

Doctoral Thesis (Abridged)

博士論文（要約）

Fertility Transition, Family Function, and Resource Constraints in Sub-Saharan Africa:

A Case Study of Rwanda

(サブ・サハラアフリカにおける出生力転換と家族機能、資源制約:

ルワンダ共和国を事例に)

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ABSTRACT

The study aims to provide the framework to revisit the fertility transition in Rwanda, of which Sexual and Reproductive Health (SRH) programmes including family planning services are highly evaluated. The study addresses three research questions: (1) How the perceived resource constraints affect couples' decision making on family size and its management in agrarian communities?, (2) Does the practice of fertility control improve women's health capital?, and (3) How is the SRH paradigm integrated into Rwandan society through the implementation of the SRH programs and what are the issues caused by the conflict between the SRH programmes and Rwandan fertility norms?

Chapter 2 presents the conceptual framework of the study, followed by the overview of study area and data collection methods elaborated in Chapter 3. The results and discussion draw on the primary data collected through the series of field survey conducted in Kayonza District in Rwanda, targeting the couples in reproductive age who were the recipients of the SRH services.

Chapter 4 addresses the external factors affecting the demand for children and fertility control in Rwanda. The study highlights that resource constraints in Rwanda have been strengthened by the decreased productivity and per capita land caused by the fragmentation of land. It has decreased the capacity to feed the population in Rwanda which created a demand for fertility control at national level. Furthermore, implemented land-related policies possibly increased the resource constraints. The

traditional family system, the patrilineal extended family system, has transformed into nuclear family officially by the law. The change has affected the size of the family as well as the resource allocation system within the household, which subsequently increased the burden of the parents to bear for the child-rearing. While the decreasing productivity and per capita land has affected the resource constraints at national level, the study emphasises that the resource constraints at household level has become more severe in Rwanda because of the changes in the availability of household resources. Under such circumstances, the demand for children has decreased, while increasing the demand for fertility control to maintain the small family size. The strong promotion of family planning programmes meets the demand of couples for fertility control.

Chapter 5 addresses the Research Question 1 and examines how the perceived resource constraints affect married couples' decision making on family size by identifying their fertility intentions. The results confirm that the fertility intention of married couples reflects their perceived resource constraints, especially their perceived availability of land. Couples who participated in the study strategically decide the intended number of children so that they can feed well each of them and avoid the fragmentation of land for the next generation. While they have desire to have more children, they consider that they are not capable of feeding extra children and transferring enough land to them because of the increasing resource constraints. The results imply that ideal family size in rural areas has been shifting and it has become more reasonable to have small number of children for the survival. The

demand for small family size motivates the couples in reproductive age to practice fertility control. This, as a background, could have created the demand for family planning services and boosted the contraceptive prevalence.

Chapter 6 investigates the impact of hormonal contraceptive use on women's health capital and intra-household labour allocation responding to Research Question 2. Family planning programmes have improved the access to modern contraceptives and the hormonal methods, especially injectables, are the most prevalent in the study area. Women's health, which determines their ability to supply labour, is among the most important forms of human capital for sustaining one's livelihood in subsistent agricultural communities in Rwanda. Ideally, contraceptive use must serve as means to alleviate the lack of optimal household welfare by minimizing the risk of unintended pregnancies. However, hormonal methods involve potential side effects and negatively affect women's ability to supply labour as well as their productivity, which could increase the resource constraints at household level. Furthermore, the side effects cause conflict in marriage and reduce the bargaining power of women in the household. Those circumstances prevent women from using hormonal contraceptives and increase the risk of exceeding the intended number of children. The application of hormonal contraceptives with side effects is not consistent with the objective of SRH policies because it reduces women's human capital or offset its gains and also degrade women's physical, phycological and social well-being.

Chapter 7 explores the conflicts between the SRH paradigm and traditional fertility norms in Rwanda, answering Research Question 3. Condoms are the only contraceptive method that can also prevent Sexually Transmitted Infections (STIs) and HIV/AIDS. They are available to anyone who is sexually active and at the risk of transmission and infections. Condoms are also promoted to prevent unwanted pregnancies targeting the youth and the unmarried. However HIV/AIDS and unwanted pregnancies are associated with infidelity and illicit sex, so married couples avoid using condoms. In Rwanda, where the sexual fidelity and trust between the husband and wife are highly valued, condom use can lead to unnecessary misunderstandings and conflicts with the spouse. While the expansion of SRH services targeting wide range of age and social groups is an urgent need, the promotion of condoms for the prevention of HIV/AIDS and unwanted pregnancies intensify the perception that condoms are only for the unmarried. This results in limiting the contraceptive options for the married couples, especially those who need the switching from the hormonal methods with side effects. Failure in integrating SRH paradigm and persisting fertility norms creates the dilemma in fertility control for married couples and could cause the unmet need for family planning in Rwanda.

Family planning programmes should be considered as welfare programmes. The results of this study imply that the outcomes of the SRH programmes including family planning programmes should not be solely evaluated based on the standardized numerical indicators, which are often based on the modern-western biomedical paradigm. Rwanda's progress in SRH programmes have been evaluated and

recognized as successful based on the results represented by indicators such as Total Fertility Rate (TFR), Contraceptive Prevalence (CPR), or Maternal Mortality Ratio (MMR). However, these results do not depict the complete picture of women's SRH status. The evidences provided by this study indicate that women compromise on their physical and psychological well-being for using hormonal method because of the side effects. Those who rely on hormonal contraceptives with side effects are not able to fully enjoy the benefit of the fertility control. These outcomes, which often cannot be quantified, have not been reflected on the current evaluation scheme of SRH programmes including family planning programmes in Rwanda. The study also reveals the conflicts between the universal SRH paradigm and the existing fertility norms in Rwanda. SRH for Rwandan couples is not only the ability to control fertility, but also display discipline and sexual fidelity. Because of the failure of integration into the community, condoms are not considered as a serious choice for contraception among married couples. These aspects cannot be neglected but must be taken into consideration carefully when implementing SRH programmes as welfare programmes. The study supports the argument made by Hawkins & Price (2001) that when understanding SRH, it is critical to comprehend the spheres of social and economic, and cultural contexts that shape the fertility practices. The study strongly stresses the necessity of establishing the evidence based SRH programmes raised by Villar et al (2001) in the respective society.