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RESEARCH ARTICLE

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Urban sustainability and the subjective well-being of migrants: The role of risks, place attachment, and aspirations

Lucy Szaboova^{1,2}  | Ricardo Safra de Campos^{2,3}  | W. Neil Adger²  |
Mumuni Abu⁴  | Samuel Nii Ardey Codjoe⁴  | Maria Franco Gavonel²  |
Shouvik Das⁵  | Tasneem Siddiqui^{6,7} | Mahmudol Hassan Rocky⁷ | Sugata Hazra⁵

¹European Centre for Environment and Human Health, College of Medicine, University of Exeter, Truro, UK

²Geography, College of Life and Environmental Sciences, University of Exeter, Exeter, UK

³Global Systems Institute, University of Exeter, Exeter, UK

⁴Regional Institute for Population Studies, University of Ghana, Accra, Ghana

⁵School of Oceanographic Studies, Jadavpur University, Kolkata, India

⁶Department of Political Science, University of Dhaka, Dhaka, Bangladesh

⁷Refugee and Migratory Movements Research Unit, University of Dhaka, Dhaka, Bangladesh

Correspondence

Lucy Szaboova, European Centre for Environment and Human Health, University of Exeter Medical School, Knowledge Spa, Truro TR1 3HD, UK.
Email: l.szaboova@exeter.ac.uk

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Abstract

While material conditions of migrant populations on average tend to improve over time as they become established in new destinations, individual trajectories of material and subjective well-being often diverge. Here, we analyse how social and environmental factors in the urban environment shape the subjective well-being of migrant populations. We hypothesise these factors to include (a) perceived social and environmental risk, (b) attachment to place, and (c) migrant aspirations. We analyse data from a cross-sectional survey of 2641 individual migrants in seven cities across Ghana, India, and Bangladesh. The results show that the persistence of inferior material conditions, exposure to environmental hazards, and constrained access to services and employment affect migrants' subjective well-being. Hence, social and environmental risks constitute urban precarity for migrants whose social vulnerability persist in their destination. Meeting migration-related aspirations and developing an affinity to urban destinations have the potential to mitigate negative sentiments from perceived risks. These findings have implications for future urban planning and sustainability.

KEYWORDS

environmental risks, migration, subjective well-being, urban sustainability

1 | INTRODUCTION

The movement of people from rural settlements to urban centres represents an opportunity for transforming the lives of those involved. The economic benefits of migration to individuals and for macroeconomic development are widely observed at the national level (De Haas, 2010), and the positive financial and sociocultural impact of migration and remittances for rural areas is well established (Adger et al., 2002; Deshingkar et al., 2006; Maharjan et al., 2013). Most theoretical models of migration decision-making emphasise the role of expected gains in welfare from moving

locations (Adams & Adger, 2013; Fields, 1975; Harris & Todaro, 1970; Haug, 2008; Simmons, 1985). In turn, the dominance of theories that frame mobility in terms of economic incentives naturally leads to a focus on material elements of well-being when it comes to evaluating migration outcomes. Indeed much migration research emphasises the relationship between length of residence and trajectory of income, the demographics of migration in working age adults, the role of migrant skills in economic growth, and the role of remittances in source-destination linkages (Bove & Elia, 2017; Carling, 2008; Clemens et al., 2014; De Haas, 2010).

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The focus on economic outcomes of migration, however, de-emphasizes the subjective well-being impacts of movement. When migration studies address subjective well-being, they tend to focus on the presence or absence of social networks, social and institutional forms of discrimination and formal employment, as the factors responsible for shaping subjective well-being outcomes of migrants in destination (Wang et al., 2010; Wen & Wang, 2009; Zhang, Li, Fang, & Xiong, 2009). They have often underplayed environmental risks that are core to urban sustainability and to the experience of precarious migrant lives (see Adger et al., 2020; Ayeb-Karlsson, 2021; Ayeb-Karlsson et al., 2020). This study therefore seeks to expand the focus on material indicators of success, to explain how subjective well-being of migrants in destination is shaped by core aspects of social and environmental risks and insecurity, place attachment, and aspirations. These issues are explored through research with migrants in informal settlements of seven rapidly growing cities in India, Bangladesh, and Ghana.

2 | THE SUBJECTIVE WELL-BEING OF MIGRANTS IN URBAN DESTINATIONS

A growing body of research shows that in some settings, migrants tend to experience an improvement in subjective domains of well-being such as life satisfaction or happiness (e.g., Lundholm & Malmberg, 2006, in Nordic countries; Melzer, 2011, in Germany; Nowok et al., 2013, in the United Kingdom). Other subjective well-being studies focus on the life satisfaction and happiness of migrants in international destinations (Hendriks et al., 2018; Khawaja et al., 2016; Stillman et al., 2015; Tegegne & Glanville, 2019; Wright, 2011), the subjective well-being of international migrants' left behind families (Ivlevs et al., 2019; Sulemana et al., 2019) and of migrant returnees (Vathi & King, 2017). Findings on these international movements paint a more mixed picture: while left behind family members generally report improved subjective well-being as a result of remittances, it is also common that such families suffer from stress and experience mental ill-health due to family separation (Hendriks et al., 2018; Ivlevs et al., 2019; Sulemana et al., 2019).

In the case of international migrants, subjective well-being is closely correlated with the the presence or absence of close relationships and degree of integration within the host society. Although higher incomes and enhanced material well-being are often associated with positive gains in subjective well-being, these are sometimes offset by negative social experiences such as social exclusion, isolation or loneliness (Tegegne & Glanville, 2019; Wright, 2011). Despite advances in knowledge on subjective well-being implications of international migration, there is limited knowledge on these dimensions for internal migrants to rapidly growing cities, often dominated by low-skilled and low-income groups.

Emerging research that explores the subjective well-being of migrant populations in their urban destinations (Akay et al., 2012; Chen, 2013; Chen et al., 2019; Cheng et al., 2013; de Jong et al., 2002; Knight & Gunatilaka, 2010, 2012) shows divergence

between trajectories of material and subjective elements of well-being, which may prevail even following long-term residence in the destination (Chen et al., 2019; Knight & Gunatilaka, 2012). This phenomenon is often termed the "miserable migrant" effect (Knight & Gunatilaka, 2010; Stillman et al., 2015). The prevalence of the miserable migrant effect among rural to urban migrants is explained by migrants' precarious material conditions, negative social experiences, and the social costs of migration, as well as rising aspirations at destination. Despite having higher incomes in cities, migrants often report lowered levels of subjective well-being (Chen et al., 2019; Mulcahy & Kollamparambil, 2016; Yu et al., 2019). This partly occurs because migrants evaluate their material circumstances not in absolute terms but relative to the status of native urban residents who become their new social reference group (Mulcahy & Kollamparambil, 2016; Yu et al., 2019).

The experiential aspect of increased incomes in destinations is further moderated by migrants' expectations and the cost of living in cities, which cause dissatisfaction with the rate of material gains (Chen et al., 2019; Knight & Gunatilaka, 2008, 2010; Yu et al., 2019). Indeed, higher incomes do not necessarily translate into improved material outcomes for migrants who are concentrated in marginalised informal settlements where they lack access to decent housing and basic services such as water and sanitation (Owusu et al., 2008; Siddiqui et al., 2021). In addition to material conditions, weak social capital in destination and systemic forms of exclusion from labour markets and social protection have also been shown to result in unmet or frustrated aspirations and lowered subjective well-being for migrants (Li & Rose, 2017; Wang et al., 2010; Wen & Wang, 2009; Zhang, Li, Fang, & Xiong, 2009).

Despite growing evidence that migrant populations are disproportionately exposed to environmental and other risks and hazards in destination (Adger et al., 2021), little research examines the role of such social and environmental factors in shaping the subjective well-being of migrants. Where environmental factors are considered in subjective well-being studies, these are usually limited to neighbourhood amenities and cleanliness (Liu et al., 2017, in Guangzhou, China), residential living environment, housing and sense of security (Dang et al., 2019, in Beijing, China). The link between exposure to environmental risks and hazards and migrant subjective well-being has only been analysed in a handful of recent studies (Adger et al., 2020, 2021; Siddiqui et al., 2021).

A further limitation of existing research on the subjective well-being of rural-to-urban migrants lies in the geographic bias of studies. With a few exceptions, the majority of this work is situated in China and is specific to the particularities of China's *hukou* residential registration system, which defines the citizenship rights that rural-urban migrants can enjoy in cities, creates exclusionary practices, and enables a culture of discrimination (Knight & Gunatilaka, 2010). Less empirical evidence and insight is available from other developing and rapidly urbanizing settings (for some exceptions, see Chen et al., 2019; de Jong et al., 2002; Mulcahy & Kollamparambil, 2016).

This paper therefore focuses on the subjective well-being of internal migrants by presenting findings from survey data collected in

seven cities across three countries in South Asia and Africa. We hypothesize that migrants' well-being is shaped by perceived social and environmental factors in destination. We explore the role of three determinants in shaping variations in the subjective well-being of migrant populations in urban destinations: (a) perceived social and environmental risk, (b) attachment to place, and (c) aspirations.

2.1 | Social and environmental risks

Downside risks associated with migration include discrimination, fear of crime, and insecure housing tenure (UN-Habitat, 2007). In addition, many low-skilled migrant populations cluster in areas of cities that have high density housing, are exposed to high levels of pollution, risks to public health, or environmental hazards (Adamo, 2010; McMichael et al., 2012). These accumulated risks represent major challenges to both material circumstances and subjective elements of well-being. Migrants often perceive social and environmental risks to be intertwined: Ajibade and McBean (2014) showed how poor migrants' housing and tenure insecurity lead directly to exposure to water-related sanitation risks in Nigerian cities. These interactions are confirmed by testimonies and perceptions of poor migrants in Khulna and Dhaka in Bangladesh (Banks et al., 2011; Siddiqui et al., 2021).

Social and environmental risks for migrants in urban destinations, especially in rapidly urbanising cities, have been shown to directly affect health and well-being (McMichael et al., 2012). Mortality risks among rural-urban migrant populations potentially rise due to increased incidence of chronic diseases, attributed to changes in diet, behaviour, and lack of access to public space for recreation, or preventive health services (Montgomery et al., 2003). Migrant populations cluster in areas of cities prone to flooding, high-levels of air pollution, and landslides, with significant impacts on health (Foresight, 2011). Additionally, migrants also face social risks, including various forms of discrimination within the host society (Cheng et al., 2013; Knight & Gunatilaka, 2012; Stillman et al., 2015; Zhang, Li, & Fang, 2009). Discrimination can affect well-being due to diminished access to economic opportunities and services and has been shown to impact migrants' subjective well-being (Chen, 2013).

2.2 | Attachment to place

People have emotional bonds to places that embody the collection of meanings, values, and feelings associated with a locality (Adams et al., 2013; Agyeman, 2004; Tuan, 1977). Place attachment is multi-dimensional at the intersection of people (groups and individuals), social and physical places, and psychological processes of affect, cognition, and behaviour (Scannell & Gifford, 2010). The distribution of place attachment is most frequently explained as a function of residence time (Hay, 1998; Lewicka, 2008). However, findings on place relations among mobile groups, such as tourists, second-home owners, and migrants, suggest that place attachment can also develop independently from length of residence (Gustafson, 2001; Williams &

Kaltenborn, 1999) and people perceive a sense of affinity to multiple places (Di Masso et al., 2019; Gustafson, 2001). Thus, new insights recognize place attachment in relation to increased mobility, environmental change, growth and urbanization, and embrace the idea that place constructs are dynamic, adaptive, and evolving (Di Masso et al., 2019).

However, there is limited evidence on place attachment in the context of low-income migration and mobility. Qian et al. (2011) show in Guangzhou in China that migrants' place attachment in the destination is ultimately constrained by their perceived social capital and emotional investment in the origin. Njwambe et al. (2019) observed a similar behaviour among circular migrants in Cape Town in South Africa, who, in their interviews, reported that they could never develop a sense of belonging in the city. Migrants from the municipality of Mnquma, located along the coastal region of the Eastern Cape, viewed Cape Town only as a place to earn a living. Research in Dhaka, Bangladesh, also revealed that rural-urban migrants maintained a strong desire and longing to return home (Ayeb-Karlsson et al., 2020). Therefore, migrants' relationship to their destination might be one of place dependence, derived from the functional characteristics of place, rather than a deep emotional bond (Qian et al., 2011). Scannell and Gifford (2010) argues that such dependence on the physical characteristics, resources, and amenities associated with a place is not contrary to place attachment, but rather it is part of its three dimensions (place, person and process). They further highlight the role of amenity-based place attachment for survival and security, as well as for the attainment of goals and aspirations (Scannell & Gifford, 2010), which are pertinent considerations for low-income migrants and could potentially offset some of the risks linked to migration. Research across eight cities in China found that access to public services was positively associated with migrants' propensity to develop a sense of belonging to their new urban residences (Huang et al., 2020).

2.3 | Aspirations

Aspirations, or the emotional constructs that represent what the future might or should look like (Boccagni, 2017), have been central to migration research, and migration is often viewed as an outcome of the interaction between people's aspiration to move and their ability to do so (Carling, 2002; Carling & Schewel, 2018). Migration is viewed as an alternative way of inclusion and livelihood diversification among the rural poor in developing countries, which affects their economic, educational, and personal aspirations (Azaola, 2012; Koo, 2012; Lobnibe, 2008). A diverse body of research has explored the factors that shape the formation of migration aspirations, as well as their conversion into actual migration (Aslany et al., 2021). The relationship between aspirations and migration is, however, not one directional or linear, as migration also shapes the evolution of aspirations. Research with Chinese migrants in New Zealand, for example, highlights the multitemporal nature of aspirations, which are subject to change, transformation, and disruption during and after migration (Wang &

Collins, 2020). Indeed, aspirations associated with migration for educational or professional purposes, defined as idealised visions of social mobility, have been shown to evolve over time due to changes in external circumstances as well as due to migrant's own life and work conditions (Jacobs et al., 1991; MacKenzie & Forde, 2009). Hence, aspirations mediate well-being because of the invariable reconfiguration of aspirational trajectories with time: aspirations are met, delayed, and curtailed over time following individual achievements at destination.

Evolving aspirations have also been linked to the persistence of low subjective well-being among migrants. Migrants' aspirations and expectations change towards their new urban futures and the relative aspects of material well-being over time (Akay et al., 2012; Chen et al., 2019; Knight & Gunatilaka, 2010, 2012; Mulcahy & Kollampambil, 2016). Although most migrants are materially better off in their destinations, reflected for instance in increased consumption levels (Chen et al., 2019), they perceive themselves to be relatively worse-off compared with their new reference point (Akay et al., 2012; Knight & Gunatilaka, 2010), as they move from poorer to wealthier areas where both the standards and costs of living are higher (Banks et al., 2011; Ravallion et al., 2007). Migrants' aspirations

adapt to their new context and continue to increase at a faster rate than their incomes (Knight & Gunatilaka, 2010, 2012).

3 | METHODS AND CONTEXT

3.1 | Geographic context and sample characteristics

The study examines the subjective well-being of migrants in seven rapidly growing cities in South Asia and West Africa with high proportions of low-skilled migrants in informal urban settlements. The seven cities in Ghana, India, and Bangladesh (Figure 1) were selected as examples of large-scale movement of predominantly low-skilled rural populations to urban centres experiencing fast growth. The direction of these migration flows continue to be towards capital cities, but in recent decades, migrants have also settled in peri-urban areas due to low-cost housing and increasing demand for labour in large urban centres such as Dhaka, Accra, and Kolkata (Awumbila et al., 2014; Hossain, 2013; Safra de Campos et al., 2020).

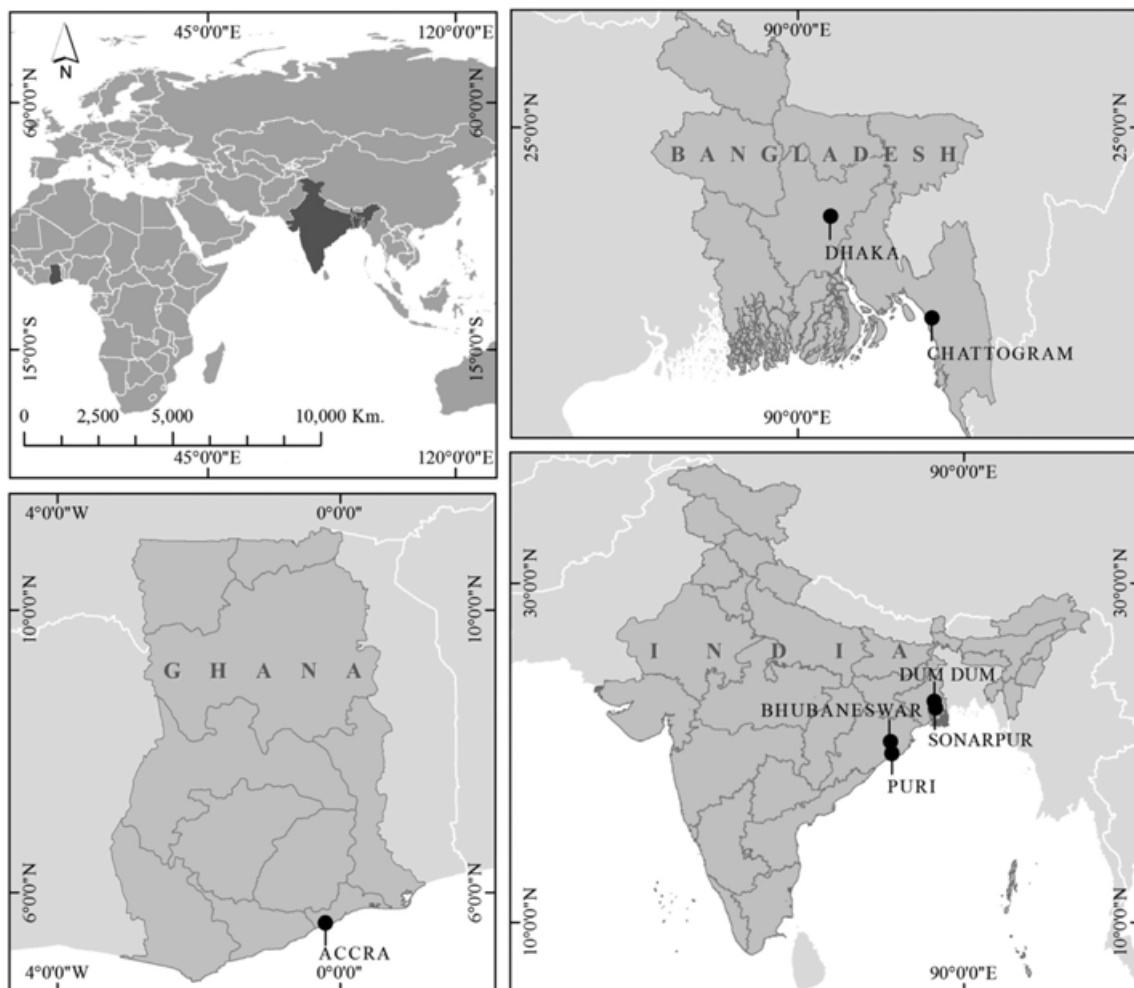


FIGURE 1 Map of study sites

A large share of migrants to these cities originate from rural and coastal areas subject to multiple change processes (e.g., demographic, economic, and climatic) and are characterised by high levels of social vulnerability, manifest in low socio-economic status, and low education and skill levels (Das et al., 2021). Informal urban settlements are important places of destination for low-skilled rural migrants who hope to find new opportunities. At the same time, these settlements also present an array of social and environmental risks and hazards for migrant populations as well as represent a challenge for urban governance and sustainability. Therefore, conducting the study with migrants in informal settlements was considered appropriate for exploring how social and environmental risks shape migrants' subjective well-being outcomes in city destinations. Table 1 provides an overview of population and migration trends for each of the seven

cities and highlights the concentration of migrant populations in informal settlements.

A new dataset based on 2641 respondents of a cross-sectional survey of migrants of different lengths of residence in these cities was generated specifically for this study and includes information on aspects of material and subjective well-being, perceived risks, place attachment, and aspirations at destination. The questionnaire was designed to minimise issues associated with response bias. The order of the questions and response options may influence the likelihood of respondents to select certain sets of answers. To counter this, questions on subjective well-being were not directly associated with perceptions of risk, place attachment, and aspirations. These were placed in a separate section of the survey instrument.

TABLE 1 Sample size and overview of seven cities as sites for data collection on lifetime migrant populations

Locality		Sample size	Description
Accra, Ghana		780	Population of four million, constituting 16% of the population of Ghana and the primary destination of the majority of migrants. Forty percent of the population of the city live in high density informal settlements (Rain et al., 2011).
Dhaka, Bangladesh		448	Population of nine million with over 18 million people in the metropolitan area, with high proportion in informal settlements. Dhaka is the most attractive location for all types of migrants: 53% of slum residents had migrated from the rural hinterlands and smaller urban districts (Afsar, 2003).
Chattogram, Bangladesh		447	Migration into Chittagong has increased rapidly over the period 1975–2005. Projections estimate it to continue this upward trajectory until 2025. With higher numbers of in-migration over out-migration the population of the city is expected to continue to grow (Mia et al., 2015).
Great Kolkata, West Bengal, India	Sonarpur	249	Kolkata has a population of >14 million people, making the city the third-most populous metropolitan area and the most densely populated area in India (KMDA, 2011). Kolkata has long been a sought-after destination for migrants especially engaged in rural to urban moves in Eastern India (Mukherji, 2013). It is an important economic centre is due to the concentration of industrial complexes, financial services and commercial activities (Banerjee, 2014; Kundu, 2003). Improvement of existing transport network linking peri-urban localities and changes in land use have pushed existing and new populations to expanding margins of the city (Bagchi, 2015).
	Dum Dum	245	
Bhubaneswar, India		254	Population of >1 million, Bhubaneswar, the capital city of the state of Odisha lies within Khordha district, features the highest degree of urbanization in Odisha (Director of Census Operations, 2011). Registered the highest population growth rate in India during 1961–1971 with increasing urban sprawl (Pathy & Panda, 2012). Located in coastal region of the district of Khorda, Puri, combined with Cuttack, form the peri-urban areas of Bhubaneswar that are the destination of 84% of the intra-state migration in the region (Sharma et al., 2014).
Puri, India		218	
Total sample size		2641	

Sampling strategy consisted of a two-stage approach that involved on-site listing to identify the presence of migrant populations and purposive sampling. While systematic random techniques are preferred to nonprobability methods in terms of obtaining a representative sample, our approach was used to ensure all of our respondents were self-identified male and female migrants who were classified by different lengths of time residing at destination across all seven study locations. The sample includes recent and longer established migrants who have formed new households in their destinations. Nearly half (46%) of the sampled participants were female. Achieving a balanced gender composition within the sample was important due to the potential differences in lived experiences of migration between men and women, especially in the context of conservative societies such as Bangladesh.

Ethical approval was obtained from the ethics committee of the College of Life and Environmental Sciences at the University of Exeter. The survey was implemented with the help of project partners in each of the three countries: Jadavpur University in India, Refugee and Migratory Movements Research Unit at Dhaka University in Bangladesh, and the Regional Institute for Population Studies at the University of Ghana in Ghana. Partners in each country have an established track record of working in urban informal settlements with marginalised groups, including migrants. Their existing networks and connections in these settings were instrumental for recruiting participants and ensured the successful execution of data collection. Field enumerators conducted the onsite listing and administered the survey between May and August 2017. All respondents gave informed consent to participate in the voluntary survey.

3.2 | Statistical analysis of migrants' subjective well-being in urban destinations

The aim of the analysis is to examine the determinants of subjective well-being, focusing on perceived risks, place attachment, and aspirations at destination. The dependent variable is an evaluative measure of subjective well-being that is captured by a 5-point Likert scale question "How happy are you with life generally in your current location?", adapted from the Annual Population Survey of the UK Office of National Statistics (ONS, 2012). This approach of questioning builds on Veenhoven (1991), who uses happiness and life satisfaction interchangeably and defines it as people's evaluation regarding how well they like the life they lead. The explanatory variables of interest are perceived risk, place attachment, and aspirations in destination. Perceived risks is captured by a list of fourteen items, from which the respondent had to choose and rank those considered as "serious problems." Over 87% of the sample reported five or less items from the list; therefore, we chose this as the cut off for our analysis and only used the top five risks reported for each respondent. Place attachment is measured as a scale constructed from seven items capturing the respondent's degree of fondness for their current locality, which were first standardised to have a mean of zero and standard deviation of one and were then

averaged. Aspirations at destination are measured as an indicator variable that denotes whether the respondent's main aspiration prior to migration was met.

Other covariates include subjective well-being at place of origin, gender, age, age squared, religion, marital status, education attainment, type of employment, length of residence, wealth index, wealth index squared, and binary variables for each delta. The subjective well-being in origin variable was reported retrospectively, which may raise the issue of recall bias (Prince, 2012) if respondents are systematically more or less likely to retrieve their level of life satisfaction at origin. To counter this, the questionnaire design sought to minimize recall bias in responses from participants by focusing on memorable events without the need to provide exact dates or magnitudes (Clarke et al., 2008). Building on Arias and De Vos (1996), who highlight the limitations of using income alone to ascertain the material condition of participants, the wealth index was constructed by averaging two subindices: the housing quality index (type of dwelling, roof material, ownership status) and the access to services index (tap water, electricity, gas, sewage, garbage collection, and toilet). The variance inflation factor (VIF) was used to test for collinearity of the regressors, and we obtained a value less than 10 for each covariate, which signals that this is not an issue in our specification. The length of residence variable was constructed as follows: new migrants (residing in the city for less than a year), short-term migrants (resident for 1–3 years), medium-term migrant (resident for 3–10 years), and long-term migrant (resident for over 10 years).

Given the ordinal nature of the dependent variable, first we tested for the parallel regression assumption, namely, that the coefficient of each covariate is the same for each value of the dependent variable. Following Williams (2016), we tested this assumption using the Brant test and the likelihood ratio chi-square test and both rejected the null hypothesis of equal coefficients. Therefore, we used a generalised ordered logit (GOLogit) to estimate a partial proportional odds model, where we allowed for a subset of regressors to violate the parallel lines assumption, following Williams (2006). GOLogit is our preferred specification because it is less restrictive than ordered logit and more parsimonious than multinomial logit. We also estimated the latter for robustness, and our results did not change dramatically. The results are reported as marginal effects, namely, average partial effects, which denote the change in the probability of the outcome taking a given value as a response to a unit change in a covariate.

Due to the cross-sectional nature of our analysis, our findings provide insights into migrants' subjective well-being outcomes at one point in time. They do not allow us to track or draw conclusions about the evolution of migrants' subjective well-being over time. Nevertheless, we observe important differences *across* individuals at a given point in time, and from that, we can infer the role of social and environmental factors in shaping migrants' lived experiences of urban destinations. For example, we observe variations based on different characteristics as they pertain to individuals in the study (e.g., length of residence, achieved aspirations, and perceived risks).

4 | RESULTS

Our analysis finds no evidence of a postmigration slump in subjective well-being and reveals that the average subjective well-being of

migrants at destination (4.05) is higher than the average at origin (3.32), indicating an improvement in life satisfaction among migrants in our sample (see Table 2). This is true for all study locations, though some variation is present, with increase in subjective well-being being

TABLE 2 Summary statistics

	Pooled		Bangladesh		Ghana		India_IBD		India_Mahanadi	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD
SWB at destination	4.05	0.95	3.50	0.94	4.28	0.96	4.15	0.62	4.59	0.72
SWB at origin	3.32	1.31	3.23	1.26	3.82	1.19	2.68	1.24	3.33	1.31
Female	0.46	0.50	0.31	0.46	0.59	0.49	0.51	0.50	0.51	0.50
Male	0.54	0.50	0.69	0.46	0.41	0.49	0.49	0.50	0.49	0.50
Age	38.33	13.50	35.36	11.91	40.62	15.08	39.25	13.52	39.22	12.56
Muslim	0.33	0.47	0.94	0.24	0.01	0.10	0.01	0.08	0.03	0.16
Not Muslim	0.67	0.47	0.06	0.24	0.99	0.10	0.99	0.08	0.97	0.16
Never married	0.14	0.34	0.08	0.28	0.25	0.43	0.10	0.30	0.08	0.28
Married	0.77	0.42	0.84	0.37	0.60	0.49	0.84	0.37	0.87	0.34
Other than married	0.09	0.29	0.08	0.27	0.16	0.36	0.06	0.23	0.05	0.21
No education	0.20	0.40	0.29	0.46	0.12	0.32	0.26	0.44	0.11	0.31
Primary education	0.31	0.46	0.44	0.50	0.16	0.37	0.24	0.42	0.35	0.48
Secondary education	0.40	0.49	0.23	0.42	0.63	0.48	0.35	0.48	0.38	0.49
Tertiary education	0.09	0.29	0.03	0.17	0.08	0.27	0.15	0.36	0.16	0.37
Unemployed/Inactive	0.20	0.40	0.03	0.16	0.16	0.37	0.32	0.47	0.44	0.50
Temporary employment	0.11	0.32	0.14	0.35	0.11	0.31	0.11	0.32	0.06	0.24
Permanent employment	0.69	0.46	0.83	0.37	0.73	0.45	0.57	0.50	0.50	0.50
New migrant	0.09	0.29	0.19	0.39	0.06	0.23	0.04	0.19	0.05	0.21
Short-term migrant	0.12	0.33	0.24	0.43	0.08	0.27	0.05	0.22	0.05	0.22
Medium-term migrant	0.27	0.44	0.35	0.48	0.28	0.45	0.23	0.42	0.13	0.34
Long-term migrant	0.52	0.50	0.22	0.42	0.59	0.49	0.69	0.46	0.77	0.42
Wealth Index	0.72	0.18	0.71	0.18	0.61	0.15	0.79	0.13	0.88	0.13
Place attachment	3.82	0.71	3.35	0.63	3.80	0.60	4.27	0.66	4.29	0.42
Aspirations met	0.46	0.50	0.28	0.45	0.46	0.50	0.60	0.49	0.64	0.48
Food insecurity	0.41	0.49	0.54	0.50	0.14	0.35	0.66	0.48	0.33	0.47
Sanitation	0.47	0.50	0.36	0.48	0.61	0.49	0.37	0.48	0.59	0.49
Diseases	0.22	0.42	0.31	0.46	0.16	0.36	0.28	0.45	0.12	0.33
Crime	0.34	0.47	0.18	0.39	0.64	0.48	0.28	0.45	0.23	0.42
Hazards	0.17	0.37	0.28	0.45	0.04	0.21	0.04	0.21	0.28	0.45
Pollution	0.38	0.48	0.44	0.50	0.34	0.47	0.55	0.50	0.12	0.33
Poverty	0.22	0.41	0.29	0.46	0.25	0.43	0.07	0.26	0.16	0.37
Population density	0.25	0.43	0.29	0.45	0.27	0.44	0.30	0.46	0.08	0.27
Jobs competition	0.15	0.36	0.16	0.36	0.11	0.32	0.27	0.44	0.08	0.27
Social services	0.09	0.28	0.16	0.37	0.02	0.15	0.06	0.24	0.08	0.28
Credit	0.04	0.20	0.03	0.18	0.05	0.22	0.01	0.09	0.09	0.28
Welfare	0.20	0.40	0.27	0.44	0.02	0.15	0.27	0.45	0.27	0.44
Housing	0.35	0.48	0.53	0.50	0.25	0.43	0.22	0.42	0.32	0.47
Transportation	0.10	0.30	0.22	0.42	0.01	0.07	0.13	0.34	0.00	0.05
Work opportunities	0.13	0.34	0.12	0.32	0.19	0.39	0.08	0.27	0.12	0.33
N	2641		895		780		493		473	

Note: Reference categories in bold.

lowest among Bangladeshi migrants and highest among respondents in the Indian settings. Contrary to expectations based on earlier studies, we find no evidence of an effect of length of residence on subjective well-being in our sample (see Table 3). This indicates that longer residence in cities may not inevitably result in a sustained upward

trajectory in migrants' subjective well-being. We find that perceived risks, place attachment, and aspirations shape the subjective well-being outcomes of migrant populations.

In order to ascertain which risks are most salient for respondents, we also generated a ranked order of self-reported social, economic,

TABLE 3 Results

	Generalised ordered logit				
	(1) Very_unhappy	(2) Moderately_unhappy	(3) Neither_unhappy_or_happy	(4) Moderately_happy	(5) Very_happy
SWB at origin	0.009** (0.003)	0.041*** (0.005)	0.023*** (0.005)	-0.071*** (0.007)	-0.002 (0.006)
Male	-0.005** (0.002)	-0.017** (0.005)	-0.015** (0.005)	-0.013** (0.004)	0.050** (0.015)
Age	0.000 (0.000)	0.000 (0.000)	0.001* (0.000)	-0.000 (0.001)	-0.001 (0.001)
Muslim	-0.002 (0.004)	-0.005 (0.014)	-0.005 (0.012)	-0.004 (0.011)	0.016 (0.040)
Married	0.004 (0.002)	0.014 (0.008)	0.012 (0.007)	0.011 (0.006)	-0.041 (0.023)
Other than married	0.007* (0.003)	0.023* (0.011)	0.020* (0.009)	0.018* (0.009)	-0.067* (0.032)
Primary education	0.000 (0.002)	0.001 (0.006)	0.001 (0.005)	0.001 (0.005)	-0.004 (0.018)
Secondary education	-0.002 (0.002)	-0.008 (0.007)	-0.006 (0.006)	-0.006 (0.005)	0.022 (0.019)
Tertiary education	-0.003 (0.003)	-0.012 (0.011)	-0.010 (0.009)	-0.009 (0.008)	0.034 (0.031)
Temporary employment	-0.012 (0.010)	0.014 (0.021)	0.017 (0.023)	0.011 (0.033)	-0.031 (0.032)
Permanent employment	-0.009 (0.007)	0.005 (0.015)	-0.004 (0.016)	0.005 (0.023)	0.003 (0.021)
Short-term migrant	0.004 (0.003)	0.014 (0.009)	0.012 (0.008)	0.011 (0.007)	-0.042 (0.028)
Medium-term migrant	0.001 (0.003)	0.004 (0.009)	0.004 (0.007)	0.003 (0.007)	-0.013 (0.025)
Long-term migrant	-0.001 (0.003)	-0.003 (0.009)	-0.002 (0.008)	-0.002 (0.007)	0.007 (0.027)
Wealth Index	0.002 (0.022)	0.067* (0.033)	0.007 (0.037)	0.002 (0.061)	-0.079 (0.055)
S. Place Attachment Scale	-0.014*** (0.004)	-0.055*** (0.009)	-0.029** (0.009)	-0.102*** (0.017)	0.201*** (0.015)
Aspirations met	-0.004* (0.001)	-0.013** (0.005)	-0.011** (0.004)	-0.010** (0.004)	0.037** (0.013)
Food insecurity	0.002 (0.002)	0.006 (0.005)	0.005 (0.004)	0.005 (0.004)	-0.018 (0.015)
Sanitation	-0.000 (0.001)	-0.001 (0.005)	-0.001 (0.004)	-0.001 (0.004)	0.004 (0.014)
Diseases	0.001 (0.002)	0.003 (0.006)	0.002 (0.005)	0.002 (0.004)	-0.008 (0.016)
Crime	0.002 (0.002)	0.008 (0.005)	0.007 (0.004)	0.006 (0.004)	-0.024 (0.015)
Hazards	0.015 (0.008)	0.040** (0.012)	-0.030* (0.013)	-0.019 (0.026)	-0.006 (0.024)
Pollution	0.003 (0.002)	0.009 (0.005)	0.008 (0.004)	0.007 (0.004)	-0.027 (0.015)
Poverty	0.003 (0.005)	0.012 (0.010)	-0.007 (0.011)	-0.050* (0.021)	0.041* (0.020)
Population density	-0.003 (0.002)	-0.010 (0.005)	-0.008 (0.005)	-0.007 (0.004)	0.028 (0.016)
Jobs competition	0.004 (0.002)	0.012 (0.007)	0.010 (0.006)	0.009 (0.005)	-0.036 (0.021)
Social services	0.002 (0.002)	0.005 (0.008)	0.005 (0.007)	0.004 (0.006)	-0.016 (0.024)
Welfare	-0.003 (0.002)	-0.010 (0.006)	-0.008 (0.005)	-0.008 (0.005)	0.028 (0.018)
Housing	0.004* (0.002)	0.014** (0.005)	0.012** (0.004)	0.011** (0.004)	-0.040** (0.015)
Transportation	-0.006* (0.002)	-0.021** (0.008)	-0.018** (0.007)	-0.016* (0.006)	0.061** (0.023)
Work opportunities	0.007 (0.007)	-0.006 (0.013)	0.045** (0.014)	-0.059* (0.024)	0.013 (0.024)
Ghana	-0.007 (0.010)	-0.069*** (0.019)	-0.161*** (0.019)	-0.181*** (0.026)	0.417*** (0.047)
India_IBD	-0.025*** (0.006)	-0.084*** (0.017)	-0.072*** (0.014)	-0.065*** (0.014)	0.246*** (0.045)
India_Mahanadi	-0.022* (0.011)	-0.141*** (0.027)	-0.177*** (0.025)	-0.210*** (0.032)	0.549*** (0.045)
N	46	204	258	1,208	925

Note: Robust standard errors in parentheses.

* $p < 0.05$. ** $p < 0.01$. *** $p < 0.001$.

and environmental risks (see Figure 2). This exercise revealed that the highest ranked perceived sources of insecurity are largely environmental in nature, or at least involve dimensions that are sensitive to environmental processes. More than one third of the sample considers access to sanitation or food insecurity their most serious problem. Such insecurities are generally an outcome of the settlement of new migrant populations in impoverished urban slums without adequate supply of basic services. Further salient risks are linked to material aspects of well-being such as employment, income, poverty, and housing conditions. Our results suggest that those risks that received a lower ranking—that is, were judged less pressing—are more likely to be associated with the likelihood of being very happy. For example, migrants who report that transportation is one of the five most serious problems to them as individuals are 6.1 percentage points *more* likely to be very happy at destination, whereas those that report housing as a serious issue are 4 percentage points *less* likely to be very happy. However, we can assert with more confidence that migrants that reported environmental hazards as serious threats are 4 percentage points *more* likely to be moderately unhappy than those that did not. This indicates that exposure to environmental risks at destination shapes subjective well-being through direct and indirect pathways, as it interacts with and can exacerbate other perceived risk factors among migrants.

The findings highlight the relative importance of the feeling of belonging compared with individual struggles for explaining migrants' subjective well-being at their place of destination. Although this finding resonates with existing evidence on mobile populations' attachment to multiple places and destination areas, including to migration destinations, we are not able to determine what drives this affinity, whether the functional characteristics of urban centres, their role for survival and goal fulfilment, or other factors. On average, an increase of one standard deviation in the place attachment scale is associated with 20 percentage points higher probability of reporting being very

happy at destination. However, this effect is not symmetric across the distribution of subjective well-being: a similar change in place attachment is associated with only 1.4 percentage points lower likelihood of being very unhappy. We do find that respondents from the Indian regions report higher values on the nonstandardised place attachment scale, which could in part explain why migrants from this subsample experience greater increase in subjective well-being following their migration compared with those from Ghana and Bangladesh.

Having achieved some aspirations is also positively associated with migrants' subjective well-being in the sampled populations, and the share of migrants who have met their main aspirations at destination is higher in the Indian regions. Across all study locations, a migrant who met their main aspirations at destination is 3.7 percentage points more likely to report being very happy than those who did not, and this effect is more than nine times greater than its counterpart at the other end of the subjective well-being scale. However, we should exercise caution when drawing conclusions from these values since only 2% of respondents declared being very unhappy at destination. This result, nevertheless, suggests that migrants who meet their aspirations are likely to be happier, although the size of the effect is relatively small if we compare it with the perceived risk variables. This indicates that exposure to multiple co-occurring risks and hazards in destination can outweigh positive experiences, such as the achievement of aspirations, in terms of their importance for shaping the subjective well-being of migrants.

5 | DISCUSSION

This study builds on the insight that the movement of people from rural areas to urban centres represents an opportunity for transforming the lives of those involved. While the economic benefits of

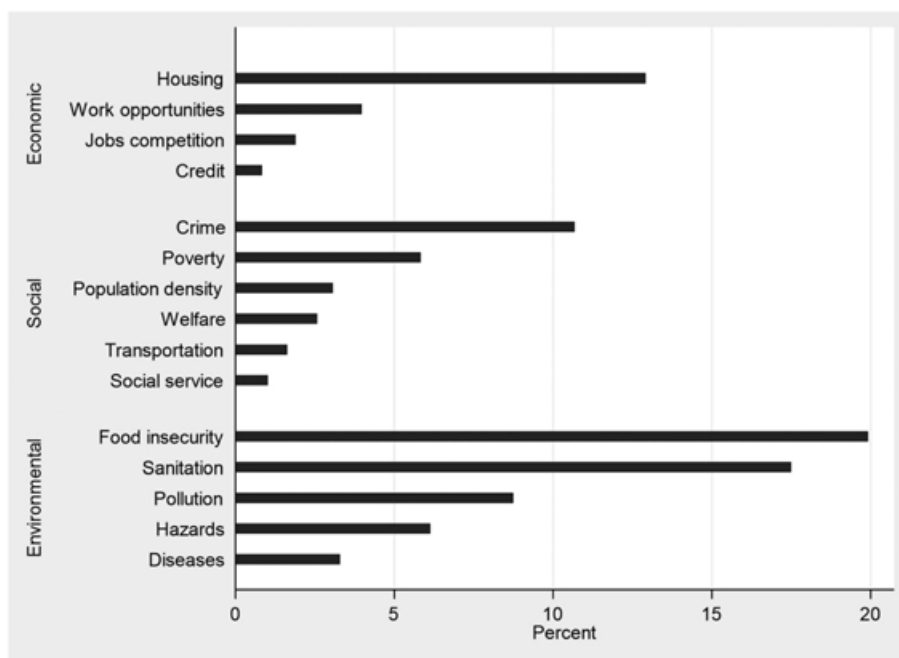


FIGURE 2 Ranked perceived risks

migration have been acknowledged, less is known about the impact of social and environmental risks and hazards in cities, and in particular the interaction between them, on the subjective well-being of migrants. Yet, these can have important implications for the lived experiences of migration and for the sustainability of cities (see, e.g., Adger et al., 2020; Ayeb-Karlsson, 2021; Ayeb-Karlsson et al., 2020). The results from our study show that, on the one hand, perceived insecurities and risks are negatively correlated with measures of subjective well-being. On the other hand, developing an affinity to new urban residences and fulfilling some aspirations increases the probability of reporting higher subjective well-being. Indeed, unmet or frustrated aspirations have been found to negatively impact the subjective well-being of migrants in cities (Chen et al., 2019; Knight & Gunatilaka, 2008, 2010). However, in our sample, well-being gains from achieved aspirations might be outweighed by the direct and indirect negative impacts of environmental risks and hazards. This could be explained by the detrimental consequences of exposure to hazardous working and living conditions for different domains of migrants' subjective well-being. For example, pollution and inadequate sanitation in densely populated areas have been found to impact migrants' health and well-being (Adamo, 2010; McMichael et al., 2012). Furthermore, precarious livelihoods and work-related stress factors have been linked to poor psychological well-being outcomes among rural-urban migrants (Lu, 2010; Siddiqui et al., 2021). The observed patterns in the subjective experiences of migrants are upheld when cultural and contextual differences across the three countries are taken into account, although there is some variation in experiences. For example, Indian migrants in our sample were more likely to report higher subjective well-being and stronger place attachment in destination cities.

Importantly, our findings do not appear to support the so called "miserable migrant" phenomenon, as we do not observe a slump in subjective well-being in city destinations. Existing research with urban migrants in Asia and Africa can offer some insight into why might migrants experience an increase in subjective well-being, despite unfavourable conditions. Although rural to urban migrants rarely achieve upward social mobility, even following long-term or multigenerational residence in cities (Krishna, 2013; Rains & Krishna, 2020), the positive aspects of urban slums as places of hope are increasingly emphasised alongside their usual negative framing, as places of despair. These places can provide a safe environment for migrants to make the transition from rural to urban living, to establish livelihoods, and support their families in rural villages (Liu et al., 2015; Owusu et al., 2008). Others have stressed that migrants are not passive receivers of hardship in these spaces but agentic actors who take proactive steps towards furthering their goals and aspirations (Liu et al., 2015; Siddiqui et al., forthcoming). Indeed, our findings indicate that those who have been able to meet their main aspiration are more likely to experience improved subjective well-being. In the context of India and Bangladesh, migrants and other slum dwellers have been shown to influence local policy actors who rely on this demographic during processions, demonstrations, and elections (Auerbach, 2016; Siddiqui et al., forthcoming). Such systems of political clientelism have

in places resulted in the provision of improved services and facilities that make informal settlements more liveable.

Nevertheless, our findings emphasize the role of perceived risks in shaping migrants' subjective well-being in cities, suggesting that lived experiences of urban migration destinations are complex and any positive gains in subjective well-being are mediated by social and environmental factors. For example, we find that longer residence in cities may not translate into sustained gains in the subjective well-being of migrants. This could be in part due to limited upward social mobility, which means that migrants rarely move out of informal settlements and continue to experience social and environmental risks such as insecurity of tenure and risk of eviction or indeed exposure to environmental hazards such as water logging or landslides (Rains & Krishna, 2020; Siddiqui et al., 2021). Our results thus echo experiences from earlier studies that revealed that migrant populations experience multiple dimensions of insecurity in cities (Ajibade & McBean, 2014; Ajibade et al., 2013; Owusu et al., 2008; Siddiqui et al., 2021). The sources of insecurity are familiar to all precarious populations: food insecurity, access to clean environments, and a collection of processes of social exclusion. Yet they are, we suggest, amplified for migrant populations in places where they have less place attachment, limited citizenship rights, and cluster in densely populated informal settlements (Banks et al., 2011; Chu & Michael, 2019; Siddiqui et al., 2021). In effect, the study here points to a new urban precarity in that urban migration involves substituting one set of risks and vulnerabilities for a different set in the destination, which also include social factors (Siddiqui et al., 2021). Therefore, this study has implications for urban planning and city governance for sustainability.

What do these results suggest for the sustainability of urban destinations? The lived experience and well-being of new migrant populations is central to urban sustainability. Indeed Sustainable Development Goals for urban areas have been formulated around such elements that contribute to a dignified and meaningful life (Klopp & Petretta, 2017; Sampson, 2017; Seto et al., 2017). It is already well established that social inequality is highly unevenly distributed within cities, both at the neighbourhood level and in subpopulations (Sampson, 2017). Ajibade and McBean (2014), for example, based on their observational studies in Lagos, argue that the key mechanism for continued insecurity is access to housing and further that gender intersects with neighbourhood factors to amplify vulnerability to insecurity and negative outcomes for health (Ajibade et al., 2013; Reckien et al., 2017). These risk factors are likely to be amplified for new migrant populations, including women, men, and multiperson households and are demonstrated in this study by the reported sources of perceived insecurity, including housing and access to health. The sample of cities in Ghana, India, and Bangladesh includes women in all these settings. In Bangladesh, there is a significant increase in single women migrating to the main cities as formal sector opportunities expand, for example, in the garment industry (Siddiqui et al., 2018).

Our findings point to long-term implications of environmental risks and insecurity for perceived well-being. Hence, a key policy question to be drawn from this study is how such risks can be tackled

directly and whether they can be offset by gathering new networks and becoming attached to place in new settings. If social dimensions are to be taken as core to safe and resilient cities, then planning needs to move beyond measuring access to economic opportunities to recognise multiple dimensions of well-being and reduce insecurity by focussing on housing and access to clean environments as well as recognising the importance of place attachment and the role of migrant aspirations.

6 | CONCLUSION

Migration and urban sustainability are inextricably linked, because urban population growth is in part driven by the arrival of new populations, and the situation of migrants is often far from sustainable. The well-being of new populations is often precarious in rapidly growing cities globally. We have examined the role of social, environmental, and economic factors in shaping the subjective well-being of migrants in rapidly growing urban destination areas. We find evidence of new forms of urban precarity, which include perceived social and environmental risks to migrants' well-being in destination. These are manifest in experiences of discrimination by the host society, insecurity relating to food, water, sanitation, and exposure to environmental hazards in new places of residence. However, the findings also indicate that meeting migration-related goals and aspirations and developing an affinity to urban destinations might mitigate negative sentiments from perceived and experienced risks and hazards and could contribute to a positive perception about life in the city among lifetime migrants. This could potentially explain the underlying finding that migrants experience life after migration positively, compared with life in origin, despite the multiple challenging circumstances in cities.

These findings have, therefore, important implications for future urban planning and city governance for sustainability. Sustainable Development Goal 11 on cities articulates an ambitious plan, which aspires to make cities and communities safe, inclusive, resilient, and sustainable by 2030. The study here suggests that dealing with environmental risks often faced by recently arrived populations is key to delivering on ambitious sustainability targets. The results highlight the need for moving beyond material concerns of economic performance in urban policy and planning discourses, to also recognize subjective and relational dimensions of well-being and their interaction with social and environmental determinants. The interaction between material, subjective, and relational dimensions of well-being and social and environmental conditions in cities presents both challenges and opportunities to the lived experience of migration and to urban precarity. However, recognizing and integrating these into policy discourses and actions could improve outcomes for migrants and enhance the liveability and sustainability of rapidly growing urban areas.

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DATA AVAILABILITY STATEMENT

The dataset for the analysis presented in the paper can be publicly and freely accessed through the Mendeley Data repository at DOI TBC <https://doi.org/10.17632/pr9d2cj2g8.2>.

ORCID

Lucy Szaboova  <https://orcid.org/0000-0002-5259-7254>

Ricardo Safrá de Campos  <https://orcid.org/0000-0003-2345-7524>

W. Neil Adger  <https://orcid.org/0000-0003-4244-2854>

Mumuni Abu  <https://orcid.org/0000-0002-6455-0162>

Samuel Nii Ardey Codjoe  <https://orcid.org/0000-0002-6567-0262>

Maria Franco Gavonel  <https://orcid.org/0000-0003-2377-5987>

Shouvik Das  <https://orcid.org/0000-0002-3872-6662>

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