

Mauritius Falling Fertility Rate Challenge

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The traditional way of conceptualizing the interrelationship between population and development for developing countries has been up to now mostly guided by the variables relating to positive demographic growth. Population dynamics influencing development were being analysed through the lens of an increasing fertility rate, or at least a fertility rate higher than replacement level. Population policies have consisted essentially of strategies to curb population growth with a view to matching it with economic growth, although recently for the African region, the thinking of international and regional institutions is focusing on demographic dividend and how to reap its benefits.

Mauritius is presenting a different context compared to most other countries in the region. Just as the upward population growth was source of concern in the 50s and 60s, so is the reversing trend today. Government and the major actors in the economic sector are viewing the fall in fertility rate as dramatic with possible adverse effects on the country's future. After facing the risk of a population explosion which was likely to lead to a social crisis in the 60s and 70s, Mauritius is now facing the threats caused by a fertility rate below replacement level and a rapidly ageing population. It is becoming more and more obvious that a population policy for the country is becoming a must. Demographic transformations in Mauritius have given rise to the emergence of population issues which the country will need to address in a holistic manner, as a matter of urgency to avoid any setback in its development efforts.

The somehow atypical demographic situation and the socioeconomic context of Mauritius, compared to other countries, is a challenge when it comes to developing a population policy. The Mauritius population policy-formulation process will need to break new ground, and with innovative thinking, in that it cannot be a business-as-usual recipe, copied and pasted with bits and pieces from various scenarios from other contexts which have nothing in common with the demographic history of the country and its present socioeconomic and cultural characteristics. This is true especially if the objective of any intended policy is to focus on a fertility increase.

Post-demographic transition

Fertility rate in Mauritius has fallen below replacement level. Life expectancy has been increasing. The population is ageing. The total population was expected to start falling in number as from 2022, but already the December 2019 figures published by Statistics

Mauritius show the drop has already started. The size of the active population is declining, and the dependency ratio is on the rise. Viewed conjunctively, these demographic changes point towards the imminence of a declining economy; all other factors that account for growth remaining constant. The perspective of the medium- and long-term damaging effects of the evolving population dynamics could boost the country's interest in addressing issues arising from the demographic transition.

Mauritius is in a post-demographic transition phase with its population growth rate levelled to its original pre-World War II figure, when the country was experiencing both high birth rates and high death rates. During the past decades, life expectancy has increased significantly: a situation that should prompt the country to start preparing itself to grapple with a fast growing population of the elderly. Recent figures confirm the trends. And the low level of fertility, which is below replacement, remains the main factor behind low population growth. The gross reproduction rate which was 0.90 in 2004, and 0.83 in 2008, continues to decline and stood at 0.71 in 2017.

Declining fertility rate

At the Census of June 1972, the average annual population growth rate had slowed down to 1.97, and at the 1983 Census, the figure went down further to 1.48, then to 0.79 in 1990. At the Census of 2000, an increase to 1.10 in the average annual population growth was noted, but this was an exception to the downward in the declining trend in the average annual population growth, as in 2011, the downward trend was confirmed: 0.44.

The crude birth rate, which was 22.6 in 1982, dropped down to 16.6 in 1992 and further declined to 10.7 in 2017. The total fertility rate decreased from 1.67 in 2008 to 1.44 in 2017. The Net Reproduction Rate (NRR), which was 0.80 in 2008, decreased to 0.67 in 2017.

Although the United Nations stopped reporting NRR data for member nations after 1998 this alternative fertility measure is still calculated by Statistics Mauritius. The NRR measures the number of *daughters* a woman would have in her lifetime if she were subject to prevailing age-specific fertility *and mortality* rates in the given year. An NRR of 1 means that each generation of women is exactly reproducing itself, meaning that an NRR of less than one which is the case for Mauritius will not be able to reproduce itself, and this will inevitably lead to a decrease in the population growth. It is opportune here to cite the projections from Statistics Mauritius which announced that in less than 5 years' time, in 2022, the Mauritian population will start to fall, and the unexpected drop seen December last. From 1,266 million in 2019, population will decline to reach 1,005 million in 2057.

The level of fertility of 1.44 in 2017 is well below the replacement level of 2.1 and remains

the main factor behind low population growth. The figure 2.1 is considered as the replacement level in Mauritius given the country has a development status comparable to a developed one. Developing countries use the 2.3 level so as to take into account the mortality rate which is more important than in developed countries.

The 2014 Contraceptive Prevalence Survey (CPS) showed that the Total Fertility rate (TFR) for Mauritius for the three-year period preceding the 2014 CPS was 1.38 children per woman, which is lower than the TFR measured for the three-year period preceding the 2002 CPS (1.97 children per woman). Urban women have slightly more children than rural women (1.44 versus 1.33).

Though the country has been experiencing fertility rates below replacement level for more than two decades it did not necessarily see its population growth falling as from then. In fact, the population has continued to grow, and this trend was expected to continue until 2022, as per the projections from Statistics Mauritius, when it will reach 1,266. It is after 2022 that a continuous decline in population growth will occur. This can be explained by the population momentum whereby the population continues to grow because children born from couples in the high fertility-rate periods have reached the child-bearing age, and have themselves given birth to children, albeit in a lesser number than their parents. This population momentum will decrease with time. The time-lag effect causes the population to continue to grow until, at some point, the third or 4th generation of high fertility-rate couples puts an end to the population-lag effect and the total population of the country starts to fall, as is the case for Mauritius as from 2022. (Note: as indicated above, the total population was expected to start falling in numbers as from 2022, but already the December 2019 figures published by Statistics Mauritius show the drop was there, but one cannot predict whether the trend will continue).

Population projections

Population projections are made by Statistics Mauritius. These projections are different from those of the UN. The latest publication of Statistics Mauritius on Population (available on its website) contains the population projections and the methodology used. The figures are different from those of the UN as the assumptions are different.

The population projections which guide government policies are those that are produced by Statistics Mauritius. In view of the interest in long-term perspective studies, and in particular the long-term implications of ageing with respect to health and pensions issues, the projections are made over a period of 40 years. Statistics Mauritius uses only the medium variant, which is considered to be the most likely. The base for all projections is the estimated 2017 resident population by sex and age. One of the assumptions for the medium variant projections is that fertility (expressed in terms of total fertility rate) will be 1.44 through to 2057.

Economy

The foreseen impact of the declining fertility rate and ageing on the economy in Mauritius is a source of concern. An ageing population and the increasing dependency ratio are among the major challenges that may impede progress towards the targets of the Strategic Plan and National Vision of the country. The interest for a population policy is based on the perspective of the medium- and long-term damaging effects of the evolving population dynamics. A declining economy is a recipe for social crisis. Although the centrality of the economic factor rests on the pressure on pension funds and manpower shortages, it is recognized that the effects of the demographic transformations will reach the whole Mauritian society in its various dimensions, all of which, though emanating from economic impediments, will need to be assessed and addressed in a population policy.

The rapid pace of development in Mauritius has been based on openness to trade and exchange, a willingness to embrace new technologies, and the delivery of universal health, education, and social protection services. With its National Vision and the three-year Strategic Plan, Mauritius aims to build on these legacies and graduate to a high-income country status with a diversified economy, a reduced but more efficient public sector, sharpened policy and regulatory measures to protect its vast environmental assets, and renewed efforts to ready its young people for productive employment in a dynamic and fast-paced regional and global economy.

The main concerns for the country presently as regards the population changes have been already spelt out publicly and can also be found in public documents and statements, whether from government or the private sector. They relate to the impact of the demographic transformations on the economy and the ensuing implications on the social fabric. The main population issues can be summed up as follows: fertility rate has fallen below replacement level; life expectancy has been increasing giving rise to a population that is ageing; the total population will start to fall in numbers as from 2022 (see note above regarding December 2019 figures); the size of the active population is declining, and the dependency ratio is on the rise.

Labour shortages

Labour shortage, considered as a major concern resulting from the demographic transformations the country is going through, is attracting attention from government and the private sector. Reference is often made in public instances, for example the Budget Speeches, where the Government indicate incentives to attract foreign labour by streamlining of work-permit applications, and the introduction of a Foreign Manpower Scheme for rapid delivery of permits within five days. The latter scheme was targeted at attracting talents in emerging sectors such as Artificial Intelligence (AI), Biotechnology, Smart Agriculture, and Ocean Economy, as well as innovation activities such as Fin Tech,

the Knowledge Economy, and Renewable Energy. The need is felt for the public sector to have strengthened capacities to grapple with the complex cross-sectoral nature of the country's development challenges, especially addressing the nexus between an ageing society – Labour market reforms (including migration) – quality of education; ensuring 'productive human capital'.

The private sector shares the concern of government, as expressed in their latest study on the demographic transformations in Mauritius. 'Impact of Demography on our Economy, June 2018' was produced by the Mauritius Chamber of Commerce and Industry (MCCI) and presented to the National Economic and Social Council. It contains the stand of the private sector on the demographic transformations the country is undergoing.

Private sector position

Their main concerns are contained in the MCCI document cited above: 'In 1968, as Mauritius attained independence, more than 57 percent of the population was of less than 20 years old. In 2017, the figure is of less than 27 percent of the total population. This decrease in the youth population is expected to cause a further decrease in the working age population in the next decades.'

The MCCI notes that the dependency ratio is an issue and that, with a rapidly ageing population and with a low fertility rate, the dependency ratio is expected to increase again as from the year 2020, reaching 58.9 in 2050 and 88.1 in 2100. 'This is likely to have an effect on the social burden of the working age population to support and provide the social services needed by children and most especially the older persons in terms of pension, social security and health, for instance.'

The MCCI relies on and quotes the IMF latest World Economic Outlook report, which indicates that within the next few decades, working-age adults will need to support double the number of elderly people than they do now, putting immense pressure on welfare systems and wiping out as much as 3 percent of potential economic output by 2050.

Private sector and fertility rate

The private sector supports the view that population policies are needed to boost fertility and gender mainstreaming. It considers that the taxation system has an adverse impact on the continuously declining fertility rate in Mauritius, arguing that taxation measures could contribute to improve the fertility rate. According to MCCI, there should be a redefinition of Income Exemption Thresholds in the income tax system.

The MCCI further advocates for child and family support policies and support for education. It is of the view that a cash incentive to boost fertility rates in Mauritius has the potential to be successful in increasing our fertility rates. Along the same line of reasoning, to encourage more births, Parental Leave is also suggested to ease the burden on parents. It is also proposed to adopt an integrated model to support childcare and ensure gender mainstreaming in the workforce, to tap into the population of housewives who, today, are not in employment.

Public sector and fertility rate

The government's position on the fertility rate can be gathered from the National Sexual and Reproductive Health Plan of Action 2018-2021 which aims to meet the different challenges people face at different times in their lives through comprehensive sex education, family planning, antenatal care, safe delivery care, post-natal care, and services facilitating early diagnosis and treatment of reproductive-tract cancers among women (breast and cervical cancer) thus achieving progress towards the 2030 Agenda for Sustainable Development Goal 3. The government reckons that women today are waiting until later in life to have children. Birth rates for women in their 30s are at the highest levels in four decades. However, women aged 30 and above may be at increased risk for miscarriage, birth defects, and pregnancy complications. These include twins, high blood pressure, gestational diabetes, and difficult labours. Further, even though the number of pregnant teens is on the decline, teenage pregnancy continues to be a significant issue facing families, schools, and the health of the teens and their babies. Most of those teenage mothers do not resume school after delivery, and not having the necessary skills to get a job, they have to depend financially on their families. Also, the SRH Plan of Action 2018-2021 includes enacting laws to remove barriers for young people to access to SRH/FP services with or without parental consent and enacting laws to protect service providers to provide FP services (except permanent sterilization) to unmarried adolescents (below the age of 18) without parental consent.

There is no official position as such from the government as regards boosting the fertility rate. The government's policy seems to be resting on choice. This can be gathered from a reading of the SRH Plan of Action 2018-2021 which provides for: access to sexual and reproductive health information and services to all women and men including adolescents and those who are underserved and marginalized; national efforts towards the improvement of the sexual and reproductive health status of all men and women in the Republic of Mauritius; improvement in the availability, accessibility and acceptability of high-quality family planning services for all youth, women and men who need them. The plan reflects government policy to provide information and services that enable people to make informed decisions about their sexual and reproductive health; increase the contraceptive prevalence rate (CPR) for supplied methods; reduce adolescent fertility rate;

reduce the unmet need for contraception; provide young people with accurate information, skills, counselling and user-friendly services in order to attain optimal sexual and reproductive health. The government would like to increase demand and utilization of youth-friendly services and family planning services, and increase the use of condoms among young people for the prevention of teenage pregnancy, STIs and HIV/AIDS.

Lessons learnt on fertility rate

If a policy intends to focus on ways to improve on the fertility rate, it will be useful to study the continuous declining fertility rate phenomenon. It will be necessary to assess, albeit briefly, the factors that account for the fertility decline, what makes the fertility rate go down, what are the immediate causes, the proximate determinants and underlying causes behind such decline. No such study has been made. Therefore we can only review here some factors that account for the fertility decline that can be derived from the context in which the demographic transformations took place.

Lessons learnt from the demographic history of the country can be helpful to support our understanding as to why the fertility rate went up in the first place, and what policies were put in place that made it go down.

A Parliamentary Committee on Population and Development was set up as early as 1953 and 6 years later experts were appointed to report on the extent of what was seen as an upcoming crisis if nothing was done to slow the population growth. The reports of Richard Titmuss and Brian Abel-Smith, commonly referred to as the Titmuss report, and the report of J. E. Meade, were used in public and private debates and were often the subject of heated discussions in the Mauritius Legislative Council in the 1960s.

Titmuss observed that the wish for couples to have fewer children existed but that the means to realize this were lacking: safe contraceptive methods were not available in the country. The significant incidence of abortions, often leading to complications and deaths, proved the existence of an imbalance between demand and supply of reproductive health services. Measures were subsequently taken to address the upward trend of the fertility rate by government and NGOs (the Mauritius Family Planning Association as from 1957 and Action Familiale as from 1963). The population programme of Mauritius managed to curb down the fertility rate in a relatively short span of time.

In the period 1972 to 1990, some major factors came into play that could explain not only the economic wellbeing of households, but also an improvement in human capital. In the early 70s industrialisation was boosted by the setting up of free zones for the manufacturing sector (textiles, electronic parts, etc). Labour-intensive manufacturing plants in need of cheap labour provided employment, especially to women. As from the

mid 80s, the manufacturing sector was given a fresh impulse and the tourism sector was also boosted.

Another factor that can be advanced is the free secondary education as from 1976 which not only allowed girls to avoid getting into union at an early age, but also ensured greater parity with boys' education and empowerment. These factors, women's employment and education, have empowered women to make child-bearing decisions, and with the availability of contraceptive methods, they have contributed to reduce the fertility rate in the period under reference.

Fertility at the micro level : still a strong determinant

We need to highlight that the demographic history of Mauritius shows that the fertility rate started to go down before the economic development took place.

The non-availability of means to control births was a factor contributing to fertility-rate increases in the post-war period. After the introduction of contraception and a strong family planning campaign, the fertility rate fell. The unfavourable economic environment in the country during the post-war period, and the situation of poor couples forming the majority of the island's population, contributed in shaping an environment that made possible the rapid fall in the number of births. At the level of the couple, the economic approach to fertility was adopted, whereby decisions about child bearing was based on economic considerations, essentially the cost of rearing children and the revenue of the couple.

Couples also wanted a better future for their children. This can be explained by the history of population settlement in Mauritius. The ambition of descendants of slaves or of the indentured labourers motivated them to go beyond survival level and save; endure sacrifices and aspire to climb the social ladder. Joining the elite class of rich became the philosophy of many who, through hard work, could provide their offspring with education even up to university level.

Mauritius showcases that macro-level economic and social changes affect groups of people differently, even if they live in the same country, and that fertility decisions are made or influenced by individual choices, at the micro level.

With a per capita income of around only US\$ 250 at the time of independence in 1968, Mauritius has steadily progressed from a low-income agricultural-based economy to a diversified upper-middle income economy. In 2015, GDP growth rate in Mauritius was around 3.0% and GDP per capita was around 40 times its pre-independence level. Mauritius is classified among the countries having achieved high human development.

The 2018 United Nations Development Program Human Development Report (HDR) ranks Mauritius 66th among 189 countries and territories. In 2017, there were 2.0 income earners for an average household of size 3.4, the same as in 2012 but then it was for an average household of size 3.5.

The same culture as regards the aspirations of couples for a better future for their children is as prevalent as in the pre-independence period. Couples have a tendency to have fewer children as their standard of living goes up. This is generally observed in Mauritius. We can again refer to the Contraceptive Prevalence Survey (CPS) in support of this observation. Fertility levels are closely related to household socioeconomic status (SES). Women living in high-SES households have fewer children (1.28) than women living in low-SES households (2.03).

It is, however, necessary to observe that in the 50s and 60s it was the unfavourable economic context that prompted couples to desire fewer children, and that we are, today, in a country where the average monthly household disposable income is relatively high: a figure which has increased by 25.1% from Rs 29,420 in 2012 to Rs 36,810 in 2017. During that same period the Gini coefficient decreased from 0.414 to 0.400, indicating an improvement in the income distribution.

The socioeconomic status continues to improve. At the national level, average monthly household consumption expenditure increased by 21.6% from Rs 23,710 in 2012 to Rs 28,820 in 2017. The proportion of people living below the international poverty line of US\$ 1.25 (PPP) a day is negligible at less than 1%. Based on US\$ 1.25 (PPP) per day, the poverty gap, which measures the depth of poverty, is also less than 1%.

Conclusion

Understanding the strategies and programmes engineered, and the factors on which policy makers focused to get the fertility rate down will help in assessing the economic, social, political and, more importantly, the cultural context that favours effectiveness in achieving national demographic goals. We need to go back in history to understand the context for successful implementation of initiatives to decrease fertility rate. We reckon that the context provides us with useful information when it comes to human behaviour, especially concerning how the individual or the couple's choice is shaped by considerations on which neither the State, government, religious bodies nor the private sector has any control; and why pressing for an increase in the fertility rate may be of little efficacy. We will understand how a history of dire economic conditions haunts the mind of people who have lived in the 'Overcrowded Barracoon' as vividly depicted by late writer V.S. Naipaul, in the Mauritian paper *Lexpress*. And even in present times, any policy will need to assess

how the prevailing socioeconomic and political environment influences decisions on the number of children couples will have.

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