SYNTHESIS REPORT

PREPARING FOR AN AGEING SOCIETY IN BOTSWANA

An Evidence Brief prepared for UNFPA Botswana

SUSTAINABLE DEVELOPMENT GOALS

1 NO POVERTY

2 ZERO HUNGER

3 GOOD HEALTH AND WELL-BEING

4 QUALITY EDUCATION

5 GENDER EQUALITY

6 CLEAN WATER AND SANITATION

7 AFFORDABLE AND CLEAN ENERGY

8 DECENT WORK AND ECONOMIC GROWTH

9 INDUSTRY, INNOVATION AND INFRASTRUCTURE

10 REDUCED INEQUALITIES

11 SUSTAINABLE CITIES AND COMMUNITIES

12 RESPONSIBLE CONSUMPTION AND PRODUCTION

13 CLIMATE ACTION

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1. Background

This report synthesizes the key findings of an evidence brief prepared by the Development Policy Research Unit (DPRU) at the University of Cape Town's School of Economics in 2020. It was commissioned by the UNFPA, with the support and collaboration of the Government of Botswana, to explore the process of population ageing expected to occur in Botswana, drawing from national population projections and earlier work on Botswana's demographic dividend. Using updated estimates of the economic life cycle in Botswana, it presents the first estimates of the potential second demographic dividend for Botswana and examines five key issues related to population ageing and their implications for policymakers: labour market attachment among older cohorts; financial provision for old age; household welfare; the challenge of healthy ageing; and concerns around fiscal sustainability. A second evidence brief prepared by the DPRU, *Capitalizing on Botswana's Young People*, focuses on Botswana's youth aged 15 to 35 and the policies required to maximize the current demographic dividend.

2. Context

Botswana is currently benefitting from the first demographic dividend due to its working-age population exceeding its non-working-age population. Depending on the extent to which the country can leverage this first demographic dividend, there is potential for a second demographic dividend in the future when this youth bulge ages and a larger share of the population becomes concentrated among the older age cohorts. Policies effected now can help ensure that larger older populations do not pose a greater burden on the state in their retirement years. Given that younger cohorts are shrinking in size — in relative and absolute terms — countries in this situation must act early to ensure that the burden of care for older generations does not fall solely on the state and, therefore, on younger generations. Instead, through careful planning and provision of infrastructure, countries can leverage the current working-age population to help ensure a second demographic dividend.

3. Botswana's Older Population

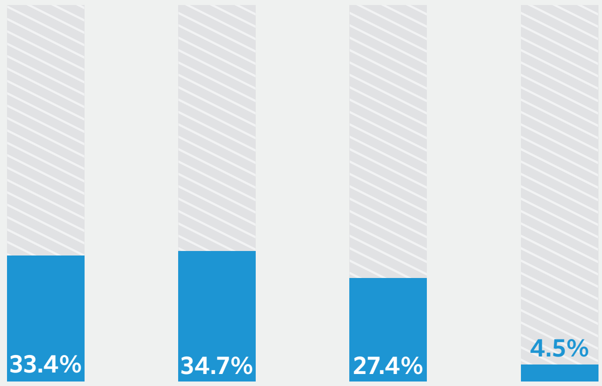
3.1 National Population Trends

BOTSWANA'S POPULATION

IS ESTIMATED BY THE UNITED NATIONS (2019) AT

2.35 MILLION

Botswana remains relatively young compared with other upper-middle-income countries but will begin to narrow the gap during the latter half of the twenty-first century. At 24.0 years, the country's current median age is nearly seven years below the global median; by 2090, the two medians will be 40.8 years, with Botswana overtaking the global median by the end of the century.



786,000 under 15 years

815,000 youth aged 15 to 35 years

645,000 adults aged 36 to 64 years

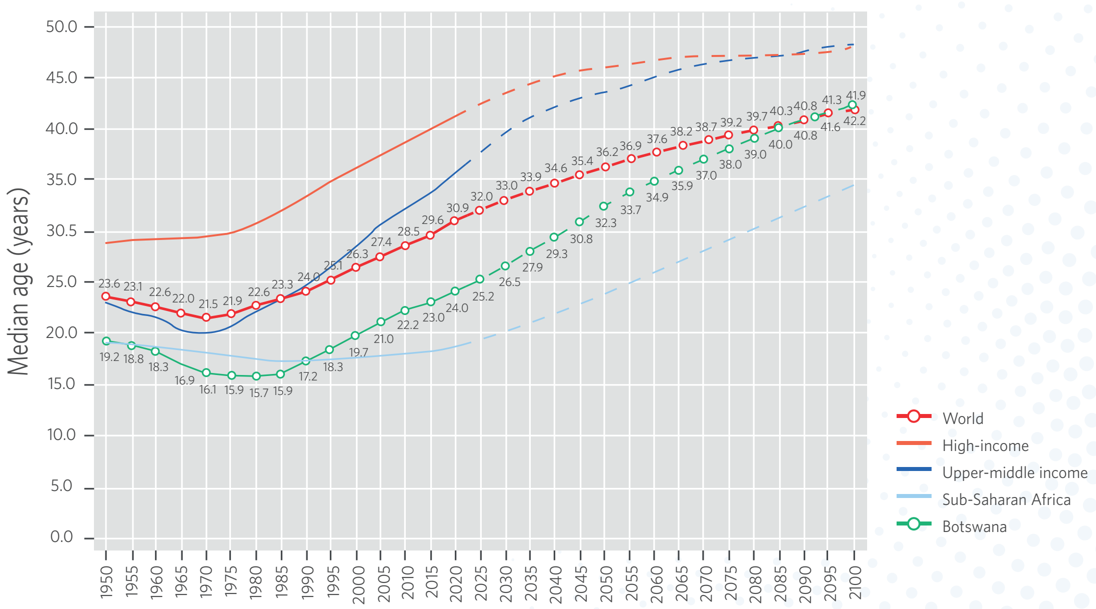
106,000 65 years or older[1]

20.9% One-fifth reside in **cities and towns**

43.0% Two-fifths reside in **urban villages**

36.1% More than one-third reside in **rural areas**

Figure 1. Median Age of Botswana's Population, 1950-2100



Source: United Nations (2019).

[1] These numbers are broadly in line with estimates from the 2017 Botswana Demographic Survey. The United Nations (2019) estimate of the total population is 2.3 percent higher than the official estimate, with the overestimates of around five percent for youth and adults, and 1.4 percent for children under 15 years, and an underestimate of the elderly population of 22.4 percent (own calculations, based on United Nations, 2019; Statistics Botswana, 2018).

3.2 Trends in the Older Population

From just 7 per cent of the population in 2020, adults aged 60 years and above will account for 15 per cent of the population by the early 2050s, representing one-quarter (25 per cent) of the population by 2090. Notably, the oldest cohorts among Botswana's population will see particularly rapid growth as more and more individuals move into their seventies, eighties, nineties and beyond.

The cohort aged 60-69 years is expected to double over 40 years, from 4.4 per cent (2020) of the national population to 8.8 per cent in 2060. The cohort aged 70 years and older will grow even more rapidly — from 2.6 per cent in 2020 to 8.3 per cent in 2060, and, after a period of 20 years during which the two cohorts will be of very similar size, will overtake and open a sizeable gap over the cohort aged 60-69 years during the latter two decades of the century.

Age 60+ years

7% population in 2020 **WILL ACCOUNT FOR** **15%** by the early 2050s

representing 25% of the population by 2090

Age 60-69 years

4.4% population in 2020 **WILL ACCOUNT FOR** **8.8%** in 2060

Age 70+ years

2.6% population in 2020 **WILL ACCOUNT FOR** **8.3%** in 2060

3.3 Population Change and Dependency

Dependency ratios — the comparison between the size of the economically dependent population (typically children under 15 and the adults over 64) with the economically productive (working) population — are a tool to quantitatively describe how population age structure changes over time.

According to United Nations (2019) population data, Botswana's total dependency ratio has been in decline for most of the past 40 years. In 1980 the dependency ratio was 107.8, and by 2020, this had fallen to 61.1, i.e., from almost 108 children and elders in Botswana for every 100 working-age adults to only 61 children and elders in 2020, implying falling pressure on working-age cohorts to support dependents. The ratio is projected to decline further to below 49 by the late 2030s, after which it will begin to rise again throughout the remainder of the twenty-first century. Disaggregation of the elderly population into smaller age groups reveals that the rising old-age dependency ratio will initially be driven by 65-69-year-olds and 70-79-year-olds. Over time, however, older cohorts will play an increasingly important role in the rise of the old-age dependency ratio.

Dependency ratio

107.8% in 1980 **DECREASED TO** **61.1%** in 2020

Implying falling pressure on working-age cohorts to support dependents.

Projected to decline further to below

49% by the late 2030s

after which it will begin to rise again throughout the remainder of the twenty-first century.

4. The Economic Life Cycle, Demographic Change, and the Second Demographic Dividend

4.1 National Transfer Accounts

The flows of resources across generations as individuals in a particular society or country produce, consume, share, and save can be described using a system of accounts known as National Transfer Accounts (NTA).

For children and the elderly, consumption is greater than labour income, resulting in a life cycle deficit. Their consumption, therefore, must be financed in another way, either through net transfer inflows from family or the state or through asset-based reallocations (asset income or dissaving). Prime working-age adults typically have labour incomes in excess of their own consumption and therefore tend to generate negative life cycle deficits or life cycle surpluses. Surplus-generating cohorts can transfer resources to others (e.g., their children or elderly parents either directly or through the fiscal system) and save and accumulate assets.

These three states—deficit-producing children, surplus-producing adults in the prime working ages, and deficit-producing elders—are observed universally across modern societies. However, the timing of the transitions from life cycle deficit to surplus among younger adults and from life cycle surplus to deficit among older adults can vary markedly across societies, as does the magnitude of the estimated surplus or deficit at a given age.

4.2 The Economic Life Cycle

A global comparison of the economic life cycle (how individual consumption rises and wanes over time compared to labour income) highlights two important factors concerning the population's ability to provide for themselves in old age: Batswana adults in their prime working-age exit relatively early (from aged 50 onwards) from the labour force (either through ill-health, unemployment or taking up low productivity activities, such as subsistence farming or in the case of women, care work), while relatively high labour income among the very oldest cohorts suggests a vulnerability of the elderly to poverty, necessitating economic activity.

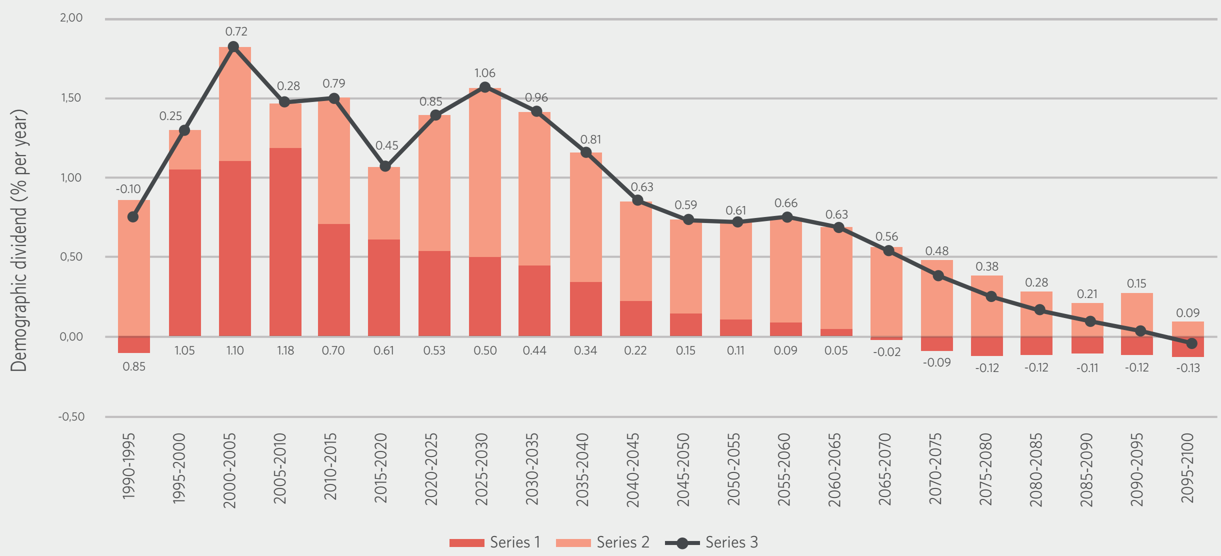
4.3 The Demographic Dividends

The first demographic dividend created by Botswana's relatively young population is set to weaken significantly over time and eventually become negative during the latter third of this century. However, as the population ages, the potential exists for a second demographic dividend. Like the first dividend, this second dividend is not guaranteed; however, unlike the first dividend, the second demographic dividend may lead to permanently higher incomes. This second dividend is dependent on the extent to which retired cohorts have saved for their retirement and how society has accumulated capital in its various forms — financial, physical, and human. In turn, this kind of capital accumulation is in many ways linked to the performance of the labour market and its ability to create quality jobs.

While estimating the first demographic dividend is relatively straightforward, the process of estimating the second demographic dividend is significantly more complex and requires additional assumptions regarding productivity growth rates, the discount rate, and capital's share of total income. By constructing a measure of the extent to which changes in the population age structure affect the balance between workers and retirees within the population, a simple economic model linking rising demand for assets to economic growth in a quantitative way allows an estimation of the potential size of the second demographic dividend.

Using this methodology, Botswana's second demographic dividend is presented in Figure 3 for five-year intervals from 1990 to 2100. The figure also includes the estimated first dividend and the total demographic dividend for context. It clearly shows that the second demographic dividend is substantial for much of the twenty-first century and remains positive even while the first has turned negative. After some fluctuation between 0.2 percentage points and 0.8 percentage points between 1995-2000 and 2015-2020, the second demographic dividend may reach as much as 1.1 per cent per annum in 2025-2030. Although declining thereafter, it is projected that the second dividend will remain in excess of 0.5 per cent per annum until at least 2065-2070, at which point it is expected to account for over 100 per cent of the total dividend.

Figure 2. The Demographic Dividends, 1990-2100



Source: *Own calculations, National Transfer Accounts Project (2020); United Nations (2019).*
Notes: *Estimates assume medium-fertility projections, a productivity growth rate (ρ) of 1.5 per cent, a discount rate (r) of 3.0 per cent, and static population post-2100. Capital's share of total income is assumed to be one-third. These parameter values are adopted from Mason et al. (2017).*

5. Preparing for an Ageing Population

Whether or not this dividend is realized is fundamentally dependent on how societies organize the financing of old age: without accumulating assets during the working ages, there will be no capital deepening, no increase in the productivity of workers, and no second demographic dividend. Currently, 30 per cent of Batswana are between 40 and 64 years of age, indicating that a substantial proportion of the population will retire in the next 25 years, placing pressure on the state to provide pension support. With the knowledge that this demand on public funding is approaching, it is necessary to assess the current state of the labour market and the health and welfare situations of older cohorts to understand and prepare for the likely burden facing the state.

30%
are between 40 and 64 years of age

Indicating that a substantial proportion of the population will retire in the next
25 years

Placing pressure on the state to provide pension support.

5.1 Labour Market Attachment in Botswana

As measured by the labour force participation rate, labour market attachment in Botswana is as expected, with individuals in the prime working ages of 25-49 years having the highest participation rates. Labour force participation for individuals in this age category is approximately 80 per cent, slightly higher for men than for women. Relatively low participation rates amongst young cohorts result from participation within the education system. Relative to other countries, older age cohorts are also unlikely to participate in the labour force, with participation rates beginning to fall around age 50 as individuals increasingly exit the labour force.

Unemployment typically decreases with age, with particularly high rates (ranging between 63 per cent and 74 per cent) observed for teenage cohorts. Nevertheless, more than one-quarter of the labour force between the ages of 25 and 34 is unemployed, while unemployment rates among cohorts in their late forties, fifties and early sixties range from 12.35 per cent to 14.07 per cent. However, the unemployment rate falls substantially for individuals aged 65 years and older to 3.4 per cent, indicating that those elderly individuals who still participate in the labour force are doing so through paid work. This suggests that those individuals in older cohorts that remain attached to the labour market through employment are likely doing it to support themselves due to the lack of funds to support themselves.

5.2 Providing for Old Age in Botswana

As indicated above, Batswana are exiting the labour market slightly earlier than in other countries, with sharp declines in labour income from age 50 onwards. This falling participation has significant knock-on effects on retirement savings both by decreasing the lifetime over which savings can accrue and potentially increasing the post-retirement period that such savings must provide for. This lower level of savings among Batswana results in an increased fiscal burden on Government through the state-administered pension fund. Only approximately one in eight workers are estimated to contribute to a private pension fund. In 2009/10, savings as a percentage of total household expenditure was only 3.7 per cent nationally. On top of these low savings rates, current disparities in working hours and market wages indicate that women are significantly disadvantaged when saving for retirement. Adult women, in particular, work fewer paid hours due to unpaid care obligations and earn substantially less than their male counterparts for their work.

5.3 The Welfare of Older Households in Botswana

Households headed by older individuals in Botswana are characterized by low per capita income figures and high numbers of dependents. On average, households with heads aged 60 and over subsist on less than P500 per month, and dependents outnumber wage-earners by a factor of seven to two. Again, gender disparities are evident, with female-headed households suffering from lower per-capita income levels and higher numbers of dependents. Census data also suggests declines in the quality of dwellings and access to electricity and water among older cohorts.

5.4 Healthy Ageing in Botswana

Botswana is undergoing an epidemiological transition from a communicable disease burden to a non-communicable disease burden. Obesity, in particular, remains a challenge, with approximately 20 per cent of the general population being classified as obese, and this rate is increasing with population age. In conjunction with the relatively high prevalence of HIV/AIDS in Botswana, individuals may find themselves more susceptible to linked lifestyle diseases. As a result, a life cycle approach to health care is recommended as it encourages targeted health care that considers specialized needs for individuals according to their stage of life. Delaying the need for care due to old age-related disease allows for greater participation of older people in the labour market and frees up caregivers (predominantly women) for further labour market participation.

5.5 Public Finances in the Context of Population Ageing

Globally, ageing populations have triggered concerns around the fiscal sustainability of government programmes. This has been particularly relevant in spending on pensions, health and public long-term care facilities, and in countries where the ageing process has been rapid. At the same time, an ageing population may imply the erosion of the tax base as the proportion of workers within the population declines. While it is difficult to accurately assess the implications of Botswana's population ageing on taxation, the work done on public spending suggests that population ageing will have muted effects in terms of raising expenditures. This is the result of a combination of factors, including a relatively slow ageing process and a pattern of public spending that does not strongly emphasize the elderly and has high levels of spending (driven by education) on children and youth. Botswana should, therefore, be able to avoid the worst pressures when it comes to the implications for government spending in the areas of health, public provision for long-term care for the infirm, and public pensions.

6. Policy Options for an Ageing Population

6.1 Promoting Labour Market Participation and Engagement of Older People

The UN's Madrid International Plan of Action on Ageing offers several suggestions regarding how countries can promote older people's labour market engagement. These include abolishing mandatory retirement ages and encouraging those older people who want to work to continue doing so, whether through traditional working relationships or volunteer-based relationships. Options worth exploring include targeted training programmes for the elderly, flexible working hours, and providing older workers with old-age specific jobs which do not infringe on youth employment opportunities. Attaching older workers to training programmes for younger workers also helps the youth build new skills and take up jobs that older workers cannot fill.

6.2 Promoting Healthy Ageing

To combat the rise in non-communicable diseases such as cancer, cardiovascular disease and diabetes, coupled with the continued burden of communicable diseases, such as HIV/AIDS, malaria, and diarrhoeal disease, the Government of Botswana's 11th National Development Plan focuses on four major ideals: the strengthening of prevention interventions, with a plan to encourage civil society and non-state actors to engage in age- and gender-appropriate health interventions; improvement of access to quality health care, by improving accreditation of services and standardization of medical equipment at health facilities; provision of sustainable health and health-care services via a review of the Essential Health Service Package; and the strengthening of rehabilitation centres across the country (Republic of Botswana, 2016). These policies align with the Madrid Plan's objectives of including older people in HIV/AIDS prevention and ensuring a life course approach to health by promoting healthy living for all ages. However, a specific focus on disease prevention among older Batswana would further support the Madrid Plan objectives. This includes streamlining the country's health systems through the effective use of information and computer technology to increase quality, safety, and efficiency of treatment and shorten timelines for referrals. Focusing on older patients also requires specialists in gerontology, provision for transport to medical facilities, and policies that address mental health conditions that typically affect the elderly, such as Alzheimer's disease or dementia. Training health-care professionals to best care for older people with these diseases can alleviate familial health-care burdens and free up time for female family members to engage more fully in the labour market and contribute to the development of the country.

6.3 Promoting Financial Stability for Older People

One of the key challenges facing the Government of Botswana as far as pensions are concerned is the highly fragmented nature of the private pension market, as well as a high level of overlap between social assistance programmes. Eliminating or minimizing the overlap between social protection programmes would make more money available to widen the coverage of the existing social protection plans. Other ways that the Government of Botswana could encourage saving for old age include providing incentives specifically for expenditure during old age, such as low-interest loans for repairs and renovations to primary dwellings and designing fiscal policy to encourage saving for retirement. Attention must also be given to the gender disparity in pension coverage and accumulated savings due to shorter work weeks and a gender wage gap that reduces the ability of women to save as effectively as men, especially in rural areas.

Measures to close the gender contributory pension gap include crediting pension accounts during maternity, paternity and parental leave; better recognition of care work undertaken by both women and men; and pension systems that provide pension credits to women who have spent time out of the labour market. Given the high duty of care placed on women in Botswana, giving caregiver credits—whether for childcare or caregiver for ill relatives — could help decrease gender inequality in retirement savings.

Finally, the International Labour Organization (2017) notes that developing country policies related to pensions have been focused on extending the contributory system. However, central to these efforts in countries like Botswana with high levels of informality are efforts to bring the informally employed into the system.

7. Conclusion

The insights in this brief are intended to provide a springboard from which to consider policy options to promote sustainable ageing in Botswana through the upcoming years. While findings indicate a vast array of policy options available for Botswana to consider, policy design should ensure that policies adopted are beneficial to the broader population and sustainable in the long term. Although many countries have implemented generous policies to assist their elderly populations, these have had to be redesigned or revisited later due to a lack of long-term sustainability. It is also critical to be aware of any potential unintended and long-term consequences when implementing policy. For example, increasing the retirement age to improve the labour market attachment of older cohorts can lead to discontentment among younger individuals who feel they are being blocked from progression in the labour market. At the same time, relatively cheap policy interventions may evolve into expensive interventions over time as the population age structure changes.

Finally, all policies should be designed with intersectionality in mind, particularly regarding gender, location, or socioeconomic status, to avoid helping one group while simultaneously disadvantaging a second group. Population ageing is a societal issue and should not be viewed or presented as a competitive struggle between generations. This requires care in the way that policies are designed to build intergenerational equity (both in reality and in perception) and ensure buy-in across generations.

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