Revisiting Human Security from the Human-Centered Perspective: Results of a Perception Survey in Five African Countries

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Abstract

Human security is a normative concept asserting that all individuals should be protected. Thanks to its universality, it has provided a shared ideal for cooperation across a diverse range of actors, including those in the diplomatic, military, development, and humanitarian fields. However, the concept has been criticized for being inadequate as an analytical tool for academic and policymaking purposes. By looking at human security from the perspective of individuals' perceptions of security/insecurity—i.e., their sense of insecurity regarding the future—this article examines the possibilities of using human security as an analytical concept. It uses human security scores calculated from the results of perception surveys conducted on 7,600 individuals across five African countries. The analysis reveals that the concept of human security, as seen from individual perceptions, adds value by: (1) understanding vulnerable social groups and their specific concerns; (2) visualizing core values that constitute human security centered on human dignity; and (3) understanding subjective information on future risks. It was also found that the concept of human security has significant potential as an analytical framework, which can then be operationalized by incorporating the risk assessment framework of risk management and disaster prevention studies.

Introduction

The concept of human security focuses on individual human being as the object to whom security should be provided. It recognizes the existence of threats (downside risks) to the core human values of life, livelihoods, and dignity, and emphasizes protection and empowerment in addressing such threats. Human security is normative because it asserts that all individuals should be protected. Thanks to its universalism, it has provided a shared ideal for cooperation between people across a diverse range of domains, including the diplomatic, military, developmental, and humanitarian fields.[1]

However, critics argue that the concept of human security is inadequate as an analytical tool for academic and

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[1] The concept of human security was reflected in the 2005 UN World Summit Outcome document (UNGA 2005) and the adoption of the relevant UN General Assembly resolution (UNGA 2012). It was also included in the conclusion of the Anti-Personnel Mine Ban Convention and the creation of the International Criminal Court (Kurusu 2009). With regard to international organizations, the European Union adopted the doctrine of human security in 2004 (Study Group on Europe's Security Capabilities 2004). In addition, human security is also recognized as a background influence on the establishment of the African Union (Hanatani 2022).

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policymaking purposes (e.g., Owens and Arneil 1999; Suhrke 1999; Paris 2001). The main criticisms include the following: given that "threats to human security" are so diverse—ranging from conflicts to pandemics—it is difficult to decide which threat should be prioritized for a particular society or group; determining the thresholds at which certain threat becomes an actual risk to human security can be challenging; causalities cannot be specified because the various threats to human security are not defined in a quantifiable manner.[2] According to its critics, human security has been termed "normatively attractive, but analytically weak" (Newman 2004).

To counter such criticisms, efforts have been made to develop indices that can objectively capture situations of human security/insecurity. For instance, King and Murray (2001) attempted to formulate an Individual Human Security (IHS) index, drawing on the Human Development Indicators (HDI). King and Murray (2001) defined human security as the expected number of years that people will not experience "generalized poverty"[3] in the future, with the country's human security expressed as the averaged total number of such years. Similarly, Owen (2004) attempted to set thresholds for human security by restricting the threats involved to those that are "critical and pervasive" and affect the "vital core of all human lives" and by identifying the relevant factors in play. Owen further argued that evaluation should be undertaken at the local rather than the national level. The author mapped figures for human security across 1,600 communes (local government units) in Cambodia (Owen and Benini 2004).

The above studies were important in that they attempted to set certain thresholds whereby human security could be quantified and operationalized. However, there is no general academic consensus on what should be regarded as the component factors of security or insecurity. Indices of human security have also been criticized as potentially being taken as national performance indicators (Homolar 2015). Subsequent efforts at indexing and quantifying human security have not

become widespread. Due to the challenges of operationalizing human security as a policy concept, the use of the concept of human security in policy implementation has been limited.[4]

At present, while national security has become an issue of widespread concern against the backdrop of Russia's invasion of Ukraine, humanity also faces compounded crisis such as pandemics and climate change. The experience of such compounded crisis has reminded us that people's vulnerability to threats and their ability to respond are deeply rooted in the socio-economic structures in which they live (Abello-Colak 2021; Umukoro 2021). It is precisely these points that are emphasized in the human security debate, sparking renewed interest in the value of human security as a normative concept (Newman 2022; UNDP 2022; JICA 2022).

Given the renewed interest in human security, how can we enhance the usefulness of this concept and apply it more concretely to policy analysis and policy formulation? In this regard, Paris (2001), who once critiqued the concept of human security, emphasized that, for human security to be effective as a policy concept, it must offer unique solutions to specific problems. Moreover, for human security to be effective as a policy analysis tool, it must be measurable, and the logic of causality must be clarified to realize its potential for operationalization. Can the concept of human security actually fulfil these requirements?

This article approaches the question of whether human security can function as a policy concept or a policy analysis tool through examination of individual perceptions of security/ insecurity. This approach is predicated on the idea that human security cannot be simply measured by income levels or crime statistics but that it ultimately depends on "what makes people *feel* secure and insecure" (Glasius 2008, 37). In fact, the importance of individual perceptions of human security can be traced back to Chapter 2 of the 1994 United Nations Development Programme (UNDP) Human Development Report (UNDP 1994; hereafter referred to as HDR 1994).

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[2] Literature containing discussions of the criticisms leveled against the concept of human security includes studies by Tadjbakhsh and Chenoy (2006), Muguruza (2007), Fukuda-Parr and Messineo (2012), Gasper and Gomez (2015), and Newman (2016).

[3] "Generalized poverty" in this context refers to wellbeing factors falling below certain thresholds of income, health, education, and political freedom, etc.

[4] Yanagihara (2019) noted that the concept of human security has not translated fully in Japan's actual development assistance because of problems with Japan's aid delivery mechanism – an organizational division between the policy making ministry and the implementing agency. However, it is also possible that the underlying reason is the difficulty of operationalizing the concept itself.

The report, which first proposed the concept of human security, contains a column titled "Human Security – as people see it" (ibid., 23). Furthermore, in describing today's global situation, the opening of the UNDP Special Report on Human Development 2021–22 (UNDP 2022) states that "feelings of insecurity" are "on the rise nearly everywhere," thus expressing concerns regarding human security in terms of individual perceptions. The importance of this approach toward human security through individual perceptions has been discussed by many scholars, including Jolly and Ray (2006), Glasius (2008), Kurusu (2009), Mine and Gómez (2013), Gómez, Gasper, and Mine (2013), de Simone (2020), and others.

This article attempts to answer the question of whether the concept of human security can be used as a policy concept[5] or a policy analysis tool for international development (both together are hereafter referred to as "policy tools"). The article explores this question by examining human security from the perspective of individual perceptions, specifically, people's sense of security or insecurity about the future. The article will examine whether such an approach has added value as a policy tool. It will explore the factors underlying people's perceptions about security/insecurity to operationalize the concept.

This article will use the results of perception surveys conducted by Afrobarometer (AB)—an African social survey network—in five African countries (Tunisia, Nigeria, Kenya, Gabon, and Angola). The study was commissioned by JICA in 2021 and 2022 as part of the latter's ninth periodic survey (Round 9), with some questions added by JICA.

Section 1 below reviews previous efforts to approach human security as a policy tool by drawing on people's perceptions, and their achievements and challenges involved, before setting out the research questions that this article attempts to answer. Section 2 outlines the data and presents the analytical methodology. Section 3 presents the analysis findings, and Section 4 discusses the findings. The final section, Section 5, presents the possibilities, limitations, and policy implications of approaching human security through individual perceptions.

1. Example Cases of Approaches to Human Security Based on Perceptions

What is the significance of focusing on individual perceptions for using the concept of human security as a policy tool? Because human security is a matter of the issues of security/insecurity that each single individual faces, its ultimate objective is to reduce the threats to each individual. However, the particular threats that any individual faces will differ depending on individual attributes such as their age, gender, place of residence, or the attributes of the group to which they belong, and the environment in which they find themselves. In disaster prevention science, which deals with assessing and responding to risks surrounding people, the degree to which people are faced with threats depends on their level of vulnerability, including their level of education, income level, available protection, social networks, etc. (e.g., UNDRR 2022). Given that one of the features of the human security concept is the consideration of human security/insecurity based on the circumstances or contexts in which the individual finds themselves, there is a certain conceptual significance in studying individual perceptions toward security/insecurity (since individuals are those most in touch with their own perceptions).[6]

Another important point is the inclusion of dignity, one of the three core values emphasized by the human security concept. Of the three core values encapsulated by the concept of human security, life and livelihoods are relatively easy to assess through objective indicators related to life expectancy, health, and income. Meanwhile, the third value, dignity, is difficult to quantify and measure due to its more subjective nature (Takasu and Mine 2022, 15–24).[7] Therefore, the aspect

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[6]   The approach toward security/insecurity from individual attitudes has already been adopted in criminology in the field of citizen security (Stevens and Vaughan-Williams 2016).

[7]   The "human dignity" is understood here, drawing on the study by Takasu and Mine (2022), as "the pride that each person takes in themselves." According to Takasu and Mine, for people to take pride in themselves, it is important that they be treated with appropriate respect by others, be connected with local society, and trust in democratic institutions.

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[5]   In this paper, unless otherwise noted, "policymaking" will refer to the developmental policies of developing countries.

of dignity has not been explicitly addressed in the past attempts to create indicators for Human Security. However, if individual perceptions can be used to gauge whether dignity is under threat and the relevant findings can be included in the scope of analysis, some progress can be made toward making core human values the focus of human security.

There have been previous attempts to identify human security in terms of people's perceptions. Here, let us look at some example cases, country-specific studies that have, in a limited manner, approached human security from the aspect of perceptions by examining the National Human Development Reports (NHDR) for Latvia and Benin (see Jolly and Ray 2006; Gómez et al. 2013). We will also look at the findings of recent studies that have attempted to create indicators for human security in Japanese local government, including the results of perception surveys (Human Security Forum and Takasu 2019; Takasu and Mine 2022), and explore implications for the analysis in this article.

1.1. Latvia's FY2003 NHDR

The 2003 Latvia NHDR used a concept called "securitability," which integrates objective and subjective factors that influence a person's sense of security to evaluate the country's human security situation. The concept was independently developed for the purposes of the report. Securitability is defined as "The ability to avoid insecure situations and to retain a sense of security when such situations do occur, as well as the ability to reestablish one's security and sense of security when these have been compromised" (UNDP Latvia 2003, 15).[8] To determine the securitability of the population for the report, a questionnaire survey of 1,000 randomly selected adults and a qualitative survey of some of them were conducted to ascertain individuals' "sense of security."

The questionnaire survey asked about respondents' perceived sources of insecurity, as well as the situations,

relationships, institutions, behaviors, and strategies that bring them a sense of security. The qualitative survey asked about the factors most likely to cause them to feel extreme anxiety. Based mainly on the results of the perception survey, the report analyzed perceptions of security in each of the seven threat areas listed in the 1994 HDR, insecurity among high-risk groups (low-income groups, women, people with health problems, etc.), and individual characteristics, relationships with groups, and trust in the state as factors affecting security. As a result, five securitability factors impacting the sense of security of Latvian citizens were extracted: (1) individual characteristics (life satisfaction, confidence in one's ability to effect change/initiative, self-esteem, health, faith, and sense of belonging to a group); (2) relationship with family; (3) financial stability; (4) possibility of building social networks; and (5) trust in government and the international organizations.

Based on the results of the perception survey, the report includes a lengthy and detailed analysis of the complex factors affecting human security. It also provides an analysis of the attributes of vulnerable groups, such as women and low-income groups.

1.2. Benin 2010/11 and 2016 NHDRs

The 2010/11 and 2016 Benin NHDRs (Gouvernement du Bénin et PNUD 2011, 2016) attempted to ascertain the human security situation of the country by creating a Human Safety Index (HSI) indicating by what and to what extent people feel threatened. Through a perception survey conducted in 77 municipalities on approximately 17,000 households, the report asked about the degree of threat perceived by the survey respondents to 88 specific items in the seven threat areas identified in HDR1994. In cases where survey participants selected a rating of 3 or higher (from 1 as the weakest to 4 as the strongest) for a given threat item, the household was assumed to be insecure about that threat, and the HSI comprised the percentage of households that evaluated themselves as insecure in each threat item. In other words, the higher the HSI, the larger the proportion of people who felt anxious about a given threat item.

In the report, 21 of the 88 threat items were selected as particular causes of insecurity, and the response results were compared by gender, income level, education level, and

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[8] For instance, people with high securitability are able to detect approaching dangers well in advance. They are capable of avoiding such dangers or protecting themselves from them. If subject to a danger, they can minimize its effects and return to safe state conditions quickly. By contrast, people with low securitability lack these capabilities and suffer the burden of constant insecurity. (UNDP Latvia 2003, 13).

place of residence to determine the HSI status of each attribute. Furthermore, the HSIs for each municipality were compared with the Human Development Index (HDI) for each region in an attempt to determine their interrelationships. The analysis found that human development in Benin is not systematically accompanied by human security, and human development in the sense of improving HDI is a necessary but not a sufficient condition for ensuring human security.

Intending to monitor changes over time using the same methods, in 2015, Benin repeated the process used for the 2010 perception survey to prepare the 2016 edition of the NHDR. The report indicates that Benin's HSI nationwide deteriorated from 0.746 in 2010 to 0.797 in 2015.[9] The NHDR in Benin explored the possibility of mutual complementarity between human security and human development by conducting perception surveys focusing on the threats perceived by the people to understand the specific nature of the threats as causes of insecurity and by comparing them with the HDI.

1.3. Initiatives in Japan

In 2019, the Japanese NPO Human Security Forum published *SDGs and Japan: Human Security Indicators for Leaving No One Behind* (Human Security Forum and Takasu 2019), which presents human security indicators (HS indicators) for each prefecture in Japan. In 2022, *SDGs and Local Communities: How to Create Human Security Indicators in Your Town!* (Takasu and Mine 2022) was published, focusing on HS indicators in the municipalities of Miyagi Prefecture. To realize a "society where no one is left behind" as espoused in the UN's Agenda 2030—which includes the Sustainable Development Goals (SDGs)—these reports seek to identify who is left or is likely to be left behind, working from the awareness that "there is a need to start with those who are farthest from the goals" (ibid., 9).

To achieve this objective, the authors focused on the local government level, where people live, and developed an HS indicator using data related to the three core values that human security emphasizes—namely, life, livelihoods, and

dignity. The indicator uses objective data by prefecture or municipality within Miyagi Prefecture, while the dignity indicator reflects the results of perception surveys on people's satisfaction with their own lives, their hopes for the future, and their sense of solidarity with others.[10] Data and survey results are indexed using a methodology similar to the HDI, with the most desirable state scoring 1, and the least desirable state 0. Through data analysis, the achievement status of human security for each municipality in the three areas of life, livelihoods, and human dignity are combined with a subjective sense of self-fulfillment and social connectivity. These five areas are ranked and visualized using charts and maps. In addition to regional comparisons, the situations and challenges involved in individual attributes, such as those of women, children, youth, the elderly, people with disabilities, and disaster victims (of Great East Japan Earthquake), are also analyzed.

The HS indicator, developed by the Human Security Forum, recognizes the spirit of the SDGs as the creation of inclusive societies in which no one is left behind by identifying the most vulnerable people and clarifying the regional priority issues that are essential to achieving such a society. From the perspective of this article, it is noteworthy that the Human Security Forum's HS indicator focuses not on the seven threat areas identified in HDR 1994 but on the three core values that human security seeks to protect; not on an entire country but on the municipalities of a single region; and not on objective data but—and in particular—individual perceptions in relation to human dignity, integrating both in its evaluation.

1.4. Key Questions

As we have seen above, there have been efforts to approach the issues of human security from individual perceptions in applying the concept of human security to policymaking. Some have focused both on threats and

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[9] As suggested above, the higher number of HSI indicates that people feel more insecure about a certain threat item.

[10] The "life" indicator includes indices on life and health. The "livelihood" indicator includes indices on economic conditions, employment, education, welfare, lifestyle, environment, disaster prevention, and safety. The "dignity" indicator includes indices on women and children, trust in the public sector, community, sense of solidarity, internationalism, and life satisfaction. There are some differences between the indexes in "SDGs to Nihon" and "SDGs to Chiiki Shakai."

response capabilities from the perspective of people's perception (Latvia) while others have focused on the targets of perceived threats (Benin), and some have focused on identifying vulnerable groups (Japan). The purpose and target of these studies differ, but they were all conducted to ascertain the current security/insecurity situation from the perspective of individual perception and incorporate their findings into policy. As evident in the example case of Benin, comparing the results of perception surveys against objective indices, such as the HDI, clarifies the regional and attribute-specific security/insecurity situation and issues, which may be obscured in macro figures alone. This approach opens up important possibilities.

Given the above, this article will explore the potential for using the concept of human security as a policy tool by viewing it from the perspective of individual perceptions. To do this, it is necessary to clarify the uniqueness of the concept in policymaking, as previously mentioned, as well as its decomposability as an analytical concept. From this perspective, this article asks the following questions: What value does ascertaining and analyzing individual perceptions towards security/insecurity add to policymaking? What factors underlie these perceptions?

2. Outline of Survey Data and Analytical Methodology

This section provides an overview of the survey through which the data used in this article were gathered, the respondents' attributes, and the methodology used in the analysis.

2.1. Outline of the Survey

The data used in this article were gathered in the ninth round (2021/2022) of a series of fixed-point observational surveys on national perceptions toward social, political, and economic conditions in African countries.[11] These surveys

have been conducted by AB, an African social research network organization, since 1999. However, the questionnaire used for the five countries targeted in this article differed from the common questionnaire used by AB in other African countries, with additional questions on human security and COVID-19 based on an agreement with JICA.

The countries covered by the JICA survey were selected to include the five major geographical zones of the African continent (North Africa, West Africa, East Africa, Central Africa, and Southern Africa) and represent the continent's linguistic diversity (Arabic, English, French, and Portuguese). Based on these criteria, the following five countries were finally selected: Tunisia (North Africa), Nigeria (West Africa), Kenya (East Africa), Gabon (Central Africa), and Angola (Southern Africa).

Sample sizes were established based on census figures for each country, assuming a 95% confidence interval and margin of error of ± 2.5%. Samples were allocated using the stratified random sampling method, considering the major attributes of the target society (urban/rural, gender, education level, religion, poverty level, age cohort, ethnic group, and employment status). Despite taking place during the COVID-19 pandemic, the survey was conducted entirely by means of in-person interviews. Multiple questionnaires were prepared in the various relevant languages, and survey respondents answered in the language of their choice.

Target countries, survey timing, and sample sizes are provided in **Table 1**.

2.2. Respondents' Attributes

The attributes of respondents to the national surveys are presented in **Table 2**. The definition of urban and rural residence follows the definition used by national statistical offices when conducting demographic and household surveys. "Urban area" is broadly defined as a settlement of 2,000 people or over in Angola, Gabon, and Kenya and of 20,000 people or over in Nigeria. For Tunisia, however, settlements administratively defined as "municipalités" are assumed to be urban areas, irrespective of their population.

The Lived Poverty Index (LPI) indicates the level of poverty of target households based on the subjective

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[11] Up to round 9, a total of 39 countries had been surveyed (Afrobarometer 2022).

Table 1 Outline of the Survey

Region	Country	Time of Survey	Sample Size
East	Kenya	November 2021	2,400
Central	Gabon	November 2021	1,200
North	Tunisia	February 2022	1,200
South	Angola	February 2022	1,200
West	Nigeria	March 2022	1,600

Source: Created by the author based on Afrobarometer 2022

Table 2 Attributes of Respondents

Attributes	Breakdown of Attributes	Angola	Gabon	Kenya	Nigeria	Tunisia
Place of Residence	Urban	65%	86%	34%	43%	68%
	Rural	35%	14%	66%	57%	32%
Gender	Male	50%	50%	50%	50%	50%
	Female	50%	50%	50%	50%	50%
Age Group	18–25	35%	20%	29%	27%	13%
	26–35	33%	31%	27%	33%	21%
	36–45	17%	26%	16%	22%	22%
	46–55	9%	13%	13%	10%	17%
	56 or above	6%	9%	15%	8%	27%
Educational Background	No Formal Education	14%	13%	4%	17%	9%
	Primary Only	29%		33%	17%	34%
	Secondary Only	43%	46%	41%	43%	35%
	Post-secondary or above	12%	41%	22%	23%	21%
Lived Poverty Index Level (LPI)	No	4%	21%	5%	8%	20%
	Low	19%		36%	21%	39%
	Moderate	34%	43%	37%	31%	30%
	High	44%	36%	22%	31%	11%

Note: The figures above show the percentage of respondents. They are rounded to one decimal place and may not add up to 100% in total. Some results in Gabon are reported in a combined manner for education and lived poverty level.
Source: Created by the author based on Afrobarometer 2022

perceptions of respondents. It was developed by AB for situations where obtaining information on income and consumption from respondents in questionnaire surveys is difficult, and has been used in previous AB surveys. The LPI measures the frequency with which people have experienced shortages of basic necessities such as food, water, medicine/medical care, fuel, and cash income over the past one year. LPI evaluation is conducted on a four-point graded scale of 0 to 3. The higher the score, the more frequent the subject's experience of shortages. High LPI scores are understood to

indicate a high level of poverty.[12]

Based on **Table 2**, let us summarize various distinctive features by attribute and country. First, by place of residence, Gabon was distinctive in that over 85% of its population lived in urban areas. This was followed by Angola and Tunisia, ranging from 60% to 69%. The majority of people in Kenya and Nigeria resided in rural areas.

Looking at age cohorts, a high proportion of Angolans belonged to the youth cohort of 18 to 25 years, at 35%, and this youth bulge was followed by Kenya and Nigeria. The lowest was Tunisia, at 13%. The country with the highest proportion of people in the older-age cohort of 56 years and over was Tunisia at 27%, followed by Kenya at 15%. The proportion for the other three countries was 10% or lower. Regarding the level of education, Angola, Gabon, Kenya, and Nigeria all had more than 40% of respondents with secondary education as their final education, while Tunisia had a slightly lower percentage at 35%. Tunisia also had the highest percentage of respondents, at 34%, with primary education as their final education compared to other countries. Gabon had the highest proportion of respondents who had completed post-secondary education, at 41%.

With regard to poverty as viewed through the LPI, the proportion of respondents who had either never experienced a shortage of basic necessities or had such experience only once or twice (in other words, whose experience of poverty was at a low level) was highest for Tunisia at 59%, followed by Kenya at 41% and Nigeria at 30%. High frequencies of experience of poverty were reported by respondents in Angola, the highest at 44%, followed by Gabon at 36% and Nigeria at 31%. The respective figures were 22% for Kenya and 11% for Tunisia. Thus, of the five target countries,

poverty levels were particularly low for Tunisia and Kenya.

2.3. Analytical Methodology

The analysis was conducted from two perspectives.[13] The first involved scoring human security based on individual perceptions of security/insecurity. The second involved examining the factors associated with individual perceptions of security/insecurity and conducting an exploratory analysis to isolate these underlying factors.

2.3.1. Evaluation by Human Security Score

This analysis ascertains which respondents, with what attributes, feel particular values regarding security/ insecurity (that constitute human security) and expresses their responses as a human security score (HS score).

Drawing specifically on the Human Security Forum and Takasu (2019) and Takasu and Mine (2022) regarding the three components of life, livelihoods, and the dignity emphasized by the concept of human security, 78 questions were selected from the AB questionnaire. Each of these is related to one of the three components, for example, life and health in the AB questionnaire are classified as "Life." These relationships and the number of related questions are given in **Table 3**.[14]

Since the responses to these questions were obtained using a category variable that indicates the frequency and degree of response, the responses were cut off at a certain threshold and set as binary variables. Thus, responses thought to have the strongest positive correlation with human security are set to 1, while responses that did not have a strong positive correlation are set to 0. An example question in the Life-Life category was "Over the past year, how often, if ever, have you or anyone in your family felt unsafe walking in your neighborhood?" A response of "Never," indicating a positive feeling toward security, was scored 1, and other responses were scored 0. In this way, all responses to questions classified under "life, livelihoods, and dignity" are rendered into binary

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[12] The specific question is as follows: "In the past year, how often, if ever, have you or your family not had access to the following necessities: enough food to eat, enough clean water for household use, medicine or medical care, enough fuel for cooking, or cash income?" Respondents were asked to choose from a five-point scale: "Never experienced shortages," "Only once or twice", "A few times," "A lot of times, "or "Always." For each respondent, the average of the responses to the five questions is calculated and referred to as the LPI. The LPI is scored on a scale of 0 to 3 (0: no poverty, 1: low level of poverty, 2: moderate poverty, 3 and above: high level of poverty (constant lack of all basic necessities)). The higher the LPI, the higher the poverty level of the respondent.

[13] In the analysis of the data used in this study, this paper received the assistance of Dr. Kanako Yoshikawa of Metrics Work Consultants Inc. I would like to express my gratitude.

[14] For question transcripts, see the Appendix of this paper.

Table 3   Classification of Questions Included in the AB Survey

Key Elements	Related Fields	Number of Questions
Life	Life	9
	Health	1
Livelihoods	Economy, Employment, Jobs	6
	Education	3
	Welfare	6
	Living Environment, Natural Environment	8
Dignity	Children and Women	11
	Public Trust, Freedom of Political Activities, Freedom of Speech	18
	Community, Civic Engagement, International Society	13
	Self-fulfillment	3
	Total	78

Source: Created by the author

variables,[15] and the sum of these variables is taken as the individual's HS score. These HS scores can then be compared by country, main factor, and attribute, and their characteristics can be elucidated to find the added value of human security as expressed in the HS score.

2.3.2. Analysis of Underlying Factors of Security/Insecurity Perceptions

In exploring the main factors that influence individual perceptions regarding security/insecurity, we will here draw on the risk assessment framework of risk management and disaster prevention studies. We shall do so because security studies (including research on human security) share significant ground with risk management studies, including disaster management studies. For example, commenting from the perspective of security theory, Kato (1999) states that "'Risk management is simply another term for security." Busumtwi-Sam (2008), who attempted to conceptualize human security operationally, stated that "The practice of human security is, in fact, a form of risk management."

Generally speaking, in the field of natural disasters and disaster prevention, disaster risk (the likelihood that a disaster will cause damage to people and property) is considered to be a function of hazard, exposure, and vulnerability (UNDRR 2022). Here, "hazard" refers to the physical scale and frequency of natural phenomena or human actions that may bring about damage, while "exposure" refers to the scale (overall proportion) of the population and property existing in an area that may suffer losses due to hazard. "Vulnerability" means individual, social, economic, or physical characteristics that render damage stemming from hazard more likely (ibid.). However, for a hazard to become an actual threat to people, it must come into contact with people; that is to say, exposure is a prerequisite. Thus, it is possible to combine hazard and exposure and evaluate them together as the "threat level." For example, in the field of natural disasters, the World Risk Report, which evaluates countries' risk level for natural disasters in the form of the WorldRiskIndex (WRI), expresses disaster risk as the square root of the multiplier between exposure and vulnerability, thus evaluating hazard as a part of exposure.[16]

Busumtwi-Sam (2008) considers the practice of human security as risk management and discusses threat and vulnerability as factors that impact dignity, health, and livelihoods, which are core values of human security. Here, "threat" means the probability that an accidental event causing harm will occur, while "vulnerability" refers to the

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[15] Excluding education level; this was originally divided into 9 levels, but then integrated to 4 levels (0: primary education incomplete; 1: primary education completed; 2: secondary education completed; and 3: other than secondary education), creating an evaluation variable with a maximum value of 3

[16] In the WRI, hazards are treated as part of exposure assessment by calculating the exposed population divided by the intensity and frequency of each disaster (IFHV 2022). Using this approach, hazards (physical scale and frequency) and exposure (scope of spatial impact) are combined to give the threat level of a disaster.

probability of incurring damage from a given threat. According to Busumtwi-Sam, vulnerability is further mediated and conditioned by "deprivations and exclusions"—political, social and economic structures that include poverty, inequality and discrimination. These are, however, treated as constraints in the present, and not as the factors directly affecting human security/insecurity which is basically a matter of possibility in future. The main focus of his argument on factors impacting human security/insecurity is on threats and vulnerabilities.

Given the above discussion, in seeking the factors that impact individual perceptions of security/insecurity, we shall set threat (perception) and vulnerability (perception)—commonly recognized in the various frameworks—as explanatory variables. Using regression analysis of these perceptions and the responses to the questions set as the explained variables, we will identify the underlying factors of individual perceptions regarding security/insecurity.

Specifically, as a question that asks about perceptions regarding security/insecurity as an explained variable, we chose Q3 in the AB questionnaire: "Would you say that the country is going in the wrong direction or going in the right direction?" In the field of security, threats are defined as "the level of likelihood of harm to acquired value" (Kato 1999), and perceptions in regard to security/insecurity are understood as being rooted in anxiety about the current situation possibly worsening in the future.[17] In this sense, this question, which asked respondents about the future of their society, was considered an appropriate expression of respondents' perceptions in regard to security/ insecurity. Responses were processed as binary variables, with "Going in the right direction" scoring 1 and other responses ("Going in the wrong direction" and "Don't know") scoring 0.

For explanatory variables, 31 questions on the perceptions of the respondents related to threats were selected.[18]

Responses were processed as binary variables, with positive responses such as "I feel no danger at all" scoring 1 and other responses 0.

Regarding the other explanatory variable, vulnerability, drawing on UNDRR, WRI and Busumtwi-Sam (2008), questions were broken down into the three categories of (1) sensitivity, (2) coping capacity, and (3) deprivation, with 37 questions related to these three categories.[19] "Sensitivity" here means susceptibility to a threat (before its occurrence), and "coping capacity" means potential for recovery from the threat (after its occurrence). Deprivation, a structural factor that affects sensitivity and coping capacity, encompasses situations of economic deprivation, such as poverty and inequality, as well as political and social oppression and exclusion—including denial of political freedom and discrimination. Here, within the limits of the AB questionnaire, questions about freedom of politics and speech were chosen. In other words, "sensitivity" means ex-ante vulnerability to a threat, and "coping capacity" means ex-post vulnerability; "deprivation" means structural vulnerability. As above, positive responses were scored as 1 while other responses scored 0 as binary variables.

As control variables, age, gender, place of residence, education level, and LPI were converted into dummy variables and entered into the regression analysis.

3. Results

The following is an overview of the results of the analysis of individual perceptions in regard to security/insecurity, including (i) a comparison of the total of the three HS score components and each component between countries and key attributes, and (ii) the results of the regression analysis on people's overall perception of security/insecurity.

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[17] As illustrated by the questions posed in HDR1994 to capture issues of human security from the average person's perspective— "Will they and their families have enough to eat? Will they lose their jobs? Will they be tortured by a repressive state?"—such concerns are couched in terms of anxieties about the future (UNDP 1994, 22).

[18] For example, questions about threats to life include, "During the past year, have you or your family felt unsafe walking in your neighborhood?" Questions about livelihoods include, "How does your current financial situation compare with 12 months ago?" Questions about human dignity include, "Do you think you are treated equally under the law?"

[19] For example, questions regarding sensitivity included, "Do you think the government is taking appropriate measures in regard to economic management, job creation, and the maintenance of public order, etc.?" Questions regarding coping capability included, "Do you trust other people?" and "Do you have a job that provides cash income?" Questions regarding deprivation included, "Do you think that your country is free?" and "Do you think that the media in your country can report freely without government interference?'"

3.1. Comparison of HS Score by Country

There are 78 questions divided into three factors; thus, the HS score for a respondent who scores 1 for all questions is 78. As stated above, positive responses to questions on security/insecurity—i.e., responses indicating a perception of high safety—are scored as 1. Therefore, the higher the score, the more positive the situation regarding security.

**Table 4** gives the totaled HS scores for lives, livelihoods, and dignity variables converted into binary variables for the five countries. The minimum value is 1, the maximum value is 65, and the average is 17. Looking at the results by country, Tunisia and Kenya have the highest points, in the 19-point range, followed by Angola in the 15-point range, with Gabon and Nigeria lowest, in the 13-point range.

Next, HS scores are broken down into the three components of life, livelihoods, and dignity and compared by country (**Figure 1**). The results show that Tunisia has a prominently high "life" score, but there is no significant

**Table 4   Descriptive Statistics of HS Score Total Across All Three Components**

Total of 5 Countries	Sample Size	Mean Score	Standard Deviations	Minimum Score	Maximum Score
HS Score Total of 3 Elements	7,600	16.60553	6.928577	1	65
Country Specific	Sample Size	Mean Score	Standard Deviations	Minimum Score	Maximum Score
Angola	1,200	15.15833	6.402923	1	48
Gabon	1,200	13.8475	5.715021	2	59
Kenya	2,400	19.045	7.043755	2	65
Nigeria	1,600	13.63438	5.760767	1	53
Tunisia	1,200	19.89333	6.545175	3	48

Source: Created by the author
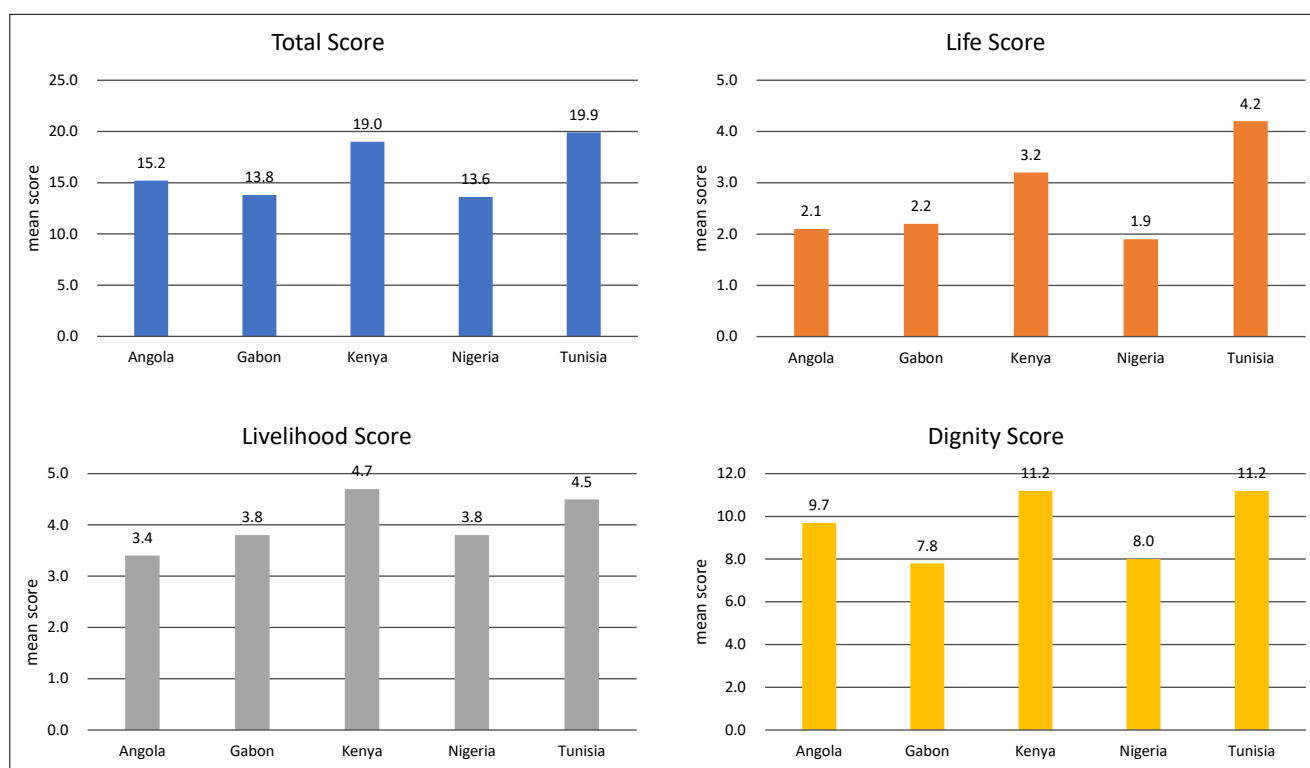
Figure 1   Three-Component HS Score by Component and Country

Source: Created by the author
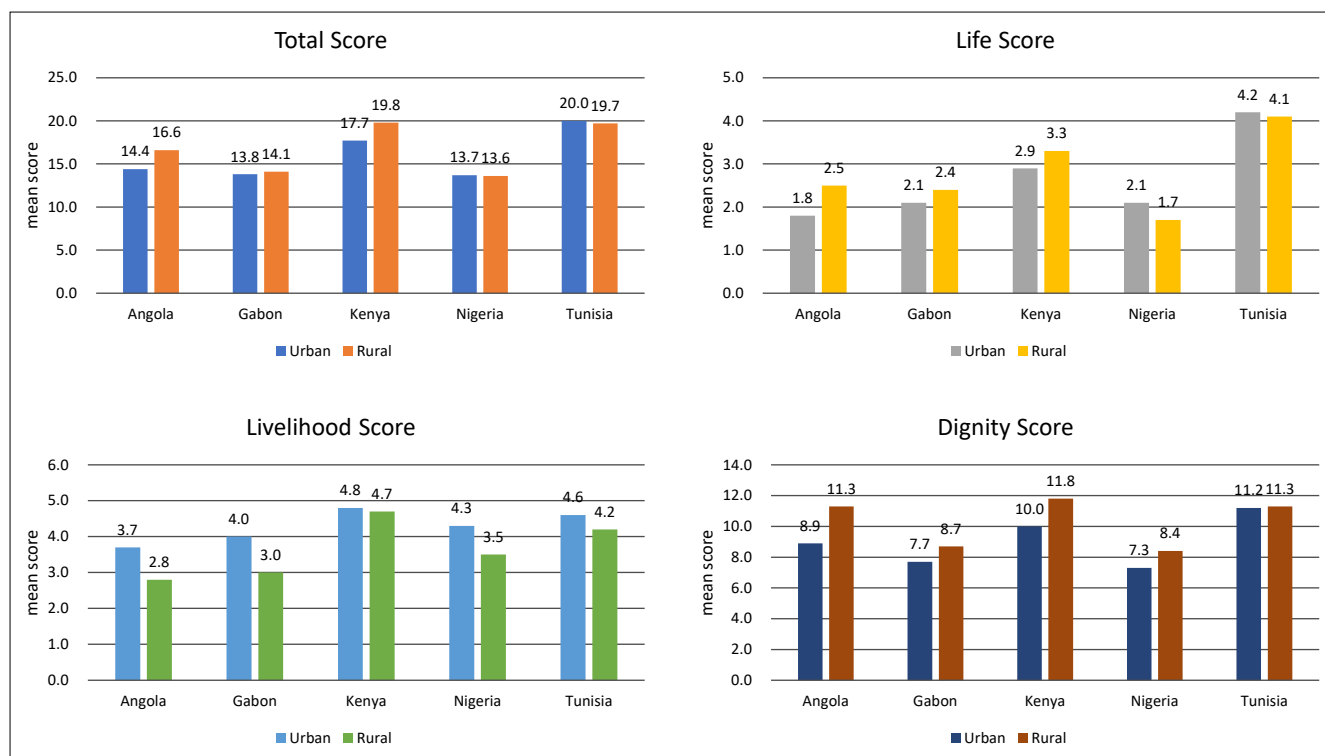
Figure 2   HS Scores by Place of Residence and by Country

Source: Created by the author

difference between Tunisia and Kenya for the other two components, and Kenya has a somewhat higher score for "livelihoods." Nigeria had the lowest "life" score, Angola had the lowest "livelihoods" score, and Gabon had the lowest score for "dignity."[20]

3.2. Comparison of HS Scores by Attributes

Total HS scores for the three components total and scores by component are shown for each of the respondents' primary attributes. HS scores are tabulated by place of residence, gender, age cohort, education level, and poverty level according to the breakdown in the AB survey and compared across countries and attributes.

By place of residence

HS scores for respondents by place of residence are presented, with urban and rural disaggregated (**Figure 2**). Looking at the total scores, it is apparent that the rural HS

score is higher than that for urban-area residents in Angola and Kenya (and slightly higher in Gabon). However, in the other countries, there are almost no urban-rural differences. Rural-area residents had higher scores in Angola and Kenya, particularly in the "life" and "dignity" aspects, while urban-area residents had higher scores in the "livelihoods" aspect.
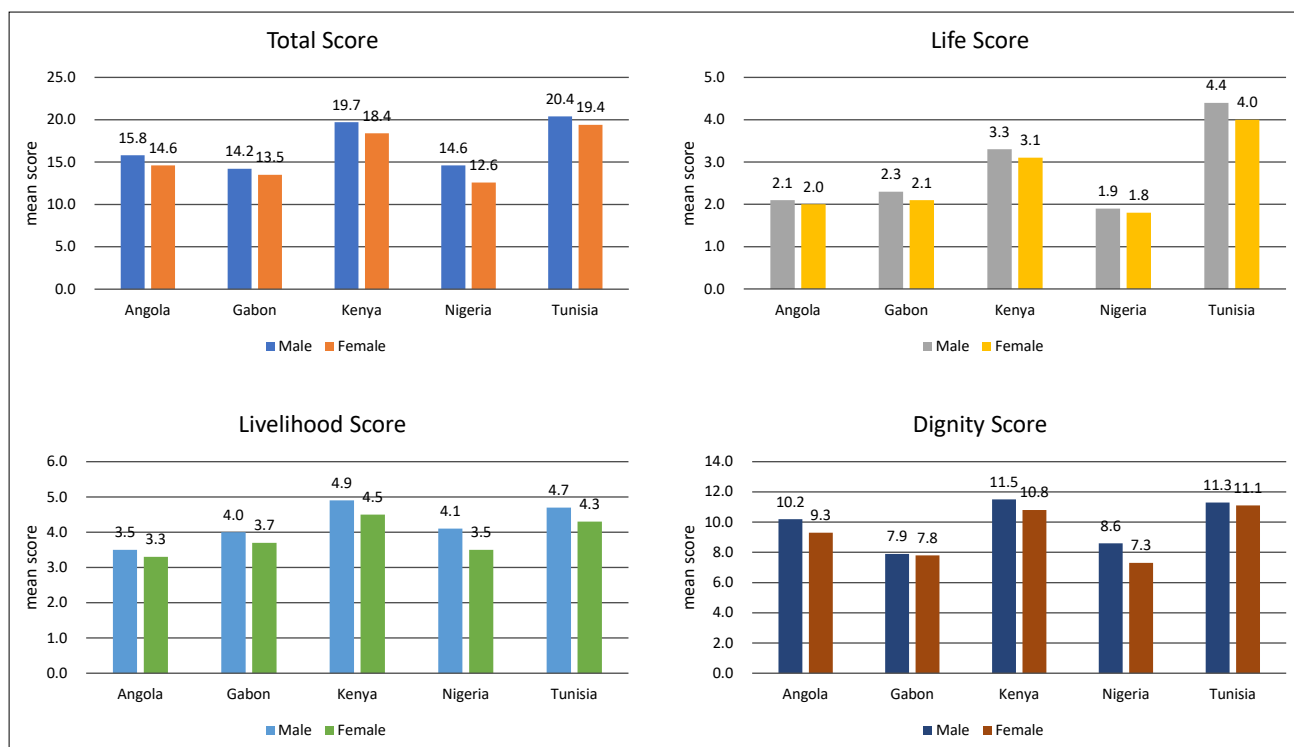
By gender

Analysis by gender revealed that men's HS score was higher than women's in all countries and for all aspects. However, the comparison between countries revealed high scores, unsurprisingly, for Tunisia and Kenya, with particularly striking differences in 'life' scores (**Figure 3**).
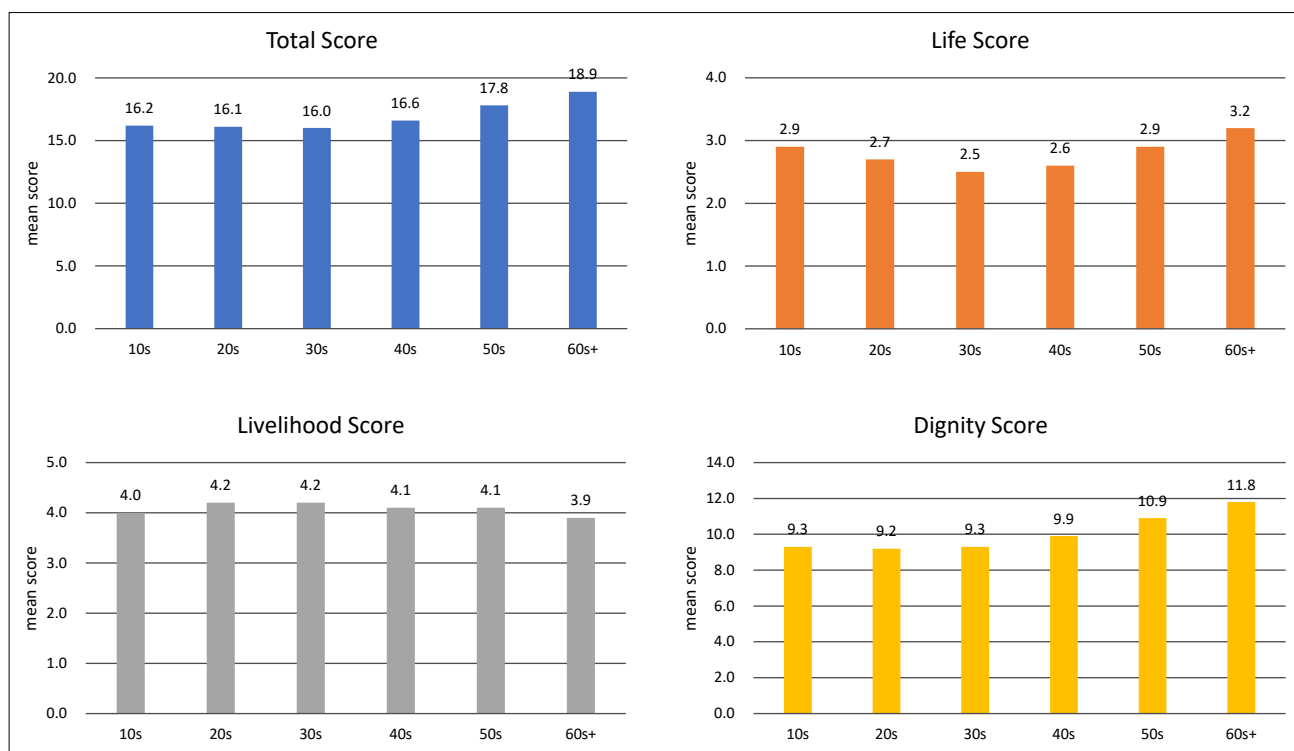
By age cohort

Looking at the totaled scores for the five countries (**Figure 4**), a trend can be observed in the total score that the HS score increases with age, especially for those in their forties and older. However, when the data are disaggregated by component, different trends emerge. "Life" scores gradually decrease from the 10 to 19 years cohort up to the 30s,

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[20] It should be noted that the number of questions for each component is different, so it is not possible to compare averages for each component here.
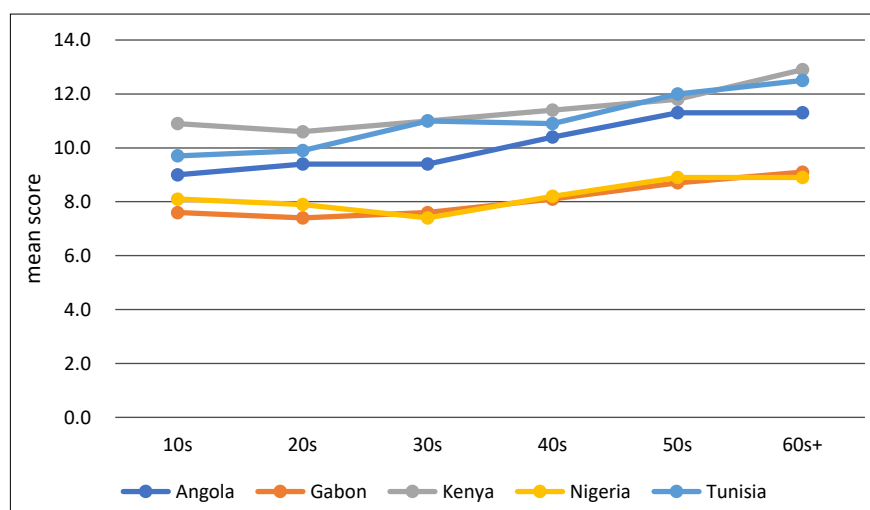
Figure 3 HS Scores by Gender and Country

Source: Created by the author

Figure 4 HS Scores by Age Cohort

Source: Created by the author

Figure 5   HS Score by Age Cohort and by Country
Source: Created by the author

before rising in the 40 and over cohorts. On the other hand, while there is no major difference between age cohorts for "livelihoods" scores, a peak in the 20s and 30s is followed by a gradual decline toward the 60s. "Dignity" scores show a marked rise in the 50s and 60s.

A comparison of totaled scores only by country yields the findings given in **Figure 5**. Scores for Kenya are higher than those for Tunisia for all age cohorts except the 50s, and scores for Gabon and Nigeria are low for all age groups. The scores for Angola lie between the above two groups.

Education level

Education levels are divided into four stages: no formal education/partial primary education, primary education completed, secondary education completed, and post-secondary education. Looking at the HS scores by education level, there is no clear correspondence between HS scores and education level. In other words, HS scores are not necessarily higher for respondents with higher levels of education, or vice versa. Notably, "livelihood" and "dignity" scores, in particular, were highest for those who had completed primary education (**Figure 6**). Comparing the totaled score by country, as with other indicators, Tunisia and Kenya scored highest in all clusters, while Nigeria and Gabon scored lowest across all clusters. The scores for Angola lie between the above groups (**Figure 7**).

By LPI

Looking at HS scores by poverty level, in all countries, the average HS scores of people in groups with low LPI—i.e., those in non-poor groups—tend to be higher than other groups; as the poverty level rises, the HS score decreases. This trend also applies to "life" and "livelihoods" scores, and the correlation is especially marked for the latter. However, the trend does not apply to "dignity" scores; HS scores do not differ markedly depending on respondents' poverty level (**Figure 8**).

3.3. Regression Analysis of Underlying Factors of Individual Perceptions Regarding Security/Insecurity

In examining the relationship between perceptions regarding security/insecurity and perceptions of threat and vulnerability, we first looked at the bivariate relationship between the explained and explanatory variables by integrating the latter two (threat and vulnerability).[21] The

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[21] The number of questions differed for each of the three categories (life, livelihoods, and human dignity in "perceptions regarding threat"; sensitivity and coping capacity in "perceptions to vulnerability"; and in "deprivation." Therefore, in tabulating the responses, we did not simply sum the binary variable responses to each question but divided the sum of the responses by the number of questions in each category, calculated the proportion of questions that took the value of 1 and then multiplied each result by 1/3 to calculate the weighted average. The same aggregation method was used in the analysis below.
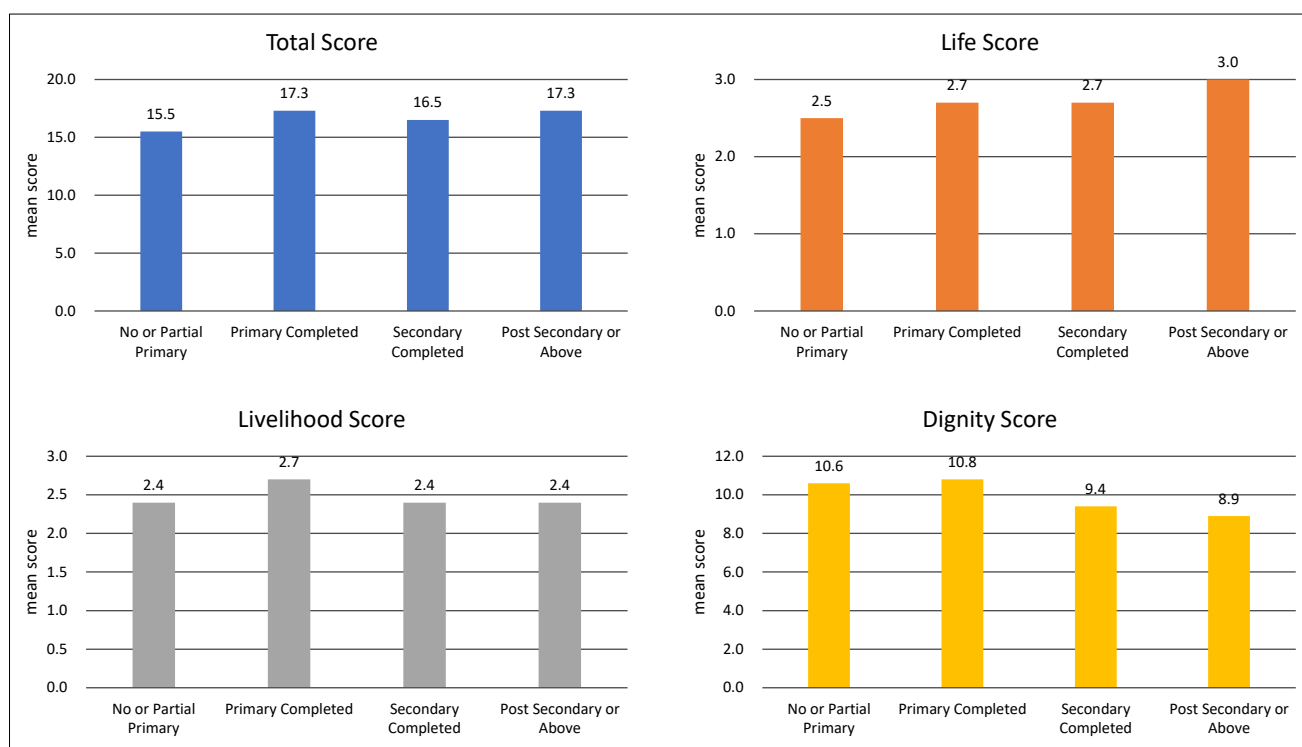
Figure 6 HS Scores by Education Level
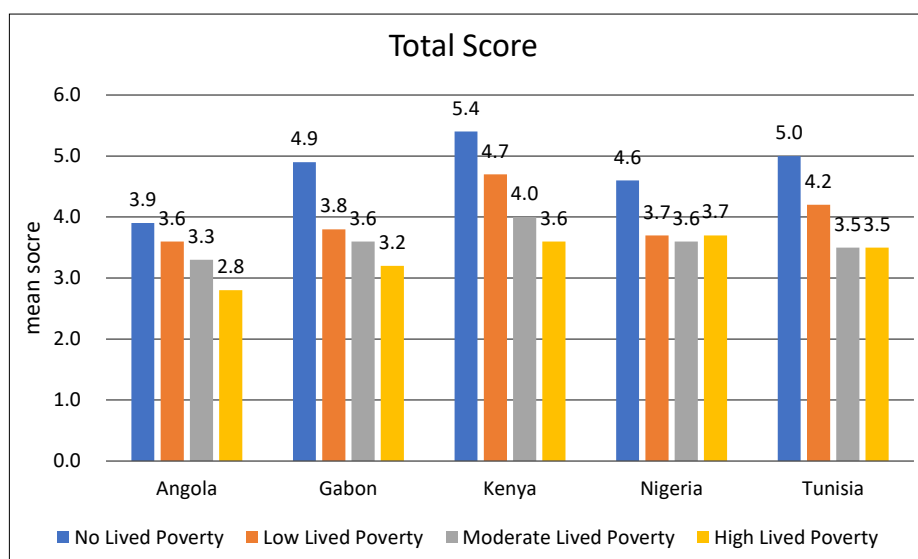
Source: Created by the author
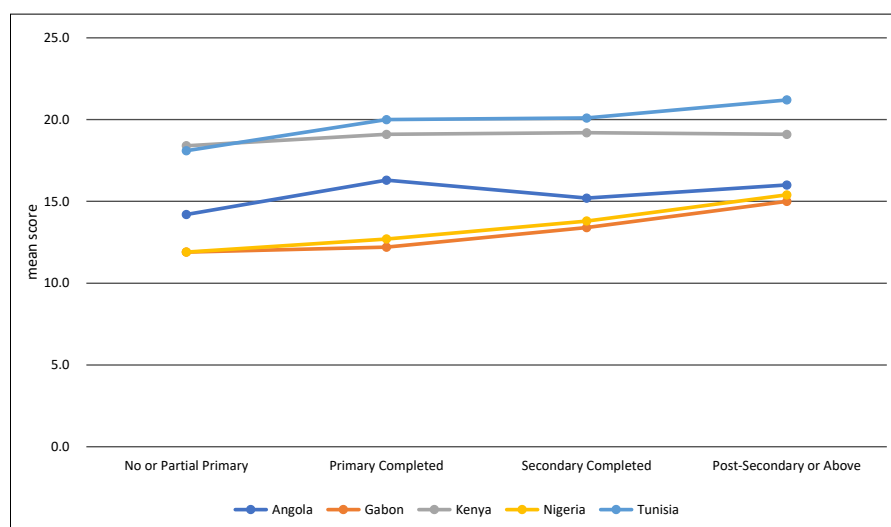
Figure 7 HS Scores by Education Level and by Country

Source: Created by the author

estimated value of the coefficient of the integrated score of threat and vulnerability (the weighted average of life, livelihoods, and dignity) was found to be positive and statistically significant at the 1% significance level in all the various models in which the control variables were interchanged. This finding suggests that the higher the totaled score for threat and vulnerability (low threat and vulnerability), the more respondents believe that the country is moving in the right direction (indicating less anxiety about the future). This finding is shown in **Figure 9** as a binned scatter plot.

Figure 8   HS Scores by LPI
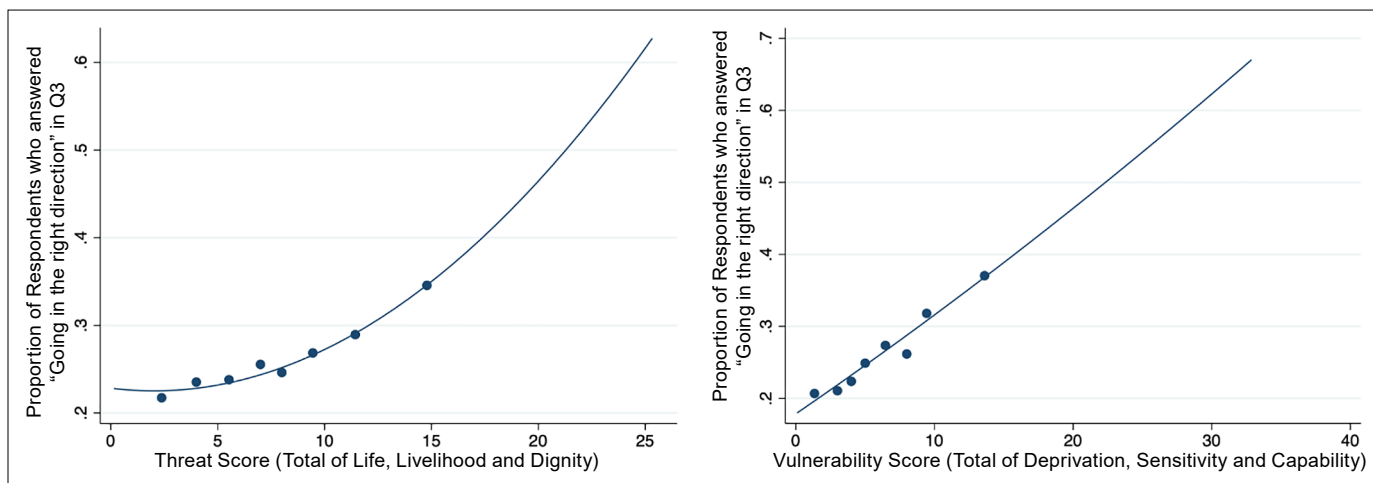
Source: Created by the author
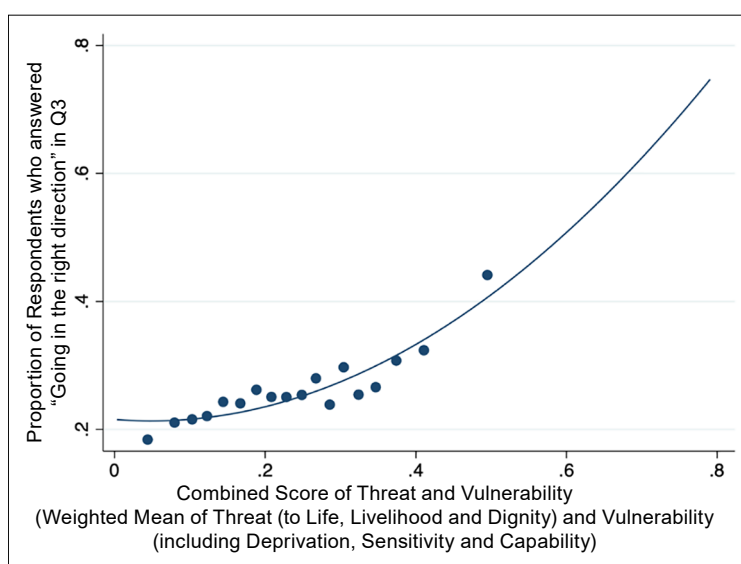
Figure 9   Correlation between Security/Insecurity Perception and Combined Score of Threat and Vulnerability

Source: Created by the author

Next, looking at the correlations between threat perceptions and vulnerability perceptions, and security/insecurity perception, the estimated coefficients for both were positive and statistically significant at the 1% level for all models (**Figure 10**). That is to say, the higher the score for both threat perceptions and vulnerability perceptions (i.e., the lower the subjective threat or vulnerability), the more likely it is that respondents believe the country is moving in the right direction (i.e., the less anxious they are about the future). Given the above, it can be understood that the survey respondents' perceptions regarding threat and perceptions regarding vulnerability correlate with their sense of security/insecurity.

Furthermore, in order to see the relationship between security/insecurity perceptions versus perceptions of threat and the decomposed elements of vulnerability, we set the integrated threat score as one explanatory variable (weighted average of life, livelihoods, and dignity) and decomposed the

Figure 10 Correlation between Security/Insecurity Perception and Threat Score and Vulnerability Score
Source: Created by the author

vulnerability score into sensitivity, coping capacity, and deprivation. We then used each of these as an explanatory variable to examine the correlation with security/insecurity perceptions. As a result, it was found that all of the explanatory variables were positive and statistically significant at the 1% level for threat perceptions, sensitivity, and deprivation, and statistically significant at the 5% level for coping capacity. However, the results obtained for coping capacity were unstable where statistical significance could not be confirmed in some case depending on the aggregation method.

4. Discussion

The results of the analysis thus far can be summarized as follows. Firstly, the comparison between the target countries using the mean value of the HS score based on individual perceptions demonstrated higher values for Tunisia and Kenya and lower values for Angola, Gabon, and Nigeria. This trend is basically the same as that found by looking at the data in each of the three components.

Comparing each attribute, men generally show higher scores than women, though the difference is small. By place of residence, urban dwellers have higher scores overall than rural dwellers, except in the areas of dignity, where rural dwellers score higher. By age cohort, scores are higher for the older age cohort in general. For "life," higher scores were

recorded for the younger and older cohorts. For "livelihoods," scores were highest for those in the prime of life, i.e., in their thirties and forties, while for "dignity," scores were highest for older cohorts. Looking at the results by education level, the data does not indicate that those with more advanced education achieve superior outcomes to those with more basic education. Even respondents who had completed primary education only showed high scores, especially for "livelihoods" and "dignity." Regarding poverty levels, the general trend shows higher scores for low-poverty groups compared to high-poverty groups, but the difference in the scores for "dignity" is small.

Furthermore, in order to compare the results between components, we examined HS scores by country, divided by the number of questions for each component and indexed them (**Figure 11**). The figure on the left is as shown above: looking at the three-component figure on the right, it is apparent that Tunisia and Kenya have particularly high "life" scores. While Gabon has a fairly high "life" score, it is grouped at the bottom along with Nigeria in terms of scores for "livelihoods" and "dignity." While Angola scores lowly for "life" and "livelihoods," it comes after Tunisia and Kenya in its score for "dignity." Nigeria had the lowest total. Among the three components, no particularly high scores were recorded for this country.

When the values for the three components were compared, increasing values were recorded in the order of
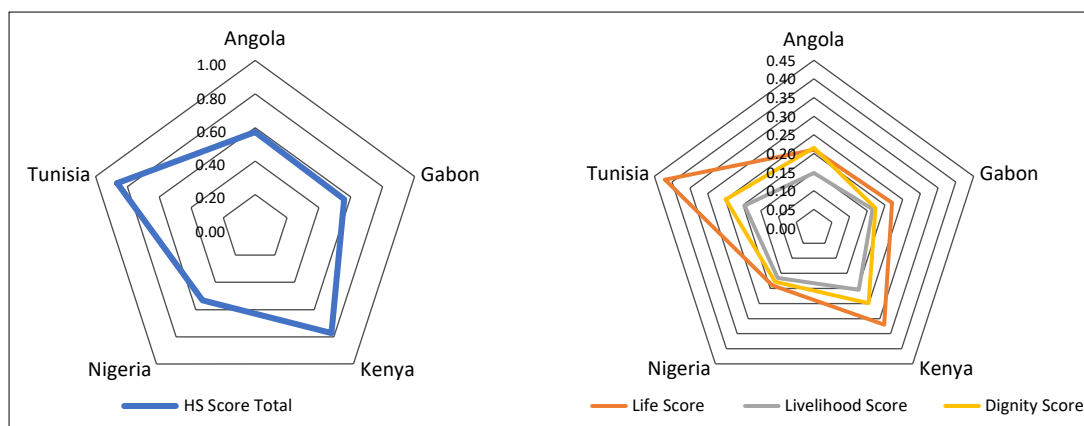
Figure 11   Comparison of HS Scores Indexed by Three Components and by Country
Source: Created by the author

life > dignity > livelihoods. This indicates that people feel insecurity in the order of livelihoods > dignity > life. In all of the countries, it appears that the "livelihoods" score, in particular, constitutes the most important component of individuals' anxiety.

In light of these findings, it is now appropriate to direct our attention to the question of whether this approach to human security, based on individual perceptions, possesses distinctive value as a policy tool. In order to address this question, three aspects will be considered.

First, we have established that individual security/insecurity perceptions are not uniform; they vary by country, attribute, and across the three components. No doubt, such variations could be further refined to allow greater levels of granularity. Differences in security/insecurity perceptions will naturally exist among the various regions and local government areas within any given country. A survey of individual security/insecurity perceptions, such as the one conducted here, could, if carried out in a single country, clarify which groups were concerned about what issues and where. Thus, it may be possible to identify vulnerable groups who have anxieties stemming from a perceived loss of human security and to pinpoint their specific concerns. Being able to grasp this kind of information is crucial for the inclusive and equitable development of all individuals, which forms the goal of international development as understood today. Thus, the approach to human security based on individual perceptions has value as a policy tool.

Second, we should note that these anxieties regarding the future are not legible through the objective indicators already available. Looking at the results above, we see that some concerns can be readily intuited from objective indicators such as per-capita income and HDI. Others, however, show a somewhat different trend. Some examples are the relationship between objective indicators and HS scores at the national level (for Kenya and Gabon in particular), the relationship between urban and rural HS scores, and the relationship between education levels and HS scores.

As an example of such reverse trend, Gabon, as of 2022, had a per-capita income of USD 7,540, making it an upper-middle-income country. Its HDI was similarly high at 0.71. Kenya, meanwhile, with a per-capita income of USD 2,170, is a lower-middle-income country, while its HDI, at 0.575, is that of a medium-ranked country.[22] In the Fragile States Index, Gabon is classified as a Low Warning state, while Kenya gets a High Warning rating. In regard to the urban-rural difference, urban dwellers generally have higher incomes, along with access to public services and employment opportunities. In light of these observations, it can be posited

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[22]   Figures for per-capita income are based on the World Development Index (World Bank 2022). Figures for HDI are based on UNDP 2022. As a test, the author calculated the life expectancy index and education index, which are part of the HDI. Gabon ranked at the upper level with 0.70 for both, while Kenya ranked at the middle level with scores of 0.64 and 0.60, respectively. In terms of GNI index, which is another component of HDI, Gabon scored 0.74, and Kenya 0.57—an even wider gap.

that individuals residing in urban areas exhibit a reduced level of anxiety regarding their livelihoods in comparison to those residing in rural areas. It would also appear reasonable to assume that individuals with higher education levels have less anxiety about the future, given that higher education levels are linked to higher incomes and greater freedom of choice. However, the results of this survey failed to match generally accepted assumptions in some cases.

These results suggest that levels of security/insecurity as perceived through individual perceptions include aspects that cannot be readily inferred from objective development indicators, such as HDI, alone. In a critique of previous attempts to express human security through poverty indexes and similar measures, Homolar (2015) argued that it is not feasible to measure human security using objective indicators of state performance. The results presented above appear to corroborate this assertion.

One potential explanation for this phenomenon is that human security encompasses dignity as a fundamental aspect. As previously demonstrated, when compared to Kenya, Gabon exhibited particularly low scores for both "life" and "dignity." Additionally, a common characteristic of rural residents and respondents with low levels of education was a high score for "dignity." While these examples are not exhaustive, they suggest that individual perceptions of security/insecurity are closely related to their perceptions of dignity. Fostering a sense of dignity requires cultivating a sense of trust in oneself, others, the community, and the public sector. This is in accordance with the findings of Takasu and Mine (2022). These values diverge from those inherent to the elements incorporated in per capita income and human development. The measurement of these values necessitates the implementation of a distinctive methodology that is sensitive to the subjectivity of the individual. The approach to human security from individual perception includes the component of dignity, which imbues it with a unique value. This appears to be consistent with the assertion in the UNDP (2022) report that one defining feature of the concept of human security is that it "helps identify blind spots when development is assessed simply by measuring achievements in wellbeing" (ibid., 3).

The third aspect to consider is the significance of

developing a means of measurement for human security, specifically in terms of anxiety about the future. If human development is conceived of as an ongoing process of improvement oriented toward the future, as outlined in the Commission on Human Security report (2003, 32), the concept of human security can be understood to entail a fear that the value gained through investments today may be lost in the near future. When individuals perceive the future as fraught with significant risk and uncertainty, they are likely to prioritize immediate gains over long-term objectives. This is because they believe that the returns from current investments are not guaranteed, and they are therefore reluctant to invest in future goals that may not materialize. While this use of resources may facilitate satisfaction in the short term, it can achieve little in the way of improving standards of welfare over the long term. Consequently, long-term development cannot proceed when the fundamental conditions for human security are lacking. In other words, when there is a high level of anxiety about the future and the potential for future risks, development, which is a long-term activity, will be hindered.

In this sense, we can justly regard human security as a prerequisite for development, including human development (Busumtwi-Sam 2008).[23] These absences of, and disparities in, human security definitely exist across a wide range of attributes, countries, and regions, as demonstrated above. Clarifying human security from the perspective of individual perceptions thus has unique value in terms of obtaining subjective information about the future risks that individuals face.[24]

Human security, as seen from individual perceptions, thus includes (1) understanding vulnerable social strata and their specific concerns, (2) visualization of the core values that constitute human security centered on dignity, and (3)

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[23] It goes without saying that development, by reducing poverty and inequality, complements human security. Indeed, development and human security are mutually complementary.

[24] Working from the microeconomic perspective, Kurosaki (2005) points out the importance of qualitative and subjective surveys on vulnerability. Yanagihara (2019), discussing the concept of human security, states that "It takes 'human safety' as its highest value and posits as its ultimate goals securing life, livelihoods, and human dignity. It has a unique significance in that it places 'conservation' before 'development,' and emphasizes and prioritizes both ex-ante and ex-post threat responses."

understanding subjective information regarding future risks. This approach is unique in these three points, and in this sense, it can add value as a policy tool for development.

On the other hand, the regression analysis found that respondents' perceptions toward future security/insecurity were positively correlated with underlying threat perceptions and vulnerability perceptions, respectively. In other words, the lower the degree of threat respondents felt, the lower their levels of anxiety regarding the future. Moreover, the lower the degree to which they felt vulnerability, the lower their levels of anxiety regarding the future. Furthermore, vulnerability perceptions had a statistically significant relationship with sensitivity and deprivation, and a certain, albeit unstable, correlation with coping capacity. The relationships between these perceptions regarding security/insecurity and the underlying factors can be readily intuited. However, the fact that they have been confirmed empirically through the perception survey on individuals demonstrates that human security has a certain potential for operationalization. This is an important development that will facilitate the use of human security as an analytical approach going forward.

Furthermore, sensitivity and coping capacity, which are the component factors of vulnerability, are understood to be perceptions regarding whether or not one can be protected from future threats and whether or not one can take measures in the face of a threat, respectively. These perceptions seem to correspond to the aspects of protection and empowerment that human security emphasizes. In relation to perceptions regarding deprivation, on the other hand, the survey questions were related to political freedom and freedom of speech. From the responses, it could be confirmed that (perceptions regarding) the degree of freedom available in these political and speech opportunities influence individuals' perceptions regarding security/insecurity via perceptions regarding vulnerability. The analysis in this article has treated politics and freedom of speech as component factors of dignity. This result thus serves to reinforce the suggestion that freedom and dignity are inseparable.

Conclusion

As we have seen above, by ascertaining individuals' perceptions regarding security/insecurity—that is, their anxieties regarding the future—human security can identify the location of vulnerable groups in society and pinpoint exactly what these groups are anxious about. In doing so, it can contribute to the furtherance of inclusive development. Furthermore, visualizing the dignity of the human being can shed light on an important aspect of human security that has not hitherto been grasped by objective indexes. Individual perceptions regarding security/insecurity can also provide subjective information on future risks as a prerequisite for development. Given these findings, we can say that approaching human security from individual perceptions has sufficient added value as a policy tool. Human security can be analyzed by applying the risk assessment framework of risk management and disaster prevention studies. In other words, it can be said that there is ample room to develop human security as a policy tool.

With this understanding of the potential of human security, how can it be used in actual policy settings? For one thing, it may be useful to identify where people feel insecure within a given area through a perception survey of security/insecurity. While this article has restricted itself to comparing those attributes of people identified in the AB surveys, it is possible and meaningful, as the prior research case from Japan suggests, to include persons with disabilities, immigrants, refugees, and other specific groups for further research. Although it was not possible to do so this time, it is also possible to ascertain the specific targets of threat perception and their intensity through similar surveys.

Another promising area for future research is to compare individual attitudes regarding security/insecurity against an objective index of the target group to which they belong and seeing how they—objective and subjective indices—differ from each other, providing a more nuanced understanding of specific policy issues. For example, four combinations can be envisaged between objective indicators and subjective perceptions: both high, both low, one high and the other low

(and vice versa). Except in cases where both are high, the other three situations can be analyzed in terms of security/insecurity with the threat-vulnerability framework in mind. The analysis of what constitutes people's sense of security/insecurity may lead to the identification of specific policy issues through the clarification of where the lack of preconditions for development lies.

We believe that these analyses can be applied to specific regions within a country (and the sub-regions that comprise it) and compared between regions, as was done by the Human Security Forum and Takasu (2019) and Takasu and Mine (2022), to lead to finely-tuned regional development based on human security. It might be even more helpful if such surveys of a specified sub-national region were to be conducted periodically to track changes over time. Specifically, it would be possible to conduct ongoing surveys by adding questions on people's security/insecurity perceptions to the framework of existing awareness surveys, such as the World Values Survey, as well as the ABs discussed in this report. The Government of Japan and UNDP, which have supported the concept of human security, could consider participating in such surveys and encouraging the inclusion of questions on human security, with a view to further promoting the concept.

The analysis undertaken in this article is merely a preliminary, tentative step toward operationalizing the concept of human security as a policy tool. The perception surveys forming the basis of this article's analysis were themselves based on the regular surveys carried out by AB and were not tailored exclusively for human security. Also, the choice of questions to be used for the HS scoring and regression analysis, including the questions on human dignity, was limited to a selection of existing questions. Furthermore, discussion of the relationship between perceptions regarding security/insecurity and their underlying factors was restricted to the estimation of correlations, and causal relationships remain to be clarified. These are issues for further investigation going forward.

Nevertheless, despite such limitations, this article has provided a certain degree of insight into the potential of an approach that views the concept of human security through the lens of an individual's subjective perceptions regarding security/insecurity. As the Commission on Human Security (2003) notes, "Any notion of development is, in some ways, inescapably 'aggregative'. But when it comes to insecurity, there is an important need to keep the individual at the centre of attention" (ibid., 10). Thus, human security is essentially a concept concerned with the situation of every human being. Given that people are facing a wide range of compounded crises today, we need to give more cautious and attentive response in development, taking the anxieties of every individual fully into account.

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Appendix   List of Questionnaires for HS Score

Number of Questions Assigned in the AB Questionnaire	Questions	Specific Fields Represented by the Question	Related Element of Human Security	Category of Threat or Vulnerability	Breakdown Category of Vulnerability (Sensitivity, Coping Capacity, Deprevation)
3	Would you say that the country is going in the wrong direction or going in the right direction?	Life satisfaction	Dignity	NA	
4A	The present economic condition of this country?	Life satisfaction	Dignity	NA	
4B	Your own present living conditions?	Life satisfaction	Dignity	NA	
5A	Looking back, how do you rate economic conditions in this country compared to 12 months ago?	Economy, jobs and work	Livelihoods	Threat	
5B	Looking ahead, do you expect economic conditions in this country to be better or worse in 12 months' time?	Economy, jobs and work	Livelihoods	Threat	
6A	Over the past year, how often, if ever, have you or anyone in your family gone without: Enough food to eat?	Life	Life	NA	
6B	Over the past year, how often, if ever, have you or anyone in your family gone without: Enough clean water for home use?	Life	Life	NA	
6C	Over the past year, how often, if ever, have you or anyone in your family gone without: Medicines or medical treatment?	Life	Life	NA	
6D	Over the past year, how often, if ever, have you or anyone in your family gone without: Enough fuel to cook your food?	Life	Life	NA	
6E	Over the past year, how often, if ever, have you or anyone in your family gone without: A cash income?	Life	Life	NA	
7A	Over the past year, how often, if ever, have you or anyone in your family: Felt unsafe walking in your neighbourhood?	Life	Life	Threat	
7B	Over the past year, how often, if ever, have you or anyone in your family: Feared crime in your own home?	Life	Life	Threat	
8	When you get together with your friends or family, how often would you say you discuss political matters?	Community, civic engagement, and international outlook	Dignity	Vulnerability	Deprivation
9A	In this country, how free are you: To say what you think?	Community, civic engagement, and international outlook	Dignity	Vulnerability	Deprivation
9B	To join any political organization you want?	Community, civic engagement, and international outlook	Dignity	Vulnerability	Deprivation
9C	To choose who to vote for without feeling pressured?	Community, civic engagement, and international outlook	Dignity	Vulnerability	Deprivation
10A	Here is a list of actions that people sometimes take as citizens. For each of these, please tell me whether you, personally, have done any of these things during the past year. Attended a community meeting?	Community, civic engagement, and international outlook	Dignity	Vulnerability	Deprivation
10B	Got together with others to raise an issue?	Community, civic engagement, and international outlook	Dignity	Vulnerability	Deprivation

10C	Participated in a demonstration or protest march?	Community, civic engagement, and international outlook	Dignity	Vulnerability	Deprivation
14C	On the whole, how would you rate the freeness and fairness of the last national election, held in 2017?	Trust in public sector	Dignity	Threat	
33B	In your opinion, how often, in this country: Does the president ignore the courts and laws of this country?	Trust in public sector	Dignity	Threat	
33C	Does the president ignore Parliament and just do what he wants?	Trust in public sector	Dignity	Threat	
33D	Do people have to be careful of what they say about politics?	Trust in public sector	Dignity	Threat	
33E	Are people treated unequally under the law?	Trust in public sector	Dignity	Threat	
33I	How often, if ever, are people treated unfairly by the government based on their economic status, that is, how rich or poor they are?	Trust in public sector	Dignity	Threat	
33H	In your opinion, how free is the news media in this country to report and comment on the news without censorship or interference by the government?	Trust in public sector	Dignity	Vulnerability	Deprivation
35A	How likely is it that you could get the following information from government or other public institutions, or haven't you heard enough to say?: If you contacted the local school to find out what the school's budget is and how the funds have been used.	Trust in public sector	Dignity	Vulnerability	Deprivation
36B	How likely is it that you could get someone to take action: If you went to the local school to report teacher misbehavior such as absenteeism or mistreatment of students.	Trust in public sector	Dignity	Vulnerability	Deprivation
37A	How much do you trust each of the following, or haven't you heard enough about them to say? : The president	Trust in public sector	Dignity	Threat	
37G	How much do you trust each of the following, or haven't you heard enough about them to say?: The police	Trust in public sector	Dignity	Threat	
38C	How many of the following people do you think are involved in corruption, or haven't you heard enough about them to say?: Civil servants	Trust in public sector	Dignity	Threat	
38E	How many of the following people do you think are involved in corruption, or haven't you heard enough about them to say?: Police	Trust in public sector	Dignity	Threat	
39A	In your opinion, over the past year, has the level of corruption in this country increased, decreased, or stayed the same?	Trust in public sector	Dignity	Threat	
39B	In this country, can ordinary people report incidents of corruption without fear, or do they risk retaliation or other negative consequences if they speak out?	Trust in public sector	Dignity	Threat	
44A	In your opinion, how often do the police in Kenya: Operate in a professional manner and respect the rights of all citizens?	Trust in public sector	Dignity	Threat	
44C	In your opinion, how often do the police in Kenya: Use excessive force in managing protests or demonstrations?	Trust in public sector	Dignity	Threat	

46A	How well or badly would you say the current government is handling the following matters, or haven't you heard enough to say?: Managing the economy	Economy, jobs and work	Livelihoods	Vulnerability	Sensitivity
46B	How well or badly would you say the current government is handling the following matters, or haven't you heard enough to say?: Improving the living standards of the poor?	Welfare	Livelihoods	Vulnerability	Sensitivity
46C	How well or badly would you say the current government is handling the following matters, or haven't you heard enough to say?: Creating jobs	Economy, jobs and work	Livelihoods	Vulnerability	Sensitivity
46D	How well or badly would you say the current government is handling the following matters, or haven't you heard enough to say?: Keeping prices stable?	Economy, jobs and work	Livelihoods	Vulnerability	Sensitivity
46E	How well or badly would you say the current government is handling the following matters, or haven't you heard enough to say?: Narrowing gaps between rich and poor?	Welfare	Livelihoods	Vulnerability	Sensitivity
46F	How well or badly would you say the current government is handling the following matters, or haven't you heard enough to say?: Reducing crime?	Life	Life	Vulnerability	Sensitivity
46G	How well or badly would you say the current government is handling the following matters, or haven't you heard enough to say?: Improving basic health services?	Health	Life	Vulnerability	Sensitivity
46H	How well or badly would you say the current government is handling the following matters, or haven't you heard enough to say?: Addressing educational needs?	Education	LIvelihoods	Vulnerability	Sensitivity
46I	How well or badly would you say the current government is handling the following matters, or haven't you heard enough to say?: Providing water and sanitation services?	Living conditions, environmental quality and personal security	LIvelihoods	Vulnerability	Sensitivity
46J	How well or badly would you say the current government is handling the following matters, or haven't you heard enough to say?: Fighting corruption in government?	Trust in public sector	Dignity	Vulnerability	Sensitivity
46K	How well or badly would you say the current government is handling the following matters, or haven't you heard enough to say?: Maintaining roads and bridges?	Living conditions, environmental quality and personal security	Livelihoods	Vulnerability	Sensitivity
46L	How well or badly would you say the current government is handling the following matters, or haven't you heard enough to say?: Providing a reliable supply of electricity?	Living conditions, environmental quality and personal security	Livelihoods	Vulnerability	Sensitivity
46M	How well or badly would you say the current government is handling the following matters, or haven't you heard enough to say?: Preventing or resolving violent conflict?	Life	Life	Vulnerability	Sensitivity
46N	How well or badly would you say the current government is handling the following matters, or haven't you heard enough to say?: Promoting equal rights and opportunities for women?	Children and women	Dignity	Vulnerability	Sensitivity
46O	How well or badly would you say the current government is handling the following matters, or haven't you heard enough to say?: Protecting and promoting the well-being of vulnerable children?	Welfare	Livelihoods	Vulnerability	Sensitivity

46P	How well or badly would you say the current government is handling the following matters, or haven't you heard enough to say?: Addressing the problem of climate change?	Living conditions, environmental quality and personal security	Livelihoods	Vulnerability	Sensitivity
46Q	How well or badly would you say the current government is handling the following matters, or haven't you heard enough to say?: Reducing pollution and protecting the environment?	Living conditions, environmental quality and personal security	Livelihoods	Vulnerability	Sensitivity
49A	In our country today, women and men have equal opportunities to get a job that pays a wage or salary.	Children and women	Dignity	Threat	
49B	In our country today, women and men have equal opportunities to own and inherit land.	Children and women	Dignity	Threat	
50B	If a woman in your community runs for elected office, how likely or unlikely is it that the following things might occur?: She will be criticized, called names, or harassed by others in the community?	Children and women	Dignity	Threat	
52A	For each of the following actions, please tell me whether you think it can always be justified, sometimes be justified, or never be justified: For parents to use physical force to discipline their children?	Children and women	Dignity	Threat	
52B	For each of the following actions, please tell me whether you think it can always be justified, sometimes be justified, or never be justified: For a man to use physical discipline on his wife if she has done something he doesn't like or thinks is wrong?	Children and women	Dignity	Threat	
53A	In this area, how common do you think it is for men to use violence against women and girls in the home or in the community?	Children and women	Dignity	Threat	
53B	If a woman in your community goes to the police to report being a victim of gender-based violence, for example, to report a rape or report being physically abused by her husband, how likely or unlikely is it that the following things might occur?: Her case will be taken seriously by the police?	Children and women	Dignity	Threat	
53C	If a woman in your community goes to the police to report being a victim of gender-based violence, for example, to report a rape or report being physically abused by her husband, how likely or unlikely is it that the following things might occur?: She will be criticized, harassed, or shamed by others in the community?	Children and women	Dignity	Threat	
55A	How frequently do you think the following things occur in your community or neighbourhood?: Adults use physical force to discipline children?	Children and women	Dignity	Threat	
55B	How frequently do you think the following things occur in your community or neighbourhood?: Children are abused, mistreated, or neglected?	Children and women	Dignity	Threat	
55C	How frequently do you think the following things occur in your community or neighbourhood?: Children who should be in school are not in school?	Education	Livelihoods	Threat	

56A	For each of the following statements, please tell me whether you disagree or agree.: In general, people in this community are able to get help for children who are abused, mistreated, or neglected.	Welfare	Livelihoods	Vulnerability	Coping Capacity
56B	In my community, children who have a physical disability are generally able to get the support they need to succeed in life.	Welfare	Livelihoods	Vulnerability	Coping Capacity
56C	In my community, children and adults who have mental or emotional problems are generally able to get the help they need to have a good life.	Welfare	Livelihoods	Vulnerability	Coping Capacity
66A	In your experience, over the past 10 years, has there been any change in the severity of the following events in the area where you live? Have they become more severe, less severe, or stayed about the same?: Drought?	Living conditions, environmental quality and personal security	Livelihoods	Threat	
66B	In your experience, over the past 10 years, has there been any change in the severity of the following events in the area where you live? Have they become more severe, less severe, or stayed about the same?: Flooding	Living conditions, environmental quality and personal security	Livelihoods	Threat	
72A	How serious of a problem is pollution, such as the accumulation of trash or garbage, or damage to the quality of the air or water, in your community? Is it	Living conditions, environmental quality and personal security	Livelihoods	Threat	
85A	Please tell me whether you agree or disagree with the following statement: I feel strong ties with other Kenyans.	Community, civic engagement, and international outlook	Dignity	Vulnerability	Coping Capacity
86A	How much do you trust each of the following types of people?: Other Kenyans?	Community, civic engagement, and international outlook	Dignity	Vulnerability	Coping Capacity
86B	How much do you trust each of the following types of people?: Your relatives?	Community, civic engagement, and international outlook	Dignity	Vulnerability	Coping Capacity
86C	How much do you trust each of the following types of people?: Your neighbours?	Community, civic engagement, and international outlook	Dignity	Vulnerability	Coping Capacity
86D	How much do you trust each of the following types of people?: Other people you know?	Community, civic engagement, and international outlook	Dignity	Vulnerability	Coping Capacity
86E	How much do you trust each of the following types of people?: People from other religions?	Community, civic engagement, and international outlook	Dignity	Vulnerability	Coping Capacity
93A	Do you have a job that pays a cash income? [If yes, ask:] Is it full time or part time? [If no, ask:] Are you currently looking for a job?	Economy, jobs and work	Livelihoods	Vulnerability	Coping Capacity
94	What is your highest level of education?	Education	Livelihoods	NA	