

The Rationale for a Socioeconomic Atlas in Zimbabwe: A Novel approach to Evidence-Based Planning, Monitoring and Evaluation of Development

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Abstract: Zimbabwe, like many developing countries in the world, faces significant socioeconomic challenges requiring evidence-based solutions. This article justifies the idea for the development of a comprehensive socio-economic atlas to address critical data gaps hindering informed decision-making in the country. We begin by conducting an analysis of socioeconomic atlas cartography as an essential instrument for evidence-based policymaking in Africa and Zimbabwe in particular. We therefore, provide a systematic study of notable African atlases from the last 20 years, classifying them by their thematic and methodological approaches. A critical review of the state of spatial data visualisation in Zimbabwe, highlights significant gaps in current cartographic works. Although thematic mapping is evident in government reports, non-governmental organisations, and academic publications, there is a recurring lack of a unified, interactive, and spatially detailed atlas. The article further highlights the fragmented nature of socioeconomic data, limited spatial resolution, and accessibility issues in existing cartographic resources on Zimbabwe. The article, thus presents a strong rationale for the compilation of a socioeconomic atlas and links it directly to Zimbabwe's national development goals; Vision 2030), its commitment to UN Sustainable Development Goals (SDGs), and the African Union's Agenda 2063. The article outlines a proposed framework for the development of the aforementioned atlas, detailing its structure and the planned data sources, which include local, regional, and international organisations that deal with credible and verified data on Zimbabwe. We envisage the atlas being a useful tool for policymakers, researchers, and development partners for Zimbabwe and that it would mark the beginning of a more unified social economic mapping initiative in the country.

Keywords: Socioeconomic Atlas, Cartography, Spatio-temporal Analysis, Development Planning,

1. General Background of modern day Socioeconomic Atlas Cartography

Over time, socioeconomic atlases have evolved from static, descriptive collections of maps into dynamic, analytical tools integral to modern governance and development planning. Their primary role is to synthesise complex, multi-dimensional data into spatially explicit visualisations, thereby making patterns of inequality, opportunity, and resource distribution intelligible to policymakers [1, 14, 33]. In the framework of sustainable development, the spatial dimension is not incidental but rather fundamental. Thus, disparities in income, access to health, education, and infrastructure are intrinsically geographical problems requiring geographically targeted solutions.

Globally, the advent of Geographic Information Systems (GIS), remote sensing, open-source platforms, and interactive web-mapping has revolutionised atlas cartography. Modern atlases are increasingly becoming more digital, allowing for real-time data updates, complex spatial analysis, and user-customised geo-visualisation. This change aligns with the "data revolution" advocated for in the 2030 Agenda for Sustainable Development, which emphasises the need for high-quality, timely, and disaggregated data to measure socioeconomic progress [3].

In the African context, the relevance of socioeconomic atlases is important. The continent is experiencing rapid urbanisation, demographic shifts, and innate socio-spatial inequalities. Spatial data and maps are crucial for understanding national statistics, to reveal subnational heterogeneities that aggregate figures often conceal [19, 30]. Thus, a well-designed atlas goes further than describing challenges, but also provides a framework for targeting interventions, evaluating policy impacts across different regions, and fostering transparency and accountability within governance institutions [28]. In addition, socioeconomic atlases are therefore instrumental in providing geo-visualisation mechanisms to show development outcomes to all citizens. Therefore, the contemporary improvements in socioeconomic cartography have the potential to provide

unprecedented insights into development patterns and also to guide more effective targeting of solutions to socioeconomic challenges.

2. An Analysis of Notable African Atlases produced in the last 10-20 years

In general, there is very limited compilation, publishing and holistic adoption of socioeconomic atlases in Africa. This is usually a result of a host of factors, including associated costs, limited data access, and differing political ideologies and priorities, as well as, to some extent, a lack of will. Despite the immense benefits of socioeconomic atlases, which include, but are not limited to visualisation of socioeconomic indicators and a yardstick to keep track of development among others, the concept has not been fully embraced in the regions of the African continent. However, over the past decade, a number of socioeconomic atlases have emerged across Africa, representing diverse approaches to visualising development challenges and opportunities [11, 32 & 33]. These atlases from the last 10-20 years reveal a subtle development in the field of atlas cartography in Africa. This new emerging development has also seen a significant shift in the nature and compilation of socioeconomic related atlases within the region. Present-day socioeconomic atlases have shifted from predominantly broad national overviews to targeted, thematic and multi-scalar works. In some instances, these atlases can be categorised by their geographic scope, thematic focus and methodological approaches [32]. In other instances, the atlases can also be systematically classified into three primary categories as shown below:

National Statistical Atlases: These atlases are often produced by National Statistical Offices or Agencies (NSOs/NSAs) [8]. Such atlases are usually compiled in partnership with international organisations. One example, is the South Africa Census Reports (2022), which systematically visualises population and housing census data at various administrative levels (ward, municipal, provincial). The atlas' strength lies in its rigorous methodology and comprehensive coverage of demographic and basic service indicators. However, its focus is primarily on descriptive statistics from a single data source, as such is limited in scope since it characteristically has limited integration of economic and or environmental variables. The South Africa Census Report (2022) provides critical insights on what we may also adopt, particularly with regards to visualising demographic data.

Thematic and Issue-Specific Atlases: This category includes works focused on a specific development challenge. In recent years, African atlases have increasingly aligned with global development frameworks. The Africa Infrastructure Country Diagnostic (AICD) Atlas published by the World Bank in 2011 is a landmark work that mapped Africa's infrastructure deficit in transport, power, water, and ICT [34]. Its analytical power came from its use of spatial economics to model access and investment costs. Similarly, various Climate Vulnerability Atlases have been produced for countries like Kenya and Malawi, integrating biophysical data (e.g., precipitation models) with socioeconomic vulnerability indices to identify climate-risk hotspots [22]. These atlases are influential in advocating for targeted sectoral planning but, have a drawback in that they overlook the interlinkages between socioeconomic sectors. The thematic atlases referred to above, also give useful insights on the collection processing of various sectoral data for our proposed atlas. However, we would have to improve on relating noted thematic challenges with geo-enabled socioeconomic data. This resonates with the structure of our proposed atlas, which intends to show information in established thematic blocks including demography, social, economic etc.

Sub-national and Regional Atlases: These types of atlases focus on specific regions within a country, particularly those experiencing inimitable development pressures. For instance, the Regional Atlas on West Africa (2009) published by the Organisation for Economic Cooperation and Development (OECD) stands as a landmark achievement in regional cartography [31]. The atlas contains works that depict maps, statistical analysis that describe West Africa's population, settlement, territories, economy and inherent vulnerabilities. Unlike previous descriptive atlases, produced for the region, the Regional Atlas on West Africa (2009) publication, employs a strategic framework that analyses how the region conforms to a constantly changing global environment. In addition, it also seeks to identify medium and long-term trends that provide elements for strategic planning for the future. Its particular strength lies in integrating regional considerations with development analysis, making it relevant in understanding transnational development dynamics within the region. In general sub national atlases like the Regional Atlas on West Africa allow for a more granular analysis of socioeconomic data but its scope is inherently limited geographically.

The cartographic landscape of African atlases produced over the last 10-20 years depicts a growing emphasis on data-driven narratives and thematic mapping. Although traditional geographic atlases remain valuable resources, the emergence of thematic atlases focusing on themes like climate vulnerability, population dynamics, and resource inequality, show a significant shift in African atlas cartography. These recent atlases are a product of the integration of advanced GIS techniques and the use of open-source data. These atlases have not only transformed beyond being just ordinary cartographic presentations, but are now powerful tools for understanding and addressing Africa's complex developmental realities. This development supports the narrative that socioeconomic atlas mapping is not merely a descriptive exercise, but a critical analytical tool for

informing socioeconomic policy formulation, monitoring and evaluation. In addition, the socioeconomic atlases also foster an understanding of multidimensional challenges and opportunities within the African continent.

3. The State of Cartography in Zimbabwe: An Analysis of Existing Works

Zimbabwe's cartographic landscape shows a catalogue of initiatives with varying methodologies, coverage, and utility for development planning. The country, through ministries, government departments and agencies, academic researchers, etc., has produced several thematic resources over the past decades. However, this fragmented approach has not been able to keep pace with technological advancements or the nation's evolving data needs. A critical analysis of existing cartographic works in Zimbabwe reveals significant gaps that a comprehensive socioeconomic atlas would need to address. The most developed aspect of Zimbabwe's cartography is related to natural resource mapping, particularly in the mining and agricultural sectors. The government's mining departments have produced detailed geological and mineral maps, while agricultural authorities have developed soil and agro-ecological zoning maps. However, these sector-specific maps often lack integration with socioeconomic data, thereby limiting their utility for comprehensive socioeconomic development planning. For instance, mining maps in Zimbabwe rarely overlay population data, poverty indicators, or infrastructure networks that would enable a better understanding of the social dimensions of resource extraction.

With regard to socioeconomic mapping, Zimbabwe's efforts have been limited and fragmented. For instance, the Zimbabwe National Statistics Agency (ZIMSTAT) produces statistical yearbooks with some basic mapping components, but these typically offer only national-level or provincial-level data with minimal spatial analysis. The SDG Dashboard for Zimbabwe represents a step forward in monitoring development progress. However, it provides only national-level assessments with minimal subnational purpose. This limitation is particularly problematic for Zimbabwe which experiences significant regional disparities, as it hinders targeted policy interventions.

It is also understandable to note that the academic sector has perhaps produced the largest number of socioeconomic mapping works on Zimbabwe, with universities and research institutions generating specialised maps. Maps generated from the academic sector cover a wide range of thematic areas, including electoral patterns, poverty metrics and health access disparities among others [13,16, 24 etc.]. For instance, regarding spatial epidemiology, numerous academic papers have been written [13, 29]. Gwitira et al., (2018), wrote extensively on malaria risk stratification, the overlap between HIV/AIDS and malaria etc., and produced comprehensive mapping products to that effect. A lot of other academics from Zimbabwe, the African region and international scientists such as [15, 26 etc.] produced a lot of credible work including mapping products in areas such as disaster management, agriculture, population dynamics, economics etc. However, these works, including mapping products, remain scattered across publications and institutions, lacking integration into a unified framework. In addition, academic mapping often prioritises analytical complexity over practical utility for policymakers, limiting its impact on development planning.

Zimbabwe's current cartographic landscape is therefore characterised by several gaps. First, there is a pronounced spatial data neglect in development planning, with policies often formulated based on aggregate national statistics rather than nuanced spatial understanding. Secondly, existing maps tend to be static and historical rather than dynamic and forward-looking, thereby failing to provide the predictive analytics needed for strategic socioeconomic planning. Thirdly, there is a severe disconnect between mapping exercises and actual policy processes, with maps often treated as illustrative rather than analytical tools. Fourth, Zimbabwe has been underutilising participatory mapping approaches that engage local communities in spatial data generation. This is despite the fact that there is evidence that such approaches tend to improve policy relevance and implementation.

4. The Rationale for a Socioeconomic Atlas for Zimbabwe

The conception of a socioeconomic atlas for Zimbabwe represents a critical methodological tool in addressing the country's developmental challenges through spatial visualisation and data-driven planning and decision-making. An atlas of such nature, would serve as a comprehensive graphical representation of the country's socioeconomic setting, through integration of demographic, economic, and social indicators with GIS. The basis for this proposed atlas project emanates from Zimbabwe's continued quest for sustainable development amid multifaceted socioeconomic challenges that have persisted since independence in 1980. The country has been an active participant in both global and regional development initiatives. Of particular note, is the country's participation in continental development frameworks such as the African Union's Agenda 2063 and the SADC's Regional Indicative Strategic Development Plan (RISDP) 2020-2030. In addition, Zimbabwe has crafted a number of national policies such as the Vision 2030, NDS 1 and NDS 2 in a bid to improve its socioeconomic status. In order to achieve these national, regional and international goals, there is a need for

evidence-based policymaking that accurately reflects spatial disparities and opportunities across Zimbabwe's provinces. The atlas provides a valuable tool to policymakers by providing multidimensional insights into determinants of inequality, poverty and underdevelopment [33]. In addition, the proposed atlas offers the potential for targeted interventions based on empirical evidence, in addition to other considerations such as political, religious and historical etc., which the country may adopt.

The importance of such a project is particularly evident when considering Zimbabwe's historical socioeconomic trajectory. Since the country attained independence in 1980, it has implemented a number of economic policies with varying degrees of success. However, over the years, the systematic evaluation of these policies' spatial impacts has been limited by data disintegration and methodological challenges [10]. A socioeconomic atlas would consolidate various data sources into an integrated analytical framework, enabling policymakers and researchers to identify spatial patterns in development outcomes and track progress over time. Furthermore, the atlas allows the country's policymakers to compare regional disparities against national benchmarks. The proposed atlas approach, therefore aligns with global best practices in developmental planning, which have adopted geospatial analytics as a core function to understand the complex interplay between socioeconomic policies and services, and geographical factors influencing human development outcomes.

Historical Background and Policy Setting:

Since attaining independence in 1980, Zimbabwe's developmental journey has been characterised by significant policy experimentation and structural transformation. From 1980 to 2015, the country adopted numerous economic policies aimed at addressing colonial imbalances and promoting inclusive growth. However, the implementation of these policies often suffered from a plethora of challenges including governance flaws and inadequate monitoring mechanisms [5]. Understanding historical contexts is important in appreciating contemporary socioeconomic disparities, since regional variations in development often reflect an interplay of legacy and policy issues and decisions. At the inception of independence, the Lancaster House Constitution of 1979, for instance, established intergovernmental fiscal arrangements that continued to influence resource allocation patterns decades later. On the other hand, the economic reforms instituted in the 1990s and the land redistribution program of the 2000s had divergent impacts across different regions and socioeconomic groups in the country.

In more recent years, Zimbabwe adopted the Agenda for Sustainable Socio-Economic Transformation (ZimAsset) for the period 2013-2018 which identified key result areas including food security, infrastructure development, social services and value addition as priorities [20]. However, implementation of the blueprint was affected by inadequate data for monitoring and evaluating progress and outcomes. The limited success of previous policies and strategies underscores the need for robust analytical tools in informing design, implementation, monitoring and evaluation of development initiatives. A socioeconomic atlas would therefore provide a historical perspective on policy impacts and also offer baseline data for future interventions. Thus, the atlas would, enable analysts to trace the spatiotemporal consequences of past decisions and understand the geographical dimensions of current challenges. In addition, it would also enable analysts to design more targeted interventions to address specific regional needs rather than adopting uniform national approaches which over the years have failed to provide solutions for localised contexts.

Alignment with National Development Frameworks:

The socioeconomic atlas initiative demonstrates a strong alignment with Zimbabwe's current development framework, particularly the Vision 2030 agenda, which seeks to transform the country into an upper-middle-income economy by the year 2030 [18]. The Vision 2030 agenda requires careful spatial planning and corresponding resource allocation based on accurate socioeconomic data. The atlas would directly support this vision by providing visualisation tools that identify priority regions for intervention, track regional contributions to national targets, and monitor geographical progress toward goals. More precisely, the socioeconomic atlas will help inform the National Development Strategy (NDS1) (2021-2025) and its successors, since the policies require robust, spatially-disaggregated data for effective implementation, monitoring, and evaluation. The atlas provides a spatial framework to identify priority regions for intervention, track the spatio-temporal distribution of investments, and visually evaluate outcomes in health, education, and infrastructure, ensuring alignment with national priorities.

Furthermore, the atlas would improve Zimbabwe's alignment with continental and global development agendas, including the African Union's Agenda 2063 and the United Nations' Sustainable Development Goals (SDGs). These frameworks emphasise evidence-based planning, inclusive development, and reduced inequalities, all of which require a sophisticated understanding of the spatial dimensions of development. Therefore, by providing detailed sub-national data visualisation, the atlas would enable policymakers to address

the all-inclusive agenda that is central to these frameworks. This ensures that development interventions specifically target the most marginalised regions and populations. The atlas project, would thus position Zimbabwe as one of the leading countries in spatial development planning within the Southern African region. In addition, it would also further strengthen the country's ability to monitor and report on international commitments related to sustainable development.

Addressing Data Gaps and Information Challenges:

One of the main justifications for developing a socioeconomic atlas for Zimbabwe lies in the significant data gaps that currently hinder evidence-based policymaking. Despite various initiatives to improve spatial statistical capacity, Zimbabwe's development planning continues to suffer from fragmented, outdated, and unreliable data, particularly at sub-national levels. The 2022 Population and Housing Census provided valuable demographic information, since it was the first geospatial enabled census. However, integrating the information with economic, social, and environmental indicators remains a challenge. The proposed socioeconomic atlas would address this by creating a unified data platform that harmonises information from multiple sources including the ZIMSTAT, government ministries, academic institutions, and international organisations into a consistent spatial framework that enables multidimensional analysis.

The atlas would also help to address the problem of spatio-temporal disparities in data collection, as different indicators are often collected at different intervals using varying methodologies and geographical boundaries. Through establishing standardised procedures for data integration and visualisation, the project would create a sustainable mechanism for ongoing monitoring of development indicators. This is especially important given that Zimbabwe's Gross National Income (GNI) in 2024 stood at \$37.6 billion (World Bank, 2025), with complex distribution patterns across sectors and regions that are not adequately recorded through aggregate national figures. The atlas would thus show the spatial economics of development, showing how different regions contribute to and benefit from national economic growth. In addition, the proposed atlas would help in identifying opportunities for strengthening regional economic systems through policy interventions and targeted investments.

Enhancing Governance and Accountability:

A socioeconomic atlas would meaningfully contribute to the improvement of governance outcomes in Zimbabwe by enhancing transparency and accountability in resource allocation and public management. Extensive research has shown that nations with more open and efficient economic, political, and legal systems typically experience greater prosperity and well-being [27]. The proposed atlas would serve as a public product that enables citizens, civil society organizations, and oversight institutions to track government performance across regions and sectors. This is achieved through comparing resource allocation against development outcomes and holding officials accountable for results. This also resonates with the government's recently adopted Results Based Management System (RBMS), which seeks to improve the efficiency of the government machinery. In addition, this function also aligns with constitutional provisions on Public Finance Management and the Office of the Auditor General's role in reinforcing transparency in the management of public funds [25].

Through visualising the spatial distribution of public resources against development outcomes, the proposed atlas would help identify discrepancies between investments and impacts. This potentially reduces misallocation and to some extent, corruption within state machinery. For instance, mapping educational funding against literacy rates or healthcare expenditure against health outcomes could reveal inefficiencies in service delivery that might otherwise go unobserved. This approach supports the concept of results-based management that is central to modern public administration by providing an additional tool for monitoring and evaluation. The atlas would thus function as both a technical tool for planners and an accountability mechanism for citizens, strengthening the social contract between government and communities through better transparency in development planning and policy implementation.

Incorporating Gender and Social Inclusion Dimensions:

In alignment with international best practices, the proposed atlas will integrate gender perspectives and dimensions of social inclusion in order to capture a complete picture of Zimbabwe's socioeconomic landscape. The proposed approach aligns with Zimbabwe's commitment to gender equality and women's empowerment as integral components of the Vision 2030 agenda [17]. The mooted atlas would specifically address the spatial dimensions of gender inequality by mapping disparities in access to resources, services, and opportunities between men and women across the country's regions. Such visualisation is essential in understanding gender gaps. Some writers argue that gender inequality often varies significantly by geography, with rural areas typically exhibiting more pronounced disparities than urban centres [9]. Through visualisation of these geographical variations, the atlas would enable more targeted interventions to address the specific barriers

facing women in different parts of the country.

Moreover, the atlas would also integrate other facets of social inclusion, which include youth development, ethnic disparities, and socioeconomic mobility patterns. Some writers argue that socioeconomic marginalisation in Zimbabwe often has spatial characteristics, with certain regions and communities experiencing persistent exclusion from development benefits [6, 7]. The proposed atlas would help identify these patterns through indicators such as access to education, healthcare, financial services, and productive assets across different demographic groups and geographical locations. This multidimensional approach to mapping inclusion would support the government's efforts to achieve equitable development that leaves no one behind. This is particularly important considering that Zimbabwe has been striving to eliminate all forms of inequality within its borders, people, policies and interaction with other nations since it attained independence in 1980 [12, 21, 23].

Methodology and Technical Approach:

The development of the proposed Zimbabwe's socioeconomic atlas would employ a multidisciplinary methodology that combines spatial analysis, statistical methods, and participatory approaches. The technical process would involve several phases, which include data collection, harmonisation and storage, spatial analysis and modelling, cartographic visualisation, and validation with stakeholders. In the project, GIS would form the core technological platform, allowing for the integration of diverse datasets into unified spatial frameworks that enable multidimensional analysis at various spatial scales. The project would utilise both quantitative data (from censuses, surveys, and administrative systems) and qualitative information (from participatory mappings and community consultations) to ensure that the atlas captures both statistical realities and lived experiences of development across Zimbabwe's various regions.

For this project, the development of composite indices from multiple indicators is important in measuring socioeconomic development at the subnational scale. Other proposed indices include the regional development index, the gender equality index, the infrastructure access index and the poverty vulnerability index, among others. The methodology would thus help to address challenges of data uncertainty and indicator reliability through transparent documentation of sources, methods, and associated limitations. Resources permitting, the participatory dimension would involve engaging provincial and district planning officials in validating mapping products and interpretations, ensuring that the atlas reflects local knowledge and realities rather than just statistical generalisations. This approach would improve the technical quality of the outputs and also build confidence among potential users at various levels of governance, thereby increasing the chances for wide acceptance of the atlas.

Hypotheses for the Atlas Project:

The proposed socioeconomic atlas is guided by several core theoretical propositions about the spatio-temporal dimensions of development in Zimbabwe. First, we hypothesise that regional disparities in development outcomes persist not merely due to resource endowments or historical accidents, but as a result of systematic biases in policy attention and resource allocation that can be visualised and corrected through spatial analysis. Second, we propose that economic informality has distinct spatio-temporal patterns that correlate with specific development constraints and opportunities across different regions, and that understanding these patterns is essential for designing effective livelihood interventions. Third, we hypothesise that service delivery gaps follow predictable spatial gradients that reflect both geographical factors and governance arrangements, with distance from urban centres compounding administrative inefficiencies in ways that can be measured and resolved.

Additionally, we propose that gender inequalities manifest differently across Zimbabwe's regions due to varying socio-cultural contexts, economic structures, and service availability, which require spatially differentiated approaches to women's empowerment. We further hypothesise that infrastructure investments have multiplier effects that vary spatially based on regional economic structures, and that mapping these relationships can optimise resource allocation for maximum developmental impact. Finally, we work from the premise that community resilience to climate and economic shocks has strong spatial determinants that can be identified through multivariate analysis, enabling more targeted interventions to strengthen vulnerable populations. These hypotheses collectively form the analytical framework of the atlas, guiding the selection of indicators, the design of analytical models, and the interpretation of resultant spatial patterns.

Aim and Objectives of the Atlas:

The principal aim of the socioeconomic atlas is to provide a comprehensive spatial representation of Zimbabwe's development landscape that supports evidence-based policymaking, enhances resource allocation efficiency, and promotes equitable regional development. This aim will be achieved through the pursuit of

several specific objectives:

- a. To compile and harmonise diverse socioeconomic datasets into a unified spatial framework that enables multidimensional analysis of development patterns across Zimbabwe's provinces, districts, and wards.
- b. To visualise and analyse regional disparities in development outcomes, identifying priority regions for intervention and tracking progress toward reducing spatial inequalities over time.
- c. To support the implementation and monitoring of Zimbabwe's Vision 2030 and other development frameworks by providing spatially disaggregated baselines and targets for key indicators.
- c. To identify spatial relationships between various development factors, such as between infrastructure investments and economic growth, or between service access and human development outcomes, thereby enabling more effective policy design.
- d. To enhance accountability and transparency in governance by making spatial patterns of resource allocation and development outcomes accessible to policymakers, civil society, and citizens.
- e. To build technical capacity within Zimbabwean institutions for ongoing spatial analysis and mapping of development indicators, ensuring the sustainability of the atlas beyond its initial compilation.
- f. To inform resilience planning by mapping vulnerabilities to economic, environmental, and health shocks across different regions and communities.

These objectives collectively ensure that the proposed atlas will function not only as a reference document but as a dynamic tool for development planning and policy improvement in Zimbabwe.

5. The Proposed Socioeconomic Atlas Framework

This section outlines our proposed framework for the Socioeconomic Atlas of Zimbabwe, designed to integrate multidimensional data from a range of sources into an accessible geospatial visualisation tool. This tool (atlas) will serve as a decision-support resource for a diverse range of stakeholders, including policy makers, researchers, NGOs, development practitioners, international partners and the general public. Our proposed atlas is founded on robust, verifiable data and advanced cartographic techniques, aimed at providing a clear spatial understanding of the complex and interwoven relationships between demographic, social, economic, and environmental factors that collectively shape the nation's developmental path. The atlas seeks to inform evidence-based decision-making initiatives through its ability to visually represent key indicators and the associated spatial relationships that affect socioeconomic development in Zimbabwe. The proposed atlas framework is structured around four interconnected thematic blocks i.e. Demography, Social, Economic, and Environmental. The individual blocks leverage a range of credible and reliable data sources, both local and international. These sources create insightful maps and visualisations that depict the current state and potential trajectories for socioeconomic development in Zimbabwe.

The Atlas Structure and Data Sources: The proposed atlas will be strategically organised into four distinctive, but purposefully interrelated, thematic blocks. Each block is designed to address a specific facet of Zimbabwe's socioeconomic setting. The Demography block will focus on population characteristics, distribution, and dynamics, in order to provide a comprehensive understanding of Zimbabwe's demography. This block includes population density mapping, age-sex pyramids, fertility rates, mortality rates, and migration patterns. The Social block will examine the key social development indicators, including literacy rates, school enrolment, access to clean water and sanitation, HIV prevalence, and maternal mortality, providing a visual representation of the social well-being situation across the country. The Economic block will analyse economic activities, infrastructure development, investment flows, trade patterns, employment status and poverty rates, offering a spatio-temporal perception on Zimbabwe's economic performance and prospects. The Environmental block will delve into the spatial distribution of natural resources, the degree of environmental degradation, and the effects of climate change. In addition, the block will also focus on current conservation efforts, emphasizing the fundamental relationship between the environment and sustainable development efforts. The efficacy and credibility of the atlas hinge on the fact that it will be born out of carefully selected and verified data sources. These sources are categorised into local and international, ensuring a comprehensive and balanced perception that reveals both national realities and global developments.

Local Data Sources: The atlas will rely on extensive data from various institutions in Zimbabwe. The ZIMSTAT office is a primary source, and provides population census data, household survey results, demographic and health survey (ZDHS) findings, national accounts data, and a wide-ranging collection of socioeconomic indicators. The Zimbabwe National Geospatial and Space Agency (ZINGSA) will contribute geographic data, satellite imagery, topographic maps, and critical geospatial information for environmental and economic analysis. The Reserve Bank of Zimbabwe (RBZ) will provide the necessary financial data, including inflation rates, exchange rates, and other key economic indicators. On the other hand, Government Ministries, such as the Ministry of Health and Child Care and the Ministry of Primary and Secondary Education, will

contribute sector-specific data, and related evaluations. Non-governmental organisations (NGOs) operating in Zimbabwe will provide valuable data from, community assessments, developmental projects and research reports. Lastly, academic researchers from Zimbabwean academic institutions will contribute published research papers, dissertations, and reports related to Zimbabwe's socioeconomic development, improving the atlas's insights from local expertise.

International Data Sources: In addition to local sources, the atlas will draw on an extensive collection of international datasets. The United Nations (UN) will provide data from its various agencies and affiliate organisations, including UNDP, UNICEF, and UNEP. These will offer Sustainable Development Goal (SDG) indicators, demographic statistics, and broad environmental data. The World Bank will provide data on World Development Indicators (WDI), economic growth statistics, poverty data and project reports, providing an international benchmark for comparisons. The African Development Bank (AfDB) will provide economic and social statistics specific to the African continent, as well as data on development projects and regional integration indicators. The International Monetary Fund (IMF) will provide macroeconomic data, fiscal statistics, and balance of payments information, thereby providing crucial insights into Zimbabwe's financial situation. The World Health Organization (WHO) will contribute health statistics, disease prevalence data, and health system indicators, augmenting the Social block. The United States Agency for International Development (USAID) will provide data on development assistance, project evaluations, and reports. The Demographic and Health Surveys (DHS) will offer national household survey data on population, health, nutrition, and family planning, thereby buttressing ZIMSTAT data. International NGOs operating in Zimbabwe or collaborating with local partners will also contribute data from specific sectors such as education, agriculture and health. The atlas will also take a leaf from international academic researchers with expertise on Zimbabwe's socioeconomic development landscape. Their published findings will add to the depth and richness of the atlas.

6. Conclusion

The development of a comprehensive socioeconomic atlas for Zimbabwe is an important initiative that will contribute immensely to the nation's development efforts. It represents a critical step towards closing the spatial data visualisation gap that hinders evidence-oriented decision planning. We envisage that a comprehensive, spatially explicit understanding of socioeconomic conditions, will empower decision-makers to formulate targeted interventions, allocate resources effectively, and track progress towards achieving sustainable development goals. The proposed framework, emphasise data integration, interactive mapping, and user accessibility, and also seeks to ensure that the atlas serves as a valuable resource for a wide range of stakeholders, contributing to a more informed, equitable, and prosperous future for Zimbabwe. Thus, integrating diverse data sources into a unified visual framework, the atlas would reveal patterns, connections, and disparities that are often obscured in conventional statistical reporting frameworks. As Zimbabwe moves towards its quest to attain the Vision 2030 Agenda as well as the Agenda 2063 goals, the adoption and use of the socioeconomic atlas will not only serve immediate planning needs but also contribute to longer-term structural transformation. In addition, the atlas will serve as a central, authoritative platform for spatial data, fostering evidence-based decision-making, enhancing academic research, and ultimately contributing to a more equitable and sustainable development trajectory for Zimbabwe. Ultimately, the proposed socioeconomic atlas represents an investment in Zimbabwe's information infrastructure that will yield returns through more effective policies, more efficient resource allocation, and more equitable development outcomes in the future.

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