



POPULATION DYNAMICS, CLIMATE CHANGE, AND SUSTAINABLE DEVELOPMENT IN MALAWI

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The African Institute for Development Policy promotes use of research evidence in decision-making processes related to population change, family planning, maternal and child health, and sustainable development in Africa.

Population Action International advocates for women and families to have access to contraception in order to improve their health, reduce poverty and protect their environment.

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LIST OF ACRONYMS

FIDEP	African Institute for Development Policy	NAPA	National Adaptation Program of Action
CISONEC	Civil Society Network on Climate Change	NCCP	National Climate Change Program
DDMA	Department of Disaster Management Affairs	NEP	National Environmental Policy
DFID	Department for International Development (UK)	NGOs	Non-Governmental Organizations
DHS	Demographic and Health Survey	OPC	Office of the President and Cabinet
EAD	Environmental Affairs Department	PAI	Population Action International
FAO	Food and Agricultural Organization	PRB	Population Reference Bureau
GDP	Gross Domestic Product	SRH	Sexual and Reproductive Health
IEC	Information Education Communication	UN	United Nations
JournAIDS	Journalists Association Against AIDS	UNDAF	United Nations Development Assistance Framework
LDCs	Least Developed Countries	UNFCCC	United Nations Framework Convention on Climate Change
LEAD SEA	Leadership for Environment and Development Southern and Eastern Africa	UNFPA	United Nations Population Fund
MDGs	Millennium Development Goals	UNDP	United Nations Development Program
MGDS I	Malawi Growth and Development Strategy I (2006-2011)	USAID	United States Agency for International Development
MGDS II	Malawi Growth and Development Strategy II (2011-2016)	WFP	World Food Program
		WHO	World Health Organization

FOREWORD

Malawi's long-term development strategy, *Vision 2020*, is operationalized through five-year medium term strategies. The primary objective of the 2011-2016 Malawi Growth and Development Strategy (MGDS II) is to enhance wealth creation and reduction of poverty through sustainable economic growth and infrastructure development. The MGDS II recognises that population dynamics and climate change influence all aspects of sustainable development, and calls for concerted efforts to address these issues in order for the country to achieve its development objectives.

The report *Population Dynamics, Climate Change, and Sustainable Development in Malawi* is very timely and pertinent in guiding efforts to address these issues. As shown in this report, Malawi's current population of about 15 million is projected to reach 26 million by 2030, and 50 million by 2050. These projections assume that the current level of fertility will decline from 5.7 children per woman to about 4 children per woman during this period. If fertility decline is slower the population will grow even faster. Given Malawi's high dependency on natural resources, the high rates of population growth have far reaching implications on the country's sustainable development. Malawi's economy is heavily reliant on agricultural exports and subsistence farming, which are highly vulnerable to climate change. Climate related hazards such as prolonged dry spells, droughts, erratic rains, and floods have become more frequent, intense, and unpredictable, thereby undermining food security and poverty eradication efforts.

The rapid increase in population size does not only exacerbate the degradation of the environment and natural resources, it also compounds poverty in families, and undermines the capacity of the government to provide quality social services for all Malawians. The population dynamics presented in this report are valuable in understanding not only the number of people, but also the population sub-groups that are most vulnerable to climate change. As also shown by other studies, people living in lowlands and drought prone highlands, women (particularly those living in female-headed households), the elderly, children, and the urban poor are most vulnerable to climate change in Malawi.

Unless address urgently, the combined forces of population growth and climate change will: diminish the quality and amount of viable agricultural land available to each family and for commercial farming; reduce agricultural production and aggravate food insecurity; accelerate depletion of the environment and natural resources such as forests and water; and undermine efforts to enhance wealth creation and poverty reduction in the country. This report provides useful insights on the dual challenges of population and climate change and I applaud the report's call for an integrated approach in addressing these issues.

The Government of Malawi is committed to addressing the dual challenges of climate change and rapid population growth. The MGDS II has committed to prioritizing management of population dynamics through voluntary means. The management of climate change, natural resources and the environment is among the nine development priority areas in MGDS II. The government has created the Ministry of Environment and Climate Change in order to prioritize its responses in this area, and it is developing a National Climate Change Policy. My ministry endorses this report's recommendation that the policy should wholly incorporate population issues. More financial and technical resources are needed to operationalize the government's commitments and ensure that population dynamics and climate change are

strongly linked at policy and strategy levels, and fully integrated at the programme implementation level. Development of the National Climate Change Investment Plan will facilitate mobilisation of technical and financial resources that will be required to accelerate implementation of the climate change policy. The government welcomes partnership with development partners, as well as multilateral and bilateral agencies who support work in population and climate change.

On behalf of the Government of Malawi and the Ministry of Environment and Climate Change, I highly appreciate the work of the African Institute for Development Policy and Population Action International in deepening policy advocacy related to linkages between population dynamics, climate change, and sustainable development in Malawi. I welcome and endorse this well-timed report and call on all concerned parties to work closely with the government in addressing the challenges and implementing the recommendations outlined in this report in order to enhance sustainable development in Malawi.



Dr Yanira Mseka Ntupanyama

Principal Secretary

Ministry of Environment and Climate Change Republic of Malawi

Lilongwe 3, Malawi

PREFACE

This report produced by population and climate change experts at the African Institute for Development Policy (AFIDEP) and Population Action International (PAI) is no ordinary documentation of facts and issues around population dynamics, environment and climate change. It offers the most up-to-date analysis, using the most recent population data, complemented with an examination of policy frameworks and interviews with leaders in government, civil society, and academia.

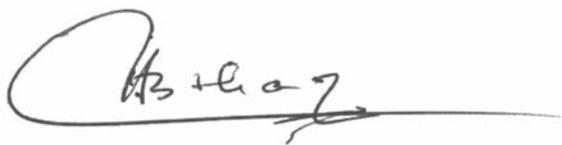
Malawi faces dual pressures from population dynamics and climate change that may mutually impact poverty, social development and economic growth. The pressure of a rapidly growing population, combined with erratic and changing rainfall patterns, increases the risk of disasters, food insecurity and poverty. Addressing population dynamics and climate change together should be a top development priority for Malawi. Through women's empowerment and improved access to family planning, population dynamics and climate change efforts can be placed at the center of the development process. We can change these issues from risks to opportunities and generate economic, social and environmental benefits for Malawi.

Fortunately, there is strong political will in Malawi to deal with population and climate change challenges. For example, the Malawi Growth and Development Strategy (MGDS II: 2011-2016) has included management of natural resources, environment and climate change as one of its nine priorities. A new Ministry was created in 2012 to deal with natural resource and climate change management. MGDS II also included, for the first time, population as a stand-alone sub-theme under social development. In support of government efforts at achieving sustainable development, the United Nations Development Assistance Framework (UNDAF: 2012-2016) has also prioritised both population and climate change management.

This report arrives at an opportune moment, during the final round of consultations around the National Population Policy and the drafting of the National Climate Change Policy. It will therefore be instrumental in informing development of these policies and subsequent programming. These new programs include the National Climate Change Program (NCCP: 2013-2016), which is currently being developed in Malawi with United Nation's support. It is aimed at coordinating work on climate change to achieve resilient and sustainable development.

UNFPA and UNDP in Malawi are proud to have provided technical support to this study and the launch of this report. The United Nations invests in developing capacity of government to produce policy-oriented data – including the census and demographic survey data used in this study. Data generation is not an end in itself, but it is a means to evidence-based development of policies and programs which benefit the people of Malawi.

It is our sincere hope that this report will be used by the government, non-governmental organisations, academics, and development partners to ensure the well-being of Malawians. Ultimately, population dynamics and climate change are central to development interventions. When they are effectively coordinated, they can harness economic, social and environmental benefits for Malawi.



Athanase Nzokirishaka
UNFPA Representative



Richard Dictus
UNDP Representative

EXECUTIVE SUMMARY

The combined effects of climate change and population dynamics are escalating food insecurity, environmental degradation, and poverty levels in many African countries, including Malawi. However, these two issues are not prioritized in broader development plans and resource allocation, and interventions to address them are implemented separately.

Malawi is one of the 15 countries categorized as a population and climate change “hotspot” because of its rapidly growing population, water scarcity and falling food production. Malawi’s population has grown from 6 million in 1966 to about 15 million now and the United Nations Population Division projects that it could more than triple to 50 million by 2050, and reach 129 million by 2100. This population growth is due to high and slowly declining fertility levels. The number of births per woman is currently 5.7. Though there is increasing demand for smaller families, about 26 percent of all married women who want to postpone or avoid pregnancy still lack modern contraception. Twenty-six percent of all recent births were unwanted while 19 percent were mistimed.

Rapid population growth places increased demands on natural resources such as land, forests and water. The wellbeing of the majority of Malawians is dependent on natural resources and highly vulnerable to climate change. Malawi has already been experiencing climate change effects, including erratic rainfall, floods, droughts, dry spells, cold spells, strong winds, thunderstorms, landslides, hailstorms, mudslides and heat waves. These have resulted in crop failure, disruption of hydroelectric power generation, and water shortages.

Despite the links between population, climate change and sustainable development, there is limited effort to address the two issues together in Malawi. There is no climate change policy currently in place, although they have begun to develop one. Both climate change and population dynamics have been identified in the Malawi Growth and Development Strategy II (MGDS II) 2011-2016, the national development blueprint. But the proposed activities tackle these challenges separately, thereby limiting the potential benefits.

The inclusion of climate change and population dynamics in the MGDS II presents an opportunity for integrating these issues and mainstreaming them in other sectors. However, challenges include:

- 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, particularly the population policy
- Poor implementation of policies
- Inadequate 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 multi-disciplinary evidence to guide policies and programs
- Lack of networking and knowledge sharing among professionals working on population and climate change issues

Improved policies, better coordination, and adequate financial and human resources are needed to ensure effective implementation of programs. Meeting women and their partner’s needs for family planning and enhancing resilience to climate change effects should be priorities for development in Malawi. Unless this happens, it will be very difficult for Malawi to achieve sustainable development.

INTRODUCTION

The United Nations' (U.N.) report, *Our Common Future*, defines sustainable development as "Development that meets the needs of the present without compromising the ability of future generations to meet their own needs."¹ Using this definition, the U.N. built a sustainable development framework with three pillars of sustainable development: environmental protection, economic growth, and social equity. Population falls under the social pillar in this framework. However, population size, growth, distribution, density, age structure, migration and urbanization matter for all three pillars.²



Children swimming in the Lake Chilwa Basin, which is being affected by siltation and deforestation together with unpredictable weather patterns.

Photo: Leadership for Environment and Development , Southern and Eastern Africa (LEAD SEA)

To have sustainable economic development, the links between population dynamics, climate change and the environment need to be well understood and addressed together. The size, composition, and distribution of human populations are constantly changing, and these changes affect our climate and the ability of people to adapt to it. As countries develop and implement climate change strategies, understanding the implications of population dynamics will be critical.

Analyses of links between population dynamics and climate change conducted by PAI and AFIDEP categorize Malawi among 15 population and climate change hotspots.³ These are countries that are experiencing high population growth rate, high projected decline in agricultural production between 1990 and 2020, and low resilience to climate change.⁴ Malawi also faces severe water scarcity.

Malawi's population has grown dramatically from about 3 million in 1950 to about 15 million today. Forty-six percent of Malawi's population is under age 15. Caring for so many children and young people makes it difficult for families and governments to invest in education and health care and save for the future. Although Malawi is among the least urbanized countries in Africa (15 percent), it is urbanizing at a rapid rate. If current trends continue, about a third of the population will be living in urban areas by 2050.⁵

Malawi's economy is driven by agriculture, which contributes 35 percent of GDP, 80 percent of the country's export earnings, and supports 85 percent of the population.⁶ Most Malawians are smallholder farmers whose land will be subdivided further in future as the population grows.⁷ Malawi has among the highest deforestation rates in the world because of agricultural expansion, growth of human settlements, dependence on wood for cooking, reliance on burnt bricks for construction, and low levels of reforestation.⁸ The situation is likely to get worse in the future as the population grows, and more people live in urban areas

Despite the close links between population, climate change and sustainable development, these issues have not been addressed together in policies or programs in Malawi.

About This Report

This report contributes to the understanding of linkages between population dynamics, climate change, and sustainable development in Malawi, a country that typifies the core population and climate change challenges highlighted above. The report presents analyses of key population and climate change challenges that Malawi is facing, and identifies opportunities for enhancing integrated approaches to address these issues in Malawi based on an assessment of the policy and program landscape. The report is aimed at helping policymakers, donors, and civil society understand the importance of prioritizing population issues and climate change in development planning and resource allocation, and the need for integrated responses to these challenges in order to ensure sustainable development in Malawi.

Study Methods

The study used a triangulation of methods to explore the links between population dynamics and the environment. These included desk review of literature and policy and

program documents, analysis of quantitative data, and informant interviews.

Population projections data comes from the United Nations Population Division *World Population Prospects* databases. Data on fertility rates, contraceptive use, mortality, and fertility preferences come from the *Demographic and Health Survey* (DHS) reports as well as the United Nations Population Division databases. Sub-regional population projections were sourced from the National Statistical Office, Government of Malawi.

To identify policy challenges and opportunities for integrating population and climate change factors in development planning and implementation, the study team conducted rapid policy and program environment assessments in Malawi. The first part of the assessment involved a desk review and synthesis of published and unpublished literature on population and climate change, including government policies, strategies, and program documents. The documents were from the ministries of Health, Planning, Forestry, Lands, Agriculture, and Water.

The second component was in-depth interviews with stakeholders working on population, environment, and climate change issues in Malawi. The interviews aimed to better understand how policy and program frameworks are responding to population and climate change challenges. They also looked for opportunities to strengthen integrated approaches and incorporate population and climate change in broader development plans. We used a semi-structured interview guide (Appendix 2). The fieldwork was carried out in November 2011. In total, we conducted 32 stakeholder interviews as broken down below (see Appendix 3 for full list of stakeholder representation). Verbal consent was obtained from all interviewees during the data collection process.

We also took advantage of a training workshop that PAI and UNFPA-Malawi conducted in Malawi to hold focused

KEY INFORMANT INTERVIEWS	#
Government	12
Development partners	5
International Non-Governmental Organizations	11
Local Non-Governmental Organizations /Civil Society Organizations	2
Academic institutions	2
TOTAL	32

group discussions with 26 participants on population and climate change challenges. The participants were drawn from government, non-governmental institutions, and academic institutions working on population and climate change issues.

Two members of the study team conducted thematic analysis of the field notes and transcripts. Initial descriptive themes were derived according to the study guide framework and then discussed iteratively to produce a final set of descriptive themes.

A review version of the study report was presented and launched at a consultative meeting held on September 13, 2012 in Lilongwe, Malawi. The guest of honour at the launch meeting was Dr. Yanira Mtupanyama, the Principal Secretary for the Ministry of Environment and Climate Change Management, Republic of Malawi. Participants at the meeting provided useful feedback that contributed to the revisions of this final report. A summary report of the consultative meeting is provided in the Annex.



AFIDEP's Dr. Eliya Zulu presents the research report to the Dr. Yanira M. Ntupanyama, the Principal Secretary from the Ministry of Environment and Climate Change.

Photo: PAI



Participants at the consultative meeting held on September 13, 2012 in Lilongwe, Malawi.

Photo: PAI

BACKGROUND

Malawi is located in Southeast Africa and is bordered by Tanzania to the north, Zambia to the west, and Mozambique to the west and the south. The country's area is 118,000 square kilometers, of which 20 percent is covered by water (rivers and lakes).⁹ The country has a sub-tropical climate, ranging from semi-arid in the Lower Shire Valley, semi-arid to sub-humid on the plateaus and sub-humid in the highlands. Of the total land area, 31 percent is suitable for rain-fed agriculture, 32 percent is marginal and 37 percent is unsuitable for agriculture. Malawi is among the least developed countries in the world, with a per capita gross domestic product (GDP) of \$340.¹⁰ Thirty-nine percent of the population lives below the poverty line.¹¹ Malawi's economy is driven by agriculture, which contributes 35 percent of GDP, 80 percent of the country's export earnings, and supports 85 percent of the population. Smallholder farmers contribute more than 80 percent of Malawi's agricultural production, which is dominated by maize, the country's staple food crop. The main cash crops are tobacco, tea, cotton, coffee, and sugar. The well-being of the majority of Malawians is highly vulnerable to climate change because of the country's dependence on rain-fed agriculture.



As in many African countries, women in Malawi are actively engaged in agricultural cultivation and production. With changing weather patterns they struggle to provide food for their families.

Photo: LEAD SEA

TABLE 1: Key population, climate change, and environmental indicators for Malawi

PARAMETER	INDICATOR
Land Area (Sq Kms) ¹²	94,276
Arable Land Area (Sq Kms – 2008) ¹³	31,987
% of Land that is Arable ¹⁴	34%
Per Capita Gross National Income (2011) ¹⁵	\$340
Estimated Population Size (2010) ¹⁶ – (millions)	14.9
Projected Population Size -2050 ¹⁷ (millions)	49.7
% Urban (2010) ¹⁸	15.5%
Projected % Urban Population (2050) ¹⁹	33%
Population Density (2010) (Per Sq Km)	158
Projected Population Density (2050) (Per Sq Km)	527
Density per Arable Land (2010) (Per Sq Km)	466
Density per Arable Land (2050) (Per Sq Km)	1,554
% of Urban Residents Living in Slums (2007) ²⁰	67.7%
Total Fertility Rate (2010) ²¹	5.7
Population Growth Rate (2010) ²²	2.8%
% of Married Women using any Contraception (2010) ²³	46.1
% of Married Women with Unmet Need for Family Planning (2010) ²⁴	26.1%
Annual Decline in Forest Cover (2000-2010) ²⁵	-1.5%
% of Agricultural Land that is Irrigated (2002) ²⁶	2.8%
% of Population dependent on Agriculture	85%

POPULATION DYNAMICS

Malawi's population has grown dramatically from about 2.9 million in 1950 to 11.2 million in 2000.²⁷ The annual growth rate of the population was around 2 percent in the 1950s, peaked at 5 percent in the 1980s, and is now at 3 percent.²⁸ Malawi's population of about 14.9 million is projected to grow to 49.7 million by 2050 and 130 million by 2100²⁹ (Figure 1).



Integrating population concerns into climate adaptation policies will contribute to a bright and happy future for Malawi's children.

Photo: LEAD SEA

Malawi's high population growth is driven by high fertility. Fertility has declined modestly during the past few decades, while child mortality declined steadily. *Demographic Health Surveys* show that the total fertility rate has declined from 6.7 children per woman in the 1970 to 5.7 children per woman in 2010. The under five-mortality rate declined from 234 deaths per 1000 live birth in 1992 to 112 in 2010.³⁰

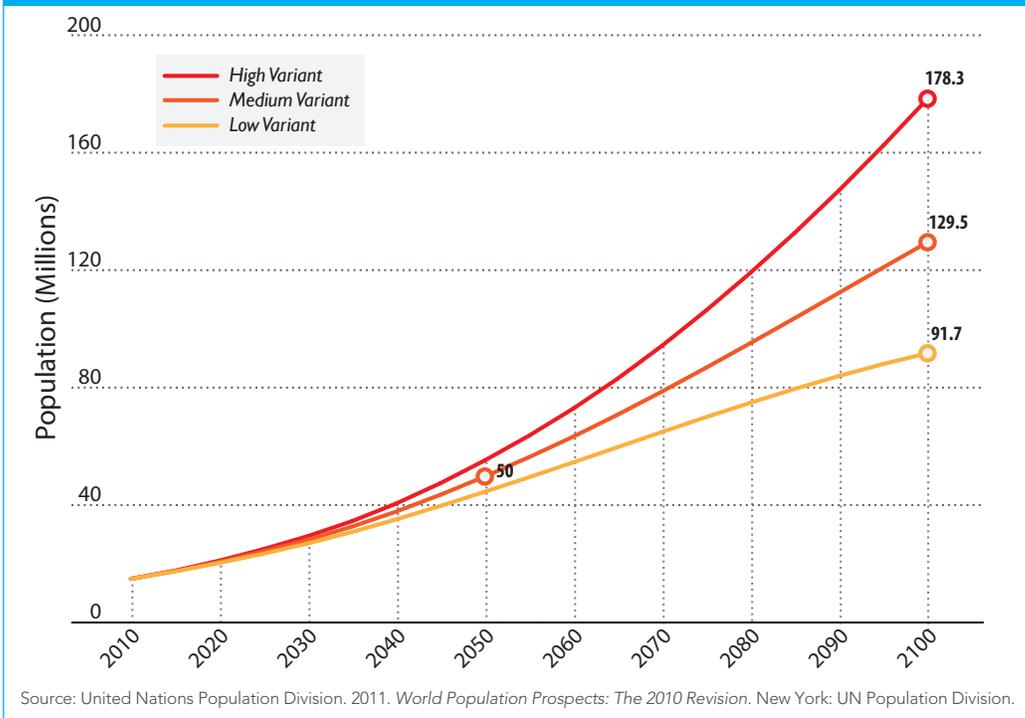
The UN medium variant projects Malawi's fertility rate to decline from 5.7 children per woman to 5.1 by 2030 and to

4.0 by 2050.³¹ If this happened, Malawi's population would grow to 49.7 million by 2050 and 129.5 million by 2100.³² However, if fertility declines more slowly (by half a child), the population could grow to 55.2 million by 2050 and 178.3 million by 2100.³³ If it declines more rapidly (by half a child less than the medium variant), the population size could be 44.5 million by 2050 and 91.7 million by 2100.³⁴ Given the slow pace of fertility decline in Malawi thus far, it is quite possible that we will see high population growth.

Rapid population growth makes it difficult for government investments in education, health, and poverty reduction programs to meet the country's expanding needs. It also puts pressure on natural resources, and hurts communities' and nations' abilities to adapt to climate change. Clearly, slowing population growth would help Malawi achieve its development goals.

Because of high fertility, young people dominate Malawi's population. Forty-five percent of the population is below age 15.³⁵ This means both families and governments must support a large number of young people who are not yet in the workforce. A youthful population also creates population momentum. This means that the population will continue to grow even after fertility reaches replacement level (about 2.1 births per woman) because of the large numbers of young people starting families. If Malawi reaches replacement level fertility by 2020, its population of about 15 million people would stabilize at around 30 million in 2080. If replacement level fertility were reached by 2060, however, the population would stabilize at 70 million around 2120. If replacement level fertility is reached by 2080, the population would stabilize at about 100 million in 2140.³⁶ So, the year when Malawi reaches replacement level fertility affects both the timing and levels at which the population size will peak (Figure 2).

FIGURE 1: Population projections for Malawi: 2010-2100 (Three UN Variants)



Reducing fertility would also increase Malawi’s chances of benefitting from what is known as the “demographic dividend”— economic growth arising from increased numbers of working-aged adults relative to young dependents. When birth rates decline, the age structure

shifts in favor of more working-aged adults (aged 15-64), allowing for increased productivity, greater household savings, and lower costs for basic social services provided to a young population.

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

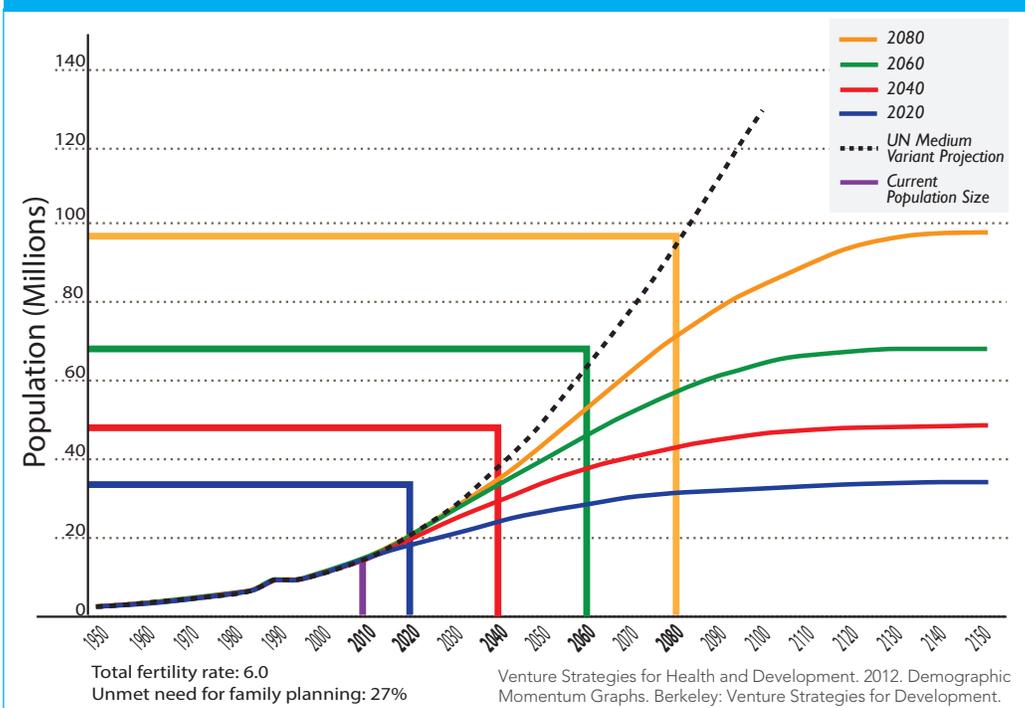
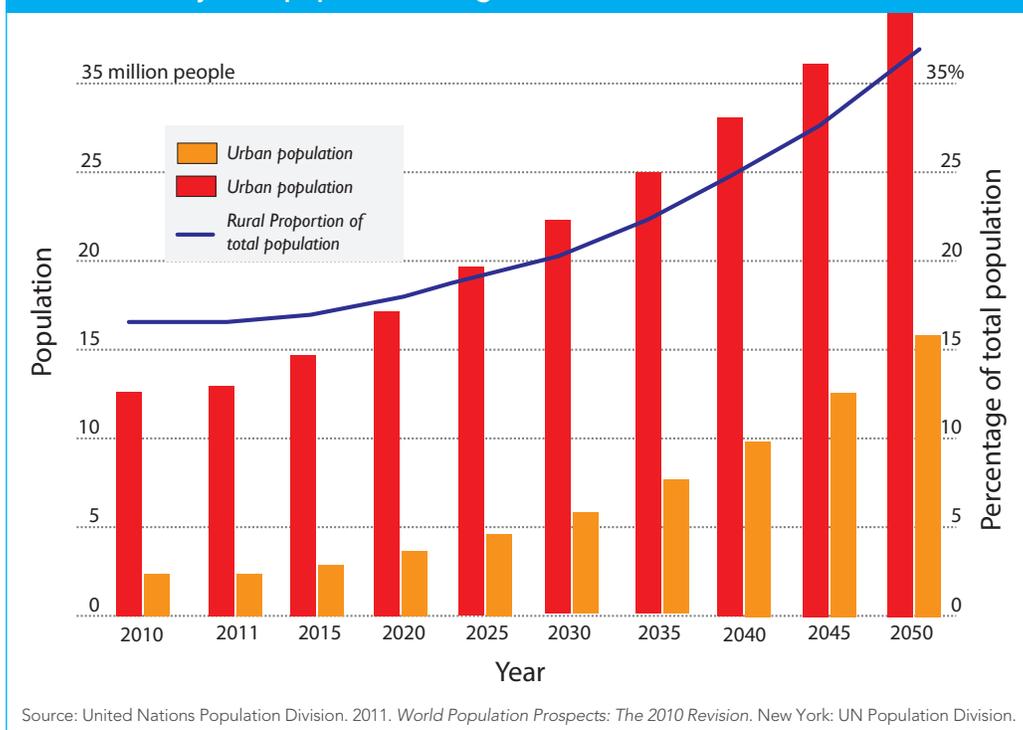


FIGURE 3: Projected population living in rural and urban areas in Malawi



Urbanization

Malawi is a predominantly rural country. Only 15.5 percent of its population lives in urban areas.³⁸ Malawi is urbanizing at a high rate (5.3 percent per year) due to a combination of rural-to-urban migration and high fertility in urban areas. It is projected that 32 percent of the country's population will be living in urban areas by 2050.³⁹ Although urban residents tend to consume more material resources than rural residents, and therefore contribute more to carbon emissions, urban settlements can also provide important economies of scale on energy use and service delivery.

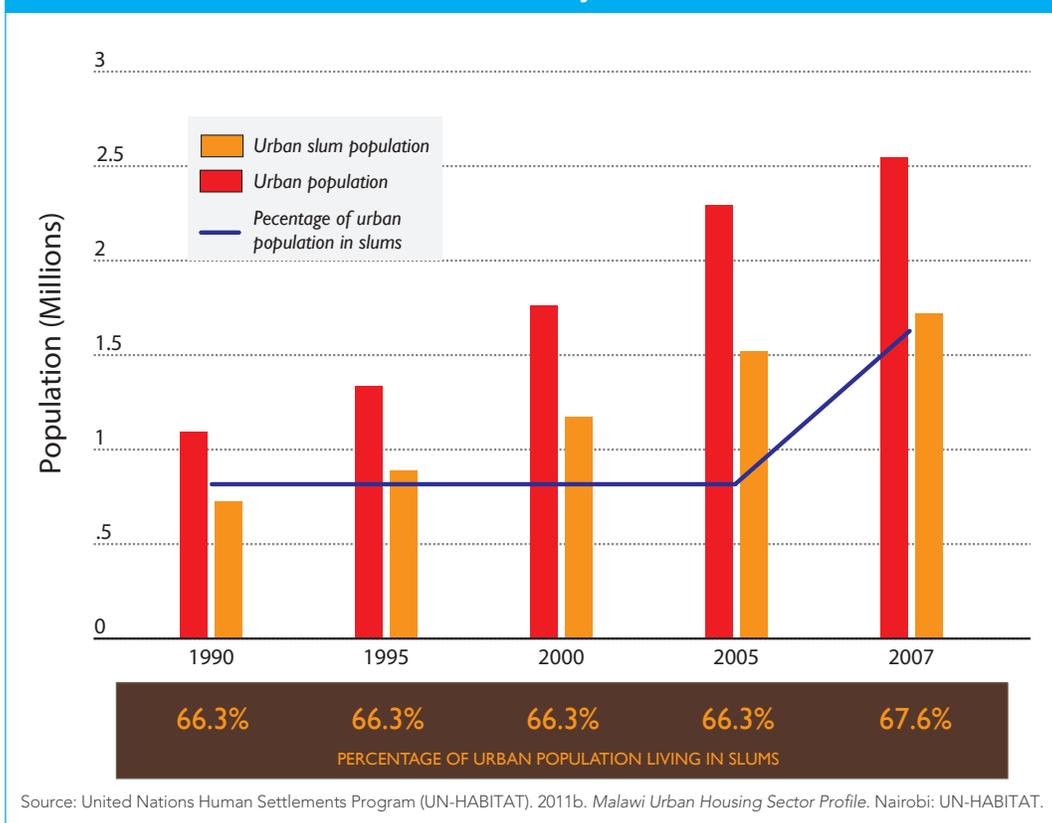
At least two-thirds of urban residents in Malawi live in slum settlements.⁴⁰ Although the proportion of residents who live in slums has remained between 66 and 68 percent between 1990 and 2007, the head count of slum residents has grown from 725,000 to 1.7 million due to the growth of the urban population (Figure 3). Slum dwellers live in poor housing conditions, are plagued by high insecurity, lack basic amenities and social services (including clean water, sanitation, health care, and education) and exhibit poorer health outcomes than other urban residents, and even rural residents.⁴¹

Rapid urbanization and increasing urban poverty will challenge Malawi's capacity to meet the economic, social, and infrastructural needs of its urban population. There is a need for better urban planning, policies, and

programs to spur job creation and provide basic services for the growing urban population. Additionally, there is urgent need for further analyses of urbanization patterns in Malawi. The analyses should focus on the relative contributions of migration, natural increase, and boundary changes on urban growth; the relative growth of big cities versus small towns; economic and environmental implications of urbanization and growing urban poverty on both urban and rural areas; and links between urbanization and climate change. One of the officials we interviewed described the climate change challenges in relation to urbanization:

"If a disaster occurs in urban areas, it will have more negative impact because of the many people living there and their increased vulnerability. It is important, therefore that urbanization issues should be prioritized in the national development agenda. Climate change will also increase urbanization because many subsistence farmers will migrate to urban areas due to decreasing agricultural productivity
— Development Partner Representative

FIGURE 4: Levels and trends of Urban Poverty in Malawi (1990-2007)



Family Size and Contraceptive Use

Malawian women and their partners desire fewer children than previous generations and smaller families than they currently have. For instance, the desired family size among married women decreased from 5.3 children in 1992 to 4.2 children in 2010. The percentage of married women who wanted to stop childbearing increased from 23 to 37 percent during the same period.⁴²

Malawi has made progress in enabling women to delay or limit births through increased access to contraception. The percentage of married women using family planning increased from 13 percent in 1992 to 46 percent in 2010.⁴³ This progress is impressive considering that the Government of Malawi banned family planning between 1969 and 1984, because leaders thought it was a Western plot to control population growth.⁴⁴

Still, 26 percent of married woman who want to postpone or stop childbearing altogether are using no method of contraception. This unmet need for family planning is highest among the poorest women. About 30 percent of women in the poorest 20 percent have unmet need for family planning, while 22 percent fall into this category among the richest 20 percent. Additionally, Malawi's relatively slow decline in fertility in the face of such a large

increase in contraceptive use needs to be investigated. A 15 percent increase in contraceptive use is associated with a decline in fertility of about one child per woman.⁴⁵ Compared to other African countries that have similar levels of contraceptive use but lower fertility, Malawi's high level seems to be driven by women starting childbearing young, and high levels of women who stop using contraceptives.⁴⁶

Population Growth and Land Availability

Malawi's rapid population growth has exerted enormous pressure on land and other natural resources, leading to the fragmentation of smallholder land holdings and over-exploitation of land and other natural resources. These effects are bound to escalate as the population grows further. The current population density of 126 people per square kilometer is among the highest in Africa, and it is projected to grow six-fold to 803 by 2050. Pressure on arable land is even higher as the number of people sharing a square kilometer of arable land is already at 466. Figure 5 shows that between 2010 and 2030, close to half of Malawi's land area will have excessively high levels of population density. It will be very difficult for Malawi to sustain a viable smallholder agricultural system and fend for itself sustainably with such population densities.

IMPLICATIONS OF POPULATION AND CLIMATE CHANGE FOR SUSTAINABLE DEVELOPMENT

Malawi is highly vulnerable to the effects of climate change, and this will only get worse as global warming increases and the country's population grows. The following are climate change challenges that were highlighted by experts in Malawi.



BOX 1: MAIN CLIMATE CHANGE AND ENVIRONMENTAL CHALLENGES IN MALAWI

- Water scarcity
- Unpredictable weather patterns, including rainfall
- Flooding
- Droughts
- Short rainy seasons and prolonged dry spells during rainy season
- Drying up of rivers and lakes
- Low fish supplies
- 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

The interactions between population dynamics and these climate change risks can impact human and environmental well-being. Malawians are settling in fragile ecosystems, agricultural productivity is falling, there is low fish production, people's livelihoods are undermined, and environmental resources are depleting rapidly.

Women in Malawi are more vulnerable to climate change than men because they are poorer than men, they bear the primary responsibility for growing of food crops and collecting resources like water and firewood, which are becoming increasingly scarce. Frequent drought and erratic rainfall force women to work relatively long hours to secure food, water and energy for their homes. In semi-arid areas girls are more inclined to drop out of school in order to help their mothers with household chores. Women and children

are more likely to die when natural calamities like floods occur because they are less mobile than men. This cycle of deprivation, poverty and inequality undermines the social capital needed to deal effectively with climate change.

Various studies have demonstrated women's unique vulnerability to climate change effects.⁴⁷ The Lake Chilwa Basin Climate Change Adaptation Program (LCBCCAP), which seeks to secure the livelihoods of 1.5 million people in the Lake Chilwa Basin and enhance resilience of their natural resource base, has illustrated the different ways in which men and women's lives are affected by climate change.^{48,49} People's lives around the lake have been threatened by the lowering of water levels. The lake has almost dried up completely. While many of the men who were fishing in the area have moved to other areas where

they can fish or secure other livelihoods, women and children have remained behind, bearing the brunt of the effects of the dried lake.

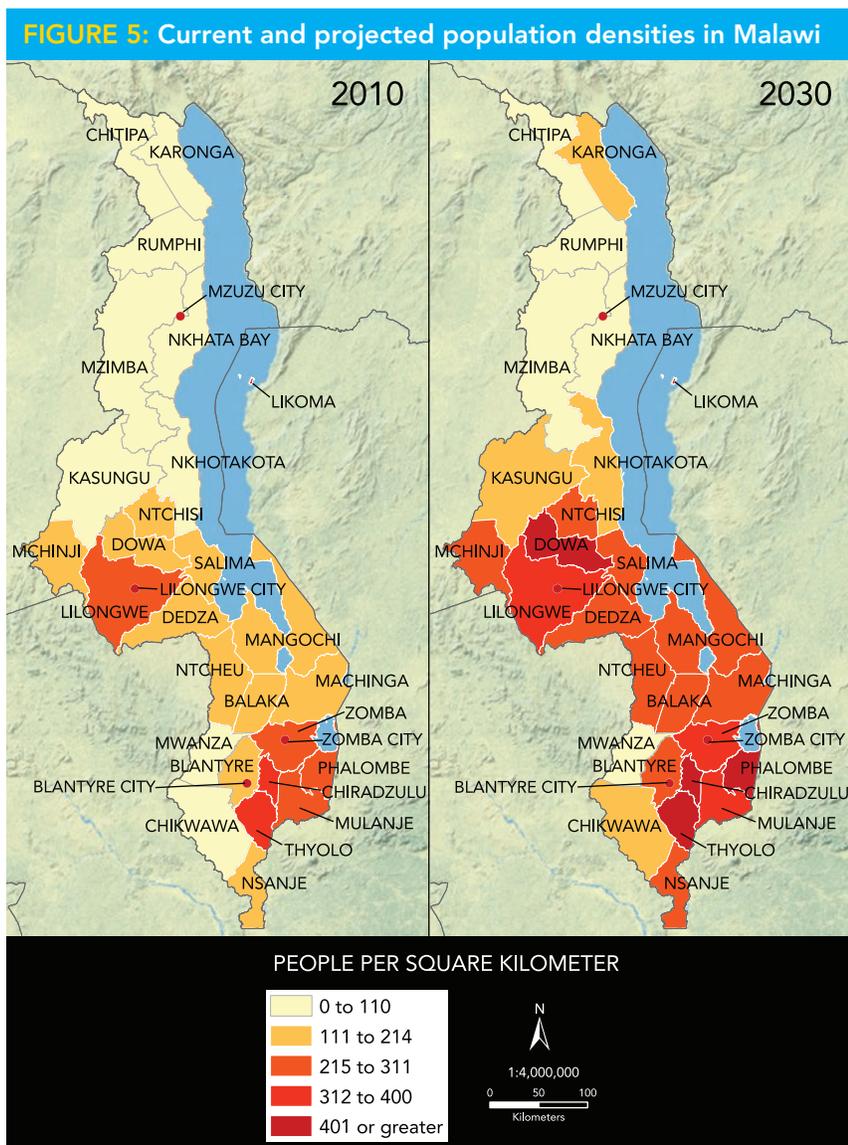
Population Growth and Natural Resources

Malawi's rapid population growth has put pressure on land and other natural resources. Small land holdings are becoming smaller as they are subdivided over generations, and land is over-exploited. The current population density of 156 people per square kilometer is among the highest in Africa, and it is projected to grow to more than treble to 527 people per square kilometer by 2050. Pressure on arable land is even higher. The number of people sharing a square kilometer of arable land is already at 466 and it is projected to grow to 1,554 by 2050. Between 2010

and 2030, close to half of Malawi's land area will have excessively high population density, and a quarter will have densities that are higher than the current average (Figure 5). It is difficult to see how Malawi's land can sustain its growing population without a major reduction in the country's dependence on land-intensive and rain-fed agriculture. Conflicts over scarce land and water could cause civil strife and ethnic clashes.

Population Growth and Deforestation

One consequence of population growth is rapid deforestation in Malawi. Forest cover decreased from 41 percent of land in 1990 to 35 percent in 2008.⁵⁰ The national deforestation rate is estimated to be 2.8 percent. The rate varies across the country's three regions, ranging from 2.4 percent in the Central Region, to 2.7 percent in the Southern Region, and 3.4 percent in the Northern Region.⁵¹



Source: Created using data from National Statistical Office of Malawi 2008.

Agricultural expansion, growth of human settlements, over-dependence on wood for cooking, reliance on burnt bricks for construction of houses, rapid population growth, and low levels of reforestation have contributed to forest decline in Malawi.⁵² With 95 percent of households in the *Malawi Population and Housing Census 2008* reporting that they use wood fuel for cooking, the situation is likely to worsen as the population grows.⁵³

Forest loss negatively affects Malawi's ability to withstand natural disasters, including flooding. It compounds women's workloads, as they need to walk longer distances to fetch firewood. And it also means there are fewer trees to absorb carbon dioxide, a major contributor to climate change. Some officials that we interviewed illustrated the deforestation challenge Malawi is facing:

“Increased population results in increased cutting of trees, which reduces soil cover. People also settle or cultivate on marginal lands, leading to soil erosion. So, family planning can be used as an adaptive measure, and there is need to educate the general public about the effects of population on climate change issues.”

— Development Partner Representative



Food production in a country like Malawi that depends on rain-fed agriculture is being adversely impacted by changing weather conditions.

Photo: LEAD SEA



The cutting of trees for firewood and charcoal is often driven by a lack of other options for fuel among Malawi's poor and leads to forest degradation.

Photo: LEAD SEA

“Most of the sources of energy for urban residents are linked with climate change. You find that charcoal is mostly commonly used form of energy in urban areas especially for cooking. When the rural people are asked to stop cutting trees, they say they don't do it for themselves but for the town people who use it for cooking. So, actually, the problem of cutting down trees for charcoal burning should not be addressed by the rural people, but the solution should come from finding alternative sources of energy for urban dwellers.”

— Government Official

Population Growth and Food Security

About 80 percent of Malawi's people make their living through small-scale farming, a practice that is highly vulnerable to climate change effects. Erratic rainfall and recurring droughts have resulted in poor crop yields or

crop failure in some districts, leading to food shortages, hunger and malnutrition. The Lower Shire Valley is especially vulnerable. In January 2012, torrential rains caused serious flooding that displaced many people in Nsanje district, washing away roads, bridges, crops and livestock as rivers burst their banks.⁵⁴

Currently, less than 3 percent of the country's arable land is under irrigation.⁵⁵ Adverse climatic conditions caused major food crises in the 1991/92, 1996/97, 2000/2001 and 2001/2002 growing seasons, with about 30 percent of the population in need of emergency food aid.⁵⁶ The country is unable to fully feed its population, is especially lacking in cereals.⁵⁷ Although Malawi produced a food surplus between 2005 and 2009, partly due to fertilizer and government-provided seed subsidies to poor families, climate change remains the biggest threat to food insecurity in the country.⁵⁸ Some districts in the southern region like Nsanje, Chikwawa, and Zomba are experiencing their fourth consecutive year of food insecurity due to dry weather. According to the Malawi Vulnerability Assessment Committee's July 2012 report, 1.6 million people (11 percent of the total population) in the southern and central regions face serious food shortages. Because of climate change and a decline in soil fertility, agricultural production is projected to decline between now and 2020, while demand for food increases due to population growth.⁵⁹

Agricultural productivity is also hurt by the continued fragmentation of family-owned farm land. This is a result of population growth, inappropriate and outdated agricultural technologies, and over-reliance on maize as

a staple food.⁶⁰ Population growth puts more pressure on the country's subsistence farming system. While slowing population growth would help, there is also a clear need for a more diversified economy, development of irrigation, and more productive agricultural methods.

Population Growth and Water Resources

Malawi is one of the most water-scarce countries in Africa.⁶¹ The proportion of Malawi's population with access to an improved drinking water source has increased in recent decades, but there is still limited access in many of the densely populated districts in the central region such as Kasungu and Dowa.⁶² Increasing population density, urbanization, and climate change will all challenge Malawi's ability to meet its water needs.

Malawi depends on hydroelectric power. Recurring droughts have hurt hydroelectric power generation, overall economic productivity, and the country's attractiveness to investors. Malawi also regularly experiences flooding that displaces large numbers of people, especially in the Lower Shire Valley (Chikwawa and Nsanje districts) and lakeshore districts such as Salima. Droughts and floods affect the fisheries sector. They have been responsible for the decline, or even drying up, of water bodies, resulting in low fish production and loss of biodiversity. The sector is further hurt by unsustainable agricultural practices adding silt to bodies of water, deforestation, and noxious weeds such as water hyacinth.



Women often collect water for their families, but increasing water scarcity is adding to Malawi's vulnerability as a population and climate change hotspot.

Photo: LEAD SEA

POLICY FRAMEWORK FOR LINKING POPULATION DYNAMICS AND CLIMATE CHANGE

Given the strong links between population and climate change, it is important that these issues are tackled jointly at policy and program levels. Addressing the two together would help identify people who are particularly vulnerable as well and make it easier to devise strategies to help them adapt.

Population growth and climate change are recognized as key development challenges in policy documents and among officials we interviewed in Malawi. The MDGS II for 2011-2016 recognizes both climate change and population dynamics as important for sustainable development. The MGDS II identifies climate change as a priority area and calls for mainstreaming it across other sectors. The MGDS II also recognizes rapid population growth as a barrier to development and environmental conservation.

However, the MDGS II does not have common policies to address both areas. For example, approaches to address climate change include improving weather and climate monitoring; disseminating information for early warning; preparedness and response; harmonizing climate change strategies, policies and legislation; and enhancing implementation of climate change mitigation and adaptation programs. Approaches that relate to population include improving education, provision, access, delivery and use of sexual and reproductive health (SRH) services; advocating for girls' education and delayed marriage; and recognizing the ties between population and the environment.

Population and Related Policies

Malawi's first National Population Policy was launched in 1994. The policy highlighted rapid growth as the country's most pressing population challenge. After the banning of the family planning program between 1969 and 1984, the 1994 policy marked a major political turning point for the country.⁶³ The policy called for slowing population growth to contain and reverse environmental degradation, enhance food security and poverty reduction, and better allow the government to provide education and health services.

Since 1994, the Government of Malawi developed other policies to address population issues. These include the National Youth Policy (1996), the National Gender Policy (2005), and the National Reproductive Health Policy (2002). Between 2008 and 2010, the government developed a new population policy, which is yet to be approved by cabinet. The new population policy reinforces the call to slow population growth in order to improve the well-being of Malawians and the environment. The gaps the new policy seeks to address include: "lack of advocacy on population issues, poor coordination of population programs among stakeholders, insufficient use of data for development planning, and inadequate integration of population variables in development planning."⁶⁴

Neither the 1994 population policy nor the new draft mention to climate change, although they note climate-related issues such as water scarcity and droughts. The policies highlight the need for cooperation across sectors to address population challenges and achieve sustainable development. They identify the impact of high population growth on the environment and natural resources. The youth and gender policies also highlight the need for promoting environmental education, and involving women and youth in conservation.

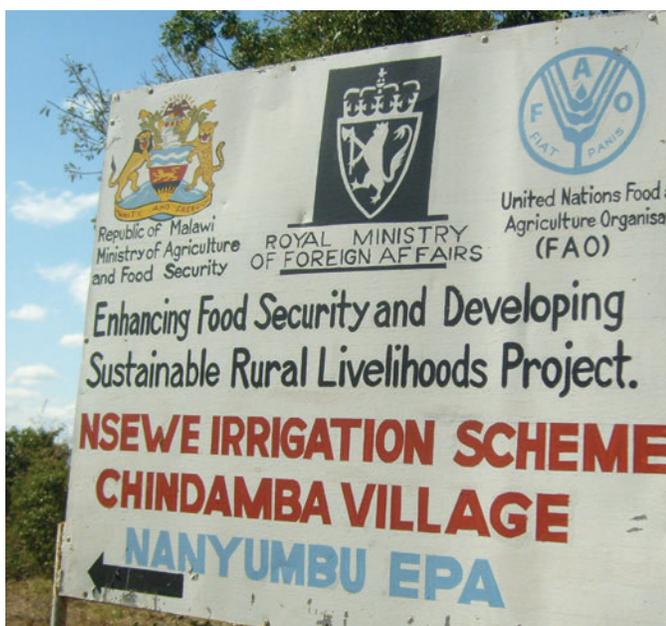
Environment, Climate Change, and Related Policies

Malawi does not yet have a policy on climate change, although they have begun drafting one. The government is currently building a National Climate Change Response Framework and Strategy, which will support national and local government institutions to achieve long-term climate-resilience and sustainable development.

The framework seeks to mainstream climate change in broader development initiatives, harmonize policies, and coordinate responses to climate change.

Some policies in other government sectors address climate change challenges. These include the National Environmental Policy (1996), National Environmental Action Plan (1996), the National Land Policy (2002), the Energy Policy (2003); the Forestry Policy (1996), the Fisheries Policy (2001), the Water Policy (2005), the Food Security Policy (2006), the National Irrigation Policy and Development Strategy (1998), the National Biodiversity and Action Plan (2005), and the Disaster and Risk Reduction Policy (currently being drafted). Most of these policies recognize the impact of population growth on the environment and natural resources, but do not address it.

The National Environmental Policy (NEP) highlights the impact of population growth on the environment. The policy calls for greater use of family planning to slow down population growth and more education about family planning. The water policy recognizes the adverse effect of climate change on water resources and suggests irrigation and better water capturing and storage. The Malawi National Adaptation Program of Action (NAPA) highlights links between population and climate change, and calls for investments in family planning among the country's priority adaptation actions. The NAPA, however, does not propose a specific family planning program in its priority adaptation interventions.



As Malawi deals with climate change impacts, it will increasingly have to work to enhance food security for a growing population.

Photo: LEAD SEA

A 2006 Action AID International study that examined effects of climate change on poverty and food insecurity among small holder farmers in Salima and Njanje districts highlighted the need for an integrated approach to addressing the climate change vulnerabilities that farmers face:⁶⁵

“Implementation of NAPA faces capacity constraints at the district levels and lack of coordination among various sectors. The overarching problem is the fact that NAPA seems to exist in isolation of other sector policies. In addressing adaptation challenges, it is imperative that a multi-sectoral approach is taken, beginning at the community level with the smallholder farmers who are directly affected by climate change.”

Disaster Preparedness and Management Policies

The Department of Disaster Management Affairs (DDMA) is responsible for coordinating disaster management activities in Malawi. The department's work is structured around the Hyogo Framework for Action, which the Government of Malawi and 167 other governments agreed to at the World Conference on Disaster Reduction, held in Hyogo, Japan in 2005.⁶⁶ The framework's main goal is to make the world safer from natural hazards, and it offers guiding principles, priorities for action, and practical means for achieving disaster resilience for vulnerable communities. The plan seeks to substantially reduce disaster losses of social, economic and environmental assets of communities and countries by 2015.

The DDMA works closely with and coordinated work of many disaster management organizations such as the Malawi Red Cross, OXFAM, Care International, Catholic Relief Service, and Action AID. Malawi's development blueprints (both MGDS I and MDGS II) have recognized natural hazards and disasters (most of which are linked to climate change) as major threats to the country's efforts to attain the Millennium Development Goals and achieve environmental sustainability. The blueprints underscore the need to reduce risk, especially to vulnerable populations, through a focus on social protection and disaster risk management.

CHALLENGES FOR INTEGRATION OF POPULATION AND CLIMATE CHANGE REPOSSES

Population dynamics and climate change issues are rarely addressed together at policy and program levels in Malawi, and activities in each area are implemented separately. Policies on population are more explicit than policies on the environment in highlighting the link between the two issues. Until recently, those coordinating climate change responses in Malawi did not pay any attention to population dynamics because they did not have evidence on how population issues relate to climate change. Even when the issues are linked in policies, there is little translation of the policies into integrated programs, due to a number of challenges.



The clearing of land and deforestation increase the vulnerability of Malawians and contribute to flooding and loss of property and lives

Photo: LEAD SEA

Stakeholders working on population and climate change issues attend each other's meetings, but there is limited effort to actually work together on programs. One challenge is intervention programs are designed, funded, and implemented in silos. Technical personnel often lack

skills to develop and implement integrated population and climate change policies and programs. There is little credible data to guide design of comprehensive responses to climate change by the government, non-governmental organizations, and local communities. While people at

the community level understand the link between climate change and population, they are unable to take action because most intervention programs are not coordinated.

Weak Coordination Mechanisms

Climate change is an issue that requires strong coordination across development sectors. Currently, the National Climate Change Program (NCCP), within the Ministry of Economic Planning and Development, is responsible for policy development and coordination of climate change programs. United Nations Development Program (UNDP), the main UN agency responsible for climate change activities in Malawi, provides technical support to NCCP on programs, skills development, and resources.

Coordination of climate change activities is weak and policies and programs are fragmented. While some stakeholders argue that the Department of Environmental Affairs should oversee climate change programs because the department has technical capacity on the issue, others feel the current placement is ideal because it helps climate change get included in plans and policies for other sectors. The Department of Environmental Affairs chairs the climate change steering committee, leads climate change negotiations, and represents Malawi at international climate change conferences. :

“There is a discomfort about funding for climate change related to who controls the resources. Environmental Affairs Department represents the country in climate change meetings but the money goes to the Ministry of Finance, Economic Planning and Development. The Ministry of Finance does coordination. There is a feeling that the Secretariat should be with experts.”

— Government Official

“There is a big challenge; the Environmental Affairs Department is the UNFCCC focal and then we have the Ministry of Finance, Economic Planning and Development which is charged with leadership and coordination and then there is the department of climate

change and meteorological services. All these are confusing because you don't know where to go for assistance. The Ministry of Finance, Economic Planning and Development is spearheading the climate change policy process.”

— Civil Society Representative

“The location of the climate change program is controversial; there is no proper coordination”

— Development Partner

“Proper coordination is lacking as climate change is a complex issue. It should be taken as a priority issue and integrated to all systems in the country. However, little is being done to create awareness to the private sector. The Government and its stakeholders, including CSOs, private organizations, the donor community, and communities should speak with one voice when it comes to priorities for addressing climate change.”

— Civil Society Representative

The Population Unit, also located in the Ministry of Finance, Economic Planning and Development, is responsible for population policies and programs in Malawi. The United Nations Population Fund (UNFPA) is the UN agency that provides technical support on population dynamics and advocates for population issues in the UN system. The Population Unit is grossly understaffed and not prioritized within the ministry, leading to poor coordination of population activities. While the NCCP and Population Unit are located in the same ministry, they work in total isolation and hardly communicate.

“The linkage between population and climate change in the Population Unit is understood but the climate change people are not considering population dynamics. People are working in silos. The population sector sends people to trainings and workshops on climate

change but the same is not happening in the climate change sector – climate change people do not attend population trainings and workshops.”

— Civil Society Representative

Fragmentation of Population and Climate Change Policies

The lack of an overarching climate change policy hinders effective integration of climate and population issues. Just mentioning population in sectoral policies on climate and environmental issues is not enough. For example, despite identifying that rapid population compounds vulnerability to climate change impacts, the Malawi NAPA did include a project with a family planning component. Similarly, family planning is included as an intervention for environmental conservation in the National Environmental Policy (NEP), but the Department of Environmental Affairs assigns family planning promotion to the Ministry of Health. Given the importance of population for the environment and climate change, these sectors need to consider population-related actions in their strategies. A climate change policy would help prioritize the issue and promote it within other development sectors, including agriculture, fisheries, forestry, energy, industry, environment, and water.

“The policy framework is confusing between different players. There is no clear coordination of climate change issues. For instance, the boundaries are not clear on what the Environment Ministry and the Agricultural ministry should focus on when it comes to climate change mitigation. There is also limited capacity for addressing climate change issues and no clear guidance on how far we should focus on climate change adaptation versus mitigation”

— Civil Society Representative

Some officials also highlighted the need to standardize policies on climate change. For example, there is need for common messages in sectoral policies on land, food security, water scarcity, and climate change.

“The policies we have are sector specific and sometimes conflicting, and there is need to harmonize them. Those in the Population Unit should link with the environment people. The Climate



Women rely on water to meet their families needs. With increasing siltation and run off, water sources are becoming increasingly polluted.

Photo: LEAD SEA

Change policy being developed should include population since a failure to link these issues will result in lead to ignoring of issues like slum dwellers in climate change work.”

— Academic Institution Representative

“The biggest problem we have in Malawi is lack of awareness of the linkages between climate change and population dynamics among policy makers, NGOs, and local communities. In the draft population policy there is no mention of climate change; neither does the NAPA include population activities. What we have are sector-specific policies and frameworks.”

— Civil Society Representative

While many officials felt that the imminent climate change policy is critical for addressing climate challenges, they also expressed frustration with the level of analysis in some development policies and the slow pace at which they get developed and approved.

“Currently, most of the environment policies do not seriously cater for population dynamics and even if they are included, policies usually take too long to be approved in Malawi, meaning that the original policy continues to be used even if there is need for change. The current policies should therefore be reviewed to include issues of climate change and population and how they affect each other.”

— Government Official

“The big problem we have is that policies remain in draft form for far too long; so they take long to be implemented. Good examples are the MGDS II, HIV/AIDS Policy, Population Policy, among others. Bureaucracy is

a big problem. The MGDS II draft has covered climate change but very little on population. We should follow the UNDAF, which has highlighted both issues.”

— Civil Society Representative

“The MDGS II is useful but it lacks in-depth analysis of issues, especially the evolution from MGDS I. UNDP tried to influence the process but with little success. It can be used to advocate for prioritization of climate change work since it cites climate change and energy sources as key priority areas. This is not an isolated case; many policies and strategies don’t get the required analysis. I have heard similar concerns about the new population policy. I don’t know whether it is because of lack of capacity or inadequate commitment, or political will. For example, the position paper for COP 17 has been the same for 3 years.”

— Development Partner Representative

Inadequate Funding

Lack of funding is a major obstacle to the design and implementation climate change policies and programs in ministries where this is not the core business. Despite the government’s call for climate change responses in all sectors, allocation of resources remains a challenge. There is an over-dependence on donors for funding of climate change work and the government contributes very little. The main development partners who fund and provide technical assistance for climate change activities in Malawi include: the Japanese government, DFID, Government of Norway, the World Bank, United States Agency for International Development (USAID), Food and Agricultural organization of the United Nations (FAO), World Food Program (WFP), and United Nations Development Program (UNDP).

The government calls on all ministries to address climate change issues, but gives them no budget line for this

work. This limits what they can do. For instance, although the disease impact of climate change is supposed to be addressed by the Ministry of Health, no funding is allocated for this work.

“Most of the policies are not implemented because there is no budget allocation for implementation and government does not follow up with policies, and there is no capacity to implement and evaluate these policies.”

— Government Official

“The government gives funds for response activities while development partners fund risk reduction especially UNDP, World Bank and Irish Aid. This department [Disaster Preparedness] however started shifting from disaster response to risk reduction in 2005, but the funding for risk reduction from government is not adequate, as most of the funds are used for administrative purposes, while the funds for disaster response are usually delayed by treasury. There is a problem of sustainability if this situation continues where all the risk reductions programs are funded by development partners and NGOs.”

— Government Official

Weak Technical Capacity

Malawi has weak technical capacity in program design, implementation, and evaluation, which affects development of effective responses to climate change. Most climate change research remains on a global scale, and there is little contextualization of this data at national and sub-national levels. For example, there has not been mapping of communities that are vulnerable to climate change risks in order to devise targeted programs. There is also weakness in creating proposals to tap into global funding mechanisms for climate change programs.

“There is inadequate information on climate change, especially in relation to mapping how it affects the poor and other vulnerable communities. There is a concern on whether the little information that is there is shared in proper formats for use by communities.”

— Civil Society Representative



Livelihoods and food security are being affected as critical Lake Basins in Malawi feel the effects of climate change

Photo: LEAD SEA

“Technical expertise is lacking because climate change is a relatively new concept and field. We need good evidence to understand it and how it is affecting people’s lives. We need to do capacity building since staff in many organizations as well as the government are not well conversant of climate change issues. We also need to understand the perceptions and interpretation of risk to climate change by communities. For instance, we have seen cases where communities do not take directives about flooding forecasts from the government seriously.”

— Civil Society Representative

“A lot of work is being done in Malawi to set up proper coordination and governance mechanisms for climate change, but there is heavy reliance on external expertise for most of the mapping and exploratory work that needs to be done to formulate good policies. Ultimately, a lot of this work will have to be done by local experts if the programs are to be sustained and entrenched into the local systems.”

— Development Partner Official

“The weather forecasts by the Meteorological Department are inconsistent and unreliable. They do not have strong equipment to provide reliable forecasts for specific areas but provide general forecasts for large areas, which is not that helpful to farmers. We also need strong capacity for early warning signals not only for start of rains or timing of drought, but also on flooding.”

— Civil Society Representative

According to some officials, the Malawi Meteorological Department, which provides information related to climate change trends, is also weak. The department is unable to provide comprehensive and long-term data on climate change and changing weather patterns. Inadequate national and sub-national data affects policy decisions. The imprecise forecasting of rainfall, droughts and floods is a major cause of anxiety among farmers. Such uncertainty increases their losses and vulnerability to climate change.

“Now we do not have adequate capacity in terms of structures like data storage capacity and computers, and we lack required expertise in some areas. We also have a general shortage of staff. Lack of a Meteorological Act also affects our work because now we use the Civil Aviation Act. The draft of the Meteorological Act had to be withdrawn from Cabinet because it did not include climate change issues. We are also developing a Meteorological Data Policy, which will be key in guiding what we do.”

— Government Official

“We are currently using documentation published in the 1970s to guide farmers on planting dates, but so much has changed. We are doing research to update the guidelines on the dates.”

— Government Official

Despite these shortfalls, efforts to increase technical expertise, skills and communication on population and climate change links are underway. Malawi’s Bunda College has introduced a Masters-level course on environment and climate change that includes population. Leadership for Environment and Development - Southern and Eastern Africa (LEAD SEA) has been training government officials and politicians on integrated approaches to climate change policymaking and program design. Other non-governmental organizations have also introduced local and governmental communication plans. For example, a NCCP training plan has been developed to train technical committees, managers of climate change, and parliamentarians on climate change issues. The NCCP also plans to develop a communication strategy to inform people about climate change.

Many officials that we interviewed in Malawi noted that the country also has very weak capacity to manage its disasters. The DDMA is not well-funded and it is largely understaffed. Other factors that undermine disaster management include weak capacity to provide early warnings on climate change, weak capacity to assess the magnitude of risks and needs of affected people, and weak capacity to mobilize and manage emergency assistance to communities. The department’s approach is only beginning to shift from reacting to emergencies and coordinating emergency responses to disaster risk reduction.⁶⁷ More emphasis now is placed on diversifying and strengthening people’s livelihoods and encouraging those living in risky areas to relocate. DDMA receives considerable technical support from UNDP on program design, general capacity building, and project implementation. UNDP is currently supporting the DDMA in developing a national disaster risk reduction strategy, which should facilitate mainstreaming of disaster risk reduction in other government policies and programs.

Weak Integration of Population and Climate Change Programs

Lack of a policy framework and poor coordination have prevented effective integration of climate change programs and the mainstreaming of climate change within other sectors like population.

“The placement of NCCP is not the problem per se, but lack of mandate and capacity to coordinate. There is a problem of coordination among implementers as well since many NGOs work in the same area on similar activities but do not communicate with each other. For example there are several donors working in the Lower Shire with different partners; and the donors and partners do not communicate to each other. For example, JICA is working with the Department of Forestry, UNDP is working with the Ministry of Environment, and the World Bank is working with the Ministry of Agriculture.”

— Development Partner Representative

At the community level, most implementing organizations do not have programs looking at both population and climate change issues. Programs are implemented by sector and either address climate change or population. Few actions have been taken to tackle them together. Community-level programs on climate change focus on adaptation, especially in agriculture and water resources. Some programs include interventions in climate-smart agriculture, such as sustainable land management, small scale irrigation schemes, reforestation, crop diversification, and fish farming. Others focus on improving community resilience, such as community savings and loans, market diversification, and building houses on higher ground to avoid flooding.

Some community interventions on climate change do take population dynamics into account. Many of them target vulnerable households, including those headed by women, who are disproportionately affected by climate change.

“We work with other CSOs (civil society organizations) and grass root organizations led by women to strengthen their capacity by training them on climate change and population. The issues we look at are vulnerability of women to HIV/AIDS, in employment sector and agriculture. Because of the disadvantage of women in ownership of property, women are the ones involved in agriculture but do not benefit from the proceeds. We work with women to advocate for small scale agriculture as a means of reducing their vulnerability.”

— Civil Society Representative

“Women are the ones involved in subsistence agriculture so they are mostly affected. Water sector is also badly affected and again the issue of gender comes in with women being mostly affected than men, as they have the responsibility of getting water for the family.”

— Government Official

Other organizations working on climate change have never thought of incorporating population in their work because they don't understand the links between population and climate change.

“Population issues are important though many organizations have not thought how to directly incorporate population into their interventions. Where there is high-density population there is increase in vulnerability. Population density increases as you move south. Deforestation is worse where population is increasing rapidly. This is affecting the ecology and water system and resulting in production constraint because of

less land to cultivate. It also results in sporadic rains... As much as population pressure plays a role in climate change, most of the climate change adaptation work focuses decreasing deforestation,

increasing agriculture production, putting in place erosion control measures and improving land tenure and security.”
— Civil Society Representative



The drying up of lakes and water sources are changing the landscapes in Malawi.

Photo: LEAD SEA

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:

- 1. 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.
- 2. Complete and approve the revised Population Policy.** Ensure that the policy mainstreams population issues within other development sectors, including environment and climate change. The government should also address population issues such as urban planning, infrastructure development, and safeguarding the lives of the urban poor against effects of climate change.
- 3. Take gender issues into account in the design of climate change policies and adaptation strategies.** Target women with climate change adaptation strategies, involve them in planning and implementation of interventions, enhance access to education, and create more livelihood opportunities for women. Strengthening the resilience of women will help communities respond to climate change and reduce poverty.
- 4. Prioritize meeting women and their partners' needs for family planning.** This would help reduce unintended births, reduce fertility rates and slow population growth. Family planning 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; and (c) reduce poverty by improving and expanding health, schooling and economic opportunities.
- 5. Set up a strong coordination and governance mechanism for climate change and population work.** 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.
- 6. Enhance investments in public health, education and women's empowerment, and adopt pro-growth, investment-conducive, and job-creating economic reforms.** These steps will help optimize Malawi's potential to benefit from the demographic dividend.
- 7. Secure financial resources from the government of Malawi, development partners, and non-governmental sources for the joint implementation of climate change and population programs.** Currently, climate change and population initiatives in Malawi are largely donor-driven. The government should create a budget line for family planning to ensure sustainability of the population program.
- 8. Improve the design and implementation of climate adaption programs.** These programs could include diversification of food crops and alternative energy sources, reforestation, water conservation and recycling, modernization of agricultural production, expansion of agricultural land under irrigation, and safeguarding coastal populations against rising sea levels and temperatures.
- 9. Enhance local technical capacity of governments and civil society organizations.** Building local capacity in proposal development can boost the country's chances of tapping into international funding for climate change work, such as the Adaptation Fund

and the Green Climate Fund. Investments should be made in the Meteorological Department, to buy equipment and enhance its capacity to generate timely and reliable data.

10. Build the capacity of the Population Unit at the Ministry of Planning and the Reproductive Health Unit at the Ministry of Health to improve coordination and implementation of population programs.

11. Train local researchers and other experts in multidisciplinary approaches and encourage networking among professionals working in climate change, population dynamics, and other development sectors. Lack of evidence on links between climate change and population dynamics has contributed to the lack of integrated policies and programs. Local experts should be trained on climate change issues from a multidisciplinary perspective, both in institutions of higher learning and workshops. Formation of a Population, Health and Environment (PHE) network could provide a valuable platform for enhancing networking and collaboration on these issues.

ENDNOTES

- 1 United Nations World Commission on Environment and Development. 1987. *Our Common Future – the Brundtland Report*. New York: United Nations.
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APPENDIX 1:

CONSULTATIVE MEETING SUMMARY REPORT

Population Dynamics, Climate Change, and Sustainable Development in Malawi

Consultative Meeting with Stakeholders

Riverside Hotel, Lilongwe, Malawi

September 13, 2012

The report *Population Dynamics, Climate Change, and Sustainable Development in Malawi* was launched by the Principal Secretary of the Government of Malawi's newly established **Ministry of Environment and Climate Change Management**, Dr. Yanira Ntupanyama, during a consultative meeting on September 13, 2012 in Lilongwe, Malawi.

With more than 40 participants in attendance, the meeting involved media (print, radio and TV), youth coalitions, civil society organizations, U.N. Agencies, and national government representatives. The report's authors, the **African Institute for Development Policy (AFIDEP)** and **Population Action International (PAI)** released their findings and key policy recommendations to meeting participants, underscoring a sense of urgency to adopt these recommendations in the development of Malawi's National Climate Change and Population Policy. The ensuing discussion of the report also informed action-oriented next steps and constructive feedback from key decision-makers. As climate change becomes an increasing concern to the well-being of Malawians, participants quickly recognized that this is a vital moment for policy action and thoughtful integration of population, reproductive health and gender concerns into climate change policy and programs.

The **Journalists Association Against HIV/AIDS**

(JournAIDS) facilitated a press conference after the launch of the report to communicate the findings to the general public.

LAUNCH HIGHLIGHTS

U.N. officials, Dr. Anand Babu of **U.N Development Program (UNDP)** and Dr. Thomas Munthali, of **U.N. Population Fund (UNFPA)**, provided an overview of ongoing work based on the U.N. climate change and population strategies. Representing the UNFPA Country Director, Dr. Munthali described the report as a 'ground-breaking analysis,' applauding the use of most recently available data, and 'timely,' for input in the latest round of the new climate change policy and population policy update. He laid out the stark projection of Malawi's

population doubling to more than 29 million by 2030, highlighting the implications for a primarily agrarian economy. Dr. Babu outlined the U.N.'s National Climate Change Program (NCCP) in Malawi, which includes a best practices study of seven districts, resource mobilization, and confronting challenging limitations such as fuel accessibility, lack of coordination among stakeholders, and financial constraints.

Roger-Mark De Souza, Vice President of Research at Population Action International, contextualized Malawi's population and climate change issues in sub-Saharan Africa, noting that Malawi is a global *population and climate change hotspot*, characterized by a high population growth rate, a high projected decline in agricultural production, low resilience to climate change, and severe water scarcity.

Executive Director of AFIDEP, Dr. Eliya Zulu and AFIDEP research scientist Dr. Nyokabi Musila presented the report's findings and recommendations. Dr. Zulu outlined the study's methodology, the links between population dynamics and climate change, and their implications in various sectors including agriculture, water resources, forestry cover, economic growth, and food security. Dr. Musila presented findings of the policy landscape analysis and key recommendations of the study. She asserted that population dynamics need to be at the center of climate change policies and programs and accompanied by strong coordination, robust governance mechanisms, adequate resources, and enhanced local technical capacity in program design and implementation and in research.

Keynote speaker Dr. Yanira Ntupanyama, Principal Secretary in the Ministry of Environment and Climate Change Management, acknowledged the serious impacts population dynamics have on climate change adaptation. As Malawi continues to face the huge challenge of deforestation, Dr. Ntupanyama highlighted the importance of addressing population growth as it is one of the factors causing forest degradation. She noted that the government of Malawi is committed to addressing climate change challenges, as demonstrated by its decision to create a new ministry mandated to focus on this issue and environmental challenges that the country is facing. In addition, she acknowledged the need to clearly address population dynamics in the climate change policy for the country's sustainable development. She welcomed the

report as a key resource in informing ongoing efforts to foster integrated development responses as envisaged in the Malawi Growth and Development Strategy II.

She informed the audience at the meeting that her Ministry is developing a National Climate Change Investment Plan, which will be a tool to solicit technical and financial support from development partners as well as bilateral and multilateral agencies. She encouraged youth and other stakeholders to share their ideas and concerns with the Ministry through planned consultations.

Welton Phalira from **Leadership for Environment and Development-Southern and Eastern Africa** (LEAD-SEA) introduced a systems-thinking approach to the population, environment, and climate change nexus. He shared the case study of climate variability near Lake Chilwa, which has resulted in the collapse of the fisheries industry due to severe drought. He also noted other effects of climate change in the area, including disruption of school attendance, cholera outbreak, and the unique socioeconomic vulnerability of women and children to these effects. He emphasized the importance of decentralisation and local government implementation of this integrated approach.

The Head of the **Department of Environmental Affairs**, Mpeta Mwanjongo, closed the day's discussion hopeful about the prospects for population and environment linkages after hearing the plenary remarks.

CONSULTATION HIGHLIGHTS

Following the presentations, meeting participants provided feedback on the report, and discussed next steps to take these recommendations forward. With robust evaluation and commentary, the plenary discussion provided valuable insight into the impact of an integrated and nationally-focused report in providing influence to policymakers. Dr. Eliya Zulu of AFIDEP and Sandra Mapemba of **Population Reference Bureau** led the final session of the seminar to synthesize participant recommendations to take forward. Key recommendations and discussion follow.

- **Youth Involvement in Advocacy:** Due to early marriage and high fertility rates among the youth, participants raised the importance of engaging that age bracket in advocacy and climate change programs. The demographic dividends of youth are vital economic drivers in Malawi, and mobilizing youth to engage in policy advocacy will be key.
- **Ministerial and Civil Society Coordination:** The report's recommendation on coordination was underscored as essential to the success of integration. Ministries and civil society organizations need to

come together to develop and implement integrated policies and programs. Similarly, the leadership must be clear so that all stakeholders understand the institutional arrangement, and which ministry, committee, or taskforce is guiding the process. The example of gender mainstreaming was cited as a cross-cutting issue from which coordination lessons could be learned.

- **Differential Vulnerability of Women:** Women's vulnerability to climate change impacts was noted as being particularly important, given their role as environmental stewards and caretakers of their families. There was a reaffirmation of the increasing desire of Malawian women to access family planning services. Participants recognized that investing in family planning could provide multiple dividends for women's social and economic empowerment while bolstering their resilience to climate change impacts and allowing them to directly be agents of change and improve their family's well-being.
- **Urbanization as a Climate Adaptation Strategy:** Given increasing urbanization rates in Malawi, participants also stressed the need to recognize the importance of effectively planning for and managing urban growth as a climate adaptation strategy, particularly in the context of providing access to reproductive health services. UNFPA is working with partners on a key analysis of these connections for Malawi, and their work should be considered in conjunction with this report's findings.
- **Disaster Planning and Mitigation:** As climate change impacts are increasingly felt in Malawi, there is an increasing urgency around disaster planning and mitigation, and the role of population dynamics in vulnerability assessments and relief coordination. This was considered by participants to be a key intervention that could be aligned in the vulnerable regions identified in Malawi's National Adaptation Program of Action (NAPA) or in the seven districts that are being examined by UNDP in its 'best practices study'.
- **Funding Opportunities:** Participants were interested in learning about funding opportunities from UNFPA, UNDP, GEF, and others to develop activities in support of integration. Notably the climate change investment plan was mentioned to be critical as it will assist in increasing funding opportunities and resources from various agencies as climate financing remains to be a huge challenge in Malawi. Inadequate funding in climate change interventions was noted by participants as a factor derailing climate change adaptation and civil society organizations observed that the funding provided by UNDP through the

Global Environmental Facility (GEF) through a small grants program was limited, thereby not benefiting many needy organizations who are well placed to help address climate change challenges in the country.

■ **Decentralization and Information Dissemination:**

Malawi's shift to a decentralized government administrative system was seen as an opportunity for developing and implementing locally relevant integrated population and climate change policies and programs. It is important to ensure that implementation of these national policies reach the local communities, and that the integration feeds through from central to local levels of government. Alongside the issue of decentralization is the need for information dissemination. Malawi largely has most of the key policies in place, which must be disseminated to the local program implementers. The idea of a knowledge bank was raised, so that civil society organizations could continue to build the evidence base for integration and provide direct data and support to decision-makers as the policies are developed.

- **HIV/AIDS and Climate Change Adaptation:** The prevalence of HIV/AIDS is also a crucial cross-cutting issue. Although there is little mention of HIV/AIDS in the report, there was argument made for its inclusion in the report, given that it is inextricably linked with the issues of population and sustainable development and has implications for Malawi's capacity to respond to climate change.

Opportunities for Policy Formulation on Population and Climate Change Integration

Two policies were under development and review at the time of the event which participants observed as opportunities to enact this integration effort:

1. **Climate Change Policy:** Currently under development, the national climate change policy seeks to develop responses along the following thematic issues: adaptation, mitigation, financial mechanisms, and institutional coordination. The seminar participants agreed that population ought to be incorporated within the thematic areas. Furthermore,

the revision of Malawi's NAPA and development of associated projects as well as efforts to develop a National Adaptation Plan presents an opportunity to incorporate population and family planning in these important climate change policy frameworks.

2. **Population Policy:** The participants recognised three areas for improvement to the pending policy revision, as follows: (i) make family planning explicit; (ii) Include the link between population and climate change; and (iii) Strengthen coordination mechanisms for population activities. A representative of the meeting participants presented these recommendations at the Population Policy Stakeholders Consultative Meeting on 19th September, 2012.

Next Steps:

Participants endorsed the report's findings and agreed that there is a need for continued and focused engagement of key stakeholders on these issues. Participants committed to finding ways to share the report's findings with other key stakeholders, and agreed that the report should be used as a planning tool for policies and programs.

The AFIDEP and PAI team subsequently officially presented the report to Malawi's Vice President and Minister for Health, The Right Honourable Khumbo H Kachali, and to the Minister for Environment and Climate Change, Honourable (Mrs) Catherine Gotani Hara, who both enthusiastically received the report and agreed to consider its recommendations for policy application.



AFIDEP and PAI present the research report to the Vice President of Malawi, Khumbo Hastings Kachali.

Photo: PAI

APPENDIX 2: INTERVIEW GUIDE

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INTERVIEW GUIDE: POPULATION DYNAMICS AND CLIMATE COMPATIBLE DEVELOPMENT IN MALAWI

Background information

NAME OF INTERVIEWEE	DATE OF INTERVIEW
Position of interviewee	Name of interviewer
Interviewee's institution	Interviewee's ID no.

Thank you so much for meeting with me today. My name is [name]. **The African Institute For Development Policy (AFIDEP)**, based in Nairobi, Kenya and **the Population Action International** (Washington DC, USA), are conducting a study to identify policy and program opportunities for enhancing linkages between climate change, and population dynamics, and broader development policies and strategies **in Malawi**. As part of this study, we are talking to a range of stakeholders including policy makers, program managers, donors, civil society organizations in order to gain an in-depth understanding of the status of these linkages, identify key challenges affecting the linkages, and make recommendations for improving the linkages at policy and service delivery levels in the country.

I have requested an interview with you because we believe that in your position as a [position/job title] in the [name of office], you will provide useful perspectives and insights on these issues, and I look forward to learning from you today. I have some guiding questions, but want you to feel free to talk about anything you think is important for us to know. I will be taking notes as we talk to be sure I don't miss anything. Is that alright?

Before we get started, I just want to emphasize that everything we talk about today is confidential. No one will have access to the notes I am taking except for those of us working on the project. When we write up our report, we will not use the names of any interviewees so that no one can be identified. Also, if at any point during the interview you would like to stop, or if there are any questions you would rather not answer, just let me know — that's fine. Is there anything you'd like to ask me at this point? [answer any questions regarding the interview].

Please, let me know if it is fine for us to proceed with the interview.

YES _____ NO _____

I. WORK ON CLIMATE CHANGE

I would like to ask you a few questions regarding the kinds of activities your organization does in relation to Climate Change in Malawi

1. What do you consider as the most crucial issues/challenges on climate change in Malawi?
2. Does your organization carry out activities related to climate change?
3. When did your organization start working on climate change issues?
4. What prompted you?
5. What sort of activities have you carried out?
6. What are some of the challenges faced in your work?

WORK ON POPULATION DYNAMICS

1. What do you consider as the most crucial issues/challenges on population in Malawi?
2. Does your organization carry out activities related to population dynamics
3. When did your organization start working on population issues?
4. What prompted you to start working on population issues?
5. What sort of activities have you carried out?
6. What are some of the challenges faced in your work

If institution works on both issues:

A. Do you consider your work on population dynamics and climate change to be well integrated?

Explain

Probes

- Why do you integrate the two?
- When did you start the integration?
- What challenges have you faced?
- Are there plan to scale-up this integration?

Probes:

If no, why not?

If yes: what mode of scale up are you going to use (e.g. Hot spots? vulnerable areas?)

Are there any perceived opportunity costs of integration?

If they don't work on both:

A. Why not?

B. Has your organization considered integrating population/climate change with population/climate change?

Explain:

Which aspects in particular?

C. Are there any perceived opportunity costs of integration?

II. POLICY FRAMEWORK

CLIMATE CHANGE POLICIES FRAMEWORK

1. What are the main policies to guide Climate Change operations in Malawi?
 - a. Please give me a brief description of what issues the policies address or what audience they target?
 - b. Do these policies incorporate population dynamics?
 - c. How do the Climate Change policies address the following vulnerability factors:
 - o Gender inequality
 - o Vulnerable and marginalized communities

2. What are the main strategies on Climate Change operations in Malawi?
 - a. Could you list them?
 - b. Please give me a brief description of what issues the strategies address or what audience they target?
 - c. Do these strategies incorporate population dynamics?
 - d. How do the Climate Change strategies address the following vulnerability factors:
 - o Gender inequality
 - o Vulnerable and marginalized communities

3. What are the main intervention programs for addressing the impacts of climate change in Malawi?
 - a) Please give me a brief description of what issues the interventions address?
 - b) Do these interventions incorporate population dynamics?
 - c) How do the Climate Change interventions address the following vulnerability factors:
 - o Gender inequality
 - o Vulnerable and marginalized communities

POPULATION DYNAMICS POLICY FRAMEWORK

1. What are the main policies on population issues in Malawi?
 - a. Could you list them?
 - b. Please give me a brief description of what issues the policies address or what audience they target?
 - c. Do these policies incorporate climate change issues?
 - d. How do the population policies address the following vulnerability factors:
 - o Gender inequality
 - o Vulnerable and marginalized communities

2. What are the main strategies or guidelines on population issues in Malawi?
 - a. Could you list them?
 - b. Please give me a brief description of what issues the strategies address or what audience they target?
 - c. How do the population strategies address the following vulnerability factors:
 - o Gender inequality
 - o Vulnerable and marginalized communities

3. What are the main intervention programs for addressing population challenges in Malawi?
 - d) Please give me a brief description of what issues the interventions address?
 - e) Do these interventions incorporate climate change issues?
 - f) How do the population interventions address the following vulnerability factors:
 - o Gender inequality
 - o Vulnerable and marginalized communities

III. SYSTEMS AND PARTNERSHIPS

3. PLANNING

- a. How is planning for Climate Change undertaken?
- b. To what extent are people in the population/census/statistics bureau unit(s) involved?
- c. To what extent do professionals and key stakeholders in population get involved in developing climate change policies and strategies and vice versa?

4. STAFFING, HR AND CAPACITY DEVELOPMENT

- a. What is the level of technical capacity in climate change work?
- b. What are the training needs in Climate Change?
- c. Does training on Climate Change integrate role of population dynamics?
- d. What about population?

5. FUNDING/BUDGETARY SUPPORT/PARTNERSHIPS

- a. Who are the main funders of climate change in Malawi?
- b. What activities do they fund?
- c. Who is mostly funded?
 - o To the government
 - o CSOs
 - o Private Sector
- d. What about population?

6. LOGISTICS AND SUPPLIES

- a. What are the main challenges in obtaining and distributing supplies for addressing population issues e.g. FP commodities?
- b. What is being done to address these challenges?
- c. Are there related logistical challenges in climate change responses?

7. MONITORING AND EVALUATION

- a. How do you measure your process and outcome indicators in climate change work?
- b. How is the reporting done?
- c. What challenges do you face in monitoring and evaluation of climate change work?
- d. What are the main knowledge/evidence gaps in climate change work?

What about monitoring and evaluation of population change issues?

If they work on both population and climate change:

- How do you integrate the M&E systems and indicators for population and climate change?
- What challenges are you facing on this?

8. LEGISLATIVE/LEGAL ISSUES

- a. Is there a legal framework governing Climate Change in Malawi?
- b. How has the law changed things?
- c. Are there contentious issues in relation to Climate Change?

9. PARTNERSHIPS

- a. What are the key roles that NGOs play in climate change issues?
- b. What about the private sector?
- c. How can these roles be enhanced?

10. INTERNATIONAL PROTOCOLS

- a. What international protocols govern work on climate change in Malawi?
- b. In what way do these facilitate or inhibit your work?
- c. What about protocols facilitating population issues?

11. FEEDBACK AND DISSEMINATION

- a. Would you be interested in giving feedback to the draft of our report on this project?
- b. What advice would you give us in order to make this report most useful?
- c. Probes: specific issues to highlight
- d. Phrasing of the report
- e. Key people to target (e.g. send the report to)

CONCLUDING QUESTIONS

We're almost done with the interview. Your comments so far have been very useful in helping us understand the **[name of office]**'s role in the Climate Change/population linkages. I just have some final questions for you: given your knowledge and experience as a **[position/job title]** in the **[name of office]**, what is your overall impression of the adequacy and effectiveness of policies and strategies, Systems and programs for Climate Change in Malawi especially with regards to population dynamics?

1. Please give me key recommendations that would help improve work on:
 - climate change
 - Population dynamics
 - Integrations of the two issues
2. Finally, – remember, you're the expert and I am the learner – given my interest in understanding Climate Change, are there any important issues that I have not asked you about climate change?
What about population dynamics?
3. Do you have any questions for me?

CONTACTS AND REPORTS

4. Are there any relevant reports of work that your organization has supported on Climate Change and population dynamics? Please, give me copies of the reports or give me details on how I can access them.
5. Is there someone that you think we should talk to regarding this topic – just in case we have not already included the person on our list?

That covers the things I wanted to ask. Is there anything you would like to add?

Thank you so much for your time. I've really learned a lot from you today and I really appreciate your insights.

APPENDIX 3: KEY INFORMANT REPRESENTATION

	ORGANIZATION	DEPARTMENT
GOVERNMENT	Ministry of Finance And Development Planning	Development
		Climate Change Program
	Ministry of Natural resources, Energy and environment	Environmental Affairs
		Forestry
		Climate Change and Meteorological Services
	Office of the President And Cabinet	Disaster Preparedness, Relief and Rehabilitation
	Ministry of Agriculture, Irrigation and Water Development	Water Resources
	Ministry of Local Government and Rural Development	Rural Development
	Ministry of Lands, Housing and Urban Development	Urban Development
	Ministry of Gender, Children and Community Development	Community Development
Ministry of Youth Development and Welfare	PS	
Parliament Building	Parliamentary Committee on Agriculture and Natural Resources	
NGOS AND DEVELOPMENT PARTNERS	UNDP	Ass. Resident Rep
	UNFPA	Population and Development
	JICA	Agriculture and Rural Development
	World Bank	Human Development Unit, Population and Education
		Natural Resource Unit
	Red Cross	Disaster Management
	FAO	Food Security Coordinator, Climate Change
	Oxfam	Economic Justice Coordinator
	World Vision	Operations Director
	Action Aid	Food, Nutrition and Human Security
	Christian Aid	Enhancing Climate Resilience Project
	UN Habitat	Program Manager
	DFID	Resilience Unit
	LEAD	LEAD Southern and Eastern Africa Regional Office
	Norad	Royal Norwegian Embassy
CARE-Malawi	Food Security/Economic Development	
CSOS	Journalists Association Against AIDS	Program Manager
	Centre for Environmental Policy and Advocacy CEPA	Director's Office
ACADEMIC INSTITUTION	Bunda College	Lecturer

APPENDIX 4: REVIEWED POLICIES, STRATEGIES AND FRAMEWORKS

Malawi Growth and Development Strategy (MGDS) I 2006-2011

United Nations Development Assistance Framework (UNDAF) 2008 – 2011, Malawi

National Population Policy (1994)

National Youth Policy (1996)

National Gender Policy (2005)

National Reproductive Health Policy (2002)

National Housing Policy (2000)

Malawi National Adaptation Programs of Action (NAPA) (2006)

National Food Security Policy (2006)

National Environmental Policy (2004)

National Environmental Action Plan (NEAP) (1996)

National Land Policy (2002)

National Water Policy (2005)

National Forestry Policy (1996)

National Fisheries Policy (2001)

National Irrigation Policy and Development Strategy (2000)

National Energy Policy (2003)

National Biodiversity and Action Plan (NBSAP) (2005)

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