

# Informal Convergence at Major Emergency Incidents in Kenya

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## ABSTRACT

“Convergence behavior” is the informal, spontaneous movement of people, messages, and supplies toward a major emergency incident area. This form of movement brings needed aid to many victims, but at the same time the resultant congestion makes organization and control of the rescue and relief efforts more difficult. Whenever a major emergency incident occurs in Kenya, typically a huge crowd of sightseers and personnel converge at the scene.

This report provides a review of informal convergence behavior in Kenya during major emergency incidents over the last 15 years (1998-2013) and some of the risks that have been associated with this phenomenon. It also provides some recommendations that have been successfully implemented in other countries, as well as in rare instances in Kenya, to control informal convergence behavior.

## INTRODUCTION

“Convergence behavior” is the informal, spontaneous movement of people, messages, and supplies toward a major emergency incident area.<sup>1</sup> This form of movement often brings much needed aid to many victims, but at the same time the resulting congestion makes organization and control of the rescue and relief efforts more difficult. Personal convergence is the actual physical movement of persons on foot, by auto, or other vehicle toward a major emergency incident.<sup>1</sup> These individuals could be members of official disaster response and management agencies or unauthorized personnel (including unofficial responders wanting to provide aid), all converging on the scene. Whenever a major emergency incident occurs in Kenya, a large gathering of curious onlookers typically follows.<sup>2</sup> Informal convergence has been observed during multiple major incidents in Kenya; however, very little information on this phenomenon has been objectively documented.

There are seven types of informal convergers: the returnees, who were affected by the incident and decide to return to the scene for closure; the anxious, who are concerned they may know someone in the incident and may not know the person’s status; the helpers, who are similar to first responders in that they go to the scene to help those requiring assistance; the curious, who want to find out what has happened; the exploiters, who are looking to make a profit from the incident; the mourners, who converge to create memorials and mourn the dead; and finally the supporters, who are either individuals or groups who gather to encourage and express gratitude to emergency workers.<sup>1,3</sup> These are not mutually exclusive categories of people; rather, each category refers to the dominant motivations of a person at a given point in time.

## BACKGROUND

Kenya has a population of over 38 million people.<sup>4</sup> Nairobi, the capital, is the largest city in Kenya, with a population of more than three million. Kenya’s major emergency incidents profile is dominated by droughts, floods, fires, terrorism, collapsed buildings, transportation accidents, and disease outbreaks.<sup>5</sup> At least four ma-

major emergency incidents have occurred in Kenya each year over the last 12 years.<sup>5</sup> In a statement made by President Kibaki in 2012, members of the public were encouraged to avoid scenes of major emergency incidents.<sup>6</sup> The president stated, "Heavy crowding in disaster scenes not only delays rescue operations but also places members of the public in danger of harm." However, despite this and other pleas for divergence, the number and types of major emergency incidents have been increasing in Kenya, with most drawing large numbers of people to the scene. However, no formal description of these incidents has been undertaken.

Kenya's capital city.<sup>7</sup> They initially fired upon the security guard when he refused to open the gate. The bombers also threw a grenade at embassy guards. As the security guard radioed for backup, the truck detonated. Approximately 212 people were killed, and an estimated 4,000 were wounded. A large number of eye injuries occurred because people in buildings nearby, who had heard the first grenade explosion and the shooting, went to their office windows when the main blast occurred, shattering the windows. The scene became one of immediate turmoil, with hundreds of people trying to flee at the same time thousands rushed in to see what had happened.<sup>8</sup> Nairobi quickly became congested and chaotic, causing additional problems for ambulances and rescue workers.

On January 31, 2009, a petrol tanker overturned near Molo town.<sup>9</sup> Due to slow response from police, hundreds of people oblivious to the risk involved gathered to collect spilled fuel from the tanker to be either used or sold, when it burst into flames. In one of Kenya's worst accidents of recent times, 373 people were affected; 130 were badly burned, some beyond recognition, and 72 people died in hospitals.

Learning from this incident, in June 2012, police responded immediately when millions of shillings worth of highly flammable super petrol were spilled after a government grader carrying out road repairs punctured a Kenya Pipeline channel in Nakuru town.<sup>10</sup> In this event, law enforcement officials were able to control a surging crowd intent on collecting the spilling fuel. The police action prevented individuals from accessing the spill sight and avoided any bystander casualties.

At least eight people were killed and nine others seriously wounded on April 4, 2012 when massive boulders crushed houses in Mathare slum after a night of heavy rains.<sup>11</sup> Mathare is one of the largest slum areas in Kenya, with housing structures for low income and impoverished members of the population. Most families were asleep when the boulders fell from an overhanging cliff, trapping many of them. The rescue operation was hampered by poor coordination and inadequate equipment resources at the site as police and National Youth Service (NYS) personnel tried to retrieve bodies. The NYS was established in 1964 to train Kenyan youths in tasks of national importance, including service in the armed forces, national reconstruction programs, and disaster response. During the emergency incident in Mathare, hundreds of slum youth quickly volunteered to help rescue efforts, using their bare hands to remove rubble despite the heavy downpour. Officers had a difficult time controlling convergers who milled around the scene, hindering effective response from first responders.

An explosion tore through a shopping complex in Nairobi's business district on May 28, 2012 at 1:15pm, wounding more than 30 people and killing one person.<sup>12</sup> Several casualties were rushed by good samaritans to the hospital. An uncontrollable crowd gathered, hampering rescue operations.<sup>2</sup> The crowd made it impossible for fire engines to reach the scene, forcing most to take an alternative route



Figure 1. Map of Kenya

**METHOD**

This report is a review of informal convergence behavior in Kenya using publically available media sources for major emergency incidents over the last 15 years. Some of the risks that have been associated with this phenomenon are highlighted. The authors also provide some recommendations that can be implemented to control informal convergence behavior during major emergency incidents.

Informal convergence behavior at major incidents in Kenya On August 7, 1998, between 10:30 a.m. and 10:40 a.m. local time, suicide bombers in a truck laden with explosives parked outside the United States Embassy in Nairobi,

and prolonging the response time to put out the ensuing fire. Looters took advantage of the confusion and carted away valuables from the shops. The Internal Security Assistant Minister and a local member of parliament dashed to the scene and appealed for calm as crowds surged to catch a glimpse of what had happened while police attempted to establish a perimeter.<sup>13</sup>

On September 21, 2013, unidentified gunmen attacked the upscale Westgate shopping mall in Nairobi.<sup>14</sup> The attack, which lasted until September 24, resulted in 72 deaths, including 61 civilians, six Kenyan soldiers, and four attackers. Over 175 people were reportedly wounded in the mass shooting. Riot police officers lobbed multiple rounds of tear gas to disperse hundreds of curious Kenyans who gathered near the mall during the siege.<sup>15</sup>

One month after the Westgate incident, a train smashed into a bus in Nairobi, killing 11 people and wounding 34 others.<sup>16</sup> Immediately after the accident, hundreds of residents from nearby estates gathered around the scene.<sup>17</sup> Some people went as far as to crawl under the train to get a view of the opposite side of the accident. Scrap metal dealers also came to make an unlawful living from the mangled wreckage, using a magnet to draw metallic parts upward from beneath the debris. Armed with mobile phones, onlookers took photos and videos of the bus wreckage to post on social media. The large crowd hindered responders' access to the scene, thereby compromising the response.<sup>17</sup>

## DISCUSSION

This report highlights a few examples of informal convergence behavior at major emergency incidents in Kenya. Despite warnings from public officials including the former head of state, this behavior has continued to persist. Most of the emergency incident reports highlight how this behavior hampered rescue operations and contributed to worse outcomes, as was witnessed in the Molo town tanker fire in which convergence behavior directly increased the morbidity and mortality of the convergers.

The issue of informal convergence behavior is not unique to Kenya; it has also been observed over the years at major emergency incidents throughout the world. In June 2012, chaos broke out in a densely-populated Lagos City neighborhood in Nigeria where a passenger jet crashed.<sup>18</sup> Thousands of onlookers converged on the scene, partially blocking access to the crash site, prompting the need for soldiers to clear the area. They used their fists and rubber whips, and even threw a wood plank at the crowd. Looking to evade the troops' aggression, people took off in several directions, trampling others as they tried to avoid being crushed themselves.<sup>18</sup>

It is important to note that people who are informed of a danger will undertake any feasible actions they believe will reduce that danger. If authorities do not provide suggested actions, citizens will take action anyway, usually increasing the incidence of convergence.

Preventing convergence at major emergency incident sites will increase responders' efficiency and provide a safer environment for all by reducing the number of people at the disaster scene. By establishing a staging area for family members, friends, and other onlookers, emergency officials can prevent uncoordinated and dysfunctional convergence at emergency sites. Early communication of an incident with clear, concise, and targeted messages will direct community members on appropriate actions to take during the response and recovery of an emergency event. An organized, coordinated plan for handling major emergency incident communication should be included in the country's emergency operations plan.

Official communication at the onset of a major incident should provide clear recommended actions for the community. It is important to develop major incident plans that allow for appropriate integration of convergers into the response force and their management and care.<sup>19</sup>

Kenya's emergency operations plan must outline how informal convergers will be dealt with, on the basic assumption that convergence is an inevitable phenomenon accompanying major emergency incidents. Control efforts must be aimed at channeling this behavior into adaptive, constructive forms. One useful principle for guiding convergence control policies is the diversion of convergence from disaster zones and nearby rescue and relief centers by providing a facility or area in non-affected regions where the communication facilities remain intact.<sup>1</sup> This regulated approach can significantly reduce the vulnerability of convergers and help ensure limited interference with rescue work. The positive aspect of this approach is that it can be used to incorporate donation stations for well-wishers who can contribute to the rescue without disrupting response. Success of designated convergence areas is reliant upon efficient and effective communications conveying the location and purpose of these areas to the general public.

The Nakuru town Pipeline spill provides an example of effective response where convergence did happen but was controlled by quickly cordoning off the area to prevent the crowd from coming close to the spilling petroleum fuel. The response was effective because it allotted the first responders space to effectively respond.

Convergers can be utilized as a resource, as they are frequently already at the scene or are among the first to arrive. They know about the incident and/or incident scene and can provide first responders with key information or manpower lacking upon initial arrival to the emergency. Observers of major emergency incidents are often the ones who initially call for emergency response assistance and can provide responders with verbal and visual information to help more effectively guide response to the incident. Onlookers can use short message service (SMS) and social media to communicate the scale of the disaster, give visual accounts of the emergency scene, and initiate response actions before emergency professionals have even arrived. Regardless of the size and location, disasters are always

local, and the first people at the scene begin to assist before emergency personnel begin to arrive. It is thus the responsibility of the community to honestly and accurately communicate information in order to diminish rumors and subsequent convergence at the incident site.

Inaccuracies and ambiguities in initial reports from the emergency incident area are undoubtedly responsible for many of the serious convergence problems. Much of the initial anxiety-motivated convergence is stimulated by false or ambiguous announcements concerning the scope and extent of the disaster.<sup>1</sup> It is therefore critical for information that is disseminated to not only be accurate but immediate, as inaccurate and delayed information serves as a catalyst for convergence. Development of a pre-disaster public education program focusing on the risks and dangers of convergence and recommended actions for the public in the event of a major emergency incident have also been shown to reduce the incidence of informal convergence.<sup>1</sup> This creates public awareness, which can then be reinforced through cease-and-desist-type appeals broadcast over the radio, television, and social media sources, or published in online newspapers.

## CONCLUSION

Analysis of publicly available media sources highlights the incidence of informal convergence at major emergency incident sites in Kenya. This behavior hampers rescue operations and poses a major threat to responders, convergers, victims of the incident, and the community at large. Some convergence is inevitable; however, through effective plans and timely distribution of accurate information, it can be contained and even used as a potential resource in assisting emergency incident victims. The key to controlling convergence is quality infrastructure provided through an Emergency Operations Center (EOC) that can effectively manage information and disaster data. Establishing a perimeter for responders, creating a staging area for observers, and disseminating accurate information through a variety of media can minimize convergence and help utilize public manpower to assist in a response. Development of disaster plans that allow for appropriate integration of informal convergers into the response force while maintaining their safety and security can also help control this problem.

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