strategically
6.6   Fortify RP's external presence through the use of visual data resources

The following sections take a deep dive into explaining objective 6.2, 6.4, and 6.6 show how specific resources can be used to accomplish the objectives, and in turn accomplish Goal 6.

6.2 Build RP brand and social media presence

Relevando Peligros is a name that REs respect. The achievements and perseverance of the organization, despite cultural pushback, systemic barriers, and political indifference, allow RP to command respect in the community and seek an audience with almost any party. However, RP is less known among citizens. News articles have done a great deal toward promoting the name and story of RP, but a reliance on external reporting agencies alone is a risk because there is no control of the message. One of RP's backbone beliefs is the power of citizen participation, but few individuals actually use the RP app regularly. Therefore, we strongly suggest that it is in RP's best interest to not only make itself known among the public, but to take direct control of the message that is being propagated.

One of the easiest ways to get directly to this audience is through a strong, engaging, and dynamic social media presence. At the moment, RP's Facebook mostly serves as an avenue for relevant article reposts. RP can be more effective by creating its own marketing materials, such as the infographics created.

6.2.1 Resources Provided

The Stanford Team developed a set of infographic templates (seen in Appendix B) for RP team members to use as they generate more ideas for infographics they'd like. The resource is a living document that is meant to be a sustainable tool that will develop and fit the needs of RP over time.

6.2.2 Additional Tasks

1) Build "meet the team" webpage to show involvement of members
2) Develop general slides to be used in all external presentations that have key success and involvement of members
3) Create website page to talk about all team members
4) Provide materials for media - photos of the entire organization, team goals - for consistent messaging
5) Create mantra for external use
6) Create Youtube video to increase social awareness

6.3 Develop long-term plan

Managing the trajectory of any organization requires a high-level understanding of the goals and objectives serving its mission. A carefully-constructed set of goals broken down into short-, medium-, and long-term action items improves the organization's ability to distribute resources and can increase members' commitment by helping them see the long-term role they can play. Furthermore, the process of creating a long-term plan is in and of itself important as it allows the organization to revisit and reaffirm its guiding mission and vision statements. Thus, the Stanford Team recommends that RP prioritize creating a long-term plan soon.

6.3.1 Resources Provided

Goals and Objectives Spreadsheet
Document can be found in Appendix A1

The Stanford Team developed a model that recognizes six goals serving RP´s mission. Each goal has a defined set of objectives which have, in turn, been broken down into measurable, action-oriented tasks. In this hierarchy of goals, objectives, and tasks, the tasks must be accomplishable such that, upon completion, the task can be checked off or deleted.

As RP continues to grow in Cordoba and beyond, the model should be updated to reflect the careful work of the long-term planning task force and the tasks identified by each team to reach their stated goals and objectives. Any change of structure (ex. the formation of a new team) or circumstances (ex. the procurement of new funding) should prompt the updating of the model.

To incorporate the provided resource into RP's planning, the Stanford Team recommends that a task force be formed, consisting of one representative from each RP team and the executive members. This task force should establish a deadline for when their assessment of and updates to the resource will be completed and schedule regular meetings over the next several months to meet this deadline. We believe that this task force will be essential for RP's structure, as it can likely (i) promote collaboration among teams, (ii) increase organization-wide efficiency, and (iii) ensure that members are up-to-date on RP's overall status.

6.3.2 Additional Tasks

Due to the nature of these tasks, it's suggested that they be completed in the order listed.

1) Create task force for planning comprised of any interested members
2) Have task force review mission and vision statements of organization to guide long-term planning conversations
3) Have task force define short-, medium-, and long-term goals and objectives
4) Assign goals and objectives to teams with deadlines
5) Teams determine tasks to meet objectives and develop timelines for tasks
6) Teams identify personnel and resources needed to complete tasks
7) Teams present their plans for achieving goals at triennial meeting

6.4 Increase funding for RP

RP suffers from a lack of manpower for both administrative and technical tasks; financial resources could help resolve this issue and enable the hiring of part- or full-time help. To apply for grants, however, RP must build its "mass" so that it is recognized as a valuable and respectable organization by local and international funding sources.

6.4.1 Resources Provided

The infographics developed add value to the organization, as they are tangible proof of the breadth of topics that RP addresses and demonstrate create and engaging problem solving.

6.4.2 Additional Tasks

1) Identify and group key documents needed to apply for grants
2) Place donate button on website and a means for donors of large amounts to contact treasurer directly
3) Identify funding sources - national, international, crowdfunding, private donor, corporate sponsors or partnerships, etc. - and create spreadsheet with key information

6.5 Strategic growth

To expand efficiently and maintain its status in the community, RP must clarify team goals and recruit good talent.

6.5.1 Resources Provided

Interview Findings
Document can be found in Appendix A2
This document records findings from a series of interviews conducted by the Stanford Team to determine the structure and operations of RP. These results show what the organization is doing well and where improvement can be made, according to the RP team members. These results should be reviewed by the RP administrative team.

Organizational Chart
Document can be found in Appendix A3
This chart illustrates the relationships between teams and individuals in the current state, but also includes modifications the Stanford Team suggests for efficient growth. This should also be reviewed by the administrative team to identify where key personnel can be added.

6.5.2 Additional Tasks

1) Have each team (JACIAR, Technical, Hygiene & Safety, Education, and Administration) define their team's goals and describe their processes; they should present their responses at the triennial meeting
2) Create means for interested volunteers to see tasks RP needs help with and create way to easily contact RP (button on website, direct email address for interested volunteers, information session)
3) Recruit professionals and students (specifically thesis students) to accomplish the specific tasks determined by the long-term planning committee

6.6 Fortify RP external presence via visual data

Public support for RP and engagement with electrical security issues bolster RP's mission. Widespread support for RP may assist in the acquisition of funds, public awareness of legal battles, and request for action from REs to resolve electrical safety issues.

RP can increase active public support by 1) building awareness and sensitivity for the safety issues at hand and 2) providing a convincing case that RP has met and continues to meet

crucial societal needs. The public must first be convinced that the issue is serious, which can happen in many ways, including outreach from RP. To become actively involved, the public must also believe that RP's work is making a difference -- or has the potential to do so.

Three tasks RP can undertake to build public support are: 1) organizing and presenting data on deaths from electrical causes, 2) identifying and illustrating areas of especially high risk in the city, and 3) organizing and presenting data that illustrate RP's progress towards fixing hazards in public spaces. The Stanford Team worked to complete these three tasks using analysis and visualization of pre-existing data, providing the following resources.

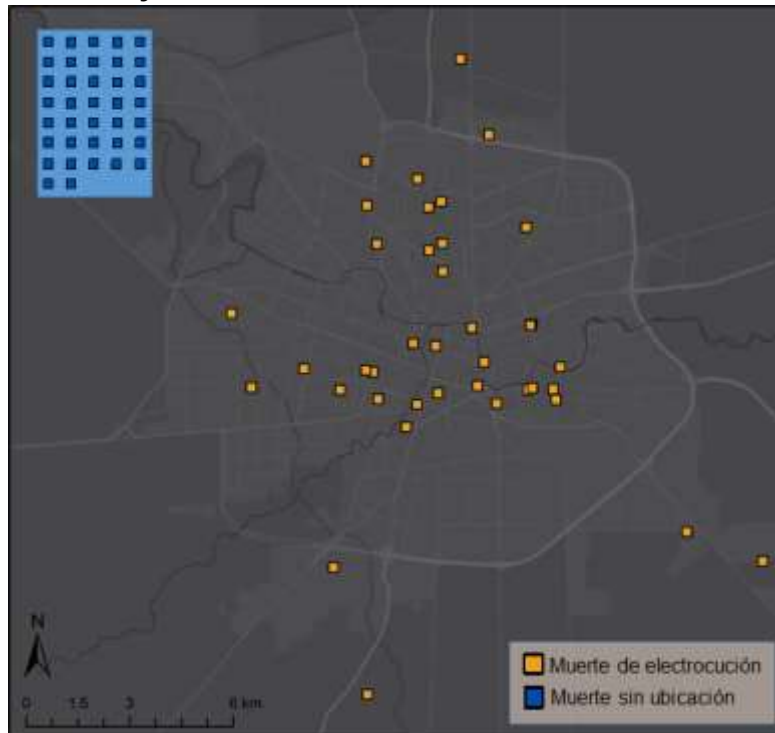*6.6.1 Resources Provided*

Map of Reported Deaths by Electrocution

Figure 7: Map of Reported Deaths by Electrocution
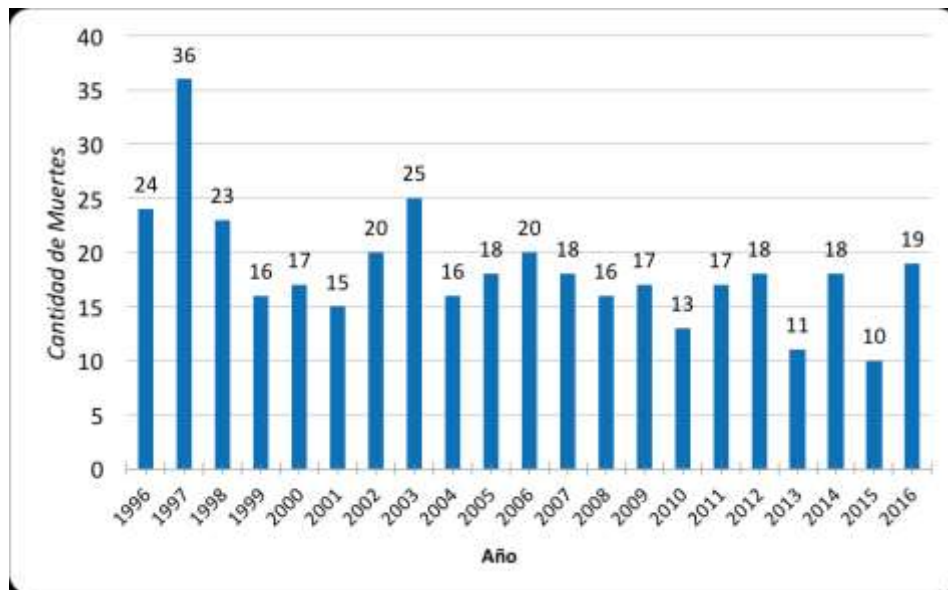
Figure 8: Deaths by Electrocution per Year

**See Appendix C3 for electrical deaths recorded at the Morgue organized by neighborhood*

Despite RP's mission to prevent further deaths resulting from electrical hazards, people continue to die from electrocution. Over the span of 20 years from 1996-2016, 387 deaths related to electrocution have been reported by the Judicial Morgue. RP had already collected information regarding the dates, gender, and age distribution of the victims, but the database excluded locations. The Stanford Team chose to gather and map the data of location of death to illustrate the gravity of the issue.

Within the Map of Recorded Deaths by Electrocution, each orange square indicates where a person has died from electrocution, and each blue square symbolizes an individual who has died from electrocution but for whom the exact location of the death has not been recorded. The map serves two purposes. First, RP can use the map to determine where to focus outreach efforts according to the frequency of the deaths. Like the trends found for total reported hazards, the concentration of occurrences is in the city center. Second, the map compels the viewer to identify with the deaths that occur in their own areas of residence, school, and work. RP can capitalize on this heightened awareness and empathy to shape its advocacy efforts and encourage people to utilize RP tools, like the app, to report hazards and keep their neighborhoods safe. Furthermore, the fact that many of the deaths lack locations means that the hazard is not limited to the neighborhoods indicated on the map; the issue is prevalent throughout the city and everyone should be diligent.

The Stanford Team recommends that this tool be maintained and updated on a yearly basis.

Hazard Risk Map

This risk map described in Objective 1.6 can also be useful to facilitate public engagement. Identifying areas of high risk and publishing this information may support public awareness because people who are conscious of high electrical risks within their own residences or other frequented locations may be more likely to take initiative in making their public spaces safer. The map of neighborhoods colored according to risk index values may be a useful tool to grab the public's attention and motivate engagement with the electrical security issues.
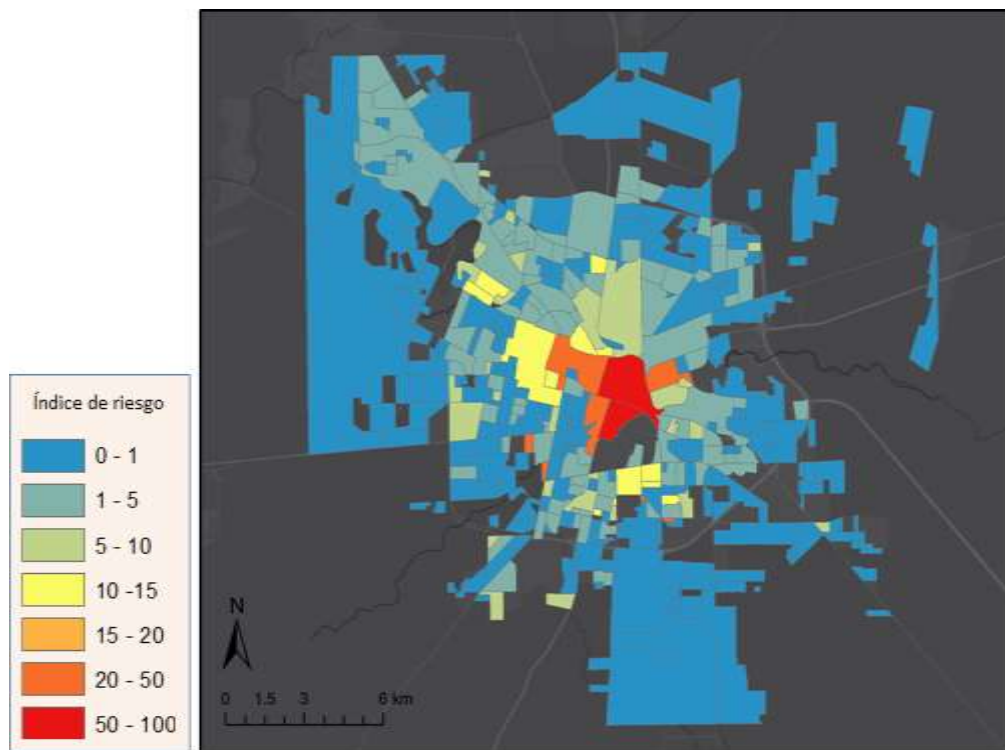
Figure 9: Hazard Risk Map

Map of Reported and Resolved Hazards

The Stanford Team created maps to represent the locations of the reported and resolved hazards in Cordoba. This tool will allow users to see the concentration of hazards in the spaces they frequent. The maps facilitate public awareness of the magnitude of the problem, especially when the hazards exist in their own neighborhoods. This awareness can ultimately lead to increased JACIAR application usage and more thorough reporting of hazards.
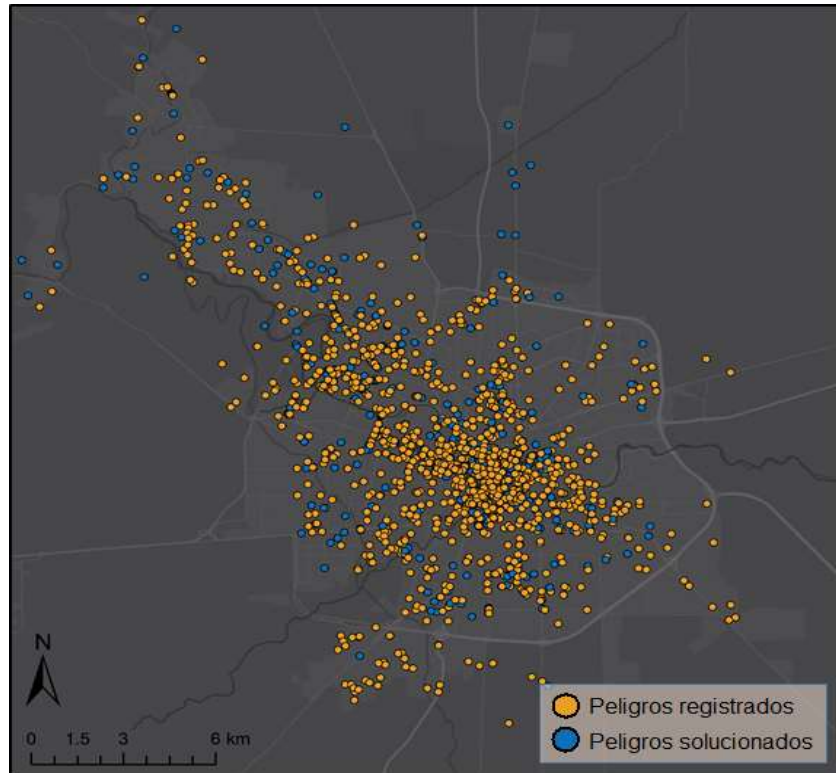
Figure 10: Map of Reported and Resolved Hazards

In addition to illustrating the magnitude of the issue, the maps demonstrate the progress that RP has made towards making spaces safer. The maps show that around 26% of reported hazards have been resolved. While that number may seem low, without RP, those hazards would never have been reported nor resolved. This map should be used in presentations to demonstrate the far geographic reach of RP and its success in mitigating many public safety hazards.

7.0 Conclusion

This report aims to transmit the past successes of Relevando Peligros and to create resources that will help the organization be successful in the future. The Stanford Team helped to develop these tools from interviews, meetings, and data collection and wrote this report to explain how the use of the resources can help RP achieve its goals.

Acknowledgements

The Stanford Team would like to thank the following organizations for their help and support during this process.

- Global Engineering Programs and the School of Engineering at Stanford University for establishing, building, and funding the opportunity to participate in service learning.
- The Haas Center for Public Service at Stanford University for months of support and preparation prior to the team's departure.
- Child Family Health International (CFHI) for acting as an intermediary and for the pre-departure logistical support.
- InterCambioCultural (ICC) for selecting Relevando Peligros and investigating possible avenues of work before the team was even formed. Thank you also for providing constant support during the team's time in Cordoba.
- Relevando Peligros (RP) for opening their hearts and their Google Drive to the team and for arranging five-weeks' worth of visits, meetings, and activities to share their work and their culture with the team.
- Finally, thank you to the following entities in Argentina for hosting meetings and visits and for providing information about their work: The Municipality of Villa de Soto; The Judicial Morgue, Provincial Court, Civil Defense, and Public Lighting of Cordoba; The Ministry of Water, Environment, and Public Services of the Province of Cordoba; ERSeP; EPEC; The Catholic University of Cordoba; Florentino Francisco Bustos Elementary School and IPEM 310 Secondary School; Athletic Club Talleres

Appendix A: Organizational Tools

Appendix A1: Goals and Objectives

The Goals and Objectives spreadsheet is a tool created by the Stanford Team to organize and detail the goal, objectives, and tasks that are recommended to RP. The spreadsheet can be found in the Google Drive.

Appendix A2: Interview Findings

Purpose

Interviews were critical to obtain an inside perspective of RP's operations and organizational structure. The interview findings were a vital resource used in the Stanford Team's development of the Goals and Objectives spreadsheet, the Organizational Chart, and the Strategies for Expansion document, all of which can be found in Appendix A. Moreover, the findings in and of themselves serve an essential purpose for RP: they provide comprehensive, anonymous feedback from nearly all team members and serve as a template for how feedback in the future can be obtained.

Methodology

Most interviews were conducted during the week of September 28 and lasted around at hour. At least two members of the Stanford Team conducted each interview. The list of interviews appears in this section.

The interviews were semi-structured and the questions were prepared in advance; however, natural conversation flowed as the interviewer deemed appropriate. The questions were separated into five categories: the individual's role and responsibilities, the structure and goals of their team, their team's position within RP, their team's relationship to other teams, and their final thoughts or suggestions.

The table below lists the interviews conducted as part of this organizational analysis.

Entrevistado/a	Rol o Equipo	Entrevistador/a	Lugar	Fecha
Claudia	Administración	Ricardo, Sanders	ONIX	28/8/2017
Silvia	Teosora	Kelly, Kate	ONIX	28/8/2017
Sandra	Presidente	Ricardo, Kelly, Kate, Sanders	ONIX	28/8/2017
Germán	Vicepresidente	Arjun, Kate	ONIX	28/8/2017

Dante, Sergio, Eriberto	Técnico	Ricardo, Kelly	ONIX	28/8/2017
Mariano	Jaciar	Ricardo, Kelly, Kate, Sanders	INCUTEX	29/8/2017
Fer y Cristian	Higiene & Seguridad	Ricardo, Kelly, Kate, Sanders	INCUTEX	29/8/2017
Vir	Comunicaciones	Ricardo, Kelly, Kate, Sanders	ONIX	30/8/2017
Elena	Contdora	Ricardo, Kelly, Kate, Sanders	ONIX	31/8/2017
Carolina	Abogada	Ricardo, Lynée	Carolina´s Office	4/9/2017

Results and Recommendations

The Stanford Team identified four key findings.

Finding 1: Members do not have a similar understanding of RP's mission and objectives

The Stanford Team asked individuals to recite the organization's mission in their own words. From their responses, a word cloud was generated to highlight the frequency of keywords (larger words were said with greater frequency). The word cloud is shown below.

While the members do identify many important words, around three-quarters of the words shown above are not in the actual mission statement. This demonstrates that members operate based on what they think they understand of the mission, rather than its actual content. There is no clear, organization-wide understanding of the mission statement.

The team also asked the RP members what the long-term goals of the organization are. Their responses are shown in the pie chart below. It's important to note that some members had more than one answer to these questions and that all answers have been included in the chart.
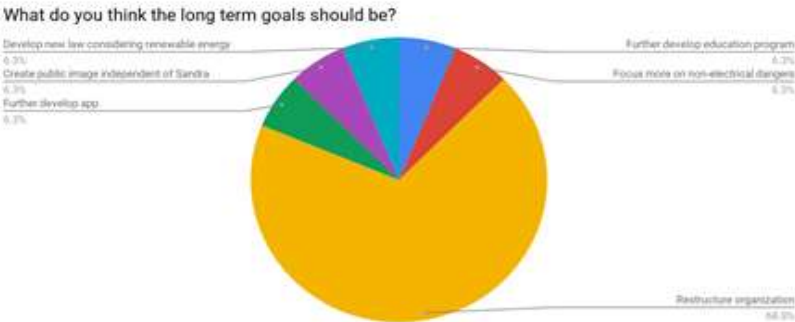
What do you think the long term goals of the organization are?

Unclear
18.2%

Create National Law
36.4%

Further develop app
18.2%

Spread to other provinces
27.3%
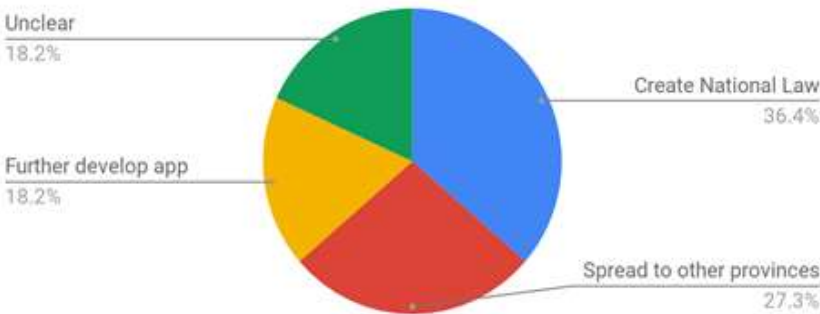
A key takeaway from this chart and from the word cloud is that RP must make a concerted effort to make the mission, vision, values, and objectives clear to all members. This, is turn, will ensure the public receives constant messaging about the purpose and role of RP in Cordoba.

Finding 2: Members have diverse goals, none of which are inspired by a central vision

What do you think the long term goals should be?

Develop new law considering renewable energy
6.3%

Create public image independent of Sandra
6.3%

Further develop app
6.3%

Further develop education program
6.3%

Focus more on non-electrical dangers
6.3%

Restructure organization
68.8%

As before, some RP members had multiple answers to the question "What do you think the long-term goals should be?" Their various answers have been accounted for. While answers about specific long-term goals were diverse, an underlying appeal was that RP clarify its structure, the responsibilities of each team, and the roles of the members of the Administration Team. Furthermore, many expressed an interest in participating in or contributing to RP's overall plan, and not only in the development of their individual team's plan.

It is recommended that RP prioritize the creation of a focus group to develop a long-term plan. See section 6.3 for more information.

Finding 3: There are strengths in RP that will help it grow

Most individuals came to work with Relevando Peligros because they met Sandra in some capacity, such as at a conference related to electrical safety. Several people also sought out Relevando Peligros because they wanted to volunteer for projects that would improve their community. RP should continue to recruit at conferences, should add information for potential volunteers to its website, and disseminate information about specific projects they want to pursue and the volunteers they'd like to fill these positions.
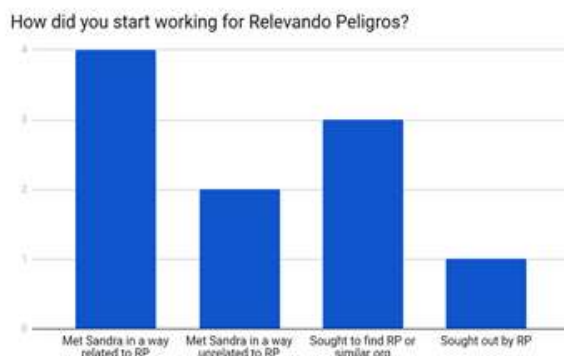
Most individuals have a role at RP that is related to their current or past profession, which means they contribute experience and skills from their professional lives. RP should be mindful to recruit individuals with professions and skills that correspond to specific projects and objectives RP has, rather than allow interested members to develop their own projects.
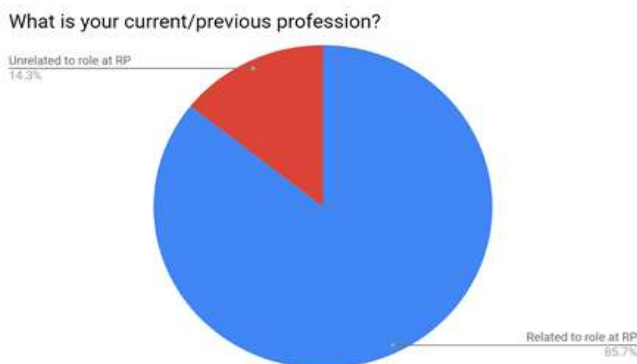
Finding 4: It is necessary to modify and expand the organizational chart to grow RP effectively

The majority of members believe that a larger workforce is the most necessary resource to grow and achieve goals. Additionally, 100% individuals said that their teams have an ad hoc structure where individuals fill multiple roles as needed. RP should consider the effectiveness of this informal structure and consider clarifying team and individual roles

What additional resources and support does your team need to achieve your team's goals?

More collaboration with
11.1%

Better website
11.1%

More experience
11.1%

More people
66.7%

.
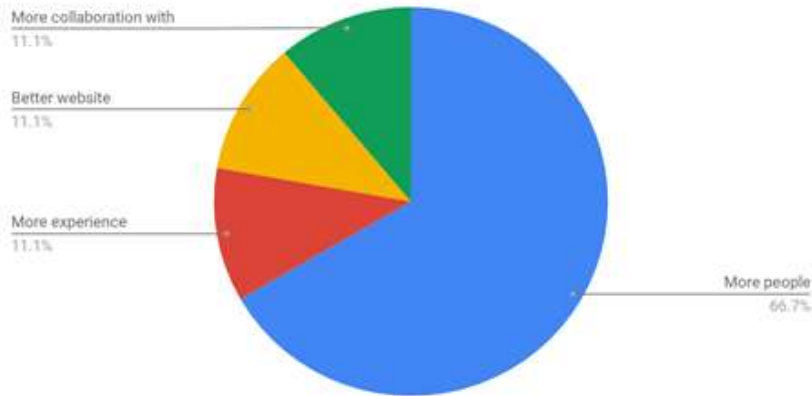
Can you describe what the other teams do?

Yes
28.6%

No
71.4%
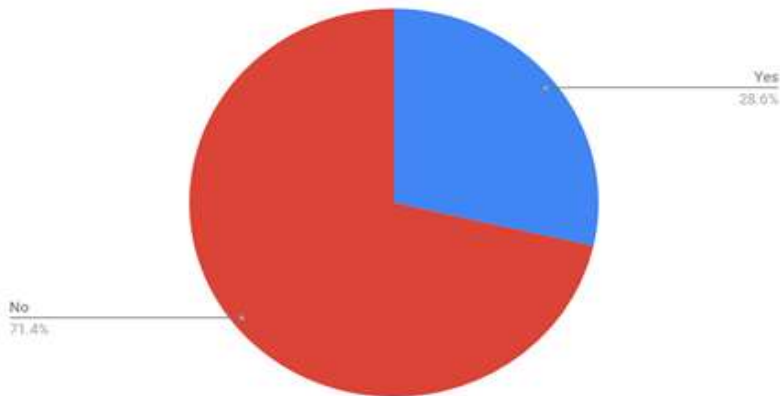
The members also lack an understanding of what other teams do and rarely work with other teams. They commented that the triennial meetings are not that important because they're only an update on current work and not a conversation about future goals and strategies. Interestingly, all respondents expressed that they do not want more meetings as (i) it is not feasible to organize them, and (ii) too many meetings can undermine their importance. However, they did express a desire for more small, formal meetings between a team and Sandra or German. They commented that current communication with Sandra and German is immediate and to-the-point, as it's mostly conducted via WhatsApp. Communication typically occurs when there is an urgent matter that needs to be attended to. With formal, regular meetings, teams can work with Sandra and German to develop their ideas and projects over time and to ensure the projects continue to meet the needs to RP.

How many hours a week do you work for Relevando Peligros?

20+ hours
28.6%

0-5 hours
57.1%

5-10 hours
14.3%
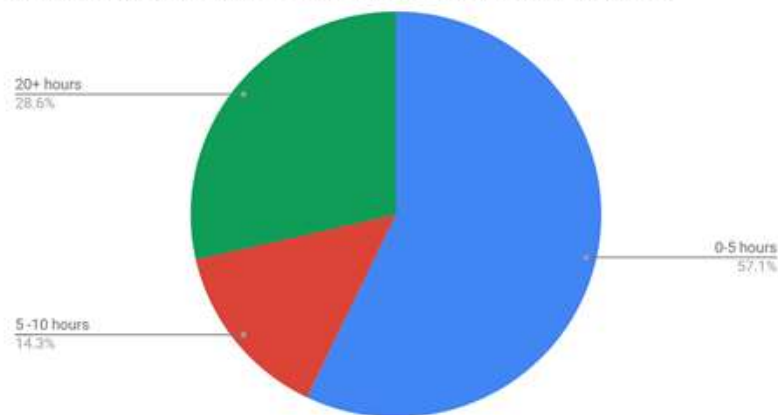
The above results reflect current commitments to Relevando Peligros. Most people work on tasks related to the organization for fewer than 5 hours a week. During certain busy times (the JACIAR launch and the Law of Electrical Security, for example), members committed more time, but their hours dropped significantly when the task was completed. This reinforces that members have a limited amount of time they can commit to RP and, understandably, that tasks and projects often get delayed.

The key takeaway from these charts is that RP should reevauate the organization's structure and the scope of each team and that they should recruit more members in strategic areas of work. (See Appendix A3 for more information about the organizational chart)

Additional feedback from interviewees, which does not fall into the above categories, represents what the organization is doing well.

● Members of the organization are very committed to the mission, even if they have limited time to give
● The organization has accomplished a great deal despite a lack of significant or consistent funding
● Relevando Peligros, and Sandra especially, is well-known and respected in the Province of Cordoba
● All members agree that Relevando Peligros had benefited them either personally, professionally, or both.
● All members feel appreciated within the organization.

Appendix A3: Organizational Chart
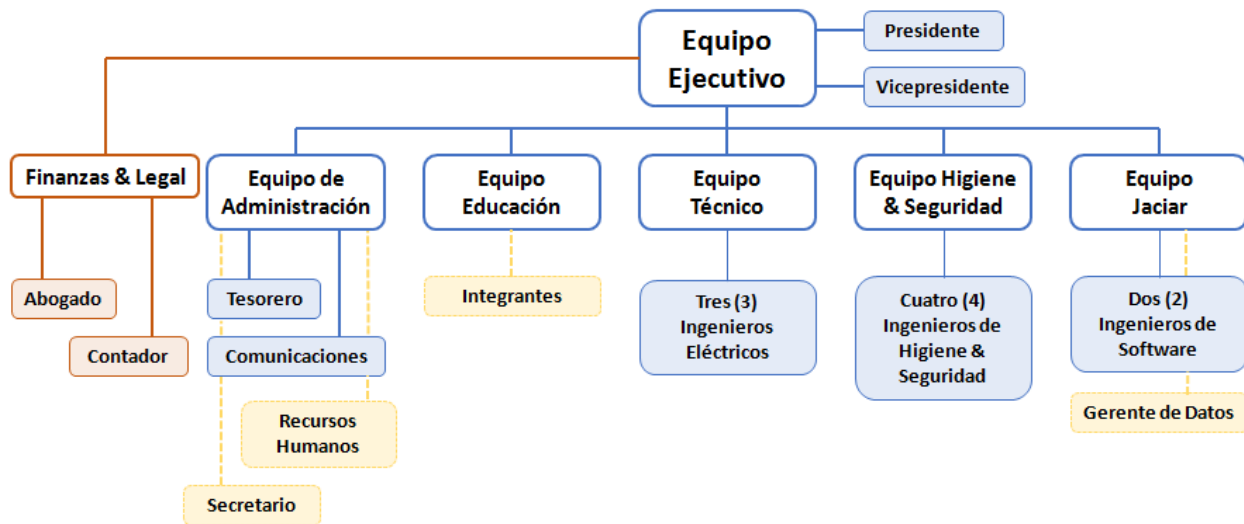
Purpose

This chart illustrates the current hierarchy and relationship between teams and will help the organization plan for future growth.

Methodology

The organizational chart was created based on knowledge obtained during the introductory period of the program and through the interviews conducted.

Use

All boxes and lines indicate teams and personnel that currently exist in the organization. All dotted lines and boxes indicate new teams and personnel the Stanford Team recommends be introduced into the organizational structure. These positions include:

- A dedicated secretary to serve the role of managing emails, reserving rooms and transportation, and communicating between teams and with the outside world.
- A dedicated human resources person is recommended to manage all recruitment.
- A data manager should be added to manage, collect, and analyze data related to RP's operations, including the JACIAR program.

Appendix A4: Strategies for Expansion

The following three strategies are ways that RP can consider expanding into another province.

Strategy 1: Individual Basis

RP will select another province based on a connection to one person who has previous connected with Sandra/Relevando Peligros. The individual would rely on RP Cordoba to provide logistical support for building the organization.

- Advantages: There would be a champion for growing the chapter; There is a close connection to RP Cordoba who still gets to maintain its identity and centrality in planning; The individual is familiar with the province

- Disadvantages: The individual will have to build all relationships with Responsible Entities in their province, which is a huge task; There is no strategic selection of the province as it relates to future expansion of RP and the Law of Electrical Security; The individual might not have the right skills to grow the chapter

Strategy 2: Province Basis

RP will carefully research and compare provinces and select the one where an RP chapter is most viable. Criteria RP will have to consider is as follows: That the province has national prominence and can influence more provinces to start RP chapters; That RP already has some contacts within the province; That there already exists an organization like ERSeP to regulate the electrical companies; That the public show sympathy for addressing public safety issues

- Advantages: The selection of the province could have a strategic connection with implementation of the national law

- Disadvantages: There is no identified individual to champion chapter growth

Strategy 3: Similar Organization Basis

RP would partner with a similar organization instead of establishing a new chapter of RP. The organization would have a similar mission and set of goals for identifying and eliminating hazards. Instead of changing the organization's mission or goals, RP would collaborate with the chapter and introduce tools to promote the well being and safety of the public. These tools could include JACIAR, which RP could license to the organization.

- Advantages: The partner organization is already established and has formed connections with Responsible Entities; A strong partnership may bolster support for the adoption of the law at a national level

- Disadvantages: The organization may deviate from RP's mission and goals, potential misuse of JACIAR and other tools, need to collaborate with another organization to realign or maintain mission and goals, the organization may be or become political

Essential Personnel

The essential personnel for the new chapter of RP (which mostly applies to Strategies 1 and 2) would be involved with the chapter growth from the very beginning. These individuals would be central to completing the legal requirements for starting a new chapter, creating relationships with relevant organizations and agencies, introducing the organization to the community, and establishing the tools for hiring employees/accepting volunteers.

- CEO: Establishes relationships with relevant organization and agencies; Understands the process for resolving hazards in their community; Works with RP Cordoba to set the goals for the chapter

- Communications Director: Correspond with outside organizations and agencies; Prepares marketing material to educate community about RP

- Technology Director: Works on the backend of the app and contacts the Responsible Entities to report the hazards submitted

- Funding Director: Establishes a bank account; Works to identify funding sources; Establishes the chapter budget; Determines what resources can come from RP Cordoba and which resources need to be bought/funded at the chapter level

Appendix A5: Education Program

What went well in both primary and secondary programs:
- Students were already aware of different types of electrical hazards and measures to prevent electrical risks in the home.
- Students were engaged and willing to share their own experiences and anecdotes regarding electrical hazards.
- Almost all students recognized the key dangers we mentioned (broken lamppost, exposed wire, and peeled wire/cable).
- (Primary School) Students seemed to emerge from the course with the key takeaway: they should notify an adult if they see a danger and stay clear of the danger themselves.
- (Secondary School) Most students were riveted while watching the TED video and some were even holding back tears. This was a great way to start the course.

What can be improved in the primary school curriculum:

Category/Observation	Suggestion
Evaluative Tools	
There was no manner by which to measure what students had learned	Develop a survey or a quiz

Content	
When asked for an example of a non-electrical danger, students responded, "being robbed by someone" and "getting hit by a car."	Create a slideshow or print images on cards with examples of non-electrical dangers. Clearly explain why these are dangers.
Students didn't understand how electricity works or how circuits function.	Create a graphic to explain electricity and circuits.
Students were fearful of all outlets in the school.	Show images of broken/dangerous outlets and unbroken/safe outlets.
Cartoon characters developed for the program should be used in more memorable ways.	Create a comic strip with characters facing dangers at home and in public. Integrate the characters into handouts for students to take home.
Word-Based Activities	
The words used in the wordsearch and crossword puzzle were difficult to understand.	Include brief definition of each word and why it is important.
Differences between words were not clear to children (i.e. luz y alumbrado publico).	Include explanation of how words differ in way that is understandable for children.
There were no non-electrical dangers selected for either of these word-based activities.	Include additional words.
There was a typo on the crossword puzzle (incorrect number of spaces for the letters).	Review the puzzle and correct the typo.
Other Activities	
The chutes and ladders game cannot be played on the small gameboard provided in the booklet. This game also requires additional materials (game pieces and a die).	Reproduce the game on a larger scale and bring game pieces.
There was little other interactive content besides word games and the chutes and ladders game.	Create additional activities to cater to diverse learning styles (i.e. songs, games that involve physical movement, drawing or coloring).
Video game	

Video game doesn't explain why the elements the kids click on are dangerous and why others (like the fire under the kettle) are not dangerous.	Include a pop-up box that explains the danger or lack of danger. Keep messaging simple for younger players.
Explanations of mini games are not sufficient to help children play.	Include a brief set of directions for the games.
The game in which the student must get three or more tiles in a row takes disproportionately longer than the other games and was especially challenging for the younger kids.	Make this game faster by requiring fewer sets of tiles to advance the bar.
Playing the games on a laptop with a trackpad is difficult due to the dexterity required to click and drag.	Determine if a computer lab is available or if computer mice can be plugged into laptops. If not, take time to teach students how to use the trackpad with two hands.
Entry screen for park and city games says "We can use our cellphones to resolve dangers" but never describes what that process is. This statement may distract from the main goal of teaching students what dangers they should recognize and avoid in these places.	Either develop the theme of the app more or cut all references to the app from the game.
Students didn't understand the game's name: "Una mano."	Develop a compelling story to explain the game's name and include this in the narrative.

What can be improved in the secondary curriculum:

Category/Observation	Suggestion
Evaluative Tools	
The survey was a good opportunity to see how the class as a whole understood the key concepts at the beginning and end of the classes. However, it was an anonymous survey so it was impossible to see how individuals changed in their understanding.	Consider asking students for their name on the survey or assign students a number and mark their survey with that number to keep responses anonymous.
The questions were based on the objectives defined in the Yo Relevo booklet. They were vague and confusing for some students (based on the fact that many left questions blank).	Make the questions more specific and detailed to prevent ambiguity.

Content	
The beginning of the presentation is too dense (information about Relevando Peligros and the sectors the organization works in) and the students seemed uninterested.	Start the presentation with pictures and an interactive exercise in order to maintain the engagement established by the TED video
The presentation is heavy on text, especially for words with a complicated definition. Students don't enjoy reading aloud.	Replace texts pictures or short videos. Find easier ways to express the challenging concepts.
Activities	
Students struggled with the questionnaire about social actors.	Make the questions easier to understand. Consider discussing questions aloud in class to explain meaning.
Students liked using the RP App but didn't do their homework to collect hazards for the report project.	Consider changing the theme of the report from an exposition of their collected data on hazards to a general project on RP. Consider also incentivizing participation in the homework (prizes for most hazards noted, prizes for best report, etc.)
Teacher Involvement	
Secondary school have strong personalities and often disrupt class. Teachers did nothing to ensure the students behaved.	Encourage teachers to sit in on class and intervene when necessary to ensure all students have an opportunity to learn.

Appendix B: Infographics

Appendix B1: JACIAR Process

Seguridad eléctrica en la vía pública

RELEVANDO PELIGROS

Un guía comprehensivo sobre los riesgos y peligros en la vía pública para identificar un peligro eléctrico

Los peligros más comunes de la vía pública

¿Cómo denunciar un peligro?
Subir una foto con la aplicación Relevando Peligros o en la página web

Postes electrificados

➢ Los aparatos eléctricos sin tapas son propensos a daño interior que podría resultar en la electrificación del aparato entero.
➢ El riesgo de transmitir un shock eléctrico sube con la lluvia, donde el agua sirve como puente conductor entre las partes metálicas del aparato

Gabinetes sin tapa

➢ Suelen encerrar alambres pelados y electrificados
➢ Los que se ubican cerca del suelo presentan un alto riesgo a los niños y perros

Cables al aire

➢ Los alambres y cables cortados se encuentran colgados de farolas y saliendo de gabinetes sin tapa
➢ Los extremos del cable y los tramos pelados presentan un peligro

Conexiones clandestinas y bricolajes

➢ Una conexión chapucera aumentan el riesgo de un cortocircuito, sobrecarga, o incendio
➢ Conexiones clandestinas llevan el resigo de pasar corriente a infraestructura metálica o peatones paseantes

Riesgo: La probabilidad que un accidente ocurra
Peligro: La posibilidad que se inflija daño

RELEVANDO PELIGROS

Seguridad eléctrica en los domicilios

Una guía detallada sobre los hábitos y las prácticas que promueven un hogar seguro.

Interruptores y tomacorrientes

➢ Obtenga la ayuda de un electricista si los interruptores y tomacorrientes...
- irradian calor
- están decolorados
- hacen ruidos anormales
- no están conectados a la pared en forma segura
- No encajan bien en el enchufe
- hacen chispas al ser enchufados

➢ Utilice únicamente zapatillas aprobadas
➢ Enchufe los aparatos grandes directamente a la pared.

Cables y alambres

➢ No use cables o alambres que estén rotos, improvisados o que parecieran estar dañados.
➢ No conecte varios prolongadores entre sí.

Cortocircuitos

➢ Contrate a un electricista para instalar:
- disyuntores en las habitaciones con agua corriente
- una térmica para proteger los aparatos eléctricos.

Agua y Aparatos Eléctricos

➢ No utilice los aparatos eléctricos o enchufes que estén mojados.
➢ No tome contacto con el agua corriente durante una tormenta eléctrica.
➢ Mantenga los aparatos eléctricos en lugares estables, limpios, frescos y secos.
➢ Nunca utilice agua para extinguir un incendio eléctrico.

Más del 40% de los incendios tiene origen en fallas de instalaciones eléctricas, una de las principales causas de muerte en el hogar

Appendix B4: Testimonies

Testimonios

RELEVANDO PELIGROS

Los peligros que existen tanto en la vía pública como en los domicilios pueden tener consecuencias graves y letales. Hay que aprender de estas tragedias para que no vuelvan a ocurrir.

Matías Alejandro Gómez

Durante una tormenta se corta la luz en la casa de los Gómez. Norberto, el padre de Matías, sube la térmica, pero de inmediato ésta vuelve a saltar. Matías entra al baño para lavarse los pies y de algún modo recibe una patada eléctrica proveniente de la canilla de la ducha. Norberto, al darse cuenta de lo que pasaba, logra alejarlo de la corriente. Fer, la madre de Matías, corre a pedir auxilio. Ella también recibe una patada al tocar una mesa, pero se salva. Llamaron a una ambulancia, pero al no llegar a tiempo, Matías fue trasladado al hospital en auto. Matías Gómez falleció aquel día, el 13 de febrero de 2010.

Durante una tormenta, una corriente eléctrica pasó por la ducha donde Matías se lavaba los pies, aunque no había luz en la casa en aquel momento.

Se sospecha que una conexión clandestina con un vecino permitió que entrara la electricidad durante el corte. Un empleado de EPEC respondió enseguida al corte y como resultado se ofuscaron posibles pruebas judiciales. Después de tres años de interacciones frustrantes con los abogados, la familia decidió dejar el caso para buscar la paz interior.

Juan Aciar

Juan tenía 13 años cuando sale un día a tomar helado con su madre y su hermana después de una tormenta. Juan pide permiso a Sandra, su mamá, para ayudar a un anciano cruzar la calle. En el proceso, Juan roza un cesto de basura metálico electrificado por un cartel luminoso fuera de norma. El cesto le transmite un shock eléctrico y él queda pegado. Sandra, mirando el suceso, corre a agarrarlo y también se queda pegada hasta que un espectador se tira a soltarlos.

Un cartel luminoso fuera de norma electrificaba un cesto de basura metálico, cuya corriente era conducida por el agua de una tormenta reciente

De inmediato, Sandra, maestra de educación física, le da respiración boca a boca y el corazón de Juan vuelve a latir. Inconsciente, es trasladado a una clínica cercana, pero fallece a la mañana siguiente, el 24 de diciembre de 2009. El caso permaneció estancado ocho años en el sistema judicial hasta que empezaron los procesos judiciales.

Julián Agustín Crinó

Julián va de excursión con su colegio a un retiro espiritual de tres días. El segundo día, mientras los estudiantes paseaban por la calle, Julián se tropieza con un cable proveniente de un poste. El aislante de este cable estaba deteriorado y como resultado, Julián recibe un shock eléctrico. Al pedir auxilio, dos compañeros intentan ayudarlo pero la corriente los tira. La ambulancia llega una hora después, demasiado tarde para salvarlo.

Julián fallece aquel día, el 4 de noviembre de 2016, en su último año de la secundaria con 17 años. Hasta hoy, se investigan los detalles del incidente en el sistema judicial sin progreso evidente. Esta tragedia se podría haber evitado si el colegio hubiera llevado los servicios médicos adecuados, hecho un reconocimiento previo del lugar y contado con la cantidad de cuidadores correspondientes.

La historia de Julián destaca la importancia de verificar las provisiones y medidas de seguridad de las escuelas

Ley Nº 10.281

RELEVANDO PELIGROS

LA LEY DE SEGURIDAD ELÉCTRICA
DE LA PROVINCIA DE CÓRDOBA

Los Objetivos

1. Preservar la seguridad de las personas, los bienes, y el medio ambiente
2. Crear la figura y propiciar la capacitación del "instalador electricista habilitado", oficialmente reconocido para su ejercicio
3. Promover y difundir las normas de seguridad eléctrica en todos los ámbitos

La Ley se aprobó en junio de 2015 y surtió efecto en septiembre de 2017

Los Actores y Responsabilidades

El Certificado de Instalación Eléctrica Apta demuestra que una instalación eléctrica cumple con La Ley

Servicios Públicos
Entidades con instalaciones en la vía pública (e.g. EPEC, una municipalidad)
- Actualizar las instalaciones públicas con las normativas antes de el 18 febrero 2018

El Instalador Electricista Habilitado
- El único que puede producir el certificado de instalación eléctrica apta

Categoría I: Profesionales con título de grado e incumbencias
Categoría II: Técnicos con título habilitante e incumbencias
Categoría III: Personas idóneas en actividades eléctricas con capacitación relacionada acreditada

Los Ciudadanos
- Denunciar peligros en la vía pública
- No trabajar con los aparatos eléctricos sin la cualificaciones necesaria
- Entregar un certificado de instalación eléctrica apta al prestador de luz por sus instalaciones eléctricas

ERSeP
Regulador de los servicios públicos y la autoridad de aplicación de La Ley
- Desarrollar las actividades, regulaciones técnicas, y normas necesarias para la implementación de la ley

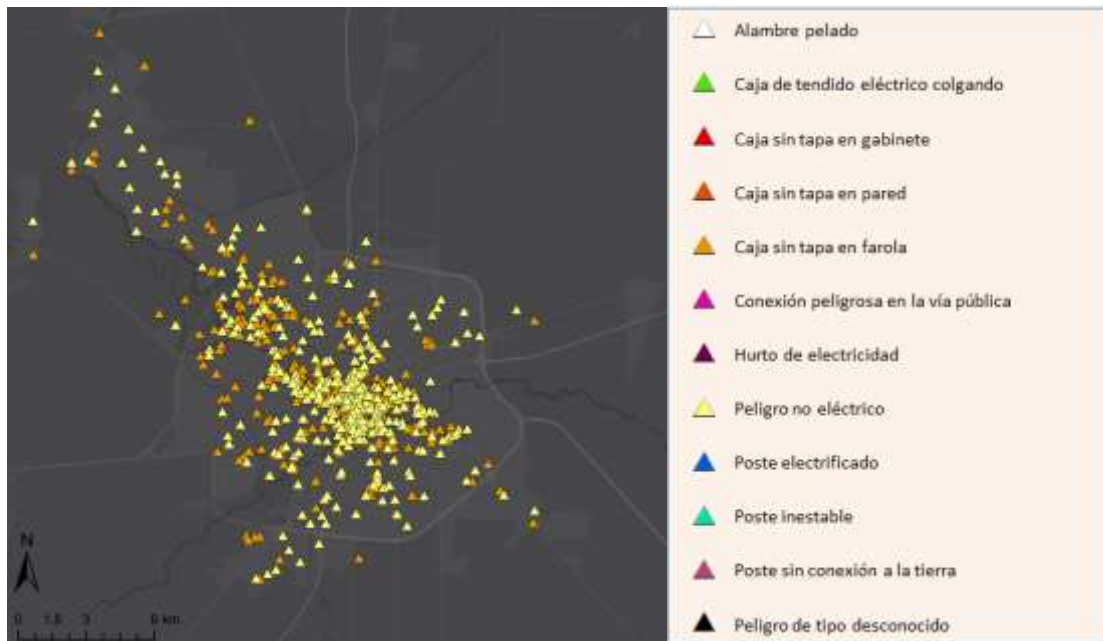La única ley de seguridad eléctrica que alcanza los domicilios y la vía pública en la Argentina

Appendix C: Data Visualization

Appendix C1: Reported Hazards in Cordoba Capital according to Category

Map of Reported Hazards – Box on lamppost without top (Caja sin tapa – Farola)

Map of Reported Hazards – Box on lamppost without top (Caja sin tapa – Farola), Non-electric danger (Peligro no Eléctrico)
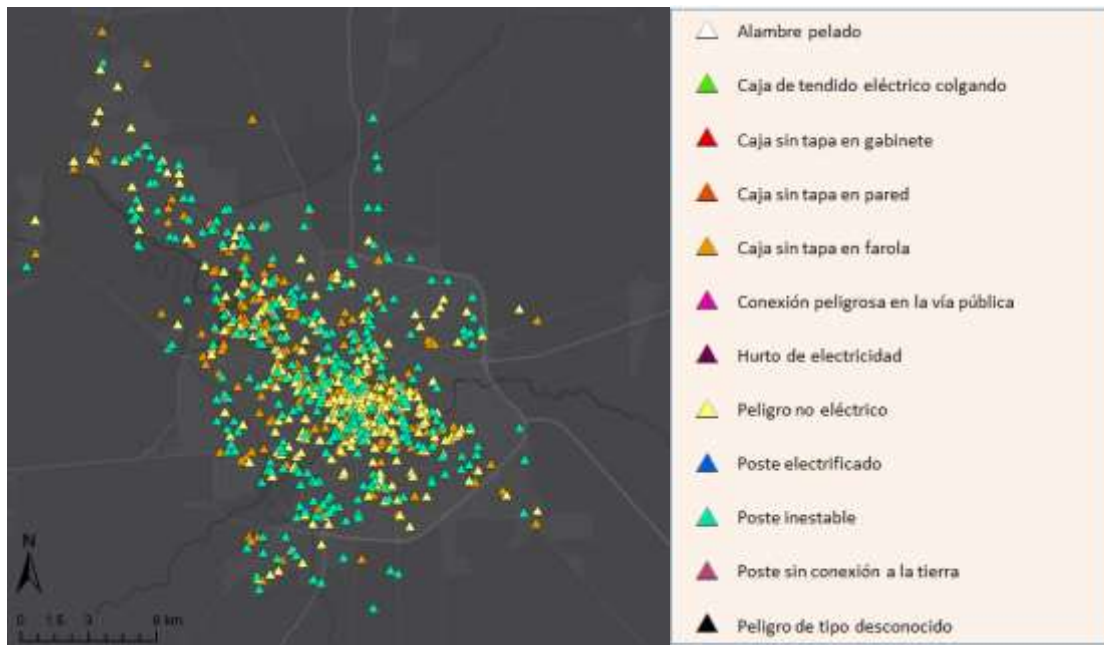
Map of Reported Hazards – Box on lamppost without top (Caja sin tapa – Farola), Non-electric danger (Peligro no Eléctrico), Unstable post (Poste Inestable)
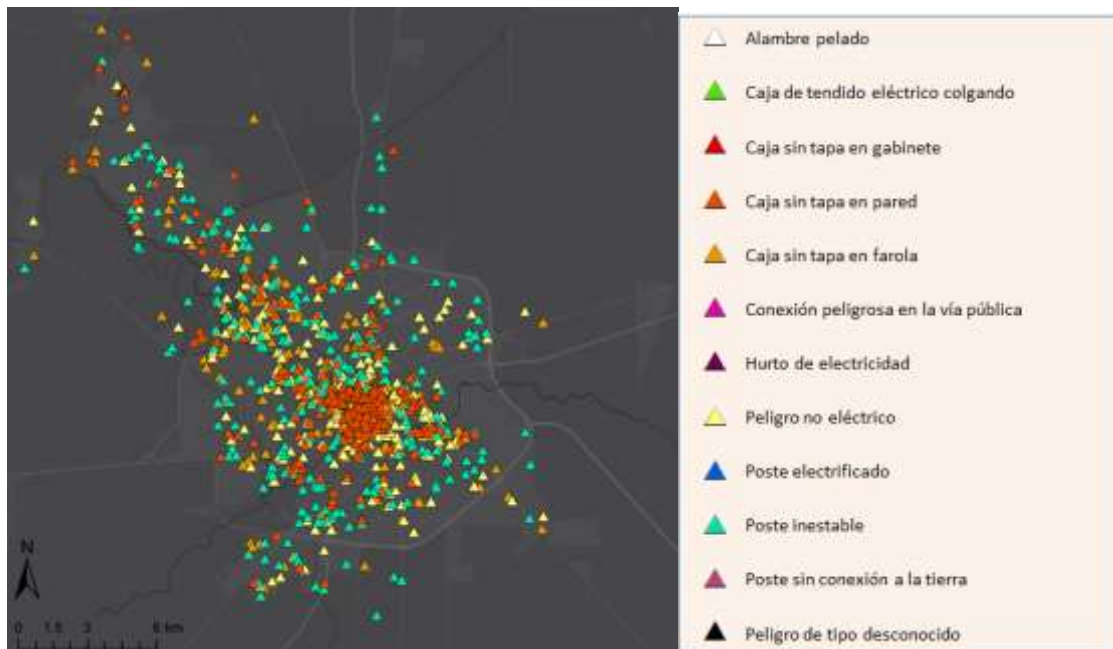
Map of Reported Hazards - Box on lamppost without top (Caja sin tapa – Farola), Non-electric danger (Peligro no Eléctrico), Unstable post (Poste Inestable), Box on wall without top (Caja Sin Tapa – Pared)
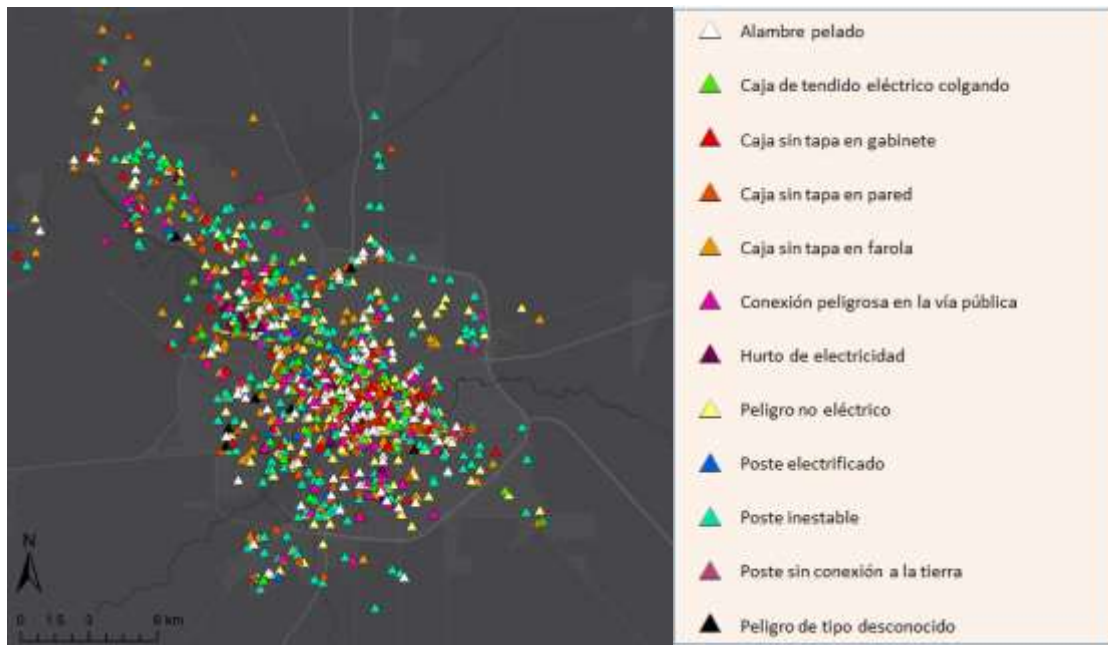
Map of Reported Hazards - All

Appendix C2: Reported Hazards according to Category per Year
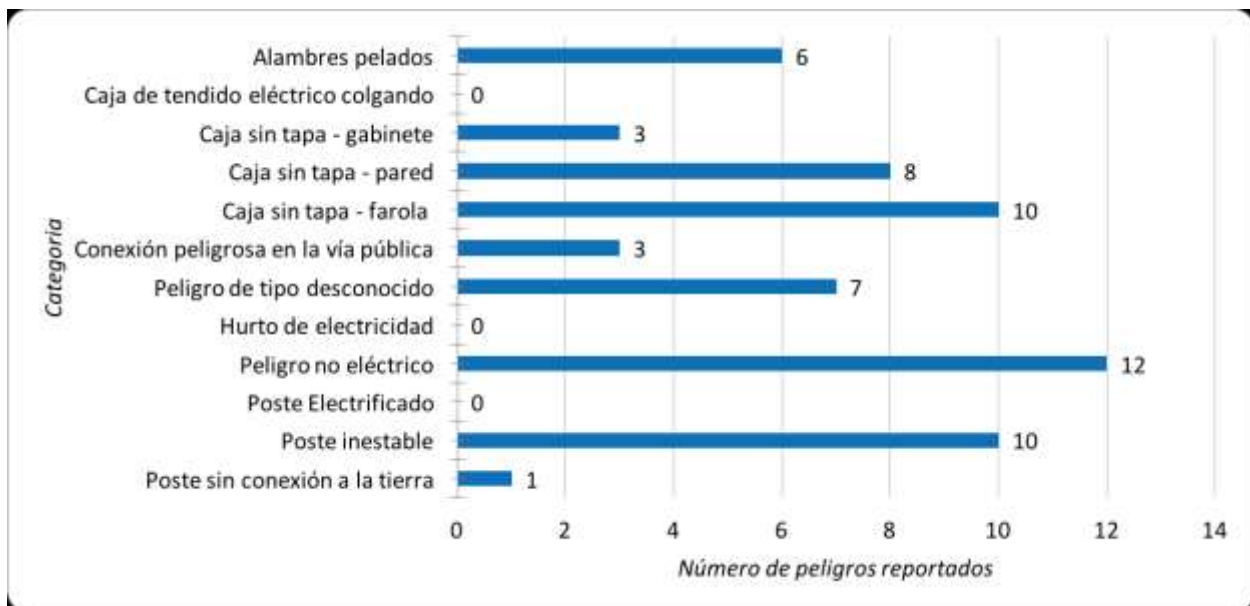
Dangers per Category: 2011
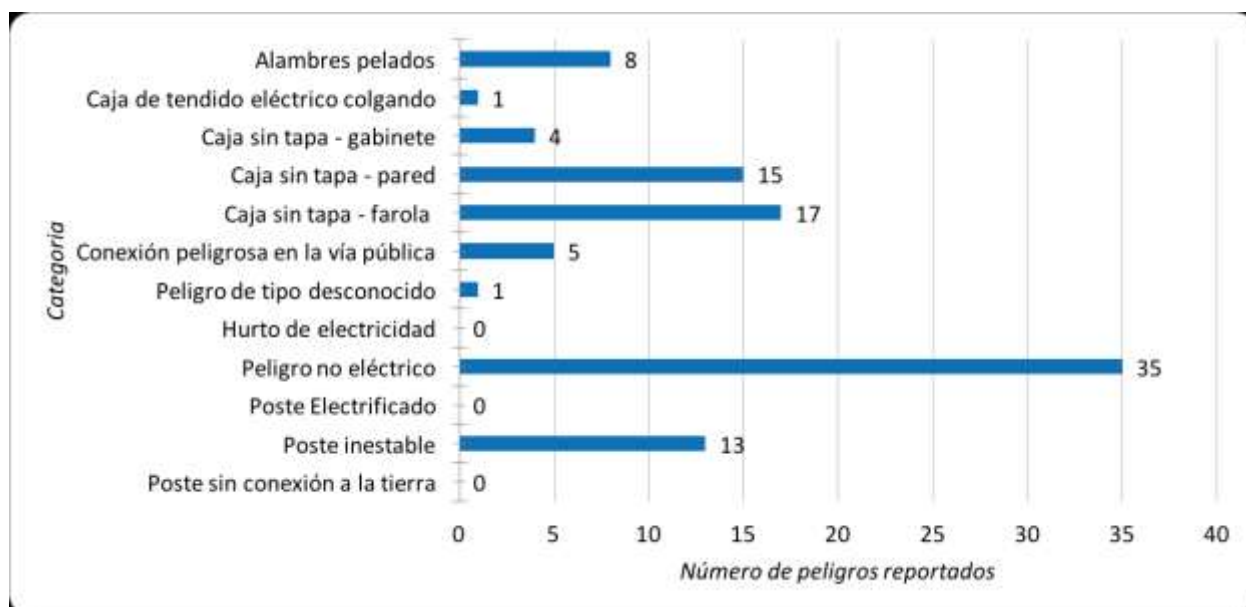
Dangers per Category: 2012
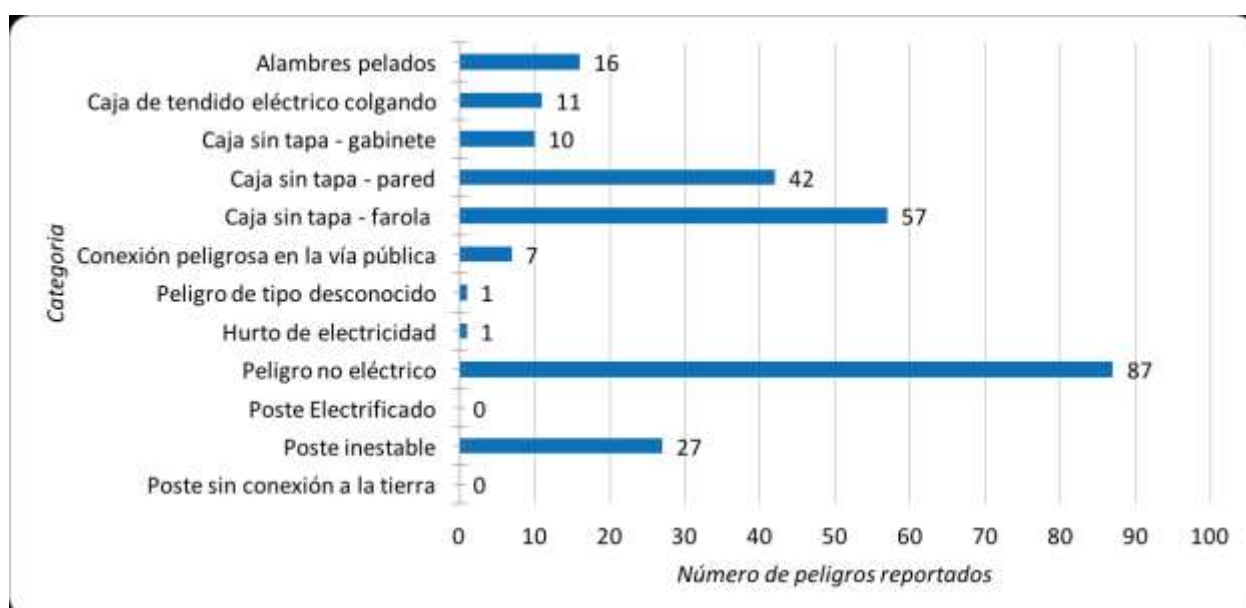
Dangers per Category: 2013
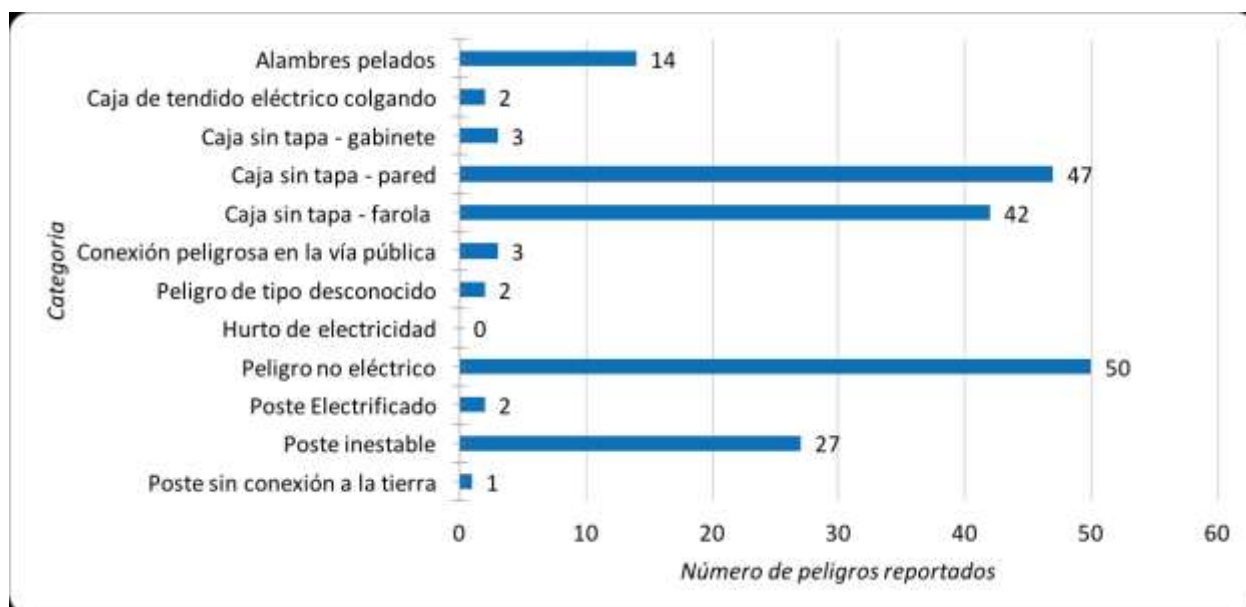
Dangers per Category: 2014
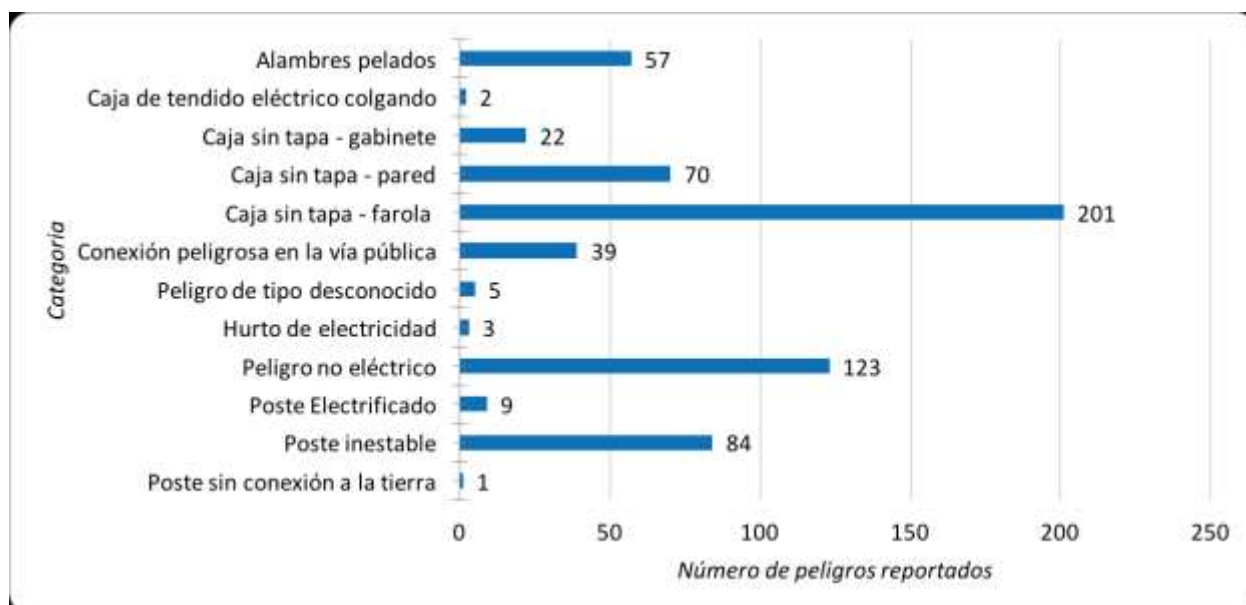
Dangers per Category: 2015
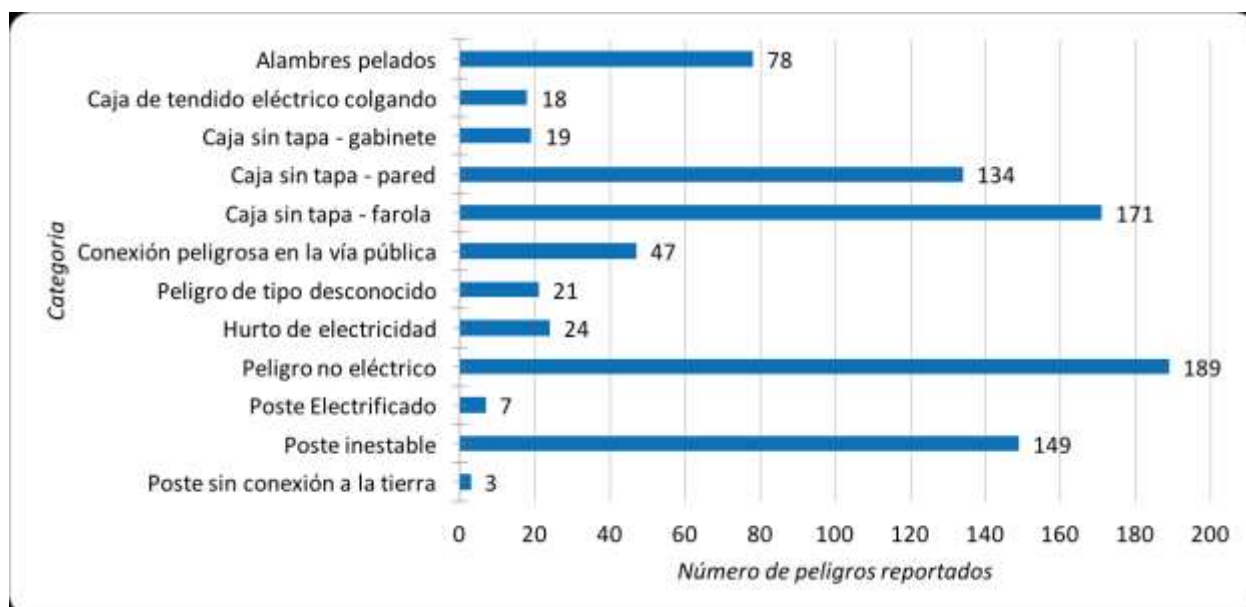
Dangers per Category: 2016
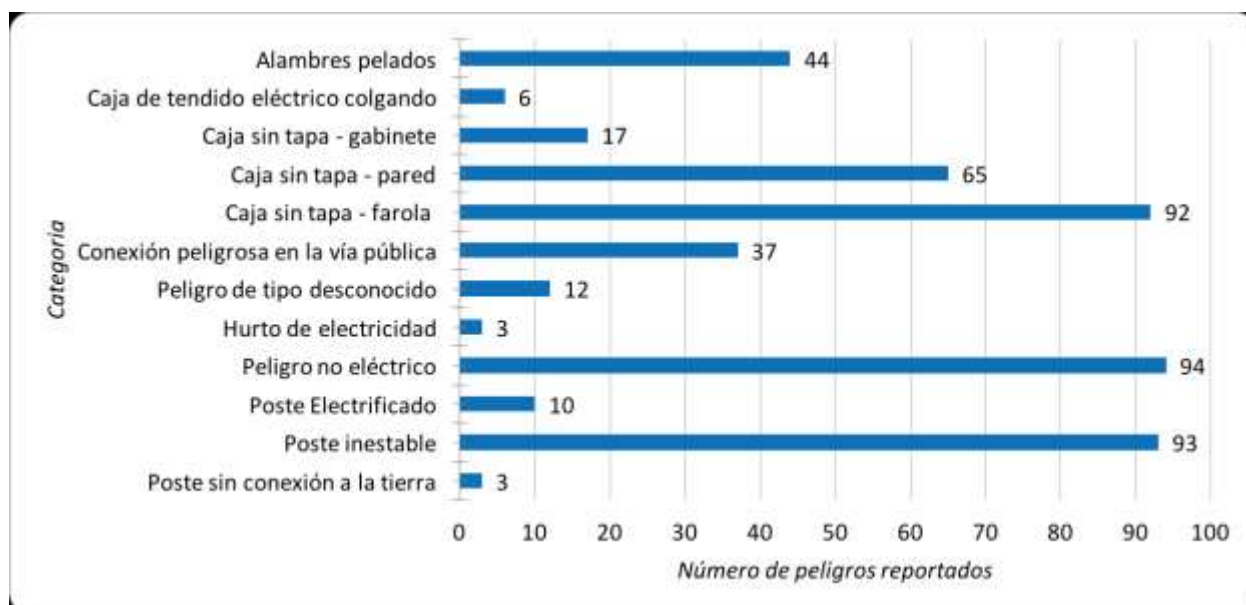
Dangers per Category: 2017
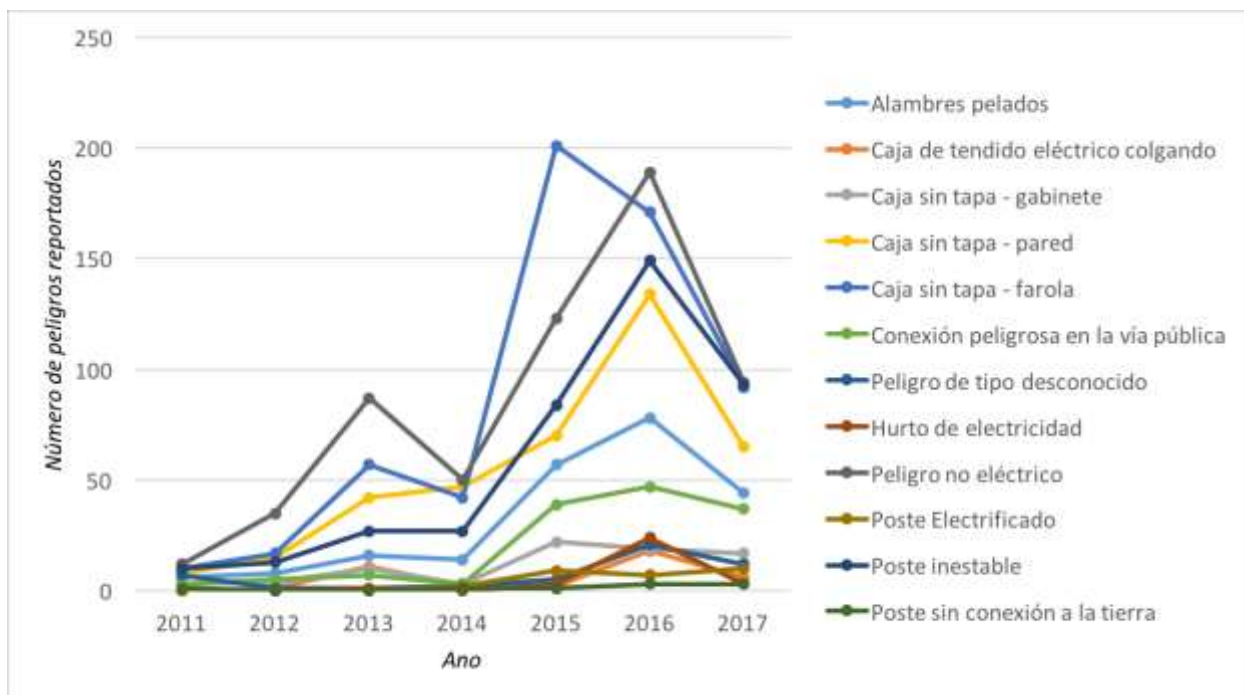
Hazards per Category per year

Appendix C3: Electrical Deaths According by Neighborhood

Table of Electrical Deaths According by Neighborhood

Barrios Dentro De Córdoba Capital Donde Han Ocurrido Muertes Eléctricas	Numero De Muertes
San Vicente	5
Centro	4
Alta Cordoba	4
Hogar Propio	3
Guemes	2
Cupani	1
Los Eucaliptus	1
Ferreyra	1
Hipolito Irigoyen	1
Marques de	1

Sobremonte	
Nueva Cordoba	1
Remedios de Escalada	1
Yapeyu	1
Crisol Norte	1
Los Platanos	1
Lomas de San Martin	1
Santa Ana Residencial	1
General Paz	1
Observatorio	1
Residencial America	1
Residencial San Roque	1

Poeta Lugones	1
Alberdi	1
Alto Alberdi	1
La France	1
Villa El Libertador	1
Teodoro Fels	1
**Sólo incluye datos de morgue dentro de Córdoba Capital (40 muertes)	

56

Appendix C4: Reported and Resolved Hazards according to Neighborhood

Table of Reported Dangers According to Neighborhood

Barrio	Peligros Reportados
Centro America	443
Nueva Cordoba	221
Alberdi	155
Alto Alberdi	108
Alta Cordoba	81
Cerro de las Rosas	68
Guemes	63
General Paz	62
San VIcente	48
General Pueyrredon	37
Arguello	30
Urca	29
Jardin	25
Providencia	20
Juniors	19
Ampliacion Urca	19
San Martin	19
Marques de Sobremonte	17
Parque San Vicente	15
Residencial San Roque	15
Quebrada De Las Rosas	15

Alto Verde	14
Las Flores	13
Parque Capital	12
Granja De Funes	12
Yapeyu	11
Villa Allende Parque	11
Observatorio	11
Villa Quisquizacate	11
Ducasse	11
Colinas Del Cerro	10
Villa El Libertador	10
San Francisco	9
Villa Cabrera	9
Quinta Santa Ana	9
Alto Palermo	8
Paso De Los Andes	8
General Bustos	8
Cerro Chico	8
Villa 9 De Julio	8
Villa Belgrano	8
Las Palmas	8
Los Boulevares	8
Parque Chateau Carreras	8

Villa Rivera Indarte	8
Villa Saldan	8
Yofre Norte	7
Villa Revol	7
Arguello Norte	7
Bella Vista	7
Los Angeles	6
Escobar	6
Villa Centenario	6
Parque Velez Sarsfield	6
Parque Tablada	6
Parque Capital Sur	6
El Cabildo	6
Congreso	6
Chateau Carreras	6
Caseros	5
Tablada Park	5
Sargento Cabral	5
Maipu 2a Seccion	5
Obrero	5
Valle Del Cerro	5
Bajo Palermo	5
Cerro Norte	5
Juan Xxiii	5
Altos De Santa Ana	5
Mariano Balcarce	5

Mirador	5	Santa Rita	3	Parque Corema	2
Rogelio Martinez	4	Ameghino Sud	3	Villa Corina	2
Sarmiento	4	Industrial Este	3	Carola Lorenzini	2
Villa Marta	4	Las Lilas	3	Ampliacion Rosedal	2
Las Rosas	4	Jose Ignacio Diaz 1a Seccion	3	Villa San Isidro	2
San Martin Anexo	4	Ampliacion Poeta Lugones	3	Ayacucho	2
Lomas De San Martin	4	Residencial America	3	Altos De Villa Cabrera	2
Los Boulevares	4	Rivadavia	3	Arguello	2
Ombu	4	A.t. E.	3	General Artigas	2
Residencial Velez Sarsfield	4	Villa El Libertador	3	Jardin Hipodromo	2
Ampliacion Jardin Espinosa	4	Talleres Este	3	Los Naranjos	2
Crisol Sud	4	Panamericano	3	Maria Lastenia	2
Santa Isabel 2a Seccion	4	Yofre H	3	Parque Liceo 1a Seccion	2
Poeta Lugones	4	Padre Claret	3	Cabo Farina	2
Ampliacion San Pablo	4	Country Altos Del Chateau	3	Jardin Del Pilar	2
Jardin Del Sud	4	San Fernando	3	Rosedal	2
San Ignacio	4	Villa Martinez	3	Villa Paez	2
San Lorenzo Norte	3	Hogar Propio	3	Residencial San Carlos	2
Patria	3	Villa Eucaristica	3	Ferroviario Mitre	2
Parque Jorge Newbery	3	San Rafael	3	Empalme	2
Rosedal	3	Jose Ignacion Diaz 3	3	Villa Cornu	2
Jeronimo Luis De Cabrera	3	Teodoro Fels	3	Ampliacion Kennedy	2
Bajo General Paz	3	Bialet Masse	3	Altos De Velez Sarsfield	2
Parque Latino	3	Altos San Martin	2	Parque Atlantica	2
Crisol Norte	3	Las Margaritas	2		

Jardin Espinosa	2	Patricios	1	Corral De Palos	1
Jockey Club	2	Ampliacion Empalme	1	Parque Liceo 2a Seccion	1
Los Granados	2	Parque Los Molinos	1	Cabo Farina	1
Villa Revol Anexo	2	Country Club	1	Los Olmos	1
El Trebol	2	Finca La Dorotea	1	Aeropuerto	1
Miralta	2	Suarez	1	Villa Solferino	1
San Jose	2	Ampliacion San Fernando	1	La Salle	1
Urquiza	2	San Nicolas	1	Empalme Casas De Obreros Y Empleados	1
Yofre Sud	2	U.o.c.r.a.	1	Bajo Galan	1
Valle Escondido	2	Cerveceros	1	San Javier	1
Horizonte	2	Los Olmos Sud	1	Villa Aspasia	1
Nicolas Avellaneda	2	S.e.p.	1	Talleres Sud	1
La France	2	Juan B. Justo	1	San Pedro Nolasco	1
Las Magnolias	2	Colinas De Velez Sarsfield	1	San Daniel	1
San Pablo	2	Los Paraisos	1	Dr Remo M. Copello	1
Villa Claret	2	Cofico	1	Patricios Oeste	1
Las Violetas	2	Comandante Espora	1	Parque Del Este	1
Ampliacion Benjamin Matienzo	2	General Mosconi	1	Parque Don Bosco	1
Comercial	2	Independencia	1	Villa Siburu	1
La Carolina	2	Remedios De Escalada	1	Ampliacion Los Platanos	1
Avenida	2	Los Platanos	1	Lamadrid	1
Inaudi	2	San Lorenzo (s)	1	Tte. Benjamin Matienzo	1
Camino A San Carlos	2	Parque Chacabuco	1	Colon	1
Guarnicion Militar Cba	2	Marechal	1	Talleres (o)	1
Irupe	1	San Martin Norte	1	Guiñazu	1
1ra. Junta	1			Recreo Del Norte	1
Militar General Deheza	1				
Parque Montecristo	1				

Barrio	Peligros Solucionados
Centro America	1
Villa Azalaiz	1
Ciudadela	1
Tranviarios	1
Villa Silvano Funes	1
Residencial Aragon	1
Dr Rene Favaloro	1
Las Dalias	1
Residencial Sud	1
Tejas Del Sur	1
Villa Avalos	1
Villa Warcalde	1
Quebrada De Las Rosas	1
Country Lomas De La Carolina	1
Rivera Indarte	1

Table of Resolved Dangers According to Neighborhood

Barrio	Peligros Solucionados
Centro America	143
Nueva Cordoba	47
Alberdi	42
Alto Alberdi	41
General Paz	35
Cerro de las Rosas	26
Alta Cordoba	14
Guemes	13
General Pueyrredon	12
San Vicente	9
Parque San Vicente	8
Providencia	8
Arguello	7
Las Flores	6
Jardin	6
Villa Saldan	6
Residencial San Roque	5
Granja de Funes	5
San Martin Anexo	5
Villa Cabrera	4
Villa Revol	4
Villa 9 De Julio	4
Mirador	4
Parque Chateau Carreras	4
Villa Quisquizacate	4
Paso De Los Andes	3
Parque Velez Sarsfield	3
Villa Marta	3
Villa Allende Parque	3
Ameghino Sud	3
Los Boulevares	3
Urca	3
Ducasse	3
Quebrada De Las Rosas	3
General Bustos	2
Villa San Isidro	2
Cerro Chico	2
Maipu 2a Seccion	2
Maria Lastenia	2
Santa Rita	2
Parque Tablada	2
Empalme	2
Crisol Sud	2
Arguello Norte	2
Santa Isabel 2a Seccion	2
Altos De Santa Ana	2
Quinta Santa Ana	2
Bella Vista	2
Parque Capital	2
Horizonte	2
Las Violetas	2
San Rafael	2
Alto Verde	1
Militar General Deheza	1
Tablada Park	1
Los Angeles	1
San Francisco	1

Parque Los Molinos	1		Villa Aspasia	1		Guiñazu	1
Suarez	1		Residencial San Carlos	1		Recreo Del Norte	1
Sarmiento	1		Ferroviario Mitre	1		Yofre Sud	1
Ampliacion San Fernando	1		Jose Ignacio Diaz 1a Seccion	1		Centro America	1
Parque Jorge Newbery	1		Ampliacion Poeta Lugones	1		Transviarios	1
Villa Centenario	1		Rivadavia	1		San Fernando	1
Los Olmos Sud	1		Ampliacion Kennedy	1		Residencial Aragon	1
Sargento Cabral	1		Altos De Velez Sarsfield	1		Dr Rene Favaloro	1
Marques De Sobremonte	1		Residencial Velez Sarsfield	1		Las Dalias	1
Juan B. Justo	1		Parque Atlantica	1		Las Palmas	1
Comandante Espora	1		Ampliacion Jardin Espinosa	1		La France	1
Yofre Norte	1		Cerro Norte	1		Las Magnolias	1
Remedios De Escalada	1		Dr Remo M. Copello	1		Los Boulevares	1
Yapeyu	1		Los Granados	1		Villa Claret	1
San Martin Anexo	1		El Trebol	1		Tejas Del Sur	1
Corral De Palos	1		Villa Belgrano	1		Hogar Propio	1
Parque Liceo 2a Seccion	1		Parque Capital Sur	1		Country Lomas De La Carolina	1
Jardin Del Pilar	1		Villa Siburu	1		Rivera Indarte	1
Industrial Este	1		San Jose	1		Camino A San Carlos	1
Juniors	1		Talleres (o)	1		Bialet Masse	1
Colinas Del Cerro	1					Jardin Del Sud	1
Aeropuerto	1						