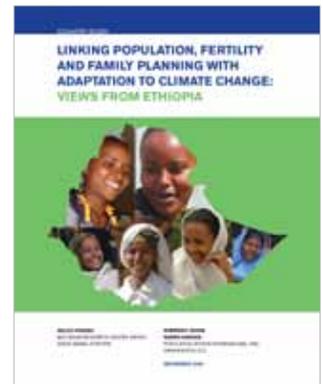


# Climate Change Adaptation: Ethiopia Country Study Executive Summary

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**As global climate change unfolds, its effects are being felt disproportionately in the world's poorest countries and among the groups of people least able to cope. Many of the countries hardest hit by the effects of climate change also face rapid population growth, with their populations on track to double by 2050.<sup>1</sup>**

Population Action International (PAI) and Miz-Hasab Research Center (MHRC), in collaboration with the Joint Global Change Research Institute (JGCRI), studied which groups are most vulnerable, what community members say they need to adapt, and the role of family planning and reproductive health in increasing resilience to climate change impacts. The study was carried out in 2008-2009 in peri-urban and rural areas of two regions in Ethiopia: the Oromia region and the Southern Nations, Nationalities and People's (SNNP) region.

Climate change will have a notable impact on Ethiopia's temperature and precipitation: average annual temperatures nationwide could rise 3.1° C by 2060, and 5.1° C by 2090. In addition, precipitation is projected to decrease from an annual average of 2.04 mm/day (1961-1990) to 1.97 mm/day (2070-2099), for a cumulative decline in rainfall of 25.5 mm/year.<sup>2</sup> A growing population has already led to increased demand for agricultural and grazing land, as well as wood for fuel and construction purposes.

Ethiopia's 2007 population was 74 million and is expected to more than double by 2050, even with the ambitious assumption that fertility rates decline to nearly replacement level.<sup>3</sup> Population density is also projected to more than double from 72 people per square kilometer in 2005 to 166 per square kilometer in 2050. A 2005 national survey showed Ethiopian women have an average of 5.4 children in their lifetime, though large regional and socioeconomic variations remain. Fertility rates are highest among women living in rural areas, those with no education, and the poorest.

While awareness of family planning is high, **an estimated 34 percent of currently married women want to postpone childbearing for two or more years or stop entirely, but they are not currently using contraception.** Use of family planning is higher in urban areas, among women with higher levels of education, and among women in higher wealth quintiles, and corresponds with lower fertility rates among these groups.

In this study, women and men from two areas of Ethiopia spoke about the increasing challenges they face in adapting to climate change. They recounted how rising temperatures, more frequent droughts, increased flooding, receding grazing land and diminishing forests are making it more difficult for their families and communi-



Left to right:

Residents in urban SNNPR lined up to fetch free water from 'bono' – public water tap. Sidama Zone, Loko Abaya Wereda.

Rural SNNPR housing construction, Sidama Zone, Loko Abaya Wereda.

Market place in Oromia Eastern Shewa Zone, near Metehara Town.

Beseka Lake in urban Oromia, threatening to flood agricultural land.

ties to cope. Study participants from Oromia and SNNP reported that they:

- Acknowledge that climate change is occurring and changing their environments.
- Identify women, children and the elderly as the groups most vulnerable to and affected by climate change.
- Encourage the use of family planning by observing that large families of six or more children, while culturally desirable, are not currently sustainable.
- Believe that while climate change is inevitable and some alleviation may be up to God, the government and communities should take lead in addressing climate change.

An interviewee in Oromia stated that “Nothing seems... like in the past. On the contrary, the problems are getting worse. The temperature, shortage of food and rainfall situation is worsening.” In the Southern Nations, Nationalities and People’s Region, a rural community member remarked that “... if a family has limited children, he will have enough land for his kids and hence we can protect the forests... In earlier years, we had a lot of fallow lands, but now, as a result of population growth, we don’t have adequate fallow land. Therefore, limiting the number of children will help us to cope with the change in climate.”

### Recommendations

Ethiopia has a Climate Change *National Adaptation Programme of Action* (NAPA), which was created in 2007 to address the effects of climate change. Additionally, the *National Population Policy* of Ethiopia was adopted in 1993 with a primary goal of achieving harmony between the country’s rate of population growth and its capacity to utilize natural re-

sources to best serve this growing population.<sup>4</sup> Its *Reproductive Health Strategy*, formulated in 2006, lists a goal of increasing contraceptive prevalence from the current 15 percent to 60 percent by 2010. Nevertheless, far more must be done to address these problems. The authoring organizations of this study have the following recommendations for the government of Ethiopia, donors, the UN Framework Convention on Climate Change (UNFCCC) and researchers:

- 1 Support integrated approaches to climate change adaptation that build on people’s expressed needs, and strengthen community-based adaptation strategies to include expanding access to reproductive health and family planning services.
- 2 Give more high-level policy support to Ethiopia’s reproductive health and family planning programs to reduce the high unmet need for contraception and to improve maternal and child health.
- 3 Researchers should include population growth, fertility and access to family planning and reproductive health services in future studies of impacts, adaptation and vulnerability to climate change.

### Endnotes

- 1 Based on the UN medium population projection.
- 2 Cline, W.R. 2007. *Global Warming and Agriculture: Impact Estimates by Country*. Washington, DC: Center for Global Development and the Peterson Institute for International Economics.
- 3 According to the United Nations Population Division’s medium variant population projection.
- 4 Office of the Prime Minister. 1993. *National Population Policy of Ethiopia*. Available at: <http://cyber.law.harvard.edu/population/policies/ETHIOPIA.htm>.