

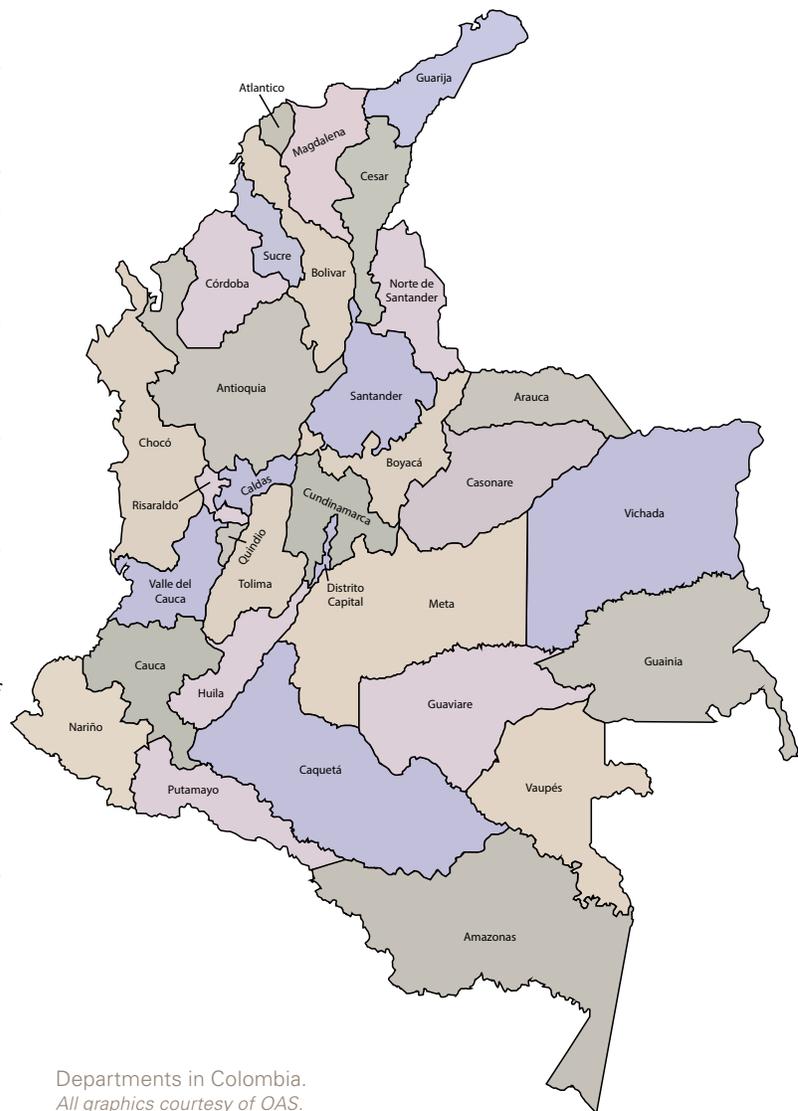
Preparing for Humanitarian Demining in Post-conflict Colombia

Nearly a decade after launching an effort to build national capacity to clear landmines from its territory, the Colombian government still faces significant challenges in addressing the country's mine problem, which has claimed more than 11,000 victims since 1991.¹ Although the overall number of new landmine victims significantly decreased over the past eight years, survey and clearance work has been limited to more secure zones of the countryside because of the threat from nonstate armed groups to deminers and people living in conflict areas. Meanwhile, the risk to civilians living in parts of the country where demining activities have not taken place has not changed significantly, and Colombia remains among the countries with the highest number of mine casualties each year.

by Carl Case [Organization of American States]

In recent months, the advance of direct talks between the government and the Revolutionary Armed Forces of Colombia (*Fuerzas Armadas Revolucionarias de Colombia* – FARC) raised optimism about a near-term negotiated settlement to Colombia's decades-old conflict that would open most parts of the country to mineaction interventions. The key task that the government needs to accomplish in order to eliminate the threat of landmines in the shortest time possible is to define the scope of mine contamination clearly in order to facilitate effective prioritization of areas and efficient use of available resources.

Prior to 2015, the Colombian government's planning of humanitarian demining activities was limited to midterm programming of operations in municipalities considered secure. The three-year plans presented by the Colombian government, in conjunction with its 2010 request to extend its clearance deadline under Article 5 of the *Convention on the Prohibition of the Use, Stockpiling, Production and Transfer of Anti-Personnel Mines and on Their Destruction* (APMBC) and again at the Convention's Third Review Conference, provided little detail on the scope of the problem, projecting mine clearance work in secure



Departments in Colombia.
All graphics courtesy of OAS.

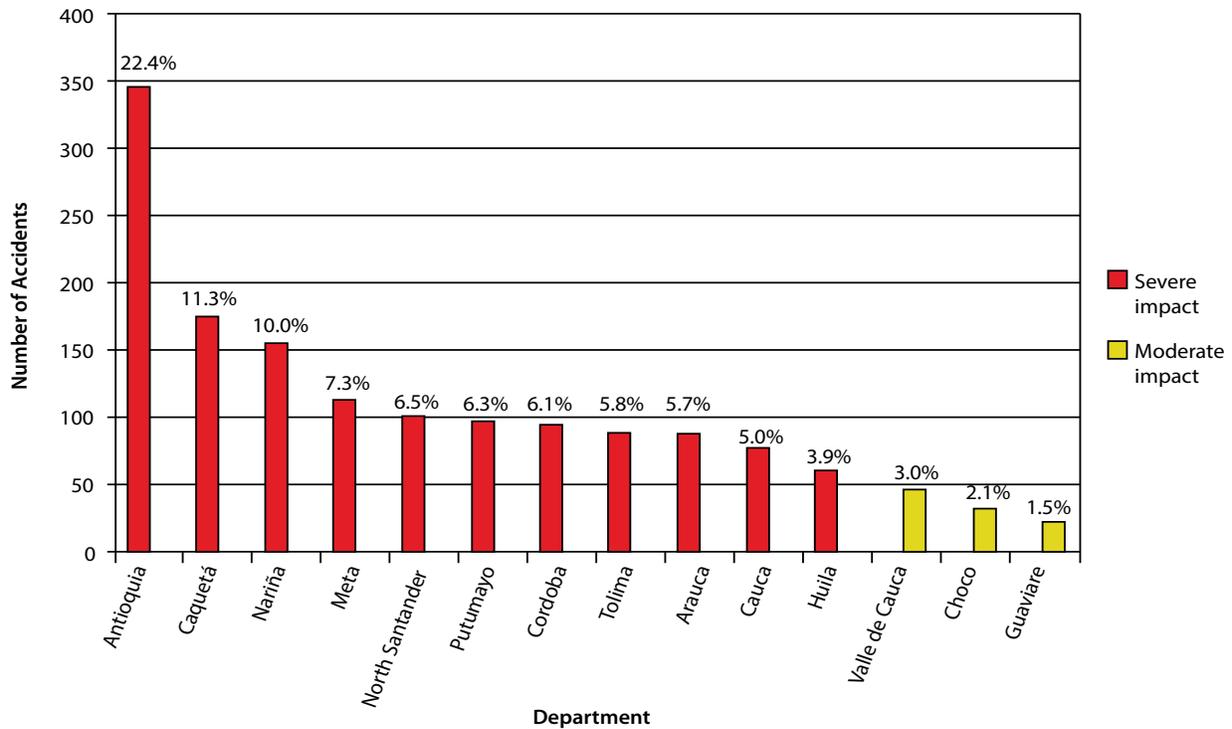


Figure 1. Landmine accidents by department, 2010–2014.

parts of the country only. Insufficient information on the extent of mine contamination is problematic for the planning and mobilization of resources for humanitarian demining, and remains the single most significant issue the government faces in tackling Colombia’s mine problem.

Beginning in early 2015, however, the dynamics of mine action in Colombia changed significantly. Since the initiation of direct talks between the government and FARC in 2012, the peace process has yielded substantive agreements on the road to achieving a negotiated end to the 50-year conflict. Although several issues remain to be resolved before a comprehensive settlement is complete, agreements on land restitution and rural development, political participation, and a way forward confronting the illicit drug trade have raised optimism that the remaining agenda items can be rectified. Ending the fighting and beginning the disarmament, demobilization and reintegration of insurgent combatants remains a key point.

Discussions in early 2015 focused on measures designed to decrease the intensity of the conflict as a prelude to a possible ceasefire and eventual agreement on demobilization. In March 2015, government and FARC negotiators agreed upon a confidence-building process to establish safe conditions for residents of high-risk areas contaminated by landmines and other explosive remnants of war. The parties agreed to implement a pilot clearance project within the framework of

conflict de-escalation, prioritizing sites where the population is at greatest risk.²

Preparedness for a Broader Effort

Elevation of the mine issue in the peace talks not only served to launch the pilot effort to begin survey and clearance of areas where mine risk is greatest, it also gave renewed urgency to preparedness for quickly identifying and clearing a much broader part of the country. The reorganization of the presidential cabinet following the re-election of President Juan Manuel Santos included the designation of a Minister for Post-Conflict who is tasked with land restitution, victims’ rights and landmine issues under a coherent implementation strategy. Bringing these interrelated elements together poses a significant challenge for the Colombian government. In many cases, land restitution and resettlement of displaced populations were impeded by many factors, including the ongoing conflict and the limitations in the government’s efforts to define the extent of the landmine problem in the countryside, as well as by its still relatively modest capacity to clear hazardous areas once they are identified.

With at least 400 government deminers from the Colombian military and another 160 from The HALO Trust deployed for clearance and survey work in four of the country’s 32 administrative departments, Colombia faces a huge task in



Colombian deminer training for clearance operations.

moving quickly to address mine contamination. Landmines affect as many as 11 departments severely, and have at least moderately impacted another three. Underlying the degree to which the task will grow as the peace process progresses is the fact that of these 14 departments that account for more than 97 percent of all landmine accidents in Colombia in the past five years, only one, Antioquia, is currently the site of mine

clearance or survey activities. Moreover, government data also shows that 75 percent of the accidents in the past five years occurred in departments where no humanitarian demining operations were ongoing.³

In February 2015, the government announced a new plan to expand its institutional clearance capacity by projecting the conversion of up to 10,000 military personnel to

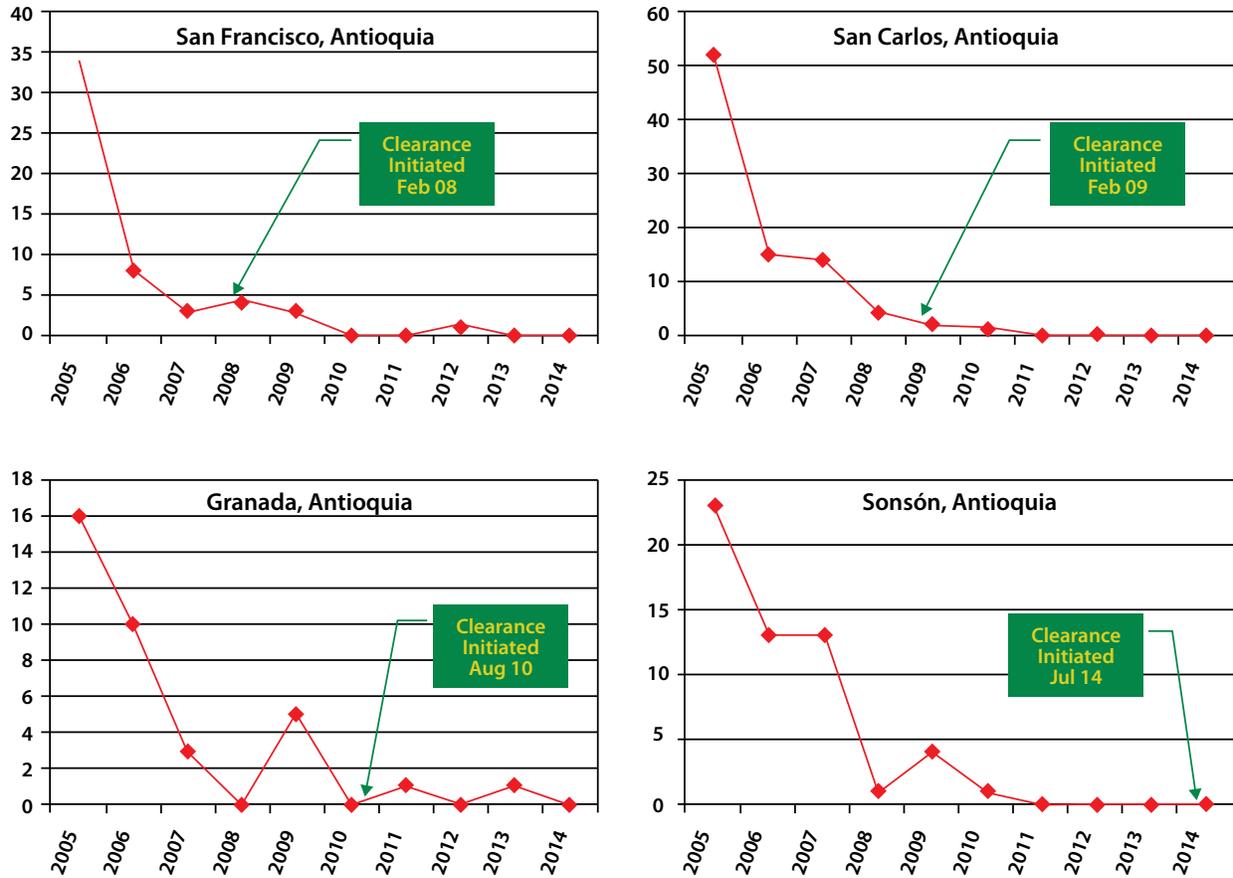


Figure 2. Landmine accidents versus clearance status in selected municipalities.⁵

humanitarian demining tasks by 2017. Also announced was an effort to speed up the accreditation process for civilian demining organizations to no more than six months duration before the end of 2015. The key question about the viability of these projections lay in the lack of funding to train, equip and deploy large numbers of deminers without major external funding and technical support. The government's own projections cited the need for US\$151 million from international donors for the first year following the signing of a peace accord in order to carry out these plans, representing a more than 30-fold increase in the annual amount of external financing that has been available over the past five years. Funding requirements needed to execute the expansion and clearance efforts through 2021 were set at more than an additional \$308 million.⁴ While some increase in international support could be expected following the signing of a peace agreement with the remaining nonstate armed groups, funding will most likely not reach the levels needed to support Colombia's projections.

Defining the Problem

Given the urgency of survey and clearance work in parts of the country where the mine problem is most severe but poorly defined, an approach is needed that clarifies the extent and scope of contamination in order to prioritize efforts for the next two to three years while military and civilian demining capacities expand. To date, security has been the overarching consideration in assigning municipalities for demining operations. However, in a post-conflict context, areas with the greatest risk to the local population should be considered highest priority. Thus far, little evaluation has been conducted using risk as the principal criterion for survey and clearance prioritization.

The government has a huge volume of statistical information related to landmines, but to this point, has had little success in trying to catalogue and analyze some 30,000 indicators or "events" involving landmines that occurred since 1991. Events include accidents, mine clearance during

military operations, improvised mine and explosive cache discoveries, and reports on suspected mined areas. Many of these data points lack specific geographic location data. Efforts to eliminate the least useful data have thus far been met with only limited success, and the database is not particularly useful in either defining the extent and scope of mine contamination or in setting priorities for humanitarian demining activities. One of the means used in the past to clear events from the system has been the use of non-technical survey (NTS) by teams operating in municipalities approved for demining operations. However, experiences in municipalities where NTS was used to confirm or cancel suspected hazardous areas (SHA) indicate that only a small percentage of events in the national database resulted in confirmation of mine contamination. For example, in San Carlos, Antioquia, an extensive survey effort in 2011 resulted in the cancellation of about 90 percent of the events investigated as SHAs.

Accident statistics found within the database could, by themselves, provide a more useful tool for prioritizing areas for countrywide demining operations. A review of accident data points shows the mine problem to be more concentrated in fewer areas of the country than the national totals would seem to indicate. As the overall number of landmine accidents decreased significantly over an eight-year period, a limited number of municipalities exist where the rate of mine casualties remains high. Twenty-one municipalities, registering an average of at least four mine accidents per year between 2010 and 2014, accounted for 54 percent of all accidents nationwide, and a total of 50 municipalities reported more than 75 percent of all accidents in the same period. All of these cases were concentrated in the 13 most severely impacted departments: Antioquia, Arauca, Caquetá, Chocó, Córdoba, Guaviare, Huila, Meta, Nariño, Norte de Santander, Putumayo, Tolima and Valle del Cauca.

In most clearance operations conducted by the Colombian military's humanitarian demining units, the density of mined areas was found to be extremely sparse. Analysis of the San Carlos case shows that 63 improvised mines and six pieces of unexploded ordnance (UXO) were found when clearing nearly 160,000 sq m (1,722,224 sq ft) over a period of almost three years. Similar results are characteristic of all mine clearance operations in Colombia to date, despite marked improvement in amount of SHAs canceled through NTS. In all clearance operations in civilian communities since 2007, the density of mines and UXO has been one unit for every 1,710 sq m (18,406 sq ft) of land cleared.³



Typical construction of an improvised landmine in Colombia.

Before the start of extensive demining activities in San Carlos, the incidence of mine accidents began to drop precipitously. According to *Dirección para la Acción Integral contra Minas Antipersonal*, which is responsible for the coordination of the Colombian government's mine action program and is the Technical Secretariat for the National Mine Action Authority, the number of accidents fell from a high point of 52 in 2005 to 15, 14, four and two in subsequent years before extensive survey and clearance operations began there.⁵ In every other municipality where sustained demining interventions have taken place since 2009, mine accident figures followed a similar trend.

Improvised Mine Life Span

Another critical factor in determining where to focus efforts in a post-conflict context is the impact of mine functionality over time. A rigorous, scientific study of the impact of aging on various types of improvised mines used in Colombia has not yet been conducted, limiting conclusions to those drawn from anecdotal observations. However, the downward trend in the number of mine accidents in municipalities considered secure, or consolidated, shows a more significant correlation between the point when a municipality is sufficiently secure to begin humanitarian demining activities than when survey and mine clearance operations are actually initiated.

The historical case of El Salvador holds some useful insights about the impact of mine aging and functionality that could be applicable in Colombia. Following the peace agreement that ended El Salvador's internal conflict in 1992, a

limited effort was made to mark and clear mined areas that were installed by government forces. Use of improvised landmines by the Salvadoran insurgency was widespread, causing roughly half of the Salvadoran military's casualties in the final seven years of the conflict. The mines were similar in construction and function to those currently being used by nonstate armed groups in Colombia. When the fighting ended in El Salvador, the number of mine accidents quickly declined. In 1992, there were 579 victims of accidents with mines and UXO. The following year, the number fell to 259, and only one of these was attributed to an improvised landmine.⁶

Improvised mines used by nonstate armed groups in Colombia vary in size and construction, but they most often use 9-volt alkaline batteries to initiate detonation. Although mines are usually emplaced using plastic bags and other material to limit vulnerability to moisture, battery life is critical to determining whether a mine will continue functioning. Commercially sold, alkaline batteries advertise a shelf life of no more than five years under ideal storage conditions and can probably function for a shorter period of time when employed in improvised mines that are fully or partially buried, particularly given the damp, tropical conditions found in most parts of the country.

Prioritization of Work

Considering the probable limited life cycle of improvised mines, the concentration of the most serious mine problems in 50 of Colombia's 1,119 municipalities, and the limited existing survey and clearance capacity, the government should avoid undertaking a dispersed, unfocused nationwide clearance effort and instead prioritize its strategy and planning based on severity of impact. Accident data since 2010

provides the best evidence for bringing areas of greatest risk into focus to help define clearance priorities. This information can best determine when and where to deploy clearance assets. NTS teams will be key in reducing the amount of surface area requiring clearance in priority zones.

Other municipalities that fall outside this high-priority category also need to be addressed. Of particular importance is land release to displaced and dispossessed populations across a broader part of the country. In these municipalities, NTS teams can play an important role in canceling areas that remain in Colombia's database because of mine events that occurred in previous decades. SHAs that cannot be canceled will still require clearance assets before being released through technical survey demining. However, survey teams marking these areas, accompanied by prevention campaigns, will greatly reduce the risk to nearby communities until clearance is carried out.

Conclusion

Colombia will face many challenges in the coming years as it deals with its longstanding mine problem. A peace agreement between the government and nonstate armed groups would likely open most of Colombia for humanitarian demining activities, but the country's size and geography demand a strategy that will prioritize areas of greatest need first for survey and clearance while national capacity is expanded. Understanding the extent, severity and nature of mine contamination is critical to developing future intervention plans, and the information to develop this awareness is available now to begin preparations for work toward a mine-free Colombia. ©

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Carl E. Case is the general coordinator of the program Comprehensive Action against Antipersonnel Mines at the Organization of American States (OAS) and has worked in the program for more than 18 years. In 2008, he worked for the Office of Weapons Removal and Abatement in the U.S. Department of State's Bureau of Political Military Affairs (PM/WRA) as senior adviser for conventional weapons destruction in Iraq. Prior to joining OAS, he served more than 26 years in the U.S. Army as an infantry officer. He graduated from the U.S. Military Academy at West Point, New York, and holds a master's degree in Latin American studies from Tulane University, New Orleans.

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