# UP School of Economics
## Discussion Papers

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# Population Management, RH Law, and Inclusivity

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## Abstract

Taking off from the self-evident fact that the population variable centrally figures in both labor and product markets, this paper argues that the growth rate of population, its age structure and spatial distribution should be key considerations in a country's development strategy to promote rapid and sustained economic growth, full employment, poverty reduction, and social inclusion. This represents a shift from the inordinate emphasis on the demand for labor, i.e., job creation. Significantly reducing unemployment and poverty can be achieved not solely through job generation but also by managing the quantity and quality of the work force, which is determined, with a lag, by the growth rate and structure of the population. The paper provides a perspective on population as it impacts the labor market and poverty. It then discusses issues of fertility and unmet needs for family planning and reproductive health services in relation to poverty. A sidelight on pressing concerns (gender-based violence and lack of RH services) brought about by Super-typhoon *Yolanda* is presented*. This is followed by a glimpse into regional experience in population policy, family planning and poverty as exemplified by Thailand and Bangladesh. The penultimate section provides simulations and projections using different assumptions of contraceptive prevalence rates that result in various scenarios of fertility and population growth.

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# Population Management, RH Law, and Inclusivity[1]

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## 1. Introduction and Context

The economy basically comprises two principal markets, namely, the product market and the labor market. In both markets population evidently is at the core – as consumers and as producers. In other words, population critically figures on both the supply and demand sides of the economy. Accordingly, the growth rate of population, its age structure and spatial distribution should be key considerations in a country's development strategy aiming to promote rapid and sustained economic growth, full employment, poverty reduction, and social inclusion.

This paper argues that a strategy for inclusive growth should reckon with both the demand and supply sides of the economy. This represents a shift from the inordinate emphasis on or concern about the demand for labor, i.e., job creation. Significantly reducing unemployment and poverty can be achieved not solely through job generation but also by managing the quantity and quality of the work force, which is determined, with a lag, by the growth rate and structure of the population. In the short run, sound population management – i.e., implementing in earnest the Responsible Parenthood and Reproductive Health (RP-RH) Law – would bring about beneficial effects at the micro and macro levels.

At the individual and household levels, RP-RH programs would enable especially poor women – unburdened of unwanted or unplanned pregnancies – to improve their well-being, acquire skills, be empowered and gainfully employed. Fewer wanted and better cared-for children also benefit from needed human capital investment and, hence, a more promising future. Such micro-level poverty effects will combine with poverty reduction at the macro level as overall population growth falls (with the lower fertility of poor women), income per capita increases, and public social spending per person rises resulting in higher-quality services. In the longer run, fewer entrants into the workforce, equipped with enhanced education and skills, would mean easier balance between the supply of and demand for labor.

In retrospect, an important reason why the Philippines has fallen well short of its economic and social objectives has to do with the lack of population management policy. Our country actually did initiate a family planning (FP) program in 1970 but it ground to a halt in the latter part of that decade as the government deferred to the wishes of the Catholic Church hierarchy. As a consequence, the country's population growth rate has diminished glacially to just under 2.0 percent and remains among the highest in developing Asia.

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It has been noted in the development literature and widely accepted by analysts as early as the 1960s through the 1980s that rapid population growth was more likely to impede than promote economic development (e.g., Coale and Hoover 1958; World Bank 1984; Pernia 1987; Mapa and Balisacan 2004). Such dynamic operates via reduced child care and human capital investment at the family level, lower household savings for business and government investments, and constraints on allocative efficiency, innovation and entrepreneurship.

Population growth entails capital widening to maintain the amount of capital per worker, and the faster such growth the lesser the chances for capital deepening or raising the level and quality of capital per worker. Many Asian developing countries have taken these lessons to heart, with positive results, and since have moved forward – but, unfortunately, not the Philippines.

The next section provides a perspective on population as it impacts the labor market and poverty, and presents comparative human development indicators. The third section discusses issues of fertility and unmet needs for family planning (FP) and reproductive health (RH) services in relation to poverty. Section four digresses on the more pressing concerns, particularly gender-based violence and sore lack of RH services brought about by Super-typhoon *Yolanda.* The fifth section reviews regional experience in population policy, FP and poverty as exemplified by Thailand and Bangladesh. This is followed by a listing of strategic interventions used by these countries and elsewhere in the developing world. Section seven is basically an exercise in projection and simulation using different assumptions regarding contraceptive prevalence rates that result in various scenarios of fertility and population growth. The final section concludes and points to some implications for policy.

## 2. Macro Perspective

The Philippines' fast-growing population has evidently had a bearing on the labor market. It has complicated the task of reducing unemployment and raising productivity. The pool of openly unemployed (2.99 million) and underemployed (7.51 million) total 10.5 million in 2013, up from 9.6 million in 2010 – a continuing huge challenge for job creation and poverty reduction. For instance, while the economy grew 5.2 percent on average annually (2003-2012), job growth was only 2.4 percent (2006-2012), implying an employment elasticity of 0.46 – well below parity (Figure 1).

**Figure 1.  GDP and Employment Growth Trends**
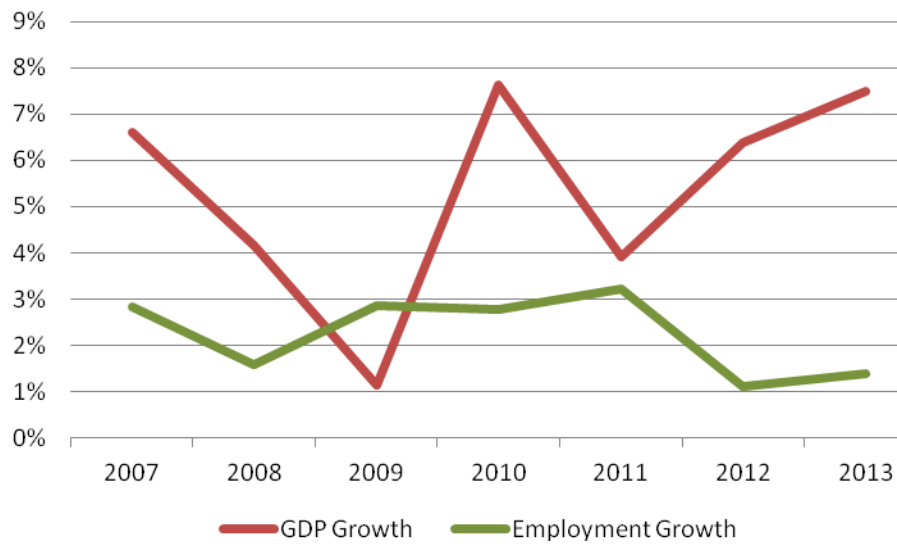
Source: National Statistical Coordination Board (NSCB), National Statistics Office (NSO).

In terms of employment quality as reflected in class of workers, the contribution of salary and wage workers to employment growth has been declining since 2010. In 2012-2013, self-employed (without any paid employees) and unpaid family workers – both regarded as "vulnerable employment" mostly in the informal sector – contributed negatively to job growth

(as shown in Figure 2).

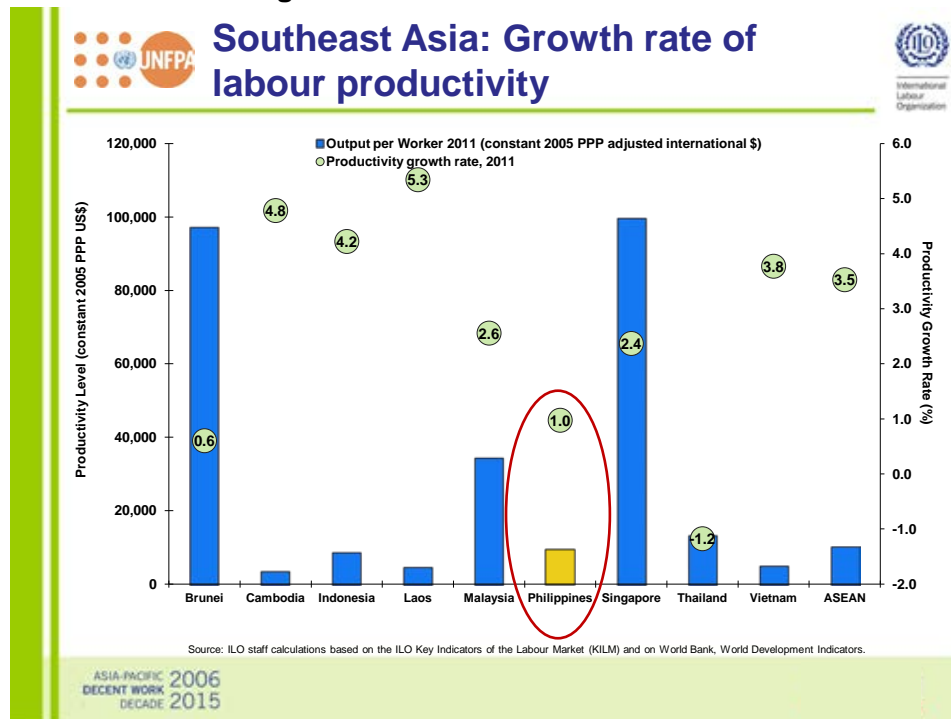**Figure 2. Contribution to employment growth by class of workers**

Source: NSO; author's calculations.

The foregoing is a snap-shot glimpse of the labor market. In terms of its dynamic, the stylized fact is that the Philippine economy somehow had taken exception to the normal stages of growth, as exemplified by the mature economies, from agriculture to manufacturing and then to services. The Philippines instead vaulted from an underdeveloped agriculture to the service sector facilitated by the fast-growing labor supply, largely skipping the manufacturing phase – "development progeria", as Fabella (2013) calls it. A serious policy-induced mistake as agriculture and manufacturing are the key sectors for generating jobs and domestic goods besides exports. Of course, it did not help that the country's politically turbulent 1980s practically shooed away foreign direct investments (FDIs) – particularly from Japan – while its neighbors were going to town riding on the investment and export waves.

Given the robust labor supply and weak labor demand – compounded by inappropriate labor market policies – it is not surprising that high unemployment of around 7.0 percent and low productivity growth of 1.0 percent have been chronic problems (Figure 3). As a consequence, the country's (official) poverty incidence has not come down palpably, staying stubbornly at around a quarter of the population – which is one of the highest in Southeast Asia. Family Income and Expenditure Survey (FIES) data from 1985 to 2009 consistently show that the larger the number of children, the higher the likelihood of a family falling into poverty (Table 1 and Figure 4).

**Figure 3**



Southeast Asia: Growth rate of labour productivity

Source: ILO staff calculations based on the ILO Key Indicators of the Labour Market (KILM) and on World Bank, World Development Indicators.

# Family size and poverty

- **The larger the family size, the higher the poverty incidence.**

- **This has not changed over the last 24 years.**

- **If anything, poverty incidence among HHs with fewer children has dropped while among HHs with many children has risen.**

## Table 1. Poverty incidence by number of children

| Family Size | 1985 | 1988 | 1991 | 1994 | 1997 | 2000 | 2003 | 2006 | 2009 |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 19.0 | 12.8 | 12.7 | 14.9 | 8.0 | 7.1 | 5.4 | 4.3 | 2.9 |
| 2 | 20.0 | 18.4 | 21.8 | 19.0 | 11.9 | 10.6 | 8.7 | 10.2 | 6.6 |
| 3 | 26.6 | 23.2 | 22.9 | 20.7 | 14.8 | 13.4 | 11.6 | 12.9 | 8.6 |
| 4 | 36.4 | 31.6 | 30.1 | 25.3 | 19.7 | 18.1 | 17.0 | 18.5 | 13.7 |
| 5 | 42.9 | 38.9 | 38.3 | 31.8 | 26.4 | 24.7 | 24.0 | 27.4 | 21.9 |
| 6 | 48.8 | 45.9 | 46.3 | 40.8 | 33.9 | 33.4 | 31.9 | 36.8 | 31.4 |
| 7 | 55.3 | 54.0 | 52.3 | 47.1 | 40.9 | 41.2 | 39.6 | 44.1 | 38.5 |
| 8 | 59.8 | 57.2 | 59.2 | 55.3 | 46.5 | 48.4 | 46.0 | 47.8 | 42.4 |
| 9+ | 59.9 | 59.0 | 60.0 | 56.6 | 49.0 | 50.7 | 50.7 | 52.3 | 46.4 |
| **Total** | **44.2** | **40.2** | **39.9** | **35.5** | **28.1** | **27.5** | **24.4** | **26.4** | **26.5** |

Source: NSO, Family Income and Expenditure Surveys (FIESs), 1985-2009.

**Figure 4**. **Poverty Incidence Distribution by Family Size, 2009**
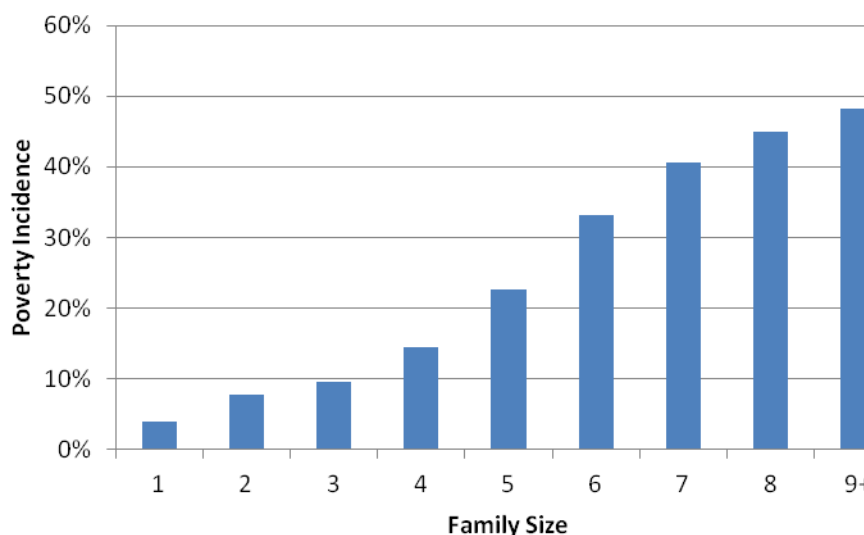


Source: NSO, FIES 2009; author's calculations.

More disturbing than poverty incidence is the absolute number of poor people given continuing high population growth. In 2009 poor people numbered 23.1 million, up from 19.8 million in 2003. The corresponding numbers for families were 3.9 million and 3.3 million, respectively. The poorest 20 percent of families are increasing at roughly 1.6 times the national norm and 2.7 times the richest quintile.

Social inequality – both an effect and a cause of high fertility – is another critical concern. The Philippines' income inequality remains high with Gini index at 46 (0 = perfect equality to 100 = perfect inequality) compared with Thailand's 40 (also as of 2009), Indonesia's 34 (2005), and Vietnam's 36 (2008). Research suggests that overseas remittances exacerbate inequality as they directly benefit the richer households more than the poorer ones, with the income effect rising monotonically from under 20 percent for the bottom quintile to 35 percent for the top quintile (Pernia 2011; Pernia et al. 2014).

Another study finds that the higher the inequality the more muted is the effect of economic growth in terms of poverty reduction (Balisacan and Pernia 2003). For instance, the growth elasticity of poverty is just about 0.55 percent for the Philippines compared with 0.7 percent for Indonesia, and closer to 1.0 percent for Vietnam. These imply that, say, a 10 percent increase in overall per capita GDP raises the per capita income or expenditure of the poorest by only 5.5 percent in the Philippines, 7.0 percent in Indonesia, and close to 10 percent in Vietnam. This partly explains why the Philippines' relatively high GDP growth rates in some years have hardly dented poverty. Moreover, other studies show that high inequality (particularly inequality of opportunity), to begin with, tempers economic growth itself (Roemer 1998; Pernia and Quibria 1999). In short, inequality is bad for both economic growth and poverty reduction.

The *human development index* (HDI) is about human capabilities and, hence, indicative of equality (or inequality) of opportunity (Figure 5). The Philippines and Malaysia had nearly identical HDI values of around 0.561 in 1980, but Malaysia experienced sharply faster strides in HDI (Figure 6). By 2012 the Philippines' HDI was just 0.654, already below Malaysia's and Thailand's though still higher than Indonesia's. The Philippines' HDI is also still above the average in the Medium HDI category but lower than the mean in the East Asia and the Pacific region.

**Figure 5. Philippines' HDI Trends (1980 = 100)**



Source: UNDP; author's calculations.

**Figure 6. Philippines's HDI vis-a-vis Select Asean Neighbors and Groups**

After adjusting for sub-national inequality, the Philippines' HDI drops to 0.524 in 2012, compared with Thailand's 0.543 and Indonesia's 0.514 (adjusted Medium HDI = 0.485; East Asia and Pacific = 0.537). The country's *gender inequality index* (GII) – which reflects gender-based inequalities in reproductive health, empowerment, and economic activity is 0.418 (as of 2012), compared with Thailand's 0.360 and Indonesia's 0.494 (Medium GII = 0.457; East Asia and Pacific = 0.333). This ranks the Philippines at 77 out of 148 countries in the 2012.

## 3. Micro perspective

The foregoing section discussed why there is a real need for population management at the macro level. The following discourse reinforces the rationale for family planning (FP or RP-RH programs) at the household level.

The Philippines's latest average total fertility rate (TFR)[2] at 3.2 children (National Demographic and Health Survey [NDHS] 2008) remains the highest in all of Southeast Asia. Excluding the Philippines the range is from Thailand's 1.6 to Lao PDR's 2.7. It seems clear that this has to do with the Philippines being the only country in the region that has not had an official family planning (FP) program before the enactment of the RP-RH Law. Ironically, this has been the case despite the fact there is considerable unwanted fertility in practically all but the top two wealth-quintile households, as can be seen in Table 2. For instance, the bottom quintile's TFR is 5.2 though wanted fertility on average is only 3.3 children, compared with the top quintile at 1.9 and 1.6, respectively.

**Table 2. Wanted vs Actual Fertility Rates**

| Wealth Quintile | Wanted Total Fertility Rate | Total Fertility Rate |
|---|---|---|
| Lowest | 3.3 | 5.2 |
| Second | 2.9 | 4.2 |
| Middle | 2.4 | 3.3 |
| Fourth | 2.2 | 2.7 |
| Highest | 1.6 | 1.9 |
| **Total** | **2.4** | **3.3** |

Source: NDHS 2008.

High actual and unwanted TFRs especially among poor women are obviously binding constraints on continuing education and/or learning skills to obtain gainful employment. If at all, they are likely to be under-unemployed in the informal sector, thereby making up the majority of those in vulnerable employment. Figure 7 shows that while the share of total vulnerable employment has been trending downward, the total numbers remain large.

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[2] TFR is technically defined as the total number of children completed by a woman over her reproductive years, typically ages 15-49.

**Figure 7**
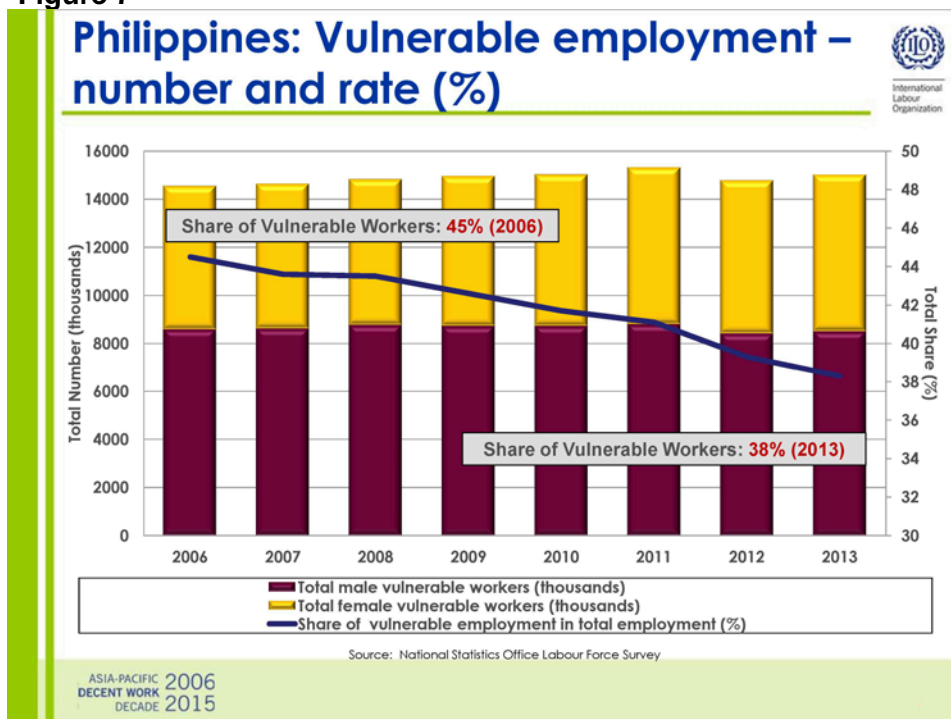


There has also been an alarming rise in teenage pregnancies which are reflected in increased fertility. Among girls aged 15-19, live births per 1000 women rose to 54 (Family Planning Survey (FPS] 2011) from 39 (FPS 2006); among those aged 20-24, the corresponding numbers are 159 and 149. The more recent 4th Young Adult Fertility and Sexuality Survey, conducted by the UP Population Institute reveals that teenage mothers (15-19 years of age) had ballooned to 13.6 percent (683,000 in number) in 2013 from 6.3 percent (262,000) in 2002. Typically, these teenage girls, mostly from the poorest households, are likely to drop out of school, perhaps become pregnant again subsequently and, hence, face a grim future. Following on the heels of their poor parents, the cycle of intergenerational poverty is thus perpetuated. Teenage pregnancies can be avoided by a provision in the RP-RH Law for age-appropriate sexuality education in schools. Parents typically keep mum with their children on sexuality matters, driving children to learn haphazardly from peers or magazines.

While contraceptive prevalence rate (CPR, i.e., use of any method) among currently married women of reproductive age (CMWRA) appeared to be on the uptrend, albeit on a roller-

coaster pattern, from about 47 percent in 1998 to 50.7 percent in 2006, it fell off to 48.9% by 2009 (Figure 8). Besides wanting to have children, difficulty in access to methods and fear of side effects (presumably due to lack of adequate information) were the most commonly cited reasons for non-use of any FP method among CMWRA.

**Figure 8**
**Contraceptive Prevalence Rate among CMWRA**
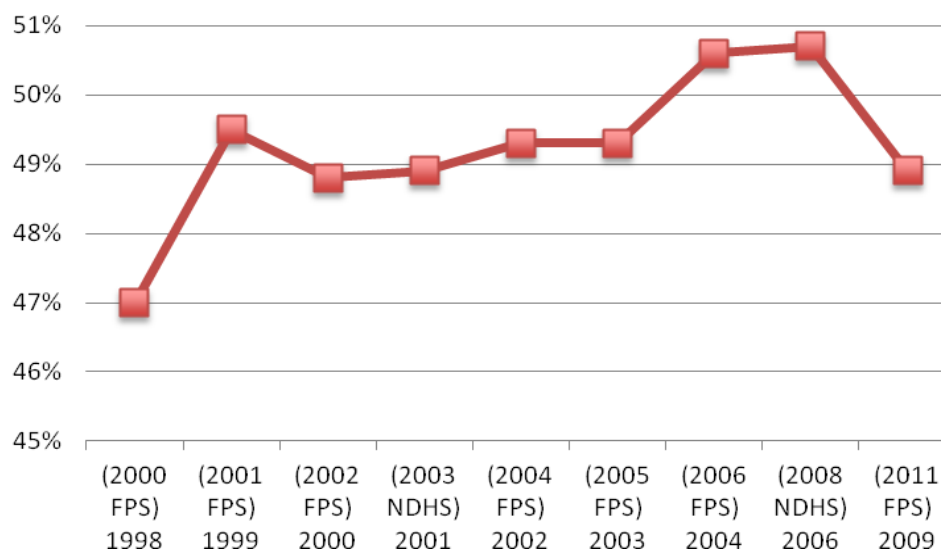


Disaggregating CMWRA into poor and non-poor groups reveals that the fall-off in CPR was appreciably steeper among the former than the latter group. It is, therefore, not surprising that poor women have much higher unmet need for FP services than the non-poor. The decline in CPR is reflected in increased unmet need for spacing and limiting children in 2004-2009 across socioeconomic classes. Among the poor CMWRA only 43.1 percent used any FP method in 2009 while it was 51.3 percent among the non-poor, down from 47.3 percent and 52.4 percent, respectively, in 2004 (Figure 9).

**Figure 9. CMWRA Using Any FP Method by Poverty Indicator (%)**
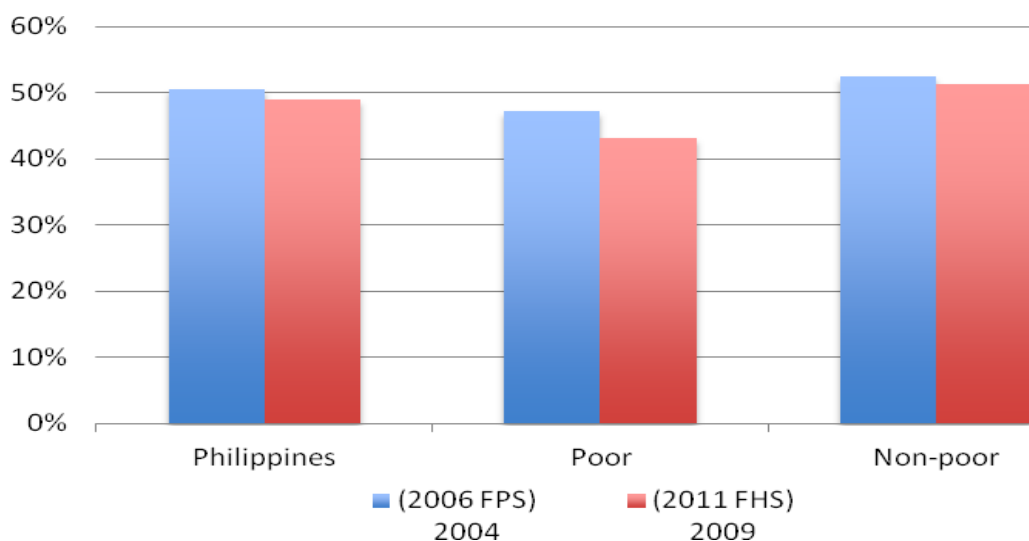
**4. Sidelight on *Yolanda*, Women and Children[3]**

Problems concerning women and children almost always crop up poignantly in the aftermath of environmental disasters. This is well documented internationally and borne out locally by the recent examples of Typhoon *Sendong* in Cagayan de Oro (Misamis Oriental) and Typhoon *Pablo* in Davao Oriental. Given the scale of the disaster wrought by Super-typhoon *Yolanda*, it is inevitable that such problems have been multiplied several times over. These fall under two main categories, viz. gender-based violence and lack of reproductive health services, which are usually underreported particularly in emergency situations.

**Gender-based violence (GBV).** According to NDHS 2008 (the latest since the 2013 issue has not yet been published), one in five women (20 percent) between the ages of 15 and 49 reported having experienced at least one incident of physical violence at some point in their lifetime; as to sexual violence the figure is 9 percent. In the three regions most affected by Typhoon *Yolanda* (Eastern, Western and Central Visayas), the reported rates are even higher than the national average – 24 percent, 22 percent, and 28 percent, respectively, for physical violence; and 14 percent, 9.0 percent and 12 percent, respectively, for sexual violence. Note that these GBV cases are in the context of more normal (non-emergency) times. These cases are not only likely to have spiked in recent years with population growth and increasing congestion, they are also almost certainly rising sharply in *Yolanda's* aftermath.

The three most often cited forms of GBV in the Philippines are intimate partner violence, rape, and trafficking. Several reports on human trafficking indicate that – though progress has been made in laws and systems to address it – trafficking remains a serious risk (US Department of State 2013). Data on GBV are collected by various Philippine institutions – including the Philippine National Police, the Department of Social Welfare and Development, the Department of the Interior and Local Government, the Department of Health, NGOs, and direct

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[3] This section is excerpted from Pernia, Cullinan and Baravilala (2013).

service providers – but there is no central system of data consolidation, making it difficult to grasp the full nature and scope of GBV in the country.

To illustrate, in the wake of Typhoon *Pablo* in 2012, an estimated 80 percent of affected communities were women and children. In certain regions, where up to 40 percent already lived below the poverty line, the typhoon destroyed many families' sole source of income mainly agriculture. Following that disaster, data from the Reception and Diagnostic Center showed an increase in reported GBV cases, including trafficking and adolescents involved in commercial sex work (OCHA 2013). The conditions following Typhoon *Yolanda* are strikingly alike, which is why similar patterns of GBV are likely to be occurring.

**Sexual violence.** The Child Protection Working Group has already flagged sexual violence as a particular protection concern that has arisen during their initial assessments of the *Yolanda* effect, particularly due to children separated from caregivers, lack of adequate lighting in certain areas, and lack of private bathing facilities. Following a rape, a survivor has only three days (72 hours) to access care to prevent the potential transmission of HIV, five days (in the case of women of reproductive age) to prevent unwanted pregnancy, and sometimes just a few hours to ensure that life-threatening injuries do not become fatal. Therefore, it is crucial that sexual violence prevention and response are prioritized.

Additionally, the conditions in certain parts of the country also seem ripe for a particular form of sexual violence, namely, sexual exploitation and abuse. These risks largely stem from the combination of: (i) people's – particularly women's and girls' – inability to meet their basic survival needs;[4] (ii) the presence of Philippine, foreign troops, and various aid workers, which is historically linked to increased demand for commercial sex; and (iii) the decision of some aid providers to conduct "food drops," a distribution method that not only places females, children and people with limited mobility at risk of violence during the distribution itself, but also makes women and girls more desperate for food and other supplies and, therefore, more vulnerable to sexual exploitation as a means of survival (The Philippine Star 2013).

**Human trafficking.** Multiple government institutions and NGOs have reported that trafficking is a major concern, particularly because some areas badly impacted by *Yolanda* – like in Samar and Leyte – were already known hot spots for trafficking of women and girls even prior to the current emergency (Philippine Inter-Agency Council Against Trafficking 2012). The factors that make individuals vulnerable to sexual exploitation and abuse – economic vulnerability, inability to meet basic survival needs, etc. – also increase the risk of trafficking.

**Reproductive health (RH).** RH is defined as "a state of complete physical, mental and social well-being in all matters relating to the reproductive system and its functions and processes. Its components include (but not limited to): (i) maternal and newborn health (reducing maternal mortality and morbidity, reducing obstetric fistula, reducing unsafe abortion); (ii) sexual health (preventing the spread of HIV and STIs, promoting the healthy expression of sexual intimacy

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[4] According to a Protection Cluster assessment published on 12 November 2013, women and children were seen begging in the streets.

free from violence and coercion); (iii) family planning (reducing the number of unplanned pregnancies and allowing for optimal spacing of children); and (iv) prevention, detection and treatment of cancers of the reproductive tract. According to the WHO: "Reproductive and sexual ill-health accounts for 20 per cent of the global burden of ill-health for women, and 14 per cent for men."

UNFPA firmly believes in the three-pronged strategy to save the lives of mothers and newborns: (i) delivery in the presence/care of a skilled birth attendant (trained midwife, nurse or doctor); (ii) availability of emergency obstetric and neonatal care (EmONC); and (iii) the availability of modern methods of family planning to give women and their partners the option of limiting and/or and spacing child-bearing.

For the Typhoon *Yolanda* corridor, RH needs are particularly acute. There were around 3.2 million women of reproductive age affected, 230 thousand of whom were pregnant and 78 thousand were expected to deliver in the next three months. Based on pre-disaster rates, it can be projected that around 15 percent of deliveries could have life-threatening complications.
This equates to about 11,700 women who may develop these potentially severe complications. The cost of ensuring that these at-risk women receive the critical care and commodities they need had been estimated at US$202,500 or Php8,808,750 (@US$1=Php43.50).

Lactating women also require special support to ensure that safe infant feeding practices are being observed. A recent study suggests that the mortality rates of baby girls in the Philippines spike over at least two years after typhoons, as families struggle to make ends meet and stretch their resources thin among many children (Hsiang and Anttila-Hughes 2013). The study adds that while 740 people die on average each year from causes related to typhoons, which occur with regularity in the Philippines, deaths of baby girls in areas exposed to the storms are about 15 times higher! "One factor", say the economist authors, "is that in the year after a typhoon hits, families may see their incomes fall by more than 15 per cent, due to job loss and costs of rebuilding. That often forces them to reduce spending on medicine, education, transportation, communication and nutritious food. And limited resources, in turn, could affect the parents' ability to care for baby girls…The risk of a baby girl dying after a typhoon doubles if she has older sisters in the house, and the risk doubles again if she has older brothers."

"Infants are more fragile than other family members, and some can't handle it when families cut back," says author Hsiang. "We think that economic factors are key, because roughly half of the baby girls who die weren't even born or conceived when the various storms hit."

## 5. Regional Experience

Had the implementation of Philippine government's FP program that begun in 1970 been sustained in the same manner as, say, Thailand (which had a similar population size [37 million] and growth rate [3.2 percent] as the Philippines in the early 70s), this country's current demographic and economic situations would probably be not too far off from Thailand's, as

indicated below. The case of Thailand is particularly interesting and instructive because it was commonly regarded as the Philippines' quasi-twin in the 1970s through the mid-1980s.

The Thai government's national population policy launched in 1971 increased contraceptive use from 15 percent (1971) to 70 percent (1986), reduced average TFR from 3.4 children (1980) to 1.6 (2012), slowed population growth from 3.2 percent (1971) to 1.5 percent (1986) and to 0.5 percent (2012). Thus, Thailand's population expanded only 1.8 times from 1971 to a more manageable 68 million currently, compared with the Philippines's nearly 100 million, up 2.7 times also in just over four decades.

Moreover, Thailand's imaginative FP program empowered women to engage in agriculture-based income-generating projects. Which contributed to the drop in poverty incidence from 12.5 percent (1998) to 7.8 percent (2009), an increase in GDP per capita (PPP) from US$1,090 (1980) to US$9,221 (2010), and a fall in youth (15-24 years of age) unemployment from 5.4 percent (1998) to 0.7 percent (2011).

The case of Bangladesh is also instructive. Following its independence in 1971, the government implemented a FP program that raised contraceptive use from 8 percent (1975) to 61 percent (2011), brought down average TFR from 6.3 children (1975) to 2.3 (2011), cut maternal deaths from 800/100,000 live births (1991) to 194/100,000 live births (2011), and population growth rate is down to 1.3 percent (as of 2009-2011).

Motivated by the boom in the textile industry and microcredit availability (through the Grameen Bank and BRAC), Bangladeshi women availed themselves of FP services that unburdened them of unwanted pregnancies and improved their general well-being. In turn, this enabled women to be employed in the textile industry, empowered them and accorded them greater autonomy. Female youth (15-24 years of age) literacy rate rose from 38 percent (1991) to 77 percent (2009). The overall outcome was a marked reduction in unemployment and poverty, and overall income per capita (PPP) rose from US$54 (1991) to US$1,909 (2009).

## 6. Strategic Interventions

Lessons from regional experience in terms of FP-RH – in combination with employment program – implementation point to *community intervention approaches* that could be applied to the Philippines with the following objectives (over 2013-2016) as follows:

   (i) To enhance the literacy and numeracy of the community, particularly the poor and marginalized.
   (ii) To improve the skills and employability of families and communities, especially the poor and the young.
   (iii) To improve the delivery of quality reproductive health information and services by the LGUs, the private sector, and community-based organizations toward enhancing the well-being of poor women, empowering, and enabling them to be gainfully employed.
   (iv) To make the RH and Conditional Cash Transfer (CCT) programs complementary, mutually supportive and reinforcing.
   (v) To increase livelihood assets and raise the productivity of poor households and communities.
   (vi) To enhance their capacities to value and guard the environment, and to anticipate, mitigate, adapt and respond to climate-change-induced disasters.

<u>Interventions by type of communities</u>

a. Agriculture-based (e.g., Bondoc Local Economic Development)
   (i)    Agricultural and fisheries productivity improvement
   (ii)   Literacy and numeracy skills enhancement
   (iii)  Entrepreneurship skills training
b. Rural-based tourism
   (i)    Tourism-related skills training
   (ii)   Non-agricultural economic activities, including small and medium enterprises (SMEs)
c. Urban and/or manufacturing-based activities
   (i)    Industry-related skills training
   (ii)   SMEs development
   (iii)  Disaster risk management
   (iv)   Disaster response capacity and resiliency

<u>Interventions across all types of communities</u>

a. Literacy and numeracy skills enhancement
b. Organizational capacity strengthening, policy development, and community planning
c. Micro-credit facilities and SMEs
d. Maternal and child health care (MCHC): training of RH service providers, improvement of health facilities; ASRH service provision
e. Family planning program: provision of modern FP information and commodities, training of FP service providers, FP demand generation (following the economic principle of "supply creates its own demand'), and youth peer education; linking FP-RH with CCT
f. Awareness about climate change and capabilities to be proactive, adaptive, and responsive to – and be resilient from – environmental disasters.

## 7.  Simulations and Projections

**CPR, TFR, and population.** Applying the random-effects regression technique to World Bank panel data of 153 countries covering the period 2000-2011, contraceptive prevalence rates (CPRs) of 60 percent (Bangladesh in 2011) and 70 percent (Thailand in 1986) result in a TFR of 2.9 and 2.6, respectively ($R^2$ = 0.655 implies a relatively good regression fit).

The above suggests that for the Philippines to bring down its current TFR from 3.1 children to 2.9 or 2.6 by, say, 2016, would require a CPR of 60 percent or 70 percent, respectively. Both scenarios would entail urgent and vigorous implementation (preferably starting in 2013) of the FP/RH law. Otherwise, such fertility reductions could possibly occur later or perhaps after 2020 yet.

These TFRs are then fed into the *DemProj* policy model (a USAID-funded project) for population projections. With a 2013 Philippine baseline population of 97.7 million, the corresponding population projections are: 103.5 million (higher TFR of 2.9) and 102.9 million (lower TFR of 2.6) by 2016; alternatively, 112.3 million (higher TFR) and 111.1 million (lower TFR) by 2020. For comparison, the former NSCB's medium assumptions for TFR is 2.76 from 2016 onwards to 2020 resulting in a projected population of 103.5 million in 2016 and 111.8 million by 2020 – which are pretty close to this paper's numbers. This suggests that for the Philippines to achieve even just the NSCB's population projections would require a marked reduction in TFRs through equally higher CPRs with the implementation of the RH law. Otherwise, mere incremental increases in CPRs or, worse yet, a business-as-usual regime would likely result in population numbers easily overshooting the government's targets.

**Fertility and poverty.** Official survey data have shown time and again that poor women have considerably more children than they want and can afford to support. A primary objective of the RH law is to address unmet needs for FP information and services that have resulted in considerable unplanned, mistimed, and unwanted fertility among poor women. Given that the poor are increasing significantly faster than the national norm and even faster still than the upper-income groups, as mentioned above, it follows that simply reducing unwanted fertility would, ceteris paribus, lower poverty rates.

To illustrate, consider the following counter-factual simulation. If currently married women of reproductive age (CMWRA) in the poorest quintile (Q1) by availing themselves of RP-RH services, had achieved their wanted total fertility rate (TFR, i.e., total number of children), the country's poverty incidence would have gone down significantly from the actual 26.5 percent in 2009 to 24.9 percent, and further down to 23 percent if CMWRA in both Q1 and Q2 had achieved their desired TFRs (Table 3).

**Table 3. Actual vs estimated poverty rates if CMWRAs had met wanted TFRs**

| Year | Unit | Actual poverty | | Estimated poverty if only Q1 CMWRA meet wanted TFRs | | Estimated poverty if both Q1&Q2 CMWRA meet wanted TFRs | |
|---|---|---|---|---|---|---|---|
| | | Rate % | Number '000s | Rate % | % point drop (number '000s) | Rate % | % point drop (number '000s) |
| 2006 | Family | **21.1** | **3,671** | 20.0 | -1.1 (-187) | 18.4 | -2.7 (-465) |
| | Population | **26.4** | **22,173** | 25.3 | -1.1 (-899) | 23.2 | -3.1 (-2,644) |
| 2009 | Family | **20.9** | **3,856** | 19.1 | -1.8 (-336) | 17.6 | -3.3 (-609) |
| | Population | **26.5** | **23,143** | 24.9 | -1.6 (-1,414) | 23.0 | -3.5 (-3,020) |

Source: NSCB, FIES, author's calculations.

In terms of population growth effect, total population would be appreciably smaller at 100.3 million or 97.2 million instead of 103 million by 2016 if Q1 CMWRA or both Q1 and Q2 CMWRA, respectively, would meet their wanted TFRs. The corresponding numbers by 2020 would be 106.3 million or 103.1 million instead of 111.8 million (Table 4).

**Table 4. Projected vs estimated population if CMWRA meet desired TFRs**

|  | 2006 | 2009 | 2016/f | 2020/f |
|---|---|---|---|---|
| **Population (actual & forecast)** | **87.0** | **92.2** | **103.0** | **111.8** |
| Q1 CMWRA meet wanted TFR | 85.3 | 90.5 | 100.3 | 106.3 |
| Q1 & Q2 CMWRAs meet wanted TFR | 82.8 | 87.8 | 97.2 | 103.1 |

Source: NSCB, FIES, author's calculations.

Note that the above estimates are conservative because, for one, they exclude unmarried women and teenagers whose pregnancy rates have been rising. For another, they are purely demographic effects and do not account for demographic-economic dynamics. For instance, as poor women are unburdened of unwanted pregnancies, they could find work or participate in continuing education and skills training, leading in turn to smaller desired family size. Fewer and better cared-for children can then look to a more promising future, and so on.

## 8. Conclusion and Policy Implications

The population variable is central in both labor and product markets comprising the economy. It follows that its growth rate, age structure, and spatial distribution are critical considerations in a country's development strategy designed to achieve rapid and sustained economic growth that is job-generating, and poverty- and inequality-reducing, i.e., a socially inclusive development, or inclusivity for short.

At the macro level, the relationship between population and poverty seems pretty much established (e.g., UPSE 2004). Between the two, employment is typically the intermediate variable, which is exemplified in the Philippines by persistently high unemployment and underemployment and manifested by vulnerable employment particularly of women and children.

Micro-level data further substantiate the population-poverty nexus with the consistent positive association over nearly three decades between family size and poverty rate. This, in turn, can be explained by the lower contraceptive prevalence rates or higher unmet needs for family planning (FP) or, more broadly, responsible parenthood and reproductive health (RP-RH) services particularly among the poor. Based on the experience of other countries, RP-RH programs capacitate women with their well-being enhanced to be empowered, to acquire skills and participate in the workforce. Fewer wanted and better cared-for children will also benefit from investment in human capital leading to a brighter future, thereby breaking the vicious circle of intergenerational poverty.

There are cogent arguments and a compelling rationale for a vigorous and sustained implementation of RP-RH programs at the local level in the context of a national population policy that complements economic policy. The strategic framework proposed here also points to the importance of key interventions at the community level under different settings, as can be gleaned from successful global/regional experiences (e.g., Thailand and Bangladesh).

Simulations and projections suggest there is much to gain from implementing the RH law, especially in combination with other strategic interventions, such as skills training, entrepreneurship, micro credit, SMEs, and of course the ongoing CCT program.

Finally, Super-typhoon *Yolanda* has brought about serious problems associated with gender-based violence (GBV) and lack of reproductive health (RH) care besetting particularly women and children, who mostly live below or just above the poverty line. Unless these problems are addressed adequately and in a timely manner, these people could easily plunge deeper into poverty, thereby frustrating the government's objective of inclusive growth and development.

The costs of interventions into both GBV and RH concerns are relatively modest and should be included in the Yolanda Recovery and Rehabilitation Program – as well as in all future disaster response strategies – because the price of delay or postponement would be much higher in terms of the direct costs as the needs are magnified over time. Moreover, the indirect costs such as lost or diminished human capital, required poverty-alleviation interventions, criminality, and social disaffection and unrest are mostly incalculable.

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