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A global minimum wage formula as a proactive measure for climate migration

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Abstract: On February 14, 2023, United Nations Secretary-General Antonio Guterres spoke to a global audience, stating, "The world will witness a mass exodus of entire populations on a biblical scale."

Purpose: This paper proposes a global minimum wage formula tied to local rent prices as a proactive measure to strategically incentivize populations to migrate away from coastal areas threatened by climate change.

Methodology: The author employs a theoretical approach, utilizing economic principles and financial literacy practices to develop a scaffolded, multi-year plan for implementing a global minimum wage formula. As this is a theoretical paper, there are no experiments or empirical results to evaluate.

Results: The proposed global minimum wage formula, based on a 'Recent and Relevant Rent Price Index' (3RPI), is designed to anchor wages to a rent-price index, allowing laborers to afford housing on 30% of their wages. This formula is expected to incentivize migration inland, spur entrepreneurism, and increase local tax bases.

Theoretical contribution: This paper contributes to climate change adaptation by proposing an economic solution to manage the anticipated mass migration due to rising sea levels and coastal erosion. It highlights the potential of market-driven measures to mitigate the economic shocks associated with climate change-induced migration.

Practical implications: Implementing the proposed global minimum wage formula could help governments proactively manage climate change-induced migration's economic and social impacts. It

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may also contribute to funding the annual $2.4 trillion gap for addressing climate change, as described by the United Nations, by temporarily increasing discretionary funds and tax bases.

Keywords: climate finance, climate migration, minimum wage, seal level rise, coastal erosion

Sustainable Development Goals (SDGs): SDG 10: Reduced Inequalities; **SDG 13:** Climate Action; **SDG 11:** Sustainable Cities and Communities; **SDG 1:** No Poverty

1. Introduction

The World Meteorological Organization (2024) recently determined there was a better than two-thirds chance that our global temperature would breach the 1.5-degree Celsius threshold from pre-industrialized standards. The Intergovernmental Panel on Climate Change (2022) determined that this would begin a series of escalating catastrophic climate events without humanity's ability to stop entirely, including a steady rise of sea levels that would disrupt human lifestyles and endanger human lives. We must not confuse these scientific facts with a metaphorical prison sentence of hopelessness.

The world's first island is preparing to evacuate due to rising sea levels (Zamorano & Delecroix, 2024). The National Oceanic and Atmospheric Association estimates a 10–12-inch rise by 2050 (Sweet et al., 2022). Experts estimate that as many as 190 million people may be forced to migrate away from coasts in the coming decades, with Franco and World Economic Forum (2020) stating that "defense and intelligence agencies are now regularly warning that climate change could trigger conflicts severe enough to uproot entire populations" (p. 31). The Wet Bulb Global Temperature continues to rise, and those threatened by it often overlap with those already at risk of other climate issues (Brimicombe et al., 2023; The Economist, 2021). The public health community (Kwak, Kamal, Charrow, & Khalifian, 2021) expands on the warning of these mass migrations, going as far as claiming that "under the right policy conditions, it is possible for such adaptive migration to save countless lives" (Marcus, Hanna, Tait, Stone, & Wannous, 2023). We have the tools to measure and manage these circumstances.

Flocking behavior describes such events through an economic lens. Using three dissimilar economic games, Frey and Goldstone (2018) found that humans elicit "flocking behavior in groups and show that it is driven by the human ability to anticipate the reasoning of others recursively." Hauer et al. (2019) provide economic, social, and cultural evidence suggesting that most people would resist climate migration until it is the only remaining option—which increases the odds of large percentages of residents migrating simultaneously. An economic shock such as a mass migration would likely impact geographic rent and housing prices such that a less-than-optimal occupancy would occur, leaving an overwhelming majority homeless. Four research questions guide this rapid communication:

1. What would the economic ramifications be to the natural human response to climate-change-induced mass migration? 2. What would an anchor against such subsequent permanent price adjustments and inflation look like? 3. What would a rent-price index look like? 4. Can a minimum wage be engineered to reflect the best financial literacy practices within such a behavioral economic paradigm?

As a result, this rapid communication outlines a simple global minimum wage model tying wage to the 5-year average of median rent prices of a geographic location. World governments have proved their ability to adhere to the same proportions for global economic minimums when over 140 nations have agreed to tax multinational corporations at the same floor rate (OECD, 2024a). The author goes on to describe a theoretical incentive-based migration inland away from high-priced coastal districts, resulting in grassroots support for public transportation, a devaluation of coastal land and property values, as well as a subsequent opportunity for government and corporate-led climate crisis mitigation efforts (Aroke, Esmaeili, & Kim, 2021; International Labour Organization, 2022; Luscombe, 2024; Owen-Burge, 2022; U.S. Government Publishing Office, 2021). Moreover, by the Global North advocating for implementation in low-wage countries where corporations export their manufacturing and pressuring those governments for adoption, the author posits that industrial nations will likely strengthen their local supply chains through eased near-shoring. Ultimately, this market-driven measure would limit authoritarian responses to mass migration due to climate change panic and reduce the necessity of uncapped global aid over time.

2. Literature review

2.1. Issues we face

As ocean levels rise, coastal erosion and continued habitation of coastal cities become increasingly persistent. How individuals, families, and groups migrate away from these geographical areas will create issues to address. Some of those issues will create economic shocks depending on the density and rate at which humans flock. These three areas of interest will be further deconstructed below.

2.2. Concerns by the coast

This paper focuses on the growing problems with the 120+ nations that share a border with one of our planet's oceans. Only SDG 14 explicitly addresses the ocean and the coasts. However, nine of the remaining sustainable development goals are supported by the world's oceans and the thirteen human megacities located on coasts (Future Earth Coasts, Southern Cross University, East China Normal University, & Chinese Academy of Sciences, 2024). These and innumerable other human developments will encounter sea-level rise that threatens billions and their ways of life (Box et al., 2022; Climate Change-induced Sea-Level Rise Direct Threat to Millions around World, Secretary-General Tells Security Council, & Meetings Coverage and Press Releases, 2023; King et al., 2020). Desmet et al. (2021) use a spatially disaggregated, dynamic world economy model to estimate a loss of 4.5 percent of global GDP by 2200 due to coastal flooding alone. In the United States alone, coastal counties earn $4 trillion in wages (CNBC, 2024). Some scientists believe the ground rock beneath glaciers will slow their impact on sea-level rise (Carrington, Scruton, & Swan, 2024). Others argue that Antarctica melting six times faster than just a few decades ago has the potential to contribute nearly 200 feet of global sea-level rise (Yandell, 2024). Some view this as an unlikely projection, given the low-resolution tools used in the methodology (Morlighem et al., 2024). However, Alaskan glaciers are melting similarly (Davies et al., 2024). Due to this, critical infrastructure at risk has been identified over the past decade (Flanagan, 2015; Habel et al., 2024; Ohenhen, Shirzaei, & Barnard, 2023). The hydraulic action of the waves, abrasion from sediment, and attrition from more powerful sea storms add to this sense of urgency (Shadrick et al., 2021). Tourism provides a net economic gain for many nations around the world. Relatedly, even modest assessments provide geospatial data that pinpoints dozens of famous surfer beaches that the sea will overcome before the turn of the century (Patsch & Reineman, 2024). Hauer et al. (2019) estimate world coastal populations to exceed 1 billion people before the turn of the century. Human collective behavior has the responsibility and opportunity to act proactively against these escalating forces of nature.

2.3. Climate refugees

The migration of human populations away from threats has a more extended history than agriculture. On February 14, 2023, United Nations Secretary-General Antonio Guterres spoke to a global audience, "The world will witness a mass exodus of entire populations on a biblical scale' (Secretary-General's remarks to the Security Council Debate on "Sea-level Rise: Implications for International Peace and Security" | United Nations Secretary-General, 2023). Rigaud et al. (2018) estimate there will be nearly 86 million internal climate migrants in Sub-Saharan Africa by 2025, with 40 million more in South Asia and 17 million in Latin America (p. 7). Already, there are as many as 281 million migrants, with nearly 1.5% of the global population today identified as 'displaced' (Misinformation and politicization of migration are 'clouding public discourse,' 2024). The United Nations was formed to further human rights, yet the World Economic Forum recently framed migration as a potential' post-human rights' issue (McAuliffe, 2024). With an existential threat to the middle class looming across 94 of the world's most populous cities (Cox et al., 2024), it is only fair to question how widespread nomadic migration might impact the global economy.

2.4. Economic shocks

What would the economic ramifications be to the natural human response to climate-change-induced mass migration? With remittances reaching a global record of 831 million dollars, human flow has demonstrated an ability to be regionally economic while buoying developing nations

(McAuliffe, Oucho, & International Organization for Migration, 2024). Thirteen advanced economies lifted by immigration-fueled growth still ended the year in a per-capita recession due to housing shortages (Thanthong-Knight, Pandey, & Rees, 2024). The speed and direction that groups of people flock will determine the velocity of quality of life for those living under the management systems subsequently developed. Should entire coastal populations quickly relocate inland, an inflationary shock will most likely occur in the short term as residents seek to make a profit off the abundance of human need; depending on how long those needs last, permanent price adjustments may set in as 'the price effect is magnified by a quantity effect when the change in commodity prices is permanent" (Kulish et al., 2015).

This reinforces what Stantcheva (2024) states about the public's perception of inflation: "[their] main concern highlighted is the erosion of purchasing power, with many feeling that wage growth does not keep up with the pace of rising prices" (p.19). Inflation is high at 3.4% but certainly lower than its 9.1% peak at the close of the global pandemic (U.S. Bureau of Labor Statistics, 2024). Economic shocks exacerbate inflation as Ambrose et al. introduce a new tool to measure a revised annual inflation rate of 11.642% at peak (2022). Wage earners worldwide lost purchasing power in a shift that could aggravate global unrest (International Labour Organization, 2022). Even in the most economically advanced industrial nation, one in four of the 43 million renters missed a monthly payment during the global pandemic (Schuetz & Ring, 2021). Renters feel this impact more than homeowners due to the elasticity of rent prices and the general income disparity in those two demographics (Adams et al., 2022; Bahney, 2024; Siegel, 2024). Knowing millions already live in refugee camps today, we can expect a housing demand shock due to climate migration (Inside the world's five largest refugee camps, 2023, p. 2023).

These are predictable problems for governing bodies. The International Monetary Fund states that "governments influence the economy by changing the level and types of taxes, the extent and composition of spending, and the degree and form of borrowing," so addressing potential fiscal events in the future is a matter of governmental priorities (para. 3, 2019). One example from the United States of America is the President's proposing eliminating tax benefits for more extensive landlord portfolios unless they cap annual rent hikes at five percent (The White House, 2024). Representative democracies are empowered by anticipating these widespread economic shocks rather than by being forced to act when the pressure is higher.

3. Methodology

This study employs a theoretical approach to address the complex issue of climate migration and its economic implications. The research design is primarily conceptual, focusing on developing a novel global minimum wage formula as a proactive measure against climate change-induced migration.

Research design

The study uses economic principles, behavioral economics, and macroeconomic approaches to formulate a theoretical model. This interdisciplinary approach allows for a comprehensive examination of the potential impacts of climate migration on global economies and labor markets.

Data sources

While no primary data collection was conducted, the study relies on secondary data from various reputable sources, including:

1. United Nations reports on climate change and migration
2. World Bank data on global economies and labor markets
3. International Labour Organization statistics on minimum wages
4. Small Area Fair Market Rents (SAFMR) dataset for U.S. rent prices

Theoretical framework development

The methodology involves the following steps:

1. Analysis of existing literature on climate migration, economic shocks, and minimum wage policies
2. Development of a 'Recent and Relevant Rent Price Index' (3RPI) based on median rent prices for two-bedroom rentals across legal geographic districts
3. Formulation of a global minimum wage formula that ties wages to local rent prices

4. Theoretical application of the formula to specific geographic areas (e.g., Chicago, IL and Los Angeles, CA) to illustrate potential impacts

Economic modeling

The study presents a theoretical economic model that:
1. Anchors minimum wages to local rent prices
2. Aims to ensure housing affordability for workers (30% of wages for housing costs)
3. Potentially incentivizes strategic migration away from high-risk coastal areas

Limitations

As a theoretical paper, the main limitations include:
1. Lack of empirical testing of the proposed formula
2. Reliance on data primarily from the United States, despite the global focus
3. Potential challenges in global implementation due to varying economic and political contexts

Future research directions

The methodology section concludes by outlining potential areas for future empirical research, including:
1. Testing the effectiveness of the proposed formula in different regions
2. Assessing long-term economic, social, and environmental impacts
3. Exploring synergies with other climate change adaptation strategies

This theoretical approach provides a foundation for future empirical studies and policy discussions on addressing climate migration through economic measures.

4. Research results

4.1. An incentivized approach

In examining twenty-three emerging markets, Anser, Khan, Khan, Huizhen, and Haider found three ways government interventions can positively impact: strengthening a legal framework, protecting market autonomy, and ensuring a regulatory regime (2024). From a market perspective, treating an expected future economic shock as an emerging market could best frame government intervention for democratically elected nations. What would an anchor look like against subsequent permanent price adjustments and inflation? The following incentive for shifting populations away from the coasts falls within all three categories: a global minimum wage formula. This management technique anchors inflation and permanent price adjustments, allows human migration to be economically incentivized within an autonomous market, and increases the tax bases at every level of government in a controlled manner.

4.2. A legal framework

Any minimum wage is a legal government intervention into the free market to regulate labor in the interest of a better-functioning society. Strengthening this legal framework across the international community may present a more straightforward pathway to collective certainty in an uncertain time. The International Labor Organization Secretary General wrote, "Shaping coherent policy responses within the multilateral system is indispensable to progress toward more inclusive, resilient, and equitable societies. In a globalized economy, appropriate and timely wage policies that leave no one behind are intrinsic to such policy responses" (Adams et al., p. 3, 2022). Today, 173 nations worldwide regulate the price of labor, with over three-quarters of those adjusting their minimum wage every three to five years between 2010 and 2019 (DeSilver, 2024). Kulish et al. (2015) also found three other takeaways about minimum wages worldwide, with the first being that 115 of those countries "sets minimum wages by regulation, order or decree, typically under some authorizing law" (2024). Seventeen others price labor by a legislative body and ninety of these countries have more than one minimum wage, with the range growing into the dozens—all regulated by industry, sector, and national geography (DeSilver, 2024). Nations around the globe have demonstrated the ability to change minimum wage legal requirements when necessary.

4.3. Market autonomy

This author has not discovered a national minimum wage tethered to an anchor to increase laborers' purchasing power. Panama regulates the price of labor across various industries, also considering rural versus urban wages (Bishop, 2024). However, there are no market-based solutions for citizens retaining enough wages to guarantee nutrition, housing, and the means to reproduce—anywhere in the world. In the United States of America, Connecticut comes the closest with adopting Public Act No. 19-4 in 2019, which scaffolds up the 'minimum fair wage' and then tethers it to the employment cost index (Office of Governor Ned Lamont, 2023). Measuring the underlying factors of indexes like the employment cost and consumer price indexes (CPI) is essential to minimum wage policy. Adams et al. (2024) were concerned about rent's impact on monetary policy due to increased inflation, finding that "the discrepancy between CPI rents and other rent indexes is almost entirely driven by differences in rent growth for new tenants relative to the average rent growth for all tenants" (p.13). Given that almost a third of the CPI is generated by living costs associated with shelter, it makes sense that Connecticut would legally anchor their minimum wage to something that addresses this significant universal expenditure.

What would a rent-price index look like? The' Recent and Relevant Rent Price Index' (3RPI) is simple. It merely aggregates the median rent price for two-bedroom rentals across legal geographic districts for the previous five years and then averages them. The 3RPI is based on the minimum shelter needs for an independent family unit, including adult parents and at least one but fewer than five children. One limitation of this paper is its reliance on data from the United States of America despite its global focus. This paper uses data from the Small Area Fair Market Rents (SAFMR) dataset as the zip code level data has allowed for a more equitable distribution of housing vouchers in the past (Park, 2024). Five years is timely in 2024 as it includes post-pandemic shelter costs, mid-COVID-19 rent hikes, and pre-global pandemic rent prices; better economists may find a different window of time makes for better monetary policy. The 3RPI will be represented by the formula, with *n* being the current year:

$$\frac{SAFMR_{n-1} + SAFMR_{n-2} + SAFMR_{n-3} + SAFMR_{n-4} + SAFMR_{n-5}}{\mathrm{n} - (\mathrm{n} - 5)}$$

These examples showcase different ways we measure the impact of rent prices on the economy. While the proposed 'Recent and Relevant Rent Price Index' protects market autonomy, a better-proven standard for rent-price indexes could be substituted. The following section will show the government intervention in the market that uses this index.

4.4. A regulatory regime

Is there a way to engineer a minimum wage to reflect the best financial literacy practices within a climate-based behavioral economic paradigm? Maintaining an agreed-upon global economy is a top priority in the face of millions of new climate refugees. The economic impacts of those series of events are anticipated and can be managed. Adams et al. (2022) state clearly: "The issue of which rent index best relates to central bankers' objectives is not a trivial one" (p. 14). Should a market intervention rely on such measures, choosing one that ensures market autonomy is necessary. The regulatory regimes that enforce such an intervention will expectantly be directed at benefiting from the increased tax base legally and equitably.

Additionally, a government intervention aimed at empowering the purchasing power of labor while mitigating inflation should consider common financial literacy provided to the masses. Those who "spend more than 40% of disposable income on housing" are considered "'overburdened' by housing costs" (OECDb, 2024). In the United States, affordable housing is "defined as housing on which the occupant is paying no more than 30 percent of gross income for housing costs, including utilities" (U.S. Department of Housing and Urban Development, 2006). Chen and Le (2023) found that the national rent-to-income ratio (RTI) crossed 30% in the United States for the first time in 25 years. Further analysis found this constituted a "new normal" (Wiley & Moody's Analytics, 2023). The National Low Income Housing Coalition (2024) found that to participate in this 'new normal' while living in a two-bedroom apartment, one would need a median minimum wage of $32.11 (p.3).

If the goal of a minimum cost of labor is to ensure a minimum quantity of life that affords shelter, nutrition, and the opportunity for reproduction, then engineering a wage that reflects those conditions seems reasonable. Below is a formula for a global minimum wage engineered to allow any laborer working full-time hours to afford housing on 30% of their wages:

$$\frac{[Annualized\ coefficient] \times 3RPI}{[HUD\ coefficient] \times [FulltimeHours\ coefficient]}$$

Here is an example for the *60618* zip code – the North Center neighborhood in Chicago, IL – chosen for its abundance of rental data and history of welcoming immigrants:

$$\frac{12 \times (1560 + 1450 + 1380 + 1310 + 1270)}{2024 - 2019} \div (0.3 \times 2000)$$

Components:

- 12 - number of months in a year
- (1560 + 1450 + 1380 + 1310 + 1270) - a sum of median rental prices for the past 5 years
- (2024 - 2019) = 5 years period
- 0.3 - coefficient representing 30% of income for housing
- 2000 - standard annual full-time working hours

We see that twelve months are multiplied by the average of the five median rent prices for the past five years for the zip code; that sum is then divided by the thirty percent coefficient given by HUD multiplied by the 2000 hours worked that average a full-time worker's compensation in the United States of America.

The example above shows that the minimum wage for those working in the North Center neighborhood in Chicago, IL, would be $27.88. The minimum wage in zip code 60628—the Roseland neighborhood – would be $22.00. People would be incentivized to live in Roseland and work in North Center, but those living and working in their neighborhoods could still afford shelter. In Los Angeles County, California, the rent for those threatened by rising oceans in the 90291 zip code would earn $60.44 an hour – to be used, possibly, to move fifteen miles inland to zip code 90007, where the price in 2023 for a similar two-bedroom apartment was 44% cheaper ("Small Area Fair Market Rents [2023-2019]", 2023). With a flat tax of 4.95%, Illinois would generate billions more dollars in taxable revenue while lifting those families relying on labor priced at the legal minimum. Those living on the water in Los Angeles would raise their income tax from four percent to 9.3 percent. With the world's nations stalled on funding a global climate change initiative ahead of COP29 (Abnett, 2024), perhaps a global minimum wage formula that increased tax bases in every district, state, province, and country would inspire the necessary and desired funding commitments.

What might the consequences look like for one of these regulatory regimes? In Illinois, the "Lifting Up Illinois Working Families Act" of 2019 scheduled seven increases in the cost of labor over five years, beginning with a twelve percent increase, then a 9.25 percent increase. A 10 percent increase, then a 9.16 percent increase, a 9.23 percent increase, a 9.28 percent increase, and finally a 9.33 percent increase. An additional scaffolded approach, reverse-engineered to meet the formulaic outcome eventually, makes sense. Here is the bottom, top, and quintiles of zip codes in Illinois according to the SAFMR cost of a 2BR rental across the last five years to highlight the percentage gap between housing now and the proposed minimum wage:

Table 1: Illinois zip codes ordered by SAFMR two-bedroom rent prices (2019-2023) with projected minimum wage goals

Zip	n -1 (2023)	n -2 (2022)	n -3 (2021)	n -4 (2020)	n -5 (2019)	2024 Formulaic Outcome	Goal Met
61336	790	780	700	720	710	$14.8	2025
61530	890	840	850	750	730	$16.24	2026
61088	970	850	780	770	810	$16.72	2026
60111	1090	1030	1010	980	960	$20.28	2029
60694	1410	1310	1270	1220	1180	$25.56	2031
60712	2160	2010	1950	1870	1820	$39.24	2036

Table 1 shows the bottom, top, and quintile zip codes in Illinois ordered by the SAFMR two-bedroom rent price model for 2019-2023. Illinois will raise its minimum wage to $15 in 2025, but according to the global minimum wage formula, most zip codes fall below the ability to pay for affordable housing. Using a similar percentage pay raise structure as their 2019 law, the formula's goal can be met shortly with a twelve percent increase in 2026 and a 9.025% increase each subsequent year until the minimum wage across Illinois is tethered.

5. Discussion of the results

5.1. Implications

A global minimum wage is not meant to be a panacea for our climate change crisis. However, it positively impacts the management of the issue. This type of economic development is aimed at the lowest-paid workers globally—those earning the minimum that stakeholders can pay for labor. Those whose labor cost increased the most under these new policies would be doing so in areas deemed as high-flood risk or at risk for social disarray over the coming decades—they would be incentivized to move inland. With the public moving further away from their source of income, public support for adequate public transportation would expectantly grow. As nations scaffold up to meet this new global minimum wage, there would be a window where taxable income might be a record high for districts, states, provinces, and central governments. Developing that infrastructure would be possible with the increased tax bases for each district and would align with government and corporate-led climate crisis mitigation efforts (Aroke, Esmaeili, & Kim, 2021; International Labour Organization, 2022; Luscombe, 2024; Owen-Burge, 2022; U.S. Government Publishing Office, 2021).

Potential challenges and limitations could arise when implementing this intersection of behavioral economics and macroeconomic approaches to climate migration. Its feasibility would depend on each nation's political will and the jurisdictions associated with minimum wage laws. Any time governments prioritize market autonomy, various free enterprises are affected. Such a global change would shift market share and viability for conglomerates and small businesses; any resulting opportunities could be viewed with fresh entrepreneurial eyes. Despite this focus on governing from the most minor inflection point possible, unintended consequences will likely arise. These could be reflected in the current stock market, global employment numbers, and expected electoral demographics. Future research should focus on empirically testing the effectiveness of this global minimum wage formula in different regions and assessing its long-term economic, social, and environmental impacts. Additionally, researchers should explore the potential synergies between this market-driven approach and other climate change adaptation strategies, such as infrastructure development and ecosystem conservation.

However, the cost of a shipping container has increased by 313% compared to pre-pandemic times (Drewry Supply Chain Advisors, 2024). This author argues that by the Global North advocating for implementation in low-wage countries where corporations export their manufacturing and pressuring those governments for adoption, industrial nations will likely strengthen their local supply chains through eased near-shoring. The Global South would be incentivized to take on this change as developing countries maintain public debt at 72.2% as a share of national GDP (Grynspan et al. 2024). The largest economy in the world has the same incentives to reduce the percentage of debt held by the public and reduce the debt-to-GDP ratio (Bambrough, 2024; Congressional Budget Office, 2024). A global minimum wage formula designed to strengthen market autonomy while limiting mass homeless populations ripe for authoritarian exploitation may even contribute to the annual $2.4 trillion currently estimated to be necessary to combat climate change (Volcovici, 2024).

6. Conclusions

The global minimum wage formula proposed in this paper represents a novel approach to addressing the complex challenges of climate change-induced migration. This mechanism aims to incentivize strategic population movements away from vulnerable coastal areas while addressing economic disparities by tying minimum wages to local rent prices.

Our theoretical analysis suggests that this approach could have several significant implications:

1. Economic Incentives: The formula could incentivize inland migration, potentially reducing the sudden, large-scale population movements that often lead to economic shocks.
2. Housing Affordability: The formula could help maintain housing affordability even as migration patterns shift by ensuring minimum wages are sufficient to cover local housing costs.
3. Tax Base Expansion: Implementing this formula could increase tax bases for inland areas, potentially funding necessary infrastructure and climate adaptation measures.
4. Global Economic Stability: By providing a coordinated approach to minimum wage setting, this formula could contribute to more excellent global economic stability in the face of climate change disruptions.

However, several limitations and areas for future research should be acknowledged:

1. Implementation Challenges: The practical implementation of a global minimum wage formula would face significant political and economic hurdles that require further exploration.
2. Regional Variations: The effectiveness of this approach may vary significantly between regions and countries, necessitating more localized studies.
3. Economic Impact: Comprehensive economic modeling is needed to fully understand the potential impacts on local and global economies, including effects on employment rates and inflation.
4. Social Implications: Further research is required to assess the social implications of incentivized migration, including potential cultural and community impacts.

Future research should focus on empirically testing the effectiveness of this global minimum wage formula in different regions and assessing its long-term economic, social, and environmental impacts. Additionally, researchers should explore the potential synergies between this market-driven approach and other climate change adaptation strategies, such as infrastructure development and ecosystem conservation.

In conclusion, while this paper presents a theoretical framework for addressing climate migration through economic policy, it represents only a first step. The complex interplay between climate change, human migration, and global economics demands continued interdisciplinary research and innovative policy solutions. As we face the unprecedented challenges of climate change, creative approaches that bridge economic policy and environmental concerns will be crucial in developing comprehensive, practical strategies for a sustainable future.

Declarations

Ethics approval and consent to participate

Not applicable.

Consent for publication

Not applicable.

Availability of data and material

The data are available on request.

Competing interests

The author declares no conflict of interest or competing interests.

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