

Kibera:
The Vulnerable Poor of Kenya
Beck Duston
Florida State University

Abstract

Kibera represents the standard for slum function and quality within Kenya, and has provided a grim example of how unsupported poverty can result in long-term suffering. This research-driven paper will establish context, implications, and a historical narrative of an attempt to relocate the population contained within this slum. After finalizing the history, this research paper will conclude with a critique and review of the attempt, and provide an opinion on how the action could have been refined further.

The first part of the paper will contain the historical context of Kibera, its origins, and other details concerning the slum throughout Kenyan history.

The second part of the paper will contain the disaster-related background of Kibera, and what specific factors pushed the Kenyan government to intervene on this informal settlement. It will include specific examples of both hazards and disaster events within the slum, and what implications they had not only on the day-to-day life within the slum, but also throughout the entirety of Kenya.

The third part of the paper will be composed of the details regarding the governmental attempt to address this example of widespread poverty and destitution. It will include the context of the reasoning behind the attempt, and the specific factors that defined the conclusion of this action, both failures and successes. It will also include the specific governmental bodies involved in the effort, going into detail about their functions, which exhibited the largest amount of successes, and why. Following this section of the paper a comparison of “quality of life” before this intervention and after will be made, and it will conclude with a final evaluation of the success of this operation.

The fourth part of the paper will include opinion concerning the quality of response undertaken by the Kenyan government. It will consist of a comprehensive critique concerning any problems surrounding the relocation. Observations on how the effort could be refined further, new techniques that could yield better results, and more streamlined resource allotment will be detailed. After this part, there will be a final comparison of the implications that utilizing the advice given previously would have had on this relocation, and on which elements were improved from its implementation.

Introduction

The concept of slum life is often painted in the context of harsh emotion, judgmental language, and non-progressive thought processes on what slums represent in this world. Regardless of the various levels of illegality that these dwellings encompass, they represent the progressive bottom of human settlement and economic market processes, and facilitate the possibility for affordable, inclusive living for people unable to sustain/maintain a living on a higher economic level. One of these slums is Kibera, which is not far from Nairobi, the capital of Kenya. This is one of the largest slums in East Africa, and demonstrates some of the poorest living conditions that human beings can tolerate on the lower poverty level. Many people live without sanitary water, or no access to water at all. There is limited waste disposal, and terrible public works systems that essentially pump sewage and other waste water between the houses themselves. Per official measurements there are approximately 800,000 people in Kibera. However, due to unofficial housing and living conditions, there could be over 1 million people living within the slum and on the outskirts. In Kibera, the Kenyan government owns all the available land, and only approximately “10% of people are shack owners and many of these people own many other shacks and let them out to tenants. The remaining 90% of residents are tenants with no rights..... These shacks often house up to 8 or more with many sleeping on the floor.” (Mills, 2015, para. 1-2) The population of Kibera is defined by one specific group of settlers, people of Nubian descent from the Kenyan/Sudanese border. Approximately 15% of the current population descends from this original group of settlers, and are of the Muslim faith. Most dwellings used by even this heavily entrenched demographic of the population are nothing more than small shacks, where these disused buildings are owned by absentee landlords who do nothing to maintain the property. It was measured by The NCSS in 2012 that only 20% of the population has access to electricity, there are no officially established toilet facilities, and all the water gathered to maintain the slum is taken from outside its boundaries, most notably from the Nairobi Dam. (Mills, 2015, paragraph 4) Given the extremely low living standards for within Kibera, it was expected that at some time an effort to relocate the populace would be made. Before leaping forward to delve into that effort, some reflection needs to be given to the history behind the slum to give the more recent events the fullest possible context.

History

Kibera was settled in 1904 alongside the city of Nairobi, as a settlement for Nubian soldiers returning from their service with the King's African Rifles. Located outside of Nairobi, the purpose of this settlement was to allot land for the service done by the soldiers in previous engagements. This settlement was located near military exercise areas, and near The KAR headquarters, both of which were strewn along the Thika Road. While the British chose not to intercede with the Nubians established infrastructure created in the wake of this land deal, they maintained that the Nubians had no claim over the land. They acted upon these beliefs with several acts meant to drive off the persistent dwellers through eviction, arrests, etc. Regardless of these claims, other tribes moved into the settlement, expanding its size, and all while establishing a rental system from the entrenched Nubian people. (Smith, 2005, para 8) There was a great economic boom, an establishment of official infrastructure such as a railway, and more people in search of wage-paid labor started migrating to Kibera. However, this led to a conflict of interests between the residents, and the British government, who wanted to demolish/relocate Kibera. (Smith, 2005, para 9) Things changed when Kenya became officially independent in 1963, and several new forms of legislation were passed that influenced life within Kibera. Firstly, several forms of housing were made illegal, which was passed based on land tenure, targeting the settlement directly. Regardless of this ruling, there was little to no effort to follow these new laws by the residents of Kibera. By the year 1970 there was an increase in renters, flooding the market with illegal numbers of tenants per-residence. (Gathigah, 2014, Pg. 2) To this day these people maintain their lives in abject poverty, earning less than \$1.00 a day, numbering in the millions. The residents of this slum represent all major Kenyan ethnic backgrounds, refusing to follow class-based stereotyping. One Kibera form of income is casual laboring, where people go door to door asking for paid work. Working with 1500 shillings, or \$18.75, a month rent, some residents maintain an economic presence by offering their own labor, while others work in the market system in the trading of goods. (Economists, 1)

Socioeconomic Characteristics

Many factors detrimentally affect daily life in Kibera, such as hazards, vulnerabilities, and disasters. Specifically speaking, there are physical, environmental, social, and economic

types of vulnerabilities. Unfortunately for the residents of Kibera, they suffer from most these vulnerabilities. In regards to physical vulnerabilities for instance, the infrastructure of Kibera is extremely weak, and besides international aids groups forming clinics to address the large amount of health concerns, there are “no government clinics or hospitals” (Mills, 2015, pg. 1) Additionally, in regards to other infrastructure surrounding sanitation, there are little to no toilet facilities, leading to unregulated waste dumping into the rivers. Speaking of unregulated dumping into the environment, Kibera also suffers from several environmental vulnerabilities. For instance, the land that composes of Kibera is heavily polluted and features extremely unsanitary water sources. As it is talked about in a later section, this combines with flooding to spread foul, disease ridden water throughout the settlement. As a final nail in the coffin, the fire rate within Kibera is extremely high, a detriment due to another physical vulnerability, the flammability of their houses. A silver lining is expected to come at some point during the analysis of Kibera, but there is very little positive when it comes to the vulnerability of the public. In addition to their environment and physical structures posing a threat to the populations health, there are several economic and social vulnerabilities that Kibera possesses. First off, Kibera has extremely low quality schools, usually more based around basic education for younger children, and less for educating a labor force. This has led to economic stagnation, where only approximately 50% of the population is employed, “usually in fairly unskilled jobs” (Mills, 2015, pg. 1). This combined with the anti-slum laws passed during Kenya’s independence, which completely defines the current governments attitude towards threatening slum residents, has resulted in a stilted society with limited economic potential. Speaking of economic potential, the economic vulnerabilities are extremely detrimental to long term progression. The inability for slum residents to obtain a professional education, combined with an inability to legitimize the economic processes within the slum have opened vulnerabilities on their ability to take protective financial action, and has decreased both their GDP and their ability to access credit. This disconnection from mainstream economics is a terrible influence on the livelihoods of those living within, and only create a larger gap for hazards and disasters to incite damages.

Disaster History

In regards to physical disasters, fires, for instance, happen on a regular basis in Kibera, and are a plague upon the normal functions of slum society. As summarized here, “it has become

a death trap for many people, some of whom have died in unexplained fire disasters. In the Laini Saba area of Kibera, a fire that broke out in the night claimed the lives of seven members of one family in December last year. On Wednesday morning, a fire burnt down a section of Kibera and claimed the lives of a woman and three of her children” (Standard Digital, para. 3). One of the primary reasons the populace believes that these fires are so problematic is because the local firefighters are often caught sleeping on their post and often respond late to requests for aid. Nairobi County, for instance, only has 100 firefighters, scarcely enough for the population of approximately 4 million people. Another reason for the widespread destruction caused by fire is a lack of preparation within the local population, and an unwillingness of outsiders to intercede with the hazard. “Fires are common in Nairobi’s slums but urban disasters receive a “baffling” lack of response from aid agencies, indicating major gaps in urban crisis preparedness, says the UN Office for the Coordination of Humanitarian Affairs, OCHA” (Irin News, para. 2). In finality, *Voice of Kibera* reported that Kibera had the largest amount of fire incidents in all of Nairobi for the last two years. At least 22 fire events were recorded by Kibera slums in the years of 2010 and 2012 (Kamengere, 2014, p. 2-3). This is a reoccurring problem that still poses a major threat to Kibera residents to this day.

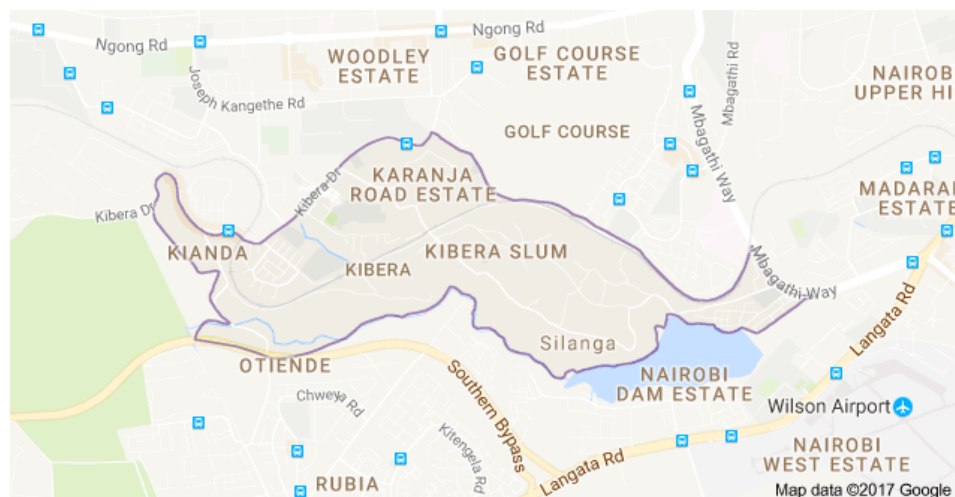
A physical hazard posing to cascade into a disaster scenario that Kibera faces is the possibility for flash floods. Nairobi’s rivers are inherently polluted and are routinely mistaken for open sewer lines. Even the best of times, floods create severe difficulty in maintaining structure and maintaining any sort of ground based activity. However, with the added pollution, flash floods pose a deadly threat to the health of any inhabitant that comes into physical contact with it. Among the numerous slums that are vulnerable to the environmental disaster, “Ngong river runs through the Kibera slum which, despite its large human population, has no sewage and solid waste disposal system. It also passes through the Industrial Area where some industries discharge their waste into it. While Mr. Langwen says these discharge points were closed, the river runs through Mukuru Kaiyaba and Mukuru kwa Njenga, both populous slums, whose residents discharge their waste into the river” (Weru, 2012, para. 11-13). The amount of waste currently being dumped into this river is exponentially growing, and creates a very relevant health problem for residents of both the slums, and those who live in higher economic levels. Additionally, this hazard is exponentially worsened by the fact that the rivers overflow quite frequently. Per the Daily Nation’s article on flash floods, “...the rivers are very much alive with the potential to

claim their encroached territory with devastating ruthlessness” (Weru, 2012, para. 4). In 2010 Kibera was hit with a series of storms that sent water flooding all over the nation. The flooding destroyed over 50 houses, in addition to displacing the residents. “One school was completely swept away. Walking calmly, I didn’t even notice anything until Hasan suddenly pointed out that I was standing where only days ago a school had been. Not even the foundations were visible anymore.” (Map Kibera, 2010, para. 3) However, regardless of the danger, the residents go about their day to day activities with relatively little complaint. Due to the costs that it would take to totally clean the river, and to install the infrastructure to purify and pump clean water, which would greatly increase the rent demanded by slum residents exponentially, many are content to sit in silence in the wake of all the unsanitary water. Peter Otieno, a mechanic who lives not too far from the Nairobi River, was interviewed about his feelings on the matter. “If the government was to put up modern housing, rent would definitely go up beyond my reach. The cost of water would also go up. We would be forced to move further away from the workplace” (Weru, 2012, para. 21).

This is an example of a current economic vulnerability manifested by the population. All in all, this hazard both paralyzes and poisons the residents of the slum from both a physical and an economic standpoint, with little to no official effort to mitigate. An additional factor of the water quality is not only its potential for danger when you attempt to coexist with it, but also the health dangers it poses from potential consumption due to the poor water purification enabled within the slum. In reaction to issues like the quality of water within the slum, some projects were integrated to combat this public health issue. One of these projects is called SHOFCO, and was centered around addressing several issues within the Kibera slum, such as the poor water sanitation, or access to health care for HIV or Malaria. In their 2015 Annual report, SHOFCO stated that “10,750 people accessed our water sanitation and hygiene services”, and dug “15 new pit latrines to provide more villages in Kibera with access to safe and private sanitation” (SHOFCO, 2015, p. 23). In addition to restoring some dignity to these people, these latrines will reduce the amount of waste being dumped into the Nairobi river in the long run. In total, SHOFCO built approximately 35 community toilets, in addition to integrating safe hygiene education within the local population. To safely and efficiently provide clean water to the residents, SHOFCO is planning on building a system of aerial piping to interconnect with itself and the 100,000-liter water that is the largest reservoir of clean water in Kibera.

As mentioned above, another physical vulnerability manifesting itself as a hazard within Kibera is the increasing prevalence of diseases like HIV and AIDS due to economically restrained clinics, which threaten the sexual and physical health of the population at large. Due to the sporadic and random settlement that Kibera represents, taking a census is often difficult and does not capture true statistics. However, it is estimated that there is a 14% prevalence rate of HIV in adults in Kibera (Patterson, 2009). To stem the tide of sickness, some organizations opened clinics within Kibera. One of these organizations, SHOFCO, had clinics that treated approximately 436 patients daily, with a total of 3 clinics, two of which were located directly inside Kibera. These clinics were stocked and staffed to treat everything from a person's primary health, maternal health, and even programs for responding to gender-based violence. In regards to specifics on treating slum residents for HIV and other diseases, these clinics gave over 5,041 people HIV counseling, and provided free testing. In total, these clinics served over 67,856 patients, which was a 173% increase from 2013 (SHOFCO, 2015, p. 16).

The beneficiary organizations within Kibera addressing its vulnerabilities represent a golden age in its function, and the signs of a sanitation/public health revolution in a place full of destitute and impoverished people. Another currently active project within Kibera that is addressing another one of its environmental vulnerabilities is "The Effective Microorganisms", aimed to help address the potential hazard exhibited by sludge, flies/other flying insects, and odor within the pit latrines within Kibera. Starting in 2003, this project received a jumpstart when EM technology was granted usage within Kibera with "the Environmental Impact Assessment License" (Emro Japan, 2016, Concurrent Projects to Energize the Slum), by The National Environment Management Authority. This technology was specifically designated to calculate a system to solve sanitation issues, in addition to aiding in carrying out the varying actions needed to fix the issues. Some of these issues were contained within the inefficiency of small actions, such as the recycling of non-organic materials, while others dealt with broad, widespread health hazards, such as the purification of the Nairobi dam.



The Context

While it is easy to observe the positive progress in a settlements issues being addressed, it does pose the question: what is the toll of human life with these disasters? To quantify that, the World Health Organization released a final health report in 2008 to summarize the world's ailments.

Table 1. Infant and under-five mortality rates in Nairobi, Kenya, Sweden and Japan

Location	Infant mortality rate (IMR)	Under-five mortality rate (U5M)
Sweden	5	5
Japan	4	5
Kenya (rural and urban)	74	112
Rural	76	113
Urban (excluding Nairobi)	57	84
Nairobi	39	62
High-income area, Nairobi (estimate)	Likely < 10	Likely < 15
Informal settlements, Nairobi (average)	91	151
Kibera slum in Nairobi	106	187
Embakasi slum in Nairobi	164	254

IMR = deaths per 1000 new born; U5M = deaths per 1000 children.

Source: APHRC, 2002

As is stated in the chart, Kibera has the second highest infant mortality rate in the entirety of Nairobi. Given the grim reality set in place in this settlement, there were attempts to relocate the people to a different place.

The Government Intervention

One of these was called The Railway Relocation Action Plan, was started in 2013, and was based off a model designed for optimum personal relocation. “This project sees the Kenyan Alliance of Muungano wa Wanavijiji and Muungano Support Trust (MuST) respond to a 2004 eviction notice issued by the Kenyan Government to all residents living on public contested spaces, namely road, railway, electricity, pipeline and riparian reserves.” (Karanja, 2013, Context para 1) The project was approximately 30 million dollars in total budget, and was supplemented by 10,000 “housing and business units” to be used by the residents of Kibera. (Karanja, 2013, project snapshot) As seen in the title, this project was based around relocating a grouping of people in Kibera who had crowded the railway reserves in Nairobi. The reason they needed to leave was because in 2003, Kenya experienced a great boom in optimism thanks to a charismatic new leader with a shining vision for Kenya, Mwai Kibaki. Unfortunately, “Among the major planned projects was the construction of a 472-kilometre ‘Standard Gauge Railway’ (SGR), linking the Indian Ocean city of Mombasa, to Nairobi, and on to Uganda and Rwanda. The project followed the tracks of the old East African railway built in 1901 by the British colonial government, which at the time ran the ‘East African Protectorate’” (Waruru, 2015, para. 5). After being put on the back burner for a couple years, Uhuru Kenyatta took over the project in 2013, with the intention of making this construction his “flagship project”. This project is slated to cut through an area with entrenched Kibera slum residents, lending the reasoning behind the project a grim context. One of the resident’s name is James Mwangi. “Mwangi, together with some other 250,000 poor Nairobi slum-dwellers, has settled down along the path of the railway, in a shack where he lives with his wife and two children, and where 22 years ago, he started a scrap metal and hardware business” (Waruru, 2015, para. 8). Regardless of the amount of time that he has spent pouring blood, sweat, and tears into the business that he created from the ground up in this slum, he is now going to be forced off the land by the Kenya Railways Corporation. Despite grim situations such as this, one of the consultant engineers for this project, named Vitalis Ongongo, has noticed an increase in participation by the community in recent months, and has stated that the project is on course. He stated that “more and more” of the representatives of people are present in project-related events. (Mbaka, 2015, para 5) This would mean an increased amount of community involvement from the 10,000 plus families who are caught on the wrong side of human progress.

This is the specific aim of the first part of the project: to exponentially increase community involvement to divide up the population into zones, then to demolish the buildings once all the residents were accounted for. These persons were then moved to decanting sites, which are one room shelters made of corrugated iron sheet, meant to temporarily house the project beneficiaries until they can be completely moved to permanent housing. (Mbaka, 2015, para 7)

Critique of Project Issues

However, there are several problems with these temporary sites. First, they are located much farther away from the original housing locations, creating insurmountable distance between the residents and the places of their employment, or in the case of James Mwangi, far away from his business and customer base. On the flip side, these adequately-built housing units have rent that is comparable to what they were paying beside the railway, an unexpected benefit to the relocation. (Mbaka, 2015, para 9) However, to counter that positive note, these newly built shelters were not given the added benefit of having the population reorganize their schools and businesses, so there is a complete separation from the basic infrastructure that the residents were accustomed to. (Mbaka, 2015, para 8)

One of these was the poorly executed school shutdown and demolition for institutions still located beside the railway. Despite making concessions to the local population, the railway project did not do the same for the schools, other than “saying that the schools be shut down and students enrolled at nearby government schools.” (Map Kibera, 2010, para.) A total of 47 schools were demolished in 2015, and the remaining two schools, St. Juliet and Spurgeon, started to resist the construction. In reaction to the lack of concessions given to the schools, the remaining residents also reacted angrily, some of them filing a petition, which was subsequently denied. After that, there was a cross-petition by the respondent, and there was a court order for the occupiers and their peers responsible for filing the petition to leave the land they were living on. A whole bunch of wasteful efforts just to circle back to the original designation.

Another problem that the project incurred during its start was a discrimination claim by the residents, an argument that the project managers assigned to the case had completely taken control of the resource allocation, using the power to pick and choose who gets allotted what.

(Kajilwa, 1, para 2) When questioned on the matter, “Tax Force Committee Chairman Julius Owidi said landlords who had structures in the railways reserve have been exempted in the compensation list, whereas their tenants have been given priority. “It is impractical to compensate the tenant, leaving the owner of the house even if he an absentee landlord. Without the landlord, there would be no tenant,” said Mr. Owidi to The Standard on Saturday.” (Kajilwa, 1, para 3) In this process, Owidi states that the project managers in charge of the relocation are ignoring the position of land lords. While the Kenyan government maintains that they still acknowledge the role landlords play in this society, there is going to be little to no recognition by the people creating the basic economic structure of the place the people are being relocated to, which could have dramatic influence over the individual economic capabilities of the ex-Kibera residents. (Kajilwa, 1, para 4) However, rather than focusing on people based off economic stature within the slum, this relocation effort is treating these people that are relocated as uniform units, without any differentiation in treatment.

Reassurances

Regardless of what is thought of this relocation project, given the context, it was stated that the project was “not a commercial venture but a project meant to safeguard the lives of the Kenyans, who are courting death by living near the railway track. Their relocation is set to secure the railway corridor, which has witnessed several train accidents in the recent past. Kenya Railways is also expected to put up public schools and churches to benefit the new occupants in Kaloleni and Kibera” (Mbaka, 2015, para. 10). However, as stated in the above paragraph, there were issues with the reallocation of infrastructure that resulted in minor resistance against the relocation program.

Governmental Intervention Recommendations

Regardless of the problems encountered during its function, it appears that the project has progressed and has had many successes in its aim to relocate people from the chaotic, possibly deadly area that is the railway. This is supported by the current functioning of the Railway Action Plan, still relocating people from Nairobi, Kajiado, Nakurum and Narok counties in Phase 2A of the SGR line in January of 2017. (Munda, 2017, para 1) There are several things, however, that if implemented in combination with a relocation effort, would result in a higher rate of

success. In regards to projects such as this, where there is no immediate financial inflow until possibly long after completion, there needs to be a focus on preserving the economics of the community in question. In the railway relocation, there was little to no effort made to preserve the economic system that already existed within Kibera. These stakeholders, of which whose livelihoods represented the economic backbone of the community, instead were quantified and treated no different from the other residents. Some of the resulting problems from relocation were increased distances from centers of economic activity, where many of the residents maintained employment. These two factors would combine to create a grim economic future for any relocated population, especially one as vulnerable as Kibera. By recognizing stakeholders, ensuring there is communication and collaboration during the relocation process, there is a decreased risk that the economics of the community will totally collapse due to the changes in location,

Another problem that occurred during the relocation was the inability for the government to compensate for the difficulty maintaining an education had by the youth of the 10,000 relocated families. The simple statement to “saying that the schools be shut down and students enrolled at nearby government schools.” (Ogure, 2015, para. 4) completely cops out of the underlying problem, an inability to try and establish an accessible alternative to education for those being relocated. A recommendation would be to establish the infrastructure before the move is made, creating the basic structures that could be used to officially house some structures universal to communities, a uniform relocation system can be created that takes into consideration the whole spectrum of needs for the entire group of people in the wake of relocating them from their accustomed services.

An additional factor is the possibility for corruption during the allocation of resources by the organizational body in charge of the government intervention. This could be countered by creating a specific base platform before there is a search for funding, a platform that demonstrates the specific avenues in which money will be spent, to ensure the most efficient and impersonal allocation. Combining this with a board of personnel whose specific designation is to maintain objective judgement in the face of resource allocation, there would hypothetically be little chance of corruption due to the system of checks and balances in place.

In totality, if there was a concentrated effort to enter the slum and engage in its structure with the aim of compensating for the relocation so that there is as little impact as possible to the

inner network, there would hypothetically be less problems plaguing this place and other places requiring governmental intervention.

Reference List

Mills, P.J. (2015, September 14) Some facts and stats about Kibera, Kenya. *Kibera UK*.

Retrieved March 06, 2017, from <http://www.kibera.org.uk/facts-info/>

Document (<http://www.kibera.org.uk/Reports/Nairobi%20Slum%20Survey%202012.pdf>)

Thoma, M. (2012). *Economist's View*. Retrieved March 28, 2017, from

<http://economistsview.typepad.com/economistsview/2012/06/kenyas-kibera-slum.html>

Fatal fire disasters in Nairobi worrying (2015, February 26). *Standard Digital*.

Retrieved April 01, 2017, from [https://www.standardmedia.co.ke/article/](https://www.standardmedia.co.ke/article/2000153019/fatal-fire-disasters-in-nairobi-worrying)

[2000153019/fatal-fire-disasters-in-nairobi-worrying](https://www.standardmedia.co.ke/article/2000153019/fatal-fire-disasters-in-nairobi-worrying)

Weru, G. (2012) "Nairobi Rivers Pose Health-safety Hazards." *Daily Nation*. Wordpress,

Retrieved Wed. 1 Apr. 2017.

Odede, J., & Odede K. (2015). SHOFCO 2015 Annual Report. Retrieved April 02, 2017, from

<https://shininghopeforcommunities1.app.box.com/s/9ntyypa4o6eunem9jqxgcg36xbg67y2j>

Kibera Changed with EM Technology (2016). Retrieved April 02, 2017, from

<https://emrojapan.com/case/detail/16>

Map Kibera. (2010, August 28). Retrieved April 02, 2017, from [http://www.mapkibera.org/blog/](http://www.mapkibera.org/blog/2010/08/28/mapping-flood-damage-in-kibera/)

[2010/08/28/mapping-flood-damage-in-kibera/](http://www.mapkibera.org/blog/2010/08/28/mapping-flood-damage-in-kibera/)

Kjellstrom, T. (2008). *KNUS Final Report Synopsis* (pp. 1-26, Rep. No. 042008). Japan: World Health Organization.

Patterson, H. (2009). HIV/AIDS in the slums of Kenya: Intervening through effectively utilizing volunteers (Unpublished master's thesis). *Ohio University*. Retrieved April 8, 2017, from

<https://pdfs.semanticscholar.org/57f8/540b4edef7cee3f77397c862face66613a14.pdf>.

Slum fires highlight urban preparedness gap. (2016, April 22). Retrieved April 08, 2017, from

<http://www.irinnews.org/feature/2011/04/15/slum-fires-highlight-urban-preparedness-gap>

Kamengere, R. (2014). Assessing fire hazards reduction capabilities in nairobi's Kibera informal

settlements (Unpublished master's thesis). *University of Nairobi*. Retrieved April 8, 2017, from <http://erepository.uonbi.ac.ke/bitstream/handle/11295/76188/>

Kamengere Assessing%20Fire%20Hazards%20Reduction%20Capabilities%20In%20Nairobi%20E2%80%99s%20Kibera%20Informal%20Settlements.pdf?sequence=4&isAllowed=y

Waruru, M. (2015). Kenyan railroad to sweep aside slums. Retrieved April 08, 2017, from <https://newint.org/blog/majority/2015/01/20/kenya-rail-slums/>

Mbaka, S. (2015, June 5). Railway relocation – a collaborative development approach.

Muungano Wa Wanavijiji. Retrieved April 09, 2017, from <https://muunganosupporttrust.wordpress.com/2015/06/05/railway-relocation-a-collaborative-development-approach/>

Ogure, J. (2015). Kibera schools demolished along railway line. *Map Kibera*. Retrieved April 09, 2017, from <http://www.mapkibera.org/blog/2015/05/21/kibera-schools-demolished-along-railway-line/>

Kajilwa, G. (29 August 2015) Tension in Kibera over 7 billion Kenya Railways compensation. *Standard Digital*. Retrieved April 9, 2017, from <https://www.standardmedia.co.ke/article/2000174553/tension-in-kibera-over-sh7-billion-kenya-railways-compensation>

Smith, D. (2005, July 7). Kibera: Africa's Largest Slum. Retrieved April 11, 2017, from http://affordablehousinginstitute.org/blogs/us/2005/07/kibera_africas.html

Gathagah, M. (2014, January 3). The Scramble for Kenya's Kibera Slum. Retrieved April 11, 2017, from <http://www.ipsnews.net/2014/01/scramble-kenyas-kibera-slum/>

Karanja, I. (2013, January 1). Nairobi Railway Relocation Action Plan Design: Kibera. Retrieved

April 13, 2017, from <http://www.upfi.info/projects/nairobi-railway-relocation-action-plan-design-kibera/>

Munda, C. (2017, March 31). The Railway Relocation Action Plan for Kibera and Mukuru Residents in Nairobi - Kenya - Side Events. Retrieved April 13, 2017, from <https://habitat3.org/programme/the-railway-relocation-action-plan-for-kibera-and-mukuru-residents-in-nairobi-kenya/>