

# CLIMATE CHANGE AND FERTILITY TRANSITION IN SUB-SAHARAN AFRICA: THE CASE OF CAMEROON

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## BACKGROUND

Since many decades, population specialists are agreeing that SSA countries seem to have started their fertility transition somewhat later than others, although still within a short time frame by historical standards (Locoh, 2002; Eloundou and Stokes, 2007). Projections made by the United Nations (2007) assume that the fertility levels of such countries will continue their decline until fertility drops slightly below the replacement level. Yet, recent studies are revealing that the pace of this ongoing fertility transition is decelerating and even stalling (Bongaards, 2008; Shapiro & Gebreselassie, 2008). Although, studies to identify main determinants of these trends are all pointing out social, economic, political and cultural factors (Bongaards, 2008; Shapiro & al., 2010). While the so expected transition has to happen in a context where climate change is seriously affecting people livelihoods

However, the link between fertility and environment, including climate change, remains unexplored in the scientific literature. While, the examination of this link is important given that a large share of Africa's population lives in areas that are experiencing critical climate instability and extreme weather events (PAI & AFIDEP, 2012). More, policymakers need to connect climate change and population dynamics as climate change is ultimately jeopardizing population's economic and human welfare and thus can affect the population growth and its structure (Hoepf et al, 2009). Indeed, the climate change that the continent is facing cannot be without effect on the fertility behaviour of its inhabitants since it is upsetting their living conditions and means of subsistence.

## OBJECTIVES

The main objective of this paper is to assess if effects of the ongoing climate change can affect the transition of fertility in Sub-Saharan Africa particularly in Cameroon where many regions are facing the effect of the climate change through many climatic hazards and extreme weather. Specifically, it is about enlightening the effect of climate hazards on the desired fertility of population specifically in climate change hotspots<sup>1</sup>. We are trying to demonstrate that addressing negative effects of climate change in SSA can significantly contribute to the transition of fertility there.

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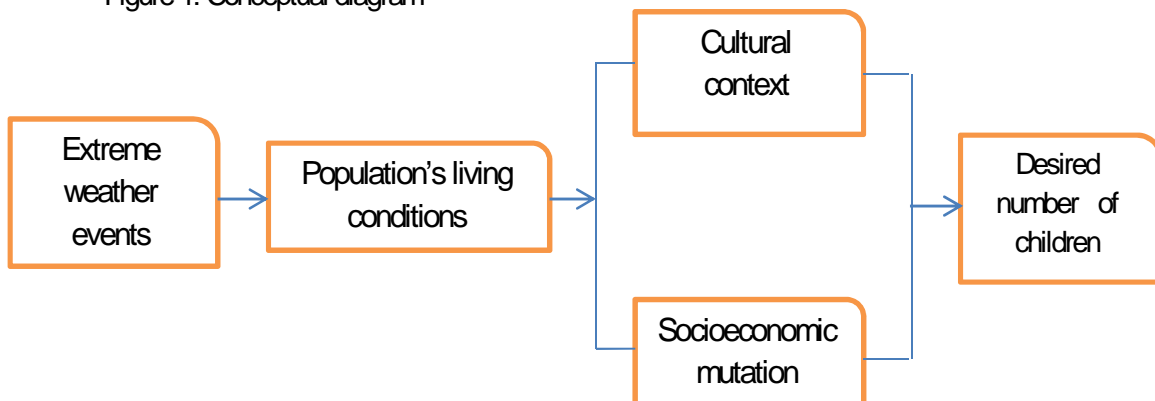
<sup>1</sup> A climate change hotspot is a region experiencing erratic climatic condition and that has been victim of extreme weather events at least during the last 10 years

## CONCEPTUAL FRAMEWORK AND METHODOLOGY

This research is laid on the IPCC's scenarios on the impacts of climate change on people livelihood (BEUCHER & BAZIN, 2012; PAI & AIDP, 2012) and the cultural and economic theories of fertility transition in Africa sustained by Bongaard & al (2008). Data are mainly from the Cameroon's DHS and deep literature research on the fertility and procreative behaviours in Cameroon completed with open semi structural interviews with people living in climate change hotspots. Interviews consisted in knowing how climate disasters victims adapt their procreative behaviour to the situation and if the situation is affecting their desired fertility. We observed the evolution of some fertility indicators in climate change hotspots across the country. And we tried to link the trend of these indicators which the sociocultural and economic context affected by the climate disaster.

The conceptual framework is based on the assumption that the procreative behaviour of a community also depends on its life history and past events that it experienced; therefore, climate disasters that have been affecting people's livelihood in communities since decades cannot be without an effect on the population dynamic components in the community such as the fertility. This led to the conceptual diagram below.

Figure 1: Conceptual diagram



The diagram derives from the hypothesis that extreme weather events are affecting population's living conditions that is affecting the socioeconomic mutation that could favor fertility decline; that is the improvement of women's educational level, the drop of infant mortality level, poverty alleviation, the level of food security etc. In the other hand the change in population living condition inducted by climate change is happening in a cultural context where adaptation methods are mostly demographic through procreation projects (the desired fertility).

## KEYS FINDINGS

Results showed that fertility transition is decelerating in Cameroon since 1991 and has even stagnated since 1998 (C-DHS, 1991, 1998, 2004, 2011). The climate change contribution to this situation derives from the fact that deceleration started after the country started experiencing extreme weather events in 80s with a long drought period. In fact, since 1991, climate change hotspots in Cameroon appeared to be the main drivers of the fertility levels in the country. The fertility trends in these hotspots show stability or an increase since then. Their fertility level is always above the national level which was on a decreasing tendency till 2004 where it stalled. Furthermore, fertility seems to be an adaptation strategy against climate change especially in rural areas where people affected by extreme weather event declared they need more children than before since they need more labor force to rebuild their life in the village while some ones should go to school so they can pretend to a white collar job later and support the family during disasters. Nevertheless it also appears that climate change is negatively affecting women schooling in climate change hotspots areas as well as it favors early marriage of women.

Results of these analyses led to the conclusion that climate change is one of the factors jeopardizing the fertility transition in Cameroon. This is reinforced by the fact that a look on the fertility map of Africa shows that fertility hotspots are mainly located climate change hotspots areas. This is well observed through the situation around the Lake Chad, which is one of the main climate change hotspot in the world (IPCC, 2004), where surrounding countries such as Chad, Cameroon, Mali, Niger etc. that are severely affected by climate change since 80s, have since then, maintaining a high level of fertility and a stalling trend (Bongaards, 2008); Shapiro & al., 2010; Eastwood & al 2011).