

WHAT IS THE IMPACT OF CONTRACEPTIVE SUPPLY ON (UNWANTED) FERTILITY IN AFRICA?

A recent report by the World Bank¹ contrasts the demographic changes in Africa with those that have occurred in East Asia, Latin America, and the Middle East. Fertility in Africa remains

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very high (5.4 children born per women in 2005–2010) and is only slowly declining: fertility was on average 6.5 children per woman in 1950–1955. Furthermore it looks like this level of fertility is not actually desired; according to the Demographic and Health Surveys in Africa, average wanted fertility is 4.1 children per woman, while average realized fertility is 5.1. Excess fertility is higher among poorer and non-educated populations.

Does an active policy of family planning help reduce this

unwanted fertility? Traditionally economists have been skeptical. Becker (1993) and Pritchett (1994) argue that

fertility is mainly driven by preferences and question the effectiveness of

improving access to family planning.² While more recent empirical studies (Sinha, 2005; Miller, 2010) conclude that contraceptive access programs do have a significant impact on fertility,³ these studies are not totally convincing in terms of causality. In addition, no such study has been conducted on Africa.

This is why the recent study by Kelly Jones, entitled ‘Contraceptive Supply and Fertility Outcomes: Evidence from Ghana,’⁴ is important. The point of departure is to exploit

and the Impact of Population Policies, *Population and Development Review*, 20: 1-55.

³ Sinha, N., 2005. Fertility, Child Work and Schooling Consequences of Family Planning Programs: Evidence from an Experiment in Rural Bangladesh, *Economic Development and Cultural Change*, 54: 97-128; Miller, G., 2010, Contraception as Development?

¹ World Bank, 2015, Africa’s Demographic Transition: Dividend or Disaster?, Africa Development Forum, Washington, DC: World Bank; and Agence Française de Développement.

² Becker, G., 1993. *A Treaty on the Family*, Rev. ed. Cambridge, MA: Harvard University Press; Pritchett, L.H., 1994. Desired Fertility

AGRODEP is a Modeling Consortium of African researchers living and working in Africa with research interests ranging from economic modeling to regional integration and development to climate change, gender, poverty, and inequality. There are currently 183 members from 27 countries; our members work at top research institutions and universities in their own countries as well as various government agencies and non-profit organizations.

The benefits of being an AGRODEP member include opportunities for research grants, free access to cutting-edge economic research tools, data, and training. Members also gain access and exposure to

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New Evidence from Family Planning in Colombia, *Economic Journal*, 120: 709-736.

the exogenous variation in contraceptive supply in Ghana due to US domestic policy. In 1984, President Reagan issued an executive order, known as the Mexico City Policy, that restricted US funds for nongovernmental organizations that included abortion in their family planning program in foreign nations. The policy remained in effect until January 1993 when President Clinton abolished it; it was reinstated by President Bush in January 2001 and then cancelled by President Obama in January 2009. As a result, the budget of an organization called Planned Parenthood Association of Ghana (PPAG), the leading NGO provider of reproductive and sexual health services, was reduced by 40% from 2001 to 2003. Many PPAG clinics were closed, particularly in rural areas. This obviously constitutes an exogenous variation in contraceptive supply, which offers a way to test the importance of the causal link between contraceptive supply and fertility and abortion.

From a microeconomic point of view, a woman's realized fertility is a function of her effort to prevent pregnancy. This effort may consist of no-cost traditional methods (periodic

abstinence, withdrawal, etc.), modern methods (injection, condom, diaphragm, etc.) for which cost is positive, and abortion, for which cost is also positive. A woman's objective is supposedly to minimize the difference between wanted fertility and realized fertility. If the price of modern methods is increased, a woman is expected to reduce her consumption of modern methods and may choose to increase her consumption of traditional methods or of abortion or of both. The impact of a simultaneous increase in the price of abortion on demand for abortion depends on own-price and cross-price elasticities of demand for abortion. It is worth noting that these effects clearly depend on the level of a woman's income and level of education, which may affect her belief in the effectiveness of traditional methods and the opportunity cost of an unwanted pregnancy.

Testing the impact of an exogenous reduction in contraceptive supply on fertility and abortion, it is shown that the implementation of the Mexico City policy resulted in an increase of 0.0011 of the probability of conception for women aged 17 to 25 in Ghana,

representing a statistically significant 5.6% increase. The impact is not significantly different from zero in urban areas, but it is significantly positive in rural areas, representing a 10% increase in rural pregnancies. The reduction of contraceptive supply represented an increase in the monetary costs of access to modern methods that affected both poor and less poor women.

Concerning abortion, the Mexico City policy resulted in a statistically significant increase in abortions in rural areas (by 2.35 percentage points); this impact was not significant in urban areas. The impact is not different from zero for the poorest women, but it is positive and significant for the less poor population. This means that the burden of additional unplanned births fell more importantly on the poorest women.

In conclusion, this study points to the importance of international funding for contraceptive supply. It is clear that international aid is effective and can increase the supply of modern contraceptive methods everywhere, particularly in Africa, where realized fertility is still greater than wanted fertility.

Antoine Bouët

Senior Research Fellow, IFPRI

⁴ Jones, K., 2015, 'Contraceptive Supply and Fertility Outcomes: Evidence from

Ghana', *Economic Development and Cultural Change*, 64(1):31-69.

DATA

Recent statistics about Africa

Graph 1. Global Hunger Index 2015



According to the [Global Hunger Index](#) developed by IFPRI, the level of hunger in developing countries has fallen by 27 percent since 2000. This means that there has been progress in the fight against hunger during the last fifteen years. However, in 2015 the state of hunger was still serious or alarming in 52 countries, with alarming situations in African countries like Central African Republic, Chad, Zambia, Sierra Leone, and Madagascar.

AGRODEP IMPACT EVALUATION NETWORK

2016 Workshop Held

The [AGRODEP Impact Evaluation Network](#) (AIEN) held a [workshop](#) in Washington DC on March 7-8. The event included members of AIEN, as well as impact evaluation practitioners from IFPRI and other Washington DC-based organizations. AIEN members were given the opportunity to present their papers or proposals and receive feedback and potential mentorship and collaboration opportunities.

The AGRODEP Impact Evaluation Network aims to disseminate information regarding impact evaluation projects in Africa, facilitate information- and resource-sharing among local, regional, and international researchers, and increase the number of African experts involved in impact evaluation in the region.

Launched in 2012, the network currently has 37 members.

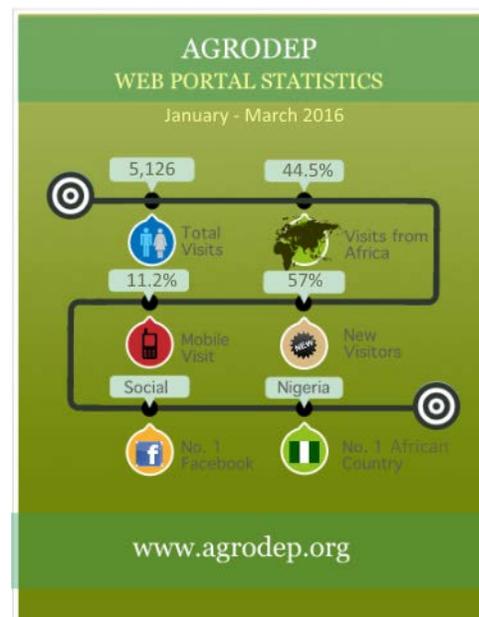
UPCOMING 2016 TRAINING COURSE

Tools for Value Chain Analysis

AGRODEP will host its first 2016 training course on March 29-April 1 in Dakar. “Tools for Value Chain Analysis” will be instructed by Sarah Mayanja of the International Potato Center in Uganda and Hazel Malapit of IFPRI. This will be a two-part course which will feature the Women’s Empowerment in Agriculture Index (WEAI) and the Participatory Market Chain Approach (PMCA).

The first part of the course will introduce participants to the WEAI, the first comprehensive, standardized index to directly measure women’s empowerment and inclusion in the agricultural sector. The course will focus on the relevance of the WEAI in value chain analysis and will teach participants survey design and implementation best practices, basic construction and manipulation of WEAI data, the use of standard WEAI tables and charts, and the communication of WEAI results.

The second part of the course will focus on the Participatory Market Chain Approach, a flexible R&D approach that brings together value chain actors to identify potential opportunities for small-scale actors along the value chain. Participants will learn how the PMCA’s basic principles can be used to improve smallholders’ participations in markets.



AGRODEP MEMBERS IN WASHINGTON DC

Capacity Strengthening Training to Be Held

AGRODEP members **Francis Mulangu** and **Abdoulaye Seck** will be visiting IFPRI headquarters in Washington DC between March 28 and April 1 for a short training course on constructing agricultural typologies using productivity analysis estimation techniques. This training is part of the capacity strengthening activities of the Program of Accompanying Research for Agricultural Innovation (PARI) funded by the BMZ and lead by the Center for Development Research (ZEF) of the University of Bonn.

Francis and Abdoulaye have been AGRODEP members since November 2012. Francis is an Agricultural Economist at the African Center for Economic Transformation where he conducts research on agricultural transformation and leads policy and research in the areas of agriculture and trade as they relate to economic transformation. Abdoulaye is an Associate Professor of Economics at Cheikh Anta Diop University. Aside from teaching, he conducts research on economic growth, technology generation and diffusion, environmental valuation, and economic integration.

WHAT IS AGRODEP?

The African Growth and Development Policy (AGRODEP) Modeling Consortium is an initiative led by the International Food Policy Research Institute (IFPRI). The goal of AGRODEP is to position African experts to take a leading role in both (1) the study of strategic development questions facing African countries as a group and (2) the broader agricultural growth and policy debate, which traditionally has been dominated by external actors and concerns.

CONTACT INFORMATION

<http://www.agrodep.org/> • info-agrodep@agrodep.org

IFPRI-Dakar : Titre 3396 Lot #2 BP 24063 Dakar-Almadies
Senegal Tel: +221 33-869-9800 Fax: +221 33-869-9841

IFPRI-DC: 2033 K St, NW Washington, DC 20006-1002, USA
Phone: +1 202-862-5600 Fax: +1 202-467-4439