

EDITORIAL

How much does a life cost during public protests? Mirroring the Khartoum 2022 mass protest

DUMISANI MACDONALD HOMPASHE^{1,*} NABULYA JESCA²

AFFILIATIONS:

¹Department of Economics, University of Fort Hare, Alice, South Africa
ORCID: 0000-0002-5652-719X

²Department of Accounting and Finance, Bugema University, Kampala, Uganda
ORCID: 0009-0008-4196-9332

CORRESPONDENCE:

Dumisani MacDonald Hompashe

¹Department of Economics, University of Fort Hare, Alice, South Africa
Email: dhompashe@gmail.com

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Globally, there has been an upsurge in public protests since the beginning of the twenty-first century. These protests have occurred in almost all parts of the world, including Europe, Asia, Africa, and the United States. They have affected high-, middle-, and low-income countries¹. The two main reasons cited for the rise and spread of these protests are the increased use of communication technologies² and the political use of disinformation campaigns³. In many protests, people have taken to the streets demanding ‘real democracy’, jobs, improved public services, an end to corruption, and social justice. These protests are attributed to the failure of democracy, economic and social development, engineered by discontent and distrust of the official political system⁴. This discontent has been accelerated by increased inequalities within countries.

In Africa, young people are the most affected by unemployment as they struggle to survive. This has led to an increase in crime, substance abuse, and the deterioration of health outcomes. Hence, many young Africans see mass protests and demonstrations as means to express frustration with their governments. However, these protests have usually resulted in property damage and loss of life wherever they have occurred. The loss of life usually leads to significant economic and social consequences for affected countries. Hence, investigations into the valuation of cost of life as a result of public protests in African countries are imperative.

In developing countries, several studies have adopted the human capital approach (HCA) to evaluate the cost of life⁵. The concept of valuation of life has ethical ramifications, especially the notion that some lives are more valuable than others. Such notions are inherent in how people think and act⁶. Evidence suggests that cost-of-life valuation applies to various policy areas, such as environmental, transport, and health economics⁷. However, HCA only considers material losses as it only evaluates lost production⁵.

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This approach does not appreciate the consequences and destruction caused by protests on human life beyond the destruction of properties. Unlike the willingness-to-pay (WTP)/willingness-to-accept (WTA) approach, which considers both the material and immaterial parts of the cost of life valuation, HCA does not consider the value that individuals or society plan on life apart from earnings and any reduction in the cost of life valuation due to pain and suffering⁷.

The human costs of Sudan's protests and political instability are catastrophic, as the country could lose up to \$2.2 trillion compared to the peacetime scenario⁸. Many studies⁹⁻¹¹ have focused on the public health impact of diseases, and evidence of the mortality and morbidity effects of protests is limited, owing to the scarcity of data in civil registration systems. The study by Ahmed et al.¹² estimating the total discounted value of 112 human lives lost during peaceful public demonstrations in Khartoum State in 2022 is thus a welcome contribution to this evidence base. This study employed HCA to estimate the total discounted value of human life lost using a 3% discount rate.

The authors found that the total discounted value of human lives lost was \$1,871,745 and an average value of \$136,816 per life. The findings reveal that younger individuals bear a disproportionate share of economic loss, with the 15-29 age group accounting for 82% of the total value. This study underscores the profound economic consequences of violence against peaceful protestors, with the average loss per life substantially higher than Sudan's per capita gross domestic product (GDP) in 2021 and the average value lost due to COVID-19 in Africa¹³, highlighting the urgent need for political stability and protection of human rights in Sudan. These issues are relevant to policy, as they illustrate the burden and productivity loss due to premature mortality and could support resource allocation and public health decision-making in Sudan. This study provides a clear and robust description of the analytical methods used to calculate the lives lost, and any researcher can easily replicate this technique in many parts of the world.

However, this study also has methodological limitations that need to be pointed out. First, while the HCA is easy to calculate and provides a clear

interpretation of results, it tends to overestimate losses emanating from premature mortality owing to the assumption that people's earnings remain constant throughout their productive lives⁷. It is improbable that people who earn little income in their earlier years will continue to earn income later in life. An individual might improve their skills, obtain a promotion, or acquire a high-paying job, which would lead to a higher income. It could also happen that a high-earning individual ends up with a lower income due to financial crisis as have been witnessed globally.

Second, HCA equates an individual's utility with their wage level⁷ and ignores the lives and contributions of individuals who are not part of formal economic production. For instance, homemakers, unemployed, retired persons, and children below the minimum working age do not receive salaries for their efforts, but their labor services benefit their families⁷.

Third, the authors used GDP per capita to value the human lives lost. However, this measure does not consider income and wealth inequalities, the impact of environmental damage caused by production processes, or general well-being¹⁴.

Fourth, as the authors acknowledged, the study did not quantify the psychological pain and suffering of family members or friends of those who had lost their lives. This indirect effect may have led to increased underestimation of the valuation method.

Although the authors used a discount rate based on the literature, they should have selected an interest rate that considers Sudan's economy as of 2022, in addition to the other discounting factors that were used in the analysis. The HCA originated in developed countries, where the average interest rates are low, unlike developing countries, such as Sudan, where interest rates are relatively high.

The present study addresses a significant and timely issue by quantifying the economic impact of human lives lost during political unrest in Sudan. This study provides a clear and robust description of the analytical methods used to calculate lost lives. The authors have demonstrated that such investigations cannot be undertaken only to assess the public health impact of

diseases but also to quantify the lives lost during wars and conflicts. Most importantly, the authors demonstrates that a simple method such as HCA could shed light on the cost of human loss that emanates from premature deaths. This work should encourage research teams to conduct similar studies in other parts of the continent or globally that are engulfed with public protests, wars, and other types of conflicts. However, further studies employing different valuation methods are required to advance the findings of this study. Such studies should employ prospective designs to minimize the shortcomings of HCA.

AUTHORS' CONTRIBUTIONS

This was an invited editorial by the editor-in-chief of ASFI Research Journal, which was drafted by DH and then revised in light of critical feedback from NJ. All the authors approved the final version of the manuscript.

CONFLICT OF INTEREST

The authors declare that they have no conflicts of interest.

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