

Population, Climate Change, and Sustainable Development in Malawi

Malawi is one of 15 population and climate change hotspots characterized by a high population growth rate, a high projected decline in agricultural production, and low resilience to climate change.¹ In addition, Malawi faces severe water scarcity. The combined effects of climate change and rapid population growth are increasing food insecurity, environmental degradation and poverty levels in Malawi.

Addressing population growth and climate change together should be a top development priority for Malawi. Though the two issues are not strongly linked in current policies, the inclusion of both in the 2011-2016 Malawi Growth and Development Strategy (MGDS II) presents an opportunity to improve the well-being of Malawians. This positive step needs to be supported with improved policies, better coordination and adequate financial and human resources to ensure effective implementation of programs. Unless population dynamics are included as part of overall development strategies, more Malawians will be vulnerable to serious impacts of climate change.

Population Dynamics in Malawi

Malawi's population grew from about 3 million in 1950 to 15 million in 2010. It is projected to reach 50 million by 2050 and more than 120 million by 2100.² This growth is mostly driven by high fertility, which has declined modestly from 7.2 children per woman in 1970 to 5.8 children per woman in 2010.³ There is increasing demand for smaller families, and use of modern contraception increased from 13 percent in 1992 to 46 percent in 2010. Nevertheless, 26 percent of married women who want to postpone their next birth or stop childbearing altogether are unable to access or use contraception.⁴

The level at which Malawi's population will peak and stabilize will mostly depend on how fast the level of fertility declines. Forty-six percent of the country's population is below 20 years of age, meaning there are many young children to support. This young age structure also means that the population will continue to grow for several generations even after reaching replacement level fertility (about 2.1 children per woman) because of high

FIGURE 1: Population will continue growing in Malawi

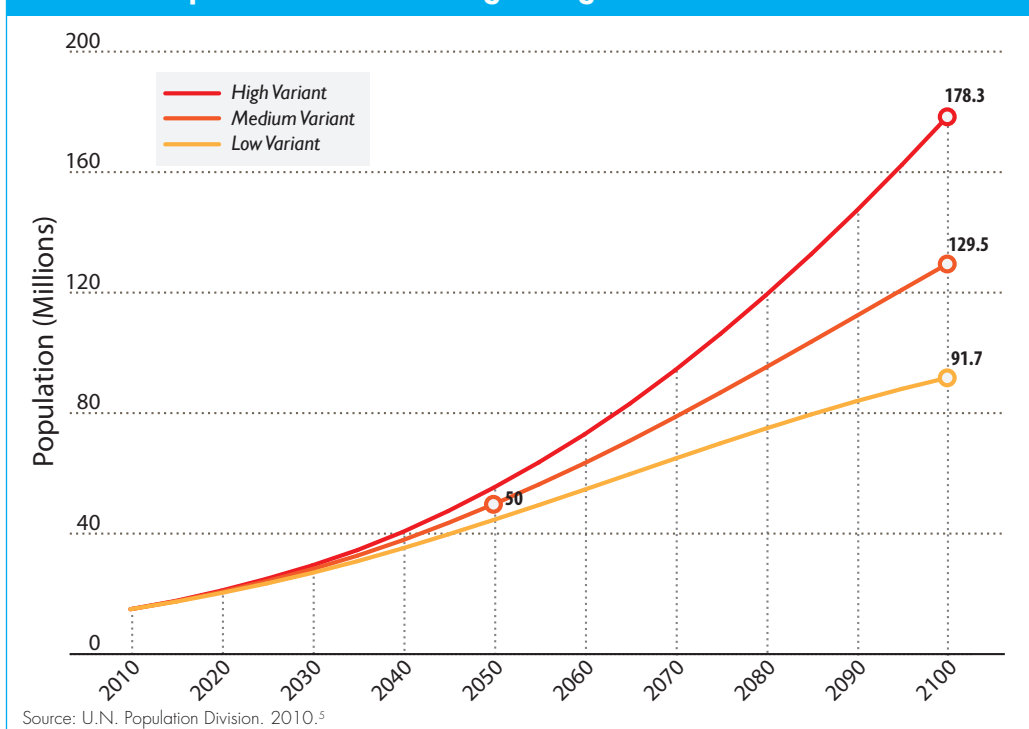
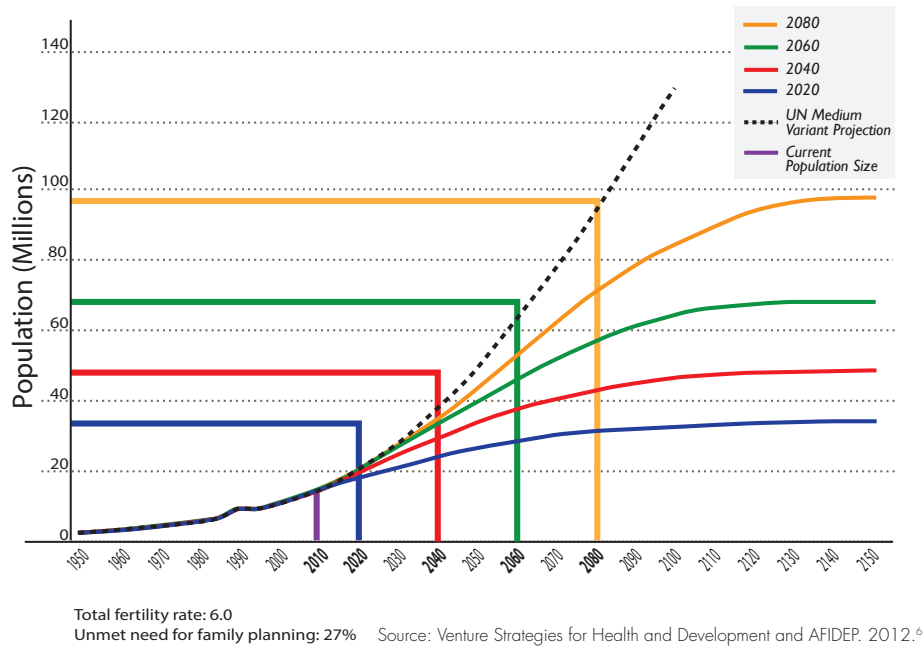


FIGURE 2: The year in which Malawi reaches replacement level fertility has a major impact on its ultimate population size



numbers of people in their childbearing years. If replacement level fertility was reached in 2010, the population would stabilize at around 30 million by the end of this century. However, if replacement level fertility is reached in 2080, the population would stabilize at 100 million around 2150.

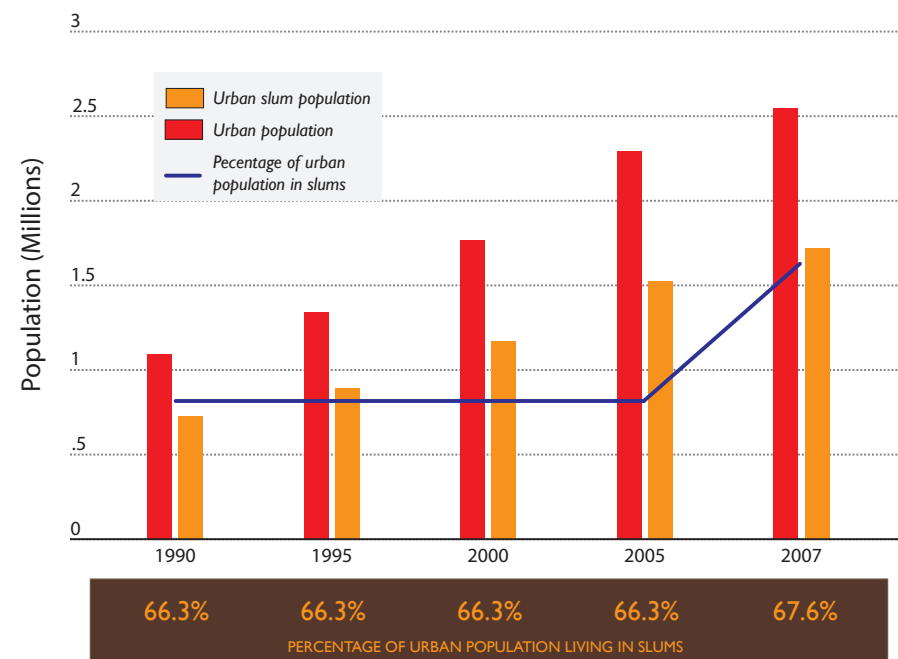
If Malawians choose smaller families and reach replacement level fertility sooner, the country's population will stabilize at a lower level. Furthermore, when birth rates decline rapidly, there are more working-aged adults relative to dependent children. This can boost economic growth through increased productivity, greater household savings, and lower costs for basic social services.

Population growth and natural resources

Rapid population growth places enormous pressure on natural resources such as forests, water, and land. Already-scarce farmland must be divided among more people, resulting in smaller plots and poorer land quality. A higher demand for resources also leads to over-exploitation of land, forests, and fishing stocks. Between 1990 and 2010 Malawi lost about 17 percent of its forest cover, declining at an annual rate of 1 percent.⁷ Agricultural expansion, growth of human settlements, over-dependence on wood for cooking, and low levels of reforestation have compounded deforestation. The country is also over-dependent on hydroelectric power, which is vulnerable to drought and inadequate rains.

Malawi's current population density of 126 people per square kilometer is among the highest in Africa, and it will grow six-fold to 803 people per square kilometer by 2050.⁸ Resource challenges are felt most in the densely populated parts of the southern and central regions.

FIGURE 3: Malawi's urban population continues to grow, as does the proportion living in slums



Source: UN HABITAT. 2011.¹¹

Planning for Urbanization

Malawi will also experience a major shift in the distribution of its population, with the share of the population living in urban areas doubling from about 16 percent to 32 percent by 2050.⁹ Currently, two out of three urban residents live in slum settlements, which are characterized by high vulnerability to flooding, poor environmental sanitation and lack of basic social services, livelihood opportunities, and security.¹⁰ If not planned for, urbanization could result in increased concentration of poverty in urban areas and frustrate efforts to reduce poverty.

Climate Change Impacts in Malawi

Malawi's economy is dependent on rain-fed agricultural production, which is dominated by smallholder farming. Agriculture contributes 30 percent of Malawi's gross national product, and supports livelihoods for over 80 percent of the population.¹²

Like many other African countries that depend on rain-fed agriculture for economic survival, Malawi is highly vulnerable to the effects of climate change. Some of these effects are already being seen: erratic rainfall, increased water scarcity, rising temperatures, and extreme weather events such as heat waves, floods and droughts. Decreases in agricultural production and environmental degradation as a result of climate change threaten the country's economy and its people's well-being.

Climate change also contributes to low fish stocks, unstable hydroelectric production, and rapid deforestation in Malawi.

Policy Framework for Integrating Population and Climate Change

Given the strong links between climate change, related environmental issues, and population dynamics, integrated policy and program responses to addressing them would make sense and offer combined benefits. However, the two issues are weakly linked at policy level, and programs to address them are largely implemented separately.

Malawi's population policies, including those addressing reproductive health and gender, do not specifically make reference to climate change. However, they do highlight the need for inter-sectoral policy, planning and program cooperation to address the country's population challenges and achieve sustainable development.

Malawi does not yet have a climate change policy. Most of the policies on environmental issues related to climate change — land, water, irrigation, fisheries, energy, forestry, and food security — recognize the role of population dynamics in the preservation of natural resources. But they are not as emphatic in integrating population interventions in their work. For example, the Malawi National Adaptation Program of Action highlights links between

MAIN CLIMATE CHANGE AND ENVIRONMENTAL CHALLENGES IN MALAWI

(based on stakeholder interviews)

- Increased water scarcity
- Unpredictable weather patterns
- Recurring flooding
- Recurring droughts
- Unpredictable start of rainfall
- Short rainy seasons and prolonged dry spells during rainy season
- Drying up of rivers and lakes
- Low fish supplies
- Excessive temperatures (heat waves)
- Landslides
- Frequent bush fires
- Increased prevalence of water borne diseases
- Low and unstable hydro-electric production
- Declining flora and fauna, and declining natural species

population dynamics and climate change. It states that investments in reproductive health and family should be considered among the country's priority adaptation actions. However, it does not propose a specific project with components of reproductive health and family planning as interventions.¹³

The inclusion of climate change and population dynamics in Malawi's development blueprint, the Malawi Growth and Development Strategy (MGDS II), presents an opportunity for integrating these issues and mainstreaming them in other sectors. However, the following challenges need to be overcome:

- Lack of climate change policy and strategy
- Fragmentation of climate change and population policies
- Weak coordination mechanisms for population and climate change programs
- Weak analysis of issues and slow approval of policies
- Poor implementation of policies
- Insufficient government funding for population and climate change programs, leading to over-reliance on donors
- Weak technical capacity in program design, implementation, and evaluation
- Weak research capacity to generate evidence to guide policies and programs

Policy Recommendations

Immediate and decisive action on the following recommendations would improve Malawi's capacity to address its climate change and population challenges and promote overall sustainable development:

- **Develop a climate change policy and implementation strategy.** Ensure that the policy fully incorporates population dynamics, reproductive health and family planning as central to climate change adaptation and mitigation strategies.
- **Set up a strong coordination and governance mechanism for climate change work** and ensure that climate change issues are effectively mainstreamed in other development sectors. The coordination body should be in a government entity that has the power to work across sectors.
- **Provide adequate resources** to ensure implementation of effective programs to address population dynamics and climate change together.
- **Enhance local technical capacity in program design, implementation and evaluation, and in research and translation of research evidence** related to climate change, environment, and population dynamics in Malawi. Support efforts to improve training of local experts on climate change issues at university level and through in-service workshops.
- **Prioritize meeting women and their partners' needs for family planning.** This would reduce fertility rates and slow population growth, which would (a) help ease pressure on environment and natural resources and strengthen resilience to climate change (b) promote gender equality and increase women's opportunities for education, employment and full participation in society (c) reduce poverty by improving and expanding health, schooling and economic opportunities.

This brief is based on the full report **Population, Climate Change, and Sustainable Development in Malawi**.¹⁴ The report is based on an assessment of the landscape for integrating population and climate change in development policies in Malawi that AFIDEP and PAI conducted between September 2011 and March 2012. The study involved a desk review of policy documents and general literature, analysis of demographic data, and interviews with 33 stakeholders including key policymakers, program managers, and donors, and reviewed existing policies and policy gaps. The full report can be obtained from www.populationaction.org and www.afidep.org.

Notes

- 1 Mutunga C, E Zulu, and R-M De Souza. 2012. "Population Dynamics, Climate Change, and Sustainable Development in Africa." Washington, DC and Nairobi: Population Action International (PAI) and African Institute for Development Policy (AFIDEP)
- 2 United Nations (UN) Population Division. 2011. "World Population Prospects, the 2010 Revision" New York: United Nations, Department of Economic and Social Affairs, Population Division
- 3 National Statistical Office (NSO) and ICF Macro. 2011. *Malawi Demographic and Health Survey 2010*. Zomba, Malawi, and Calverton, Maryland, USA: NSO and ICF Macro.
- 4 NSO and ICF Macro. 2011.
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- 7 Food and Agricultural Organization of the United Nations (FAO). 2011. *Global Forest Resources Assessment 2010*, Main Report, Forestry Paper #165. Rome: FAO.
- 8 UN Population Division. 2011.
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- 10 United Nations Human Settlements Programme (UN-HABITAT). 2010. *The State of African Cities 2010: Governance, Inequality and Urban Land Markets*. Nairobi: UN-HABITAT.
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- 13 Mutunga, C and K Hardee. 2010. "Population and Reproductive Health in National Adaptation Programmes of Action (NAPAs) for Climate Change in Africa", *African Journal of Reproductive Health*, December 2010; 14[4]: 133-145
- 14 AFIDEP and PAI. 2012. "Population, Climate Change, and Sustainable Development in Malawi", Nairobi and Washington, DC: African Institute for Development Policy (AFIDEP) and Population Action International (PAI).

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