



Luizinha Correia, youth participant at Liquica youth engagement activities  
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# Harnessing the potential Demographic Dividend in *Timor-Leste* through increased family planning use



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Timor-Leste is at a critical stage of its economic and social development path: the country aims “to transition from a low income to an upper middle-income country by 2030, with a healthy, well-educated and safe population”<sup>1</sup>. This has created an opportunity to push forward the country’s development agenda, although significant challenges remain in bringing about comprehensive improvements across the health and social sectors. In particular, a crucial component of national efforts to promote sustainable development and achieve economic growth by 2030 lies in addressing the projected dynamics of Timorese population growth in the next decade.

Having a healthy and productive population is an essential ingredient of sustainable development. In Timor-Leste, however, key indicators for health remain below optimal levels: the modern contraceptive prevalence rate (mCPR) averaged at about 24.1% of married or in-union women in 2016, with high rates of unmet need for family planning among this group at around 25%<sup>2</sup>. Low rates of modern contraceptive use have detrimental impacts on several aspects of health, social and economic development. Not only the limited use of contraceptives is linked with high rates of maternal mortality, as well as with increased rates of child and infant mortality, but it is also responsible for the high fertility rates in the country, estimated at 4.2 children per woman in 2016<sup>3</sup>. High rates of fertility tend to substantially limit women’s participation in education and in a productive

workforce, and help maintain a high youth-dependency ratio.

As such, investing in voluntary and rights-based modern family planning services provision is one of the smartest decisions that Governments can take. Evidence from several countries in the Asia-Pacific region shows that each dollar invested in family planning services can have considerable returns in terms of economic and social impact, and estimates from Timor-Leste have calculated how just US \$1 dollar spent in voluntary family planning services in the country could save up to US \$4.3 dollars in maternal and newborn healthcare, due to declines in unintended pregnancies<sup>3</sup>.

**What could be the impact, then, of increasing the use of modern family planning methods in Timor-Leste to lower fertility rates, to achieve economic development objectives and boost the country’s human development?** In this Policy Brief, we illustrate the effects that higher modern contraceptive prevalence rates (together with overall improvements in other key indicators for education and economic growth) would have on health, population and the economy of Timor-Leste, through the realisation of the country’s demographic dividend.

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## Family planning and the realisation of the Demographic Dividend

Access to voluntary family planning services is instrumental in lowering fertility rates, which is a pre-condition to achieve the demographic dividend. The demographic dividend is a window of opportunity for economic growth which begins with demographic shifts in a population's age structure, allowing for an increase in the size of the working-age population (aged 15 to 64). These demographic shifts result in lower numbers of dependents, meaning that working-age adults can be more productive, spearheading economic growth and other social developments.

**Timor-Leste is currently at the start of its demographic dividend window, as total fertility rates are still high at around 4.2 children per woman. However, if modern contraceptive prevalence (mCPR) increased by 2030 to a level comparable to those of other middle-income countries, what would this increase mean for fertility declines and economic growth?**

With the right policies and investments, aiming to create a conducive economic environment, the results of such an increase in mCPR could be impressive: higher mCPR could trigger increases in GDP per capita, as well as declines in fertility and improvements for the health of thousands of mothers and children.

In this policy brief, we present results for three different scenarios for contraceptive prevalence by 2030, which is the final year of the 'Decade of Action' to achieve the Sustainable Development Goals. In two of these scenarios we projected positive increases in mCPR by 2030, while in the third scenario we estimated the effects of a decline in contraceptive prevalence in the country within the same timeframe. The effects on population trends and economic growth for each of these three scenarios are detailed in the sections below.

It should be noted here that the effects of improving contraceptive prevalence, while substantial by themselves, would also need to be paired with improvements in education and economic policies. To reap the full potential of the demographic dividend, Timor-Leste will require an economic environment conducive to improved employment and education opportunities for the productive age cohorts in the transformed population structure. Our analysis in this policy brief assumes that small improvements in education and economic policies happen in the two scenarios where contraceptive prevalence increases, whereas in the scenario where contraceptive prevalence declines we assumed that

education and economic policy variables remain constant as in the baseline year (2016). More details on the model and methodology used for this analysis can be found in the methodology box on the last page.

### Three Scenarios

#### Scenario 1 - Total Fertility Rate at 3 children per woman by 2030

In this scenario, we estimate the effect of increasing mCPR to 42% of married or in-union women by 2030. This increase of 17.9 percentage points in mCPR by 2030 would result in Timor-Leste achieving a Total Fertility Rate (TFR) of 3 by 2030. The effects on health and economic growth would be substantial, as presented in the tables and graphs on the next page.

#### Scenario 2 - Total Fertility Rate at 2.1 children per woman by 2030

In this scenario, we estimate the effect of increasing mCPR to 58.7% of married or in-union women by 2030. The more ambitious increase of 34.6 percentage points in mCPR by 2030 would result in Timor-Leste achieving a Total Fertility Rate (TFR) of 2.1 by 2030, reaching the population replacement threshold. Given the considerable reduction in population growth, the effects on health and economic growth would be substantial, compared to the previous scenario.

#### Scenario 3 - Negative progress: Total Fertility Rate at 4.5 children per woman by 2030

In this last Scenario, we estimate the negative impact that a potential decrease in mCPR would have not only on population growth, but also on the economic outlook of the country. Given the real risks of an actual reduction in contraceptive prevalence rates in the country in coming years, this scenario details the profound negative implications that such a decline would have for the development path and economic growth of Timor-Leste. **If mCPR decreased by 6.5 percentage points to reach 17.6% of married or in-union women by 2030, TFR would increase to 4.5 children per woman, with other health and economic effects as detailed on the next page.**

# Results

## BASELINE IN 2016

## "BUSINESS AS USUAL" \* PROJECTIONS, 2030



**Total fertility:**  
4.2 children per woman



**Female life expectancy:**  
69.5 years



**Modern Contraceptive Prevalence**  
24.1% of married or in-union women



**GDP per capita (current, non-oil GDP)**  
US \$ 1,336

**Total fertility:**  
4.2 children per woman

**Female life expectancy:**  
69.5 years

**Modern Contraceptive Prevalence**  
24.1% of married or in-union women

**GDP per capita (projected non-oil GDP to 2030 - constant GDP growth rate and constant mCPR)**  
US \$ 2,418

\*"Business as usual" represents the Base scenario projections, where no improvements in family planning, education or economic policies happen by 2030, and GDP grows at a constant 2016 rate. We only considered non-oil GDP, given the current outlook of dwindling oil reserves in the country.

## SCENARIO 1 RESULTS IN 2030

**Total fertility:**  
3 children per woman

**Female life expectancy:**  
73 years

**Modern Contraceptive Prevalence**  
42% of married or in-union women

**GDP per capita, non-oil, 2030**  
US \$ 4,431

**Difference in GDP per capita projections thanks to policy interventions:**  
**+ US \$ 2,013**

## SCENARIO 2 RESULTS IN 2030

**Total fertility:**  
2.1 children per woman

**Female life expectancy:**  
77 years

**Modern Contraceptive Prevalence**  
58.7% of married or in-union women

**GDP per capita, non-oil, 2030**  
US \$ 4,851

**Difference in GDP per capita projections thanks to policy interventions:**  
**+ US \$ 2,433**  
**Doubling GDP per capita**

## SCENARIO 3 RESULTS IN 2030

**Total fertility:**  
4.5 children per woman

**Female life expectancy:**  
68.5 years

**Modern Contraceptive Prevalence**  
17.6% of married or in-union women

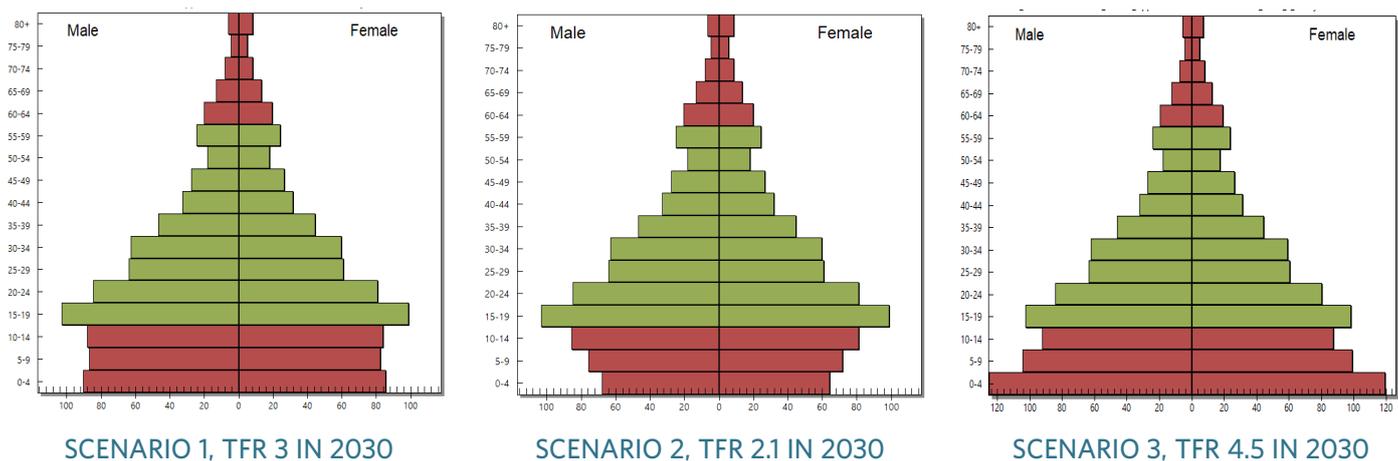
**GDP per capita, non-oil, 2030**  
US \$ 2,332

**Difference in GDP per capita projections thanks to policy interventions:**  
**- US \$ 86**

Figure 1. Decrease in Fertility Rate and Improved GDP per Capita Growth by 2030, projections



Figure 2. Population Pyramids by 2030, projections



## Conclusion

Together with conducive economic and education policies, investing in voluntary modern family planning services can kick start powerful population shifts in Timor-Leste, which would allow the country to reap impressive health and economic benefits. It is, therefore, a highly effective policy decision in the context of Timor-Leste, which is on the cusp of starting its first demographic dividend phase.

- Investments in family planning (paired with adequate economic and education policies conducive to the demographic dividend) are needed to decrease TFR in the country;
- By increasing mCPR, the Total Fertility Rate of Timor-Leste could decrease from an estimated 4.2 children per woman to either 3 or 2.1 children per woman by 2030;
- Current GDP growth projection in the 'Business as usual' scenario estimate GDP per capita to increase to US\$ 2,418 per capita by 2030 (with constant mCPR and current GDP growth rate). Thanks to the reduction in population growth, **GDP per capita could double to US\$ 4,431 by 2030 if TFR was lowered to 2.1;**
- However, if Timor-Leste does not invest in its family planning policies, there is a risk that mCPR would decrease, and fertility increase to 4.5 by 2030;
- Scaling down family planning will harm economic growth, causing the GDP per capita to only increase to around US\$ 2,330 per capita - slightly less than the projected 'Business as usual' GDP growth estimation of \$2,418 by 2030.

### METHODOLOGY TEXTBOX

We have conducted this Demographic Dividend analysis using the DemDiv model developed by Health Policy Plus (HPP+) and USAID. Results need to be intended as estimates. The baseline year chosen for the analysis was 2016, and we used data from Timor-Leste-specific sources for that year or most recent years (DHS, World Bank Data, National Statistics Office and other Governmental data), or from averages of Lower-Middle Income countries in Asia where data for Timor-Leste were not available. Modern contraceptive prevalence targets were chosen in relation to intended fertility rates outcomes, while for scenarios 1 and 2 where improvements in Education and Economic Policies were also required, we used as targets averages from Upper Middle Income countries in Asia-Pacific (those targets were set to be achieved by 2050).

### References

1. Government of Timor-Leste (2010), Strategic Development Plan 2011-2030.
- 2, 3. General Directorate of Statistics & ICF (2017). Timor-Leste Demographic and Health Survey 2016.
4. UNFPA (2018). Cost-Benefit Analysis of family planning services in Timor-Leste.