



POPULATION

How and Why It Matters



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of Science and Technology

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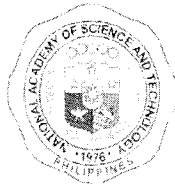
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A progressive Philippines anchored on science

Population: How and Why it Matters



**The National Academy of Science
and Technology (Philippines)**

June 2004

POPULATION: HOW AND WHY IT MATTERS

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Preface

The National Academy of Science and technology being a proactive body, strives to address the most pressing issues that beset the Philippine scientific community and the nation. It continuously gives advice to all levels of government and engages in fruitful discussions and debates with public and private sectors on urgent scientific matters.

As a strong means of expressing its concern on various scientific issues, the NAST started its monograph series to document the invaluable information and recommendations emanating from science information fora, science legislative fora and round table discussions. The Academy has so far published monographs like *Modern Biotechnology and Philippine Agriculture*, *Rice Self-Sufficiency: A Major Development Challenge for the Philippines in the New Millennium*, and *Human Genome*. Also in the offing are *Water Resources Policy in the Philippines*, and *Health Insurance and Management*.

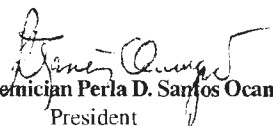
On the issue of population, NAST is once again at the forefront and has come up with this monograph entitled *Population: How and Why It Matters*. This monograph addresses selected issues and concerns surrounding the exponentially rising Philippine population and attempts to provide possible solutions for this burgeoning and explosive growth in human numbers.

Increasingly, the Filipino people themselves have been found by surveys to favor the need to control one's fertility or to plan one's family, the free choice of family planning methods and even the enactment of laws on family planning and reproductive health. The citizenry is now very much aware of the implications of large family sizes on family well being, development, food security, health, education, environment and housing.

It is vital to look at family size, which if moderated, will ensure environmental sustainability, reduce maternal, infant and child mortalities, decrease the excessive demands on basic services and promote human development.

It is gratifying to note that recently, discussions on population growth and its implications for sustainable development have been highly popular topics in media and have been paid greater attention by both the public and private sectors, government, nongovernmental organizations and civil society.

Through this publication, we at the Academy enjoin local and national opinion- and decision-makers and fund managers, to act quickly and favorably in order to curb the escalating population growth, an issue deemed crucial to national development.


Academician Perla D. Santos Ocampo
President

Resolution on Philippine Population Policy¹

We, the members of the National Academy of Science and Technology (NAST), together with the leading experts and concerned groups present at the Round Table Discussion on “How and Why Population Matters,” held at the Traders Hotel in Manila on April 03, 2003,

- Recognize the strong empirical evidence that continuing rapid population growth in the Philippines has been a major impediment to economic growth, poverty reduction and improvement in living standards;
- Express concern that the negative consequences of these conditions are not being managed properly and reversed;
- Manifest dissatisfaction over the fact that Philippine socio-economic development has lagged behind its neighboring States that have shown political will and serious adherence to an effective population policy;
- Convinced, after critical analysis, that the roadblocks to an effective national population policy are: (a) the persistent and consistent opposition of the Philippine Catholic Church hierarchy to the promotion of artificial family planning methods; (b) the lack of political will of the national leadership to manage population growth; (c) gender inequality at the household level in child-bearing decisions; (d) lack of access to information, education, communication and quality reproductive health services; and (e) limited availability of modern and effective family planning methods, especially among marginal groups.

Hereby declare that the time to act is NOW and call on the government

- To enunciate clearly and categorically a national population policy consistent with economic growth and poverty reduction objectives and addressing the identified roadblocks and constraints;
- To proclaim that the policy objective is replacement fertility by 2015, so that the ultimate goal – quality life for all Filipinos – may be attained;

¹The same was presented to the NAST 25th Annual Scientific Meeting, Addressing the Demographic Crisis in the Philippines, on July 09-10, 2003 at the Manila Hotel for signature of the participating Academicians.

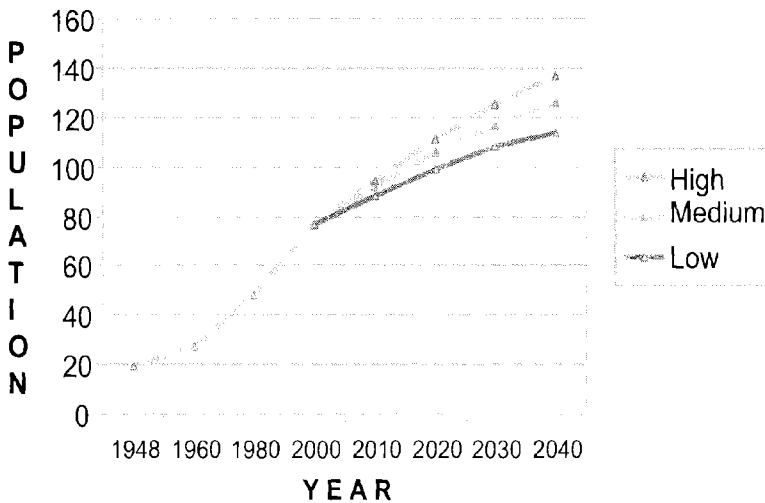
- To allocate funds to implement the required programs and projects;
- To give couples, in principle and in practice, adequate information and the freedom, responsibility and means to decide the number and spacing of their children, compatible with their values and beliefs; in this regard we reject abortion as a method of population control;
- To encourage and support the initiatives of business groups and civil society toward this end; and
- To enjoin national and local officials as well as other leaders of society to uphold and sustain these urgently needed efforts.

POPULATION: HOW AND WHY IT MATTERS

Mercedes B. Concepcion, Ph.D.²

The upsurge in world population from 2.5 billion in 1950 to over 6 billion in 2000 and estimated by the United Nations to level out at 11 billion by the year 2050 attracted more attention globally than any other social phenomenon in the last 50 years. In comparison, the Philippines witnessed nearly a fourfold growth in population, from 19.2 million in 1948 to 76.5 million in the year 2000 with no leveling off in sight. The National Statistics Office, using the 1995 enumerated population as base, projected the number of Filipinos to reach some 106 million in 2020 and about 126 million in 2040, assuming that fertility will decline moderately to replacement level by 2020. But if fertility were only to attain replacement level a decade later, the estimated 2040 population would be 11 million more (Fig. 1).

Fig. 1 : Growth of Philippine Population
(in millions)



Source: National Statistics Office, Philippines

Measurements of the effects of mounting population numbers and their consequences have varied widely, extending all the way from the opinion that greater population growth leads to more prosperity to dire predictions that rapid population growth would bring about worldwide famines, ecological disasters, civil wars, natural resource scarcity, and the like. Focusing on the rapid population growth in the *developing*

²Academician, National Academy of Science and Technology

countries and its consequences for economic growth, economists have raised two research questions: Has the rapid population growth of the last half-century been good or bad for developing countries' economic prospects? If bad, what government policies and programs to encourage lower fertility and thus reducing growth of population make sense for the economy and for individual and family welfare?

The debate about these questions has often generated more heat than light because they relate policies affecting the most personal and critical decisions of families concerning marriage, women's status, and childbearing. At the same time, the debate has aided the use of new theoretical and modeling insights in research and the exploitation of ever-improving data. To bring the issues to a wider audience and to broaden the scope of the debate, the National Academy of Science and Technology (NAST) decided to hold this Round Table on **Population: How and Why It Matters**. In doing so, the NAST hopes that the participants will take to heart the implications of the new findings for policy and embark on pertinent programs for their clientele, their communities and for society as a whole.

The sections that follow addressing the effects of the country's demographic changes on the economy, on poverty and the family and on agriculture and natural resource use and their implications for economic, social and population policies and programs are largely based on the report of a 1998 symposium, held in Bellagio, Italy, where economists and economic demographers took stock of the latest research on population issues³ and on the writings of Herrin⁴ and Orbeta⁵, among others.

Population Change and the Economy

Using aggregate country data to ascertain the influence of population growth in the developing countries on increases in country level GDP per capita, Kelley and Schmidt⁶ concluded *“that rapid population growth, and its associated demographic components, appears to have exerted a fairly strong, adverse effect on the pace*

³ Birdsall, Nancy, Allen C. Kelley and Steven W. Sinding, eds. 2001. *Population Matters: Demographic Change, Economic Growth, and Poverty in the Developing World*. Oxford, U.K.: Oxford University Press.

⁴ Herrin, Alejandro N. 2003. 'Health dimensions of population growth' and 'Population and basic education'. Chapters 2 and 4 in *The Ties that Bind: Population and Development in the Philippines*, Luningning Achacoso-Sevilla, ed. Makati City, Philippines: Asian Institute of Management Policy Center.

⁵ Orbeta, Aniceto C. Jr. 2002. 'Population and poverty: A review of the links, evidence and implications for the Philippines'. Paper presented during the 2002 National Population Congress, 29 November; and 'A review of research and population-related issues' prepared for the Philippine Institute of Development Studies (PIDS) and the Commission on Population (POPCOM), 2002.

⁶ Kelley, Allen C. and Robert M. Schmidt. 2001. 'Economic and demographic change: A synthesis of models, findings, and perspectives.' Chapter 4 in N. Birdsall, A.C. Kelley and S.W. Sinding, eds.

of economic growth over the period 1960-1995". These more recent studies used better-specified models in which demographic variables were incorporated into the growth models. The studies also covered a longer time period over which it has been possible to observe the effects on economic growth of decreased fertility, varying labor force size and lesser youth dependency. These recent analyses considered not only population growth in the aggregate but distinguished carefully among the effects of alterations in the components of demographic change and population growth, including fertility, mortality and the dependency ratio. Changes in population size and density were also considered. *These analyses indicate that among demographic changes of the last 35 years, increases in population are positively associated with economic growth, while increases in the size of the age group under 15 are negatively associated with growth.*

Bongaarts⁷ emphasized that a decrease in fertility results in substantially altered age structures and age distribution, with gradually diminished proportions of the population under 15 and growing proportions 65 years and over. As countries go through the demographic transition of falling mortality followed after a lag by declining fertility, they first will face a period of rising child-dependency ratios, then of shrinking child-dependency ratios once larger proportions of the population move through the working ages, and eventually of expanding old-age-dependency ratios. The effect of fertility decline during the stage wherein the ratio of the population of working age to the dependent population is high provides a *demographic dividend* or *window of opportunity* that allowed other East Asian countries in the last three decades to increase their savings rates and to invest in physical and human capital to spur their economic growth.

Williamson⁸ also saw alterations in East Asia's age structure during the last three decades as contributing significantly to that region's considerable rise in savings and investment for the same period, setting the stage for East Asia's prolonged period of historically unprecedented economic growth. Based on cross-country statistical analysis, Williamson concluded that *the increase in the working age population and the increase in savings induced by changes in dependency, can be associated with as much as one-third of the total average annual per capita growth of about 6 percent in East Asia in the last three decades.*

⁷ Bongaarts, John. 2001. 'Dependency burdens in the developing world'. Chapter 3 in N. Birdsall, A.C. Kelley and S.W. Sinding, eds.

⁸ Williamson, Jeffrey G. 2001. 'Demographic change, economic growth, and inequality'. Chapter 5 in N. Birdsall, A.C. Kelley and S.W. Sinding, eds.

Herrin⁹ took note of the sustained economic growth and the rapid pace of fertility decline in East Asia during the period 1965-1995. During these three decades, East Asia's average annual GDP growth per person was 6.6 percent (the People's Republic of China (PRC) averaged 5.6) while Southeast Asia recorded 3.9 percent. In contrast, South Asia's average was only 1.9 percent. By 1995, the total fertility rate (TFR) in East Asia including the PRC was below replacement level. A rapid decline in TFR was similarly recorded in Southeast Asia with Thailand achieving replacement fertility in 1990-1995 (Table 1). Only the Philippines (with its slow economic growth and slow fertility decline) did not fit this general characterization. Herrin concluded that the rapid fertility declines in East Asian countries (the Philippines excepted) in the past 30 years was related to sustained economic growth. This slow fertility decline in the Philippines is related to an economic growth characterized by a cycle of growth spurts (at a relatively lower rate than East Asia) followed by a period of crisis in what is now known as the "boom-bust" cycle.

Region/Country	Average annual GDP growth per person 1965-95	Life expectancy at birth		First quinquennium of fertility decline*		
		1950-55	1995	Period	TFR during previous quinquennium	
					1995	TFR
East Asia	6.6					
Hong Kong	5.6			1965-70	5.3	1.2
Korea, Republic of	7.2	48	72	1960-65	6.1	1.6
Singapore	7.2			1960-65	5.8	1.8
Taipei, China	6.2			1955-60	6.4	1.8
People's Republic of China	5.6	41	69	1970-75	5.9	1.9
Southeast Asia	3.9					
Indonesia	4.7	38	63	1970-75	5.6	3.4
Malaysia	4.8			1965-70	6.7	3.3
Philippines	1.2	48	65	1960-65	7.1	4.1
Thailand	4.8	47	70	1965-70	6.4	2.2

*The first quinquennium with a decline in the total fertility rate of at least 10 percent compared with the previous quinquennium.

Source: Herrin, Alejandro N. 2003. 'Health dimensions of population growth'. In *The Ties That Bind: Population & Development in the Philippines*. Luningning Achacoso-Sevilla, ed. Makati City, Philippines: Asian Institute of Management Policy Center.

⁹ Herrin, Alejandro N. 2002. 'Fertility change and economic growth: East Asia and the Philippines'. *Philippine Population Review*. 1 (1) (Jan./Dec.): 7-21

Kelley and Schmidt found that increases in the size and proportion of the working age population are positively associated with economic growth. The proportions of the population under age 15 and in the working ages 15-64 for the Philippines, Japan, the Republic of Korea and Thailand and the youth dependency burden (ratio of the population 0-14 to the population 15-64) are compared in Table 2. Although the Philippines has had a declining proportion of the youth and an increasing percentage of the working population, thus decreasing the youth dependency burden, the proportions are nowhere near those of the other three countries that have shown tremendous economic growth in the past three decades.

Table 2 : Demographic Indicators :				
Selected East & Southeast Asian Countries, 1960-2000				
Country & Year	Population 0-14 yrs. (%)	Population 15-64 yrs. (%)	Population Density per sq. km.	Youth Dependency Burden 0-14 / 15-64
Philippines				
1960	46.4	50.9	90	91.2
1970	45.7	51.4	122	88.9
1980	42.0	54.6	160	76.9
1990	39.5	57.1	202	69.2
2000	37.0	59.2	255	64.1
Japan				
1960	29.2	65.1	249	44.9
1970	24.0	68.9	276	34.8
1980	23.6	67.4	309	35.0
1990	18.4	69.1	327	26.4
2000	14.7	68.1	336	21.6
Republic of Korea				
1960	41.9	54.8	253	76.5
1970	40.0	56.7	322	70.5
1980	34.0	62.2	385	54.7
1990	25.9	69.6	433	37.5
2000	20.8	72.1	472	28.8
Thailand				
1960	44.4	52.7	52	84.3
1970	44.9	52.1	70	86.2
1980	39.2	57.5	90	68.2
1990	31.9	64.3	107	49.6
2000	26.7	62.9	122	39.3

Source: United Nations. 2001. *World Population Prospects: The 2000 Revision. Vol. I: Comprehensive Tables*. United Nations Publications (Sales No. E.01.XIII.8)

According to Balisacan¹⁰, the rapid economic growth in the major East Asian countries, averaging 6-9 percent annually and sustained over two or three decades, was the key to their successful poverty reduction. In contrast, the Philippines' high absolute poverty level can be attributed primarily to the short duration and slowness of the country's economic growth.

Fertility, Poverty and the Family

Analyzing economic and demographic data for 45 developing countries, Eastwood and Lipton¹¹ found that elevated fertility levels increase absolute levels of poverty both by retarding economic growth and by worsening the income distribution of the poor available for consumption. The average poverty incidence in the mid-1980s was 19 percent, about one in every 5 persons. Had all these 45 countries reduced their birth rate by 5 per 1,000 during the 1980s, poverty incidence would have dropped to 13 percent between 1990 and 1995. Eastwood and Lipton suggested that in these 45 countries about half the estimated decline in poverty over the period could be ascribed to increases in economic growth and the remaining half to shifting consumption towards the poor. A fall of 4 per 1,000 in the birth rate, for instance, could translate into a 2.4 percent decline in those living in absolute poverty in the next ten years. The studies also demonstrate that the poorer the country and the higher its initial fertility level, the greater will be the effect of diminishing fertility on a decline in absolute poverty. Moreover, as the demographic transition takes place, the beneficial effects increase. However, as Eastwood and Lipton maintain, the effects of the demographic transition on reductions in poverty are, as with the effects on economic growth, different at different stages of the transition—*harmful to poverty reduction in the early stages as population growth accelerates due primarily to mortality decline that occurs disproportionately among infants and children, and helpful in the later stages as fertility declines and aggregate population growth slows.*

During the early stages of the demographic transition, income differentials between poor and non-poor households may in fact become greater. Once the transition extends to all groups in the society, so that fertility as well as mortality fall, and the fertility reduction spreads to poor households, the poverty-reducing and inequality-reducing effects increase. As the dependency ratio within families declines and childbearing cost is lessened, more income is available for consumption and savings, particularly where women enter the labor force and contribute to increasing family incomes. In sum, with greater number of countries experiencing some fertility decline

¹⁰ Balisacan, Arsenio M. 2003. 'Poverty and inequality'. Chapter 10 in *The Philippine Economy: Development, Policies and Challenges*. A. Balisacan and H. Hill, eds. Quezon City, Philippines: Ateneo de Manila University Press.

¹¹ Eastwood, Robert and Michael Lipton. 2001 'Demographic transition and poverty: Effects via economic growth, distribution, and conversion'. Chapter 9 in N Birdsall, A.C. Kelley and S.W. Sinding, eds.

and with improved data on poverty changes at the country level it has been possible to show that reductions in fertility may well be contributing to a decline in poverty rates and intensity.

It is generally accepted that poverty and large family size go hand in hand. Eastwood and Lipton's study and Thomas Merrick's¹² analysis confirm that in the developing countries there is higher poverty incidence among larger households. Table 3 lists the poverty incidence in the Philippines by household size. It is evident that despite the reduction in poverty level over time, the poverty incidence is still considerable the greater the number of household members.

Family Size	Poverty Incidence					
	1985	1988	1991	1994	1997	2000
National	44.2	40.2	39.9	35.5	31.8	33.2
1	19.0	12.8	12.7	14.9	9.8	9.8
2	20.0	18.4	21.8	19.0	14.3	15.7
3	26.6	23.2	22.9	20.7	17.8	18.6
4	36.4	31.6	30.1	25.3	23.7	23.8
5	42.9	38.9	38.3	31.8	30.4	31.1
6	48.3	45.9	46.3	40.8	38.2	40.5
7	55.3	54.0	52.3	47.1	45.3	48.7
8	59.8	57.2	59.2	55.3	50.0	54.9
9 or more	59.9	59.0	60.0	56.6	52.6	57.3

Source: Orbeta, Aniceto C. Jr.2002. 'Population and Poverty: A Review of the Links, Evidence, and Implications for the Philippines' *Discussion Paper Series No. 2002-21*. Makati City, Philippines: Philippine Institute for Development Studies.

Moreover, those poor households that have more children invest less in children's education and health, and systematically see worse health outcomes associated with pregnancy for mothers. Studies in the 1990s demonstrate that at least some fertility among the poor may be optimal to family welfare. It is altogether likely that poverty and high fertility do not cause each other but are both caused by other factors such as poor education. But it is also likely that there is a two-way causation, with poverty and high fertility inopportunely buttressing each other in a vicious cycle. In fact, both theory and improved empirical analyses support the likelihood that high fertility of poor parents is contributing to their and their children's poverty.

¹² Merrick, Thomas. 2001. 'Population and poverty in households: A review of reviews'. Chapter 8 in: N. Birdsall, A.C. Kelley, and S.W. Sinding, eds.

At the household level, Herrin¹³ found that the number of young children 0-6 and 7-12 years old in the household inversely affected the accumulation of household assets. Mason¹⁴ also ascertained that the number of children negatively affected the savings rate. Although the absolute amount of savings was unaffected, asset per child was discovered to be higher in lower fertility households.

The argument that the poor have larger family size as a result of rational choice is difficult to believe in the Philippine case. The poor do not really have better control over their fertility as clearly indicated by their more limited access to family planning and allied services, lower contraceptive prevalence rates, higher unwanted fertility and higher unmet need for family planning as revealed by Orbeta¹⁵ and by Pamaran and Ramos-Jimenez¹⁶. Orbeta is of the opinion that current fertility choices do not only have current effects but also have intergenerational impact. Evidence is overwhelming that high fertility leads to decreased investments in human capital, the main engine in the intergenerational transmission of poverty.

Population, Agriculture, and Natural Resources

Among all the possible effects of population size and demographic change on natural resource use, effects on land use in agriculture are probably the most relevant for developing countries. Any problem of population is more likely to be associated with unsustainable use of renewable resources such as land, rather than with non-renewable mineral resources.

Pender¹⁷ reviewed the growing empirical literature and supplied an example from Honduras of the kind of new study required. He concluded “that though rapid population increase may encourage technological innovation that leads to increased output, such population increase can also have a negative impact, especially in the absence of an environment that creates incentives for individuals and societies to manage natural resources in a sustainable manner”. While the potential negative effect of population growth has been and can be hindered by policy and practices,

¹³ Herrin, Alejandro N. 1983. 'Studies on consequences of population change in Asia'. *Asian Population Studies Series No.121*. Bangkok, Thailand: Economic and Social Commission for Asia and the Pacific.

¹⁴ Mason, Andrew. 2001. 'Population and economic growth in East Asia'. In *Population Change and Economic Development in East Asia: Challenges Met, Opportunities Seized*. A. Mason, ed. Stanford: Stanford University Press.

¹⁵ Orbeta, Aniceto C. Jr. 2002. 'Population and Poverty: A Review of the Links, Evidence and Implications for the Philippines'. *Discussion Paper Series No.2002-21*, Makati City, Philippines: Philippine Institute for Development Studies.

¹⁶ Pamaran, N. and Pilar Ramos-Jimenez. 2002. 'Wanted fertility and unmet need for family planning among young adults in the Philippines'. *Social Science Information*, 28(2): 83-105.

¹⁷ Pender, John. 2001. 'Rural population growth, agricultural change, and natural resource management in developing countries: A review of hypotheses and some evidence from Honduras'. In N. Birdsall, A.C. Kelley and S.W. Sinding, eds.

without collective action, population density can make things worse in terms of agricultural output, land productivity, and most importantly, in terms of human welfare.

Over the period 1980-2000, the growth in rice production in the Philippines at 2.2 percent annually barely kept ahead of population growth as reported by Tolentino.¹⁸ During the 1990s, the average annual growth in rice production averaged only 1.9 percent. Yet during the same decade, the Philippine population grew at an average of over 2.3 percent.

The country's rice imports as a proportion of total requirements rose from 1.1 percent in 1975-1979 to 8.1 percent in 2000-2001 (Table 4). Compared with its major rice-producing ASEAN neighbors, the Philippines was far behind in terms of productivity growth. Over the 1990s, rice productivity growth in Viet Nam spurted upwards while that of Thailand grew steadily (Fig. 2). Stagnant growth in rice production, combined with rapid growth of population, explains why the country has lost its self-sufficiency in rice. In addition, while world rice prices remained relatively low and stable during the 1990s, domestic consumer prices were two or three times those of Viet Nam and Thailand. Because it is expensive, Filipinos consume less rice than other countries at similar levels of income and economic development (Table 5). Expensive rice also underlies poor nutrition. The gap between local and world rice prices has grown over the past decade, helping to explain worsening nutrition in the population, especially among the very young. In 1993, 8.2 percent of children surveyed were underweight. Five years later, the corresponding figure grew to 9.2 percent. During the same period, the proportion of wasted children rose from 5.9 percent to 7.2 percent (Table 6). According to Tolentino, "current rice sector policy is dominated by pervasive rice price interventions implemented through the monopoly on the international trade of rice by the National Food Authority (NFA), coupled with weak implementation of rice productivity-enhancing programs". Tolentino concluded that this policy does not work and proposed an alternative: "sustained implementation of a significant program of public investment in rice productivity for grains in the long-term, financed and enabled in the short-term by a pragmatic trade policy where tariff revenues from rice imports are directed to public investments in rice sector development. To ensure that the gains from improved productivity translate into improved welfare for the population, the efforts toward increased productivity in the medium- to long-term must be complemented by a sustained program which enables choice among individuals and families with regard to childbirth and family size leading to moderation in overall population growth".

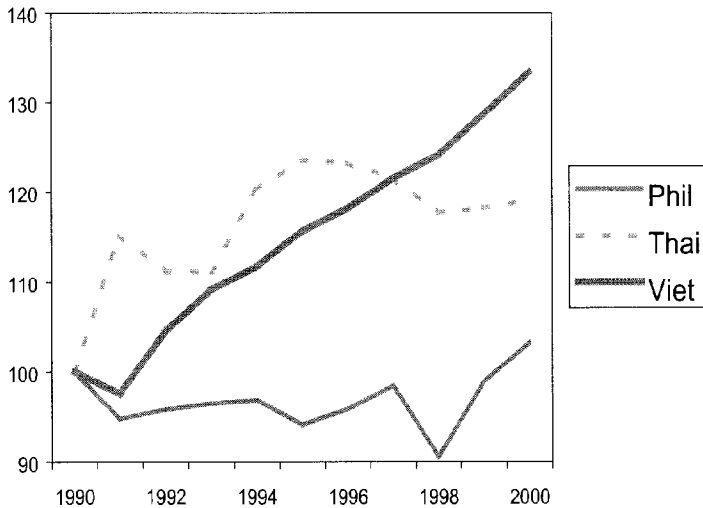
¹⁸ Tolentino, V. Bruce J. 2003. 'Can we feed ourselves? Rapid population growth and rice policy in the Philippines'. In *The Ties that Bind: Population and Development in the Philippines*, Luningning Achacoso-Sevilla, ed.

Table 4 : Rice Imports as % of Total Rice Supply (TS)*

1975 - 1979	1.13
1980 - 1989	1.73
1990 - 1999	7.31
2000 - 2001	8.09

* TS = Production + Imports
 (V. Bruce J. Tolentino, 2003)

**Fig. 2: Trends in Paddy Yields Philippines, Thailand, Viet Nam
 1990=100**



Source: V. Bruce J. Tolentino, 2003

Table 5: Rice Per Capita Consumption

Country	Rice Consumption kilos/head/year
Bangladesh	150
Cambodia	169
Indonesia	149
Laos	172
Malaysia	92
Myanmar	213
Philippines	96
Thailand	109
Vietnam	165

Lower due to lesser supply, higher price!

Source: RiceFactsIndex: www.riceweb.org/aginfoasia.html

Table 6: Child Malnutrition, Philippines

	1993	1999
	Percent	
Underweight	8.2	9.2
Stunted	5.4	5.4
Wasted	5.9	7.2

Source: National Nutrition Surveys (V. Bruce J. Tolentino, 2003)

The concern towards better management of resources and the environment has triggered studies that focus on the relationships between population, resources and the environment. While the issue is not new, it has gained primacy as resources continue to dwindle rapidly and demand rises with growing population.

Payanatou¹⁹ recently reviewed the relationship between population growth, environment and development. He concluded that while on the surface rapid population growth is correlated with deforestation, soil erosion, destruction of local ecosystems and general environment degradation, a closer look revealed that it is more how population behaves rather than how population grows that determines the impact of population on the environment. Even then, it should be noted that how population behaves is affected by population size, congestion and shortages.

¹⁹ Panayatou, T. 1994. 'Population, environment and development nexus'. In *Population and Development: Old Debates, New Conclusions*. Robert Cassen, ed. New Brunswick, New Jersey and Oxford: Transaction Publishers.

Jha, Deolalikar and Pernia²⁰ pointed out that one key relationship between population and environment is that demand on the resources rises in proportion to population size, holding per capita income constant. In addition, estimates made by the Environment and Natural Resources Accounting Project (ENRAP)²¹ reveal that households are the primary generator of pollutants. Thus, increases in the number of households due to population growth imply generation of more pollutants. In the same vein, Padilla²² pointed out that while deterioration of water quality may not be directly attributable to population size or growth, it is related to activities that are directly proportional to population size or growth.

Policy Implications

The new findings described above do suggest that there are costs to parents and/or society as a whole, in terms of lower economic growth. In many developing countries, the costs are in terms of reduced success in eliminating poverty. These new findings put together a compelling set of arguments and evidence indicating that high fertility makes poverty reduction more difficult and less likely. Lower aggregate fertility has and is likely for some period to improve the lot of the poor. Thus, interest in population growth and change in the developing countries can be directly linked to regard for the welfare of parents, children and families.

Constant high fertility at the country level prevents the significant shift in age structure now bolstered by empirical evidence as advancing economic growth in various developing countries. This finding is important in attempts to decrease poverty because economic growth is a critical element for poverty reduction at the country level. By slowing economic growth, high fertility exacerbates poverty. The effect though indirect is substantial and as demonstrated by Eastwood and Lipton, accounting for one-half the 'damage' that high fertility implies for increased poverty.

High fertility diminishes the chances for the poor to elude poverty and may also decrease their relative welfare. At the country level, higher past levels of fertility are associated with a greater incidence and intensity of poverty. As Malthus suggested, higher past fertility increases the availability of workers and decreases their wages and, all other things remaining the same, raises the demand for, and the price of, such 'wage goods' as food.

²⁰ Jha, S., A. Deolalikar and E. Pernia. 1993. 'Population growth and economic development revisited with reference to Asia'. *Asian Development Review* 11(2): 1-46

²¹ Orbeta, E. and A. Indab. 1996. 'Valuation of Direct Environmental Waste Disposal Services'. Technical Appendix to the Philippine Environment and Natural Resource Accounting Project (ENRAP) Phase II.

²² Padilla, J. 1996. 'Water quality and fisheries issues accompanying population growth in the Philippines'. *Journal of Philippine Development* (2).

Evidence is mounting that the high fertility of poor families may not be most satisfactory for family welfare even when it is apparently consciously chosen, and that some fertility among the poor is unwanted or unintended. With few opportunities to accumulate human capital and other assets, the poor may end up worse off with more children. This may be due to their being unaware of, or unable to respond to, changed indicators of the costs and benefits of children to them, and of siblings to their children. These conditions almost always reflect one or another market failure that harms the poor disproportionately.

The following sets of policies and programs combine the macro analysis of economic consequences of aggregate demographic change with the micro emphasis on maximizing the well-being of individuals and families.

1. Undo any existing policy-induced distortions such as those that limit access to education, access to information or services about health and family planning or that actively discriminate against women.
2. Institute a variety of economic policies that strengthen land, labor and financial markets and encourage broad-based income growth. These are likely to reduce fertility (and mortality) not only indirectly because they are associated with faster income growth, but also directly by undoing the barrier that families face where they cannot accumulate financial savings because capital markets are poor. Thus, they turn to children as a form of old-age security. Undo the restriction that poor land owners face where property rights are not legally protected forcing them to turn to sons to physically defend their land rights. Properly functioning markets should also guarantee that the age composition changes associated with mortality and fertility decline end up contributing substantially to economic growth because they interact positively with sound economic policies as apparently happened in East Asia.
3. Develop a range of social programs, including education and health programs. Research reveals that more education and better health lead to lower fertility. Some public financing of such social programs, particularly if targeted at the poor, can probably be justified in most settings, independently of any demographic impact. Such programs help close the gap between private and social costs and benefits of family spending on child education and health.
4. Promulgate policies and programs that improve the status of women, such as special access to micro credit for women. In some settings women do not share in childbearing decisions. Since women bear more of the costs and receive fewer of the benefits of childbearing, it may be that their full participation in the decision would ultimately lower their fertility.

5. Ensure availability of and access to family planning information and services. Since there are social benefits to lower fertility, both for economic growth and for poverty reduction, and given the considerable evidence of unwanted fertility and market failures that limit private access to family planning, an economic case can be made for non-coercive programs of reproductive health and family planning.

Constructing a hierarchy of policy interventions is difficult. Therefore, a mix of policies and programs is more likely to make sense because these policies and programs lead to other social and economic benefits while also lowering fertility and mortality. Furthermore, they do not introduce trade-offs in terms of improving individual well-being. Many of these policies and programs are relatively low in cost and have multiple social benefits that probably exceed private benefits. They may even be costless as in the case of sound economic policies or the elimination of distortions that restrain individual choices. This is very true of basic education, especially for girls, and for primary health care.

DISCUSSION

Ernesto M. Pernia²³

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Economics and Research Department

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This is a cogent paper that succinctly pulls together the theoretical arguments supported by empirical data on the issue of why and how population matters. This is a particularly crucial issue for the Philippines which — given its *soft state* and *hard church* — has neglected the population problematique, practically just sweeping it under the rug. Consequently, the country now finds itself virtually alone among middle-income developing countries as not having made any (relatively) significant demographic transition. And it finds itself having to debate an issue that is *passé* for most Asian developing countries. But better late than sorry, one might say.

Dr. Concepcion's paper systematically discusses the impacts of the country's demographic behavior on the economy, poverty and family welfare, agriculture, and natural resources, and thereby makes a compelling case for policy and action.

As everyone knows, the single most important challenge for the country has been and continues to be high poverty incidence. Meeting this challenge has been a tall order, given low and erratic growth rates of the economy over two to three decades. As pointed out in the paper, sharp reductions in poverty occurred as a consequence of rapid and sustained growth in the other East and Southeast Asian economies. One might add that in those countries strong population policy was an important component of overall development strategy. Accordingly, those countries have been benefiting from the "demographic bonus" resulting from an increasing share of workers (ages 15-64) relative to young dependents (ages 0-14), while the Philippines continues to be burdened by the "demographic onus" (large share of young dependents relative to workers).

Cross-country regressions (involving around 125 countries) show a one-for-one relationship between economic growth and income increase for the poorest quintile (Dollar and Kraay 2001). Our own more recent research has examined subnational (provincial- or district-level) data and we find that the growth-poverty nexus is less than a one-for-one correspondence: 0.7 for Indonesia (Balisacan, Pernia, and Asra 2002) and 0.55 for the Philippines (Balisacan and Pernia 2002; Pernia and Quising 2002); and higher than 1.0 for Viet Nam (Balisacan, Pernia, and Estrada 2003). Altogether, these results provide robust empirical evidence on the common observation that economic

²³ The comments were delivered at the NAST Round Table Discussion on Population, Traders Hotel, April 3, 2003. The views expressed are the author's and do not necessarily reflect the views or policies of the ADB.

growth is key to poverty reduction. The less-than-one coefficients indicate that poverty reduction could be further hastened or reinforced by addressing other factors that improve the well-being of the poor via income distribution. Among the critical ones are infrastructure, human capital, agricultural price incentives, and, for the Philippines, agrarian reform.

Further, I posit that in the Philippine case (which has the lowest growth-poverty elasticity among the three Asian countries examined), dealing with the demographic factor will have a significant impact on both economic growth and income distribution, as mentioned in Dr. Concepcion's paper. The lack of a clear and consistent population policy starkly sets the Philippines apart from the rest of East and Southeast Asia, and partly explains its anemic economic growth and persistent mass poverty. Of course, some observers would point to problems of poor governance, corruption, and political economy as the culprit; others would point to exogenous shocks brought about by trade liberalization and WTO rules. The counterargument is that these problems or circumstances have also beset or affected the other Asian economies. So, the question is: why have they consistently performed better, some having overtaken the Philippines.

On policy agenda, I would focus on a few to complement those already taken up by Dr. Concepcion.

What are the key proximate objectives and instruments of an effective population policy for the Philippines? Research suggests three (Herrin and Pernia 2003). The first is to reduce unwanted fertility (or meet unmet needs for contraception) through a strong national family planning program, i.e., one that includes both traditional ("natural") and modern ("artificial") methods of contraception. The second is to change the preference for large family size through an incentive structure that raises the investment per child and lowers the demand for children (through, e.g., compulsory quality basic education, gender equality, and employment opportunities for women). The third is to reduce population momentum through later age at marriage, later childbearing, and wider birth spacing, made possible by a responsive family planning program. These measures need to be backed up by appropriate policy reforms in the economic and social sectors, as alluded to in Dr. Concepcion's paper.

Further measures to help improve the welfare of the poor, as indicated by our research, include investments in infrastructure and human capital that directly benefit the poor, and agricultural price incentives and other food-productivity enhancing programs that are likely to favor poor households.

Let me end on a poignant note. The country's average per capita income and labor productivity (average output per worker) today are at the same levels as in the early 1980s. Population does matter. It matters to whether we remain in a low-level equilibrium trap or get out of it. By low-level equilibrium trap I mean a depressing chain of low economic growth, high unemployment, low productivity, persistent poverty, declining human capital, high fertility feeding back into low economic growth, high unemployment, and so on and so forth. A clear and consistent population policy, coupled with an adequately funded action program, is needed to break this vicious chain.

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Dr. Ben S. Malayang III
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Thank you very much for this invitation. This is not my kind of forum. In fact, when I received this invitation, my wife and I were talking and I said, “*Baka nagkamali sila sa pangalan. Baka sa iyo talaga ito.*” Because it is my wife that is in the population movement.

I just like to make a series of presentations about the situation of our environment because I noticed that in the situations that were cited in the studies of Concepcion 2003, many of them were country-specific; and specific to certain economies and types of social conditions. But looking at population in an environmental sense, as a species in relation to all other species in the world, I would like to give some comments to that effect.

We have so much to support our existence in this world. Indeed, we have seven billion cubic kilometers of continental and oceanic crusts; huge reserve of fossil fuels, minerals, nutrients, moisture, and genes. There are 1.4 billion cubic kilometers of fresh and seawater within surface and millions more underground; and in the sky in the form of clouds that are really temporary to the atmosphere. We have 5.7 million square kilometers of land, lakes, rivers and seas that offer a diversity of habitat for about 13 million species of organisms that keep life viable in our planet. But all of these are limited. While we have much they are in fact exhaustible.

Our global commons divided resources in our planet between need, product, and survival with its finite quantity and limited quality. Of all our total water in the world, for example, 97% is saltwater, 3% is freshwater. Of the 100%, 97% is not available water, and only 3% is available. That is our limitation.

And even in our limited resource base, we continue to consume the earth as a people, a species. Our global energy demand continues to rise. Just like our demand for fiber continues to go up so that even with all the effort to reforest the world, our net forest reserves are dwindling. We have only few success stories but more and more we are losing our global forest cover. Because of our global forest loss, these are associated with other losses.

Bio-diversity, remember, we only know a little of what we really have on this planet. Yet, we continue to lose them.

There is the annual increase of endangered species. We are consuming more than what nature can replenish through evolution. We continue to withdraw water. These are water withdrawals in terms of percentage of available waters. We continue to exhaust our fishery resources in the world more than nature can replenish them. If only we could teach the fish to grow just like human population.

Look at chemicals. Because of our lifestyle, we continue to spill out chemicals into our environment. In fact, I keep telling my children because they were saying, “Dad, don’t eat that because it’s not good for you”. I replied, “In this world you simply choose your poisons”.

We continue to gas ourselves to death. These gases come from different sources and much of these are produced from common activities and common products that we utilize. We are consuming the earth.

In terms of the global emission of CO₂ and the production of ozone-depleting substances, developing countries are now matching the developed countries. By 2035, we will be producing as much as the developed countries in total emissions of carbon dioxide.

Now, let me look at the planet as a whole. Because those systems that are being modeled in the literature cited are national systems, they are not as gross as the global environment.

The last assessment of the Global Environment Facility showed that in terms of status of bio-regions of the world, 25% of the areas of the world are still considered relatively stable and intact. These are in the more remote areas where there are virtually very low human populations present.

The same assessment by HNEP prior to the GF Assessment of 1998 shows that, “The situation with respect to certain aspects of environment and natural resources in different areas of the world where four are still continuing to deteriorate; three remain relatively stable; two are improving; and one is not applicable because polar regions have no forests”.

This is my conclusion: the impact of population is mediated as the paper of Dr. Concepcion shows, by those variables relating to demographic structure, the economy and the productive capacity of its components. Indeed, if you have a higher proportion of population that is productive, net producers and consumers, you are better off.

Unless we control the mediating variables mentioned in those studies in the Bellagio Seminar on the global scale, we will have problems because we cannot control prices, for example. We cannot control demographic structure on a global scale.

Environmental stress and degradation seemed to be directly related to total global population increase.

We are not apart from our environment but a part of it. If the proportion of us in relation to others in our world is altered, the world is altered. Our environment and its state would depend on how many of us are a part of it. At the end of the day, it can be mediated.

We may not like it or we may refuse to learn from the natural history of our resource-limited planet. That is our choice. But our choice will not alter the truth of the fundamental, ecological, dynamics of the biosphere that controlling growth of population of any one species will most likely trigger an ecological response to check it.

For us, this can be both our blessing because viruses will die out but it is as well our curse. We can preach until we are hoarse that the earth is flat. We can discard any and all those who do not believe in it. But it will not alter the fact that it is an orb.

And in ecology, one lesson is getting clearer and clearer regardless of one's doctrinal beliefs. Nature is a brutal disciplinarian. When you get out of line, it will put you back in place or eliminate you altogether.

So I think in terms of practical solutions, we simply need to recognize that there is still a need for widespread and easier access of fertility control initiatives.

If necessary, perhaps, government should just simply withdraw from fertility control initiatives and leave it to others who will wish to do it rather than government legislating against those who are willing to do it. Let it be a social policy rather than a national policy.

Another practical thing to do is to provide continuing help and rights education for women. And finally, intensify the security of life and personhood of women so that they might expand their activity to control their own quality of life such as more enforcement of laws on violence against women.

Rev. Bishop Fred M. Magbanua Jr.

President

Jesus Our Life Foundation

Maraming salamat po. Good Morning. Sinabi ni Dr. Pernia that our problem is having a soft State and a hard Church. I represent the church, the religious sector, a very little sector.

The problem in particular in the Philippines, I believe, arises from the misinterpretation of the Genesis verse, "Go forth and multiply". Because of that verse we are really multiplying. But the problem is that people overlook the next phrase of that same passage, "Go forth and multiply and subdue or control". The context of that verse was two people on earth. But we can no longer apply the first part of that verse in today's context. Today we are facing a very serious problem because of the hard church and the soft politicians who will not pass the Reproductive Health Bill because they are afraid of losing votes. So this is the problem that we face today and I believe with all my heart that we need to now apply that "subdue or control the earth" part of that Command of God. As a church leader, I apologize to you, the scientists who are here, for our contribution to the problem we are facing today. I must hasten though, to say that the Bible also teaches that man is created in the image of God and therefore, we must respect the dignity of life. Therefore, we take the view that when the egg is fertilized it must be protected, and any contraceptive that prevents fertilization, that kills the fertilized egg, we believe is unbiblical. I hope you also listen to that part that we must respect the dignity of life and the Bible has ample evidence that even in the time we are still in the womb God knows and He already has plans for that baby.

I was reading the newspaper this morning and there is good news. Scientists have just discovered something that will attract the sperm in certain directions. It is good news, because now with the use of that you can either attract the sperm in one direction or another or slow down the sperm. Maybe our Lord is kind to us. He is helping our scientists discover some new things that will be more acceptable. I am sure this new discovery will be more acceptable to the Roman Catholic Church.

I just want you to know that while there is a lot of opposition in many sectors of the church, we always stand side by side when it comes to defending the word of God. But we also stand side by side in promoting what we believe is within God's parameter. We have been sitting and meeting in the task force on population, trying together with our congressmen to discuss how we can promote family planning and support the RH Bill that is in Congress now. In my own little capacity as a servant of God, I want you to know that I am behind you in helping to teach our people about delayed marriage.

When a young couple comes to me for pre-marriage counseling, I encourage them, please, look at your income right now and your present responsibility to your parents. Would it not be wise to delay marriage for three years? That's usually a part of my counsel. If I can delay their wedding then they can delay producing more people.

What I'm saying is that we are in support of any program on population that we believe is within the biblical parameters. And I believe that the paper that was presented and which we have read ahead of time is an excellent paper and we are in full support and we want you to know that we are prepared to go nationwide. My own circle of churches (we have more than 20,000 local churches all over the Philippines under the Philippine Council of Evangelical Churches) and the Philippines for Jesus Movement are working together and you can count on our help when it comes to population, family planning, and population management.

Thank you and God bless you.

Ces Oreña-Drilon
Broadcast Journalist
ABS-CBN Channel 2

I'm so intimidated by the credentials of the reactors and I don't know why I'm here. Maybe it is because I've done a few shows that share your concern about the need to control the growth of our population.

I began my career in the twilight months of the Marcos administration. One of my first assignments as a very junior reporter was to go around Metro Manila and focus on the 11 basic needs espoused by First Lady Imelda Marcos. It was the anniversary of Mrs. Marcos' Human Settlement Program. One of the 11 basic needs was related to population so I visited squatter communities and health centers.

One of the enduring images that I, as a young reporter, remember vividly was meeting a 30-year old woman. She had no more teeth, she had like six children because she was giving birth every year. It stuck, you know, with me. Of course eventually, I got married and had four children of my own. But I still have teeth.

Perhaps women like me who have access to education, who are able to work where gender is not an issue, do not know what it is for other women who are poor, uneducated, who have no access to jobs; where at night, they cannot say no to their husbands who come home drunk. They have nothing, they have no choice, its all about sex, the sad part is the women don't even enjoy it. They don't know anything about their own bodies.

In any case, being able to do that series of reports, which was really propaganda for Mrs. Marcos at that time, somehow influenced my thinking. Looking back at that time, the health clinic then had all this information about all the options available. That was 1985 when I started my career as a journalist. Now things have deteriorated because if you go to the health clinic there is nothing.

I think media is an important partner in your effort. There are many of us who have advocacies and who want in their own modest way to help. One of the first episodes in "Get Real" that I have done was about vasectomy. From seeing that show, a small number of male viewers, less than 10, went to the clinic and had a vasectomy. Imagine if we can multiply that kind of information, we do not have to wait for the clinic, we do not have to rely on the law to be passed, knowing how Congress works. You might find partners, perhaps like me.

Let me tell you one experience.

Recently, I saw a golden opportunity. There was this feminine napkin brand that the network asked us to formulate a message for women, and mine was about family planning. But it never came out. I thought wow, they did not want my message because my message was that a woman should be able to decide how many children she wants, to be able to space her children. I said the country is only as strong as the rights the women enjoy. So that is what I believe in. And part of my advocacy also is “Usapang Business”, an entrepreneurship program. ABS-CBN has a microfinance arm which is Bayan Foundation and it has been proven that once you empower women and give them access to credit, then they can have a say and they can be able to resist their husbands if they come home drunk at night. They will have independence to be able to make decisions and will not be so dependent on their husbands. That is also one advocacy that I make as a journalist and there are many of us. I mean that is perhaps an avenue that we should take. When you watch stories about crime on TV Patrol—there was one story about a woman who killed her children because she could not feed them. Perhaps we can deepen our reporting of these stories and connect them. Why, why do women do this? They have no access.

Thank you very much.

OPEN FORUM

National Scientist (NS) Gelia T. Castillo:

Now that we have heard the panel of discussants, I would like to call on one of our special guests to give his reaction to the paper presented by Acd. Concepcion. I would like to recognize Congressman Nereus Acosta.

Congressman Acosta:

I am very sorry that I came in a little late. Shortly after this I have a luncheon meeting and a trip back home to my district since Congress is in recess. But I could not miss this opportunity to interact with all of you here.

The Philippine Legislators Committee on Population and Development (PLCPD) where I serve as the board secretary and also I am the only Filipino parliamentarian in the Asian Forum of Parliamentarians for Population and Development, a brainchild of Rafael Salas many years ago, has brought me some plaudits and also made me a lot of enemies for a congressman who is trying to really push for some of these very critical issues.

The other weekend I was pilloried (if you can really call it that) in the diocese of Bukidnon and Cagayan de Oro. I was singled out along with Senator Biazon and accused of being an abortionist, fornicator, and things like that. I have learned to roll with the punches and take it as a part of the territory. But sometimes I feel that when we gather in a forum like this it becomes to some degree, preaching to the converted. We all know the problem and we all very motivated in many ways to do something about it.

Sen. Biazon, Dr. Huque of UNFPA and I were in Boracay recently. We were very encouraged by many of the local legislators. Aklan is the province of birth of Cardinal Sin but reproductive health programs there are moving progressively. We all know the facts and now we have new data from Dr. Concepcion, Dr. Pernia and Dr. Malayang. Some of us from the PLCPD feel that we have to make sure there are avenues of communication reaching a far broader audience. We know and we trust the intelligence of common folk. That is why I am pushing this issue with great confidence because I know that at the end of the day the decisions that matter are made in the family, are made by wives and their husbands. While there may be a lot of hurdles at the end of the day, "sila ang nakaka-alam at alam nila ang gusto nila". And government should be there to provide the proper channels and avenues for them to be able to reach as responsible a range of choices as possible. Of course we are very clear about non-coercive measures, about freedom of choice, responsibility, informed choice, etc.

But I wish with media, with our churches, that we will be able to say at the end of the day “na nasa sa tao iyan, nasa babae iyan, nasa mag-asawa”. I like to just briefly cite two little points here.

First, Father Schumacher, a Jesuit historian from Ateneo de Manila University, says we have a pluralistic society in the Philippines. As such, there are in this country many devout persons, Catholic and Non-Catholic, including bishops who do not accept that natural family planning is always, in every case, the only moral approach to regulating behavior. Nor is it even possible to follow this method unless partners are both willing to cooperate according to the degree of religious freedom of Vatican II. It is wrong for Catholics to ignore the sincerely held religious or moral principles of others and wrong to ask the State even to impose Catholic teaching on every Filipino. That is really what I feel as author of reproductive health, population and development bills in Congress.

We are a pluralistic democratic society, at least we are aspiring to be. Otherwise, we would return to the friar-dominated Philippines of the 19th century with its union of Church and State. If the State were to coerce unwilling persons to do anything contrary to their conscience that should certainly be resisted. It is also wrong to suggest that any conscientious citizen should vote for a legislator or for a president or for any politician based solely on his or her position on one moral issue rather than on their concern for the common good. There are other issues like graft, corruption, the promotion of gambling or other more serious violations of so-called moral law. All these should be taken into consideration when we cast our vote for an elective official.

Corollary to this, I was just in a show with Katrina Legarda yesterday. After the show she told me that she had this long argument with some Opus Dei friends of hers. As you know Katrina is so very strong on women’s rights. She was telling them, “Cardinal Sin went out full blast against Ping Lacson after he declared that he was in favor of modern family planning methods, artificial contraceptives, etc.” And Katrina continued to say, “why pick on that while no word was uttered on Kuratong Baleleng”. “Moreover, nobody said anything when I was”, Katrina said, “defending the child victim during the statutory rape of Jalosjos”.

I am married to a Thai. My wife is Catholic and we come from a very staunch Catholic family. We were talking just recently about Senator Michai, “Mr. Condom”, from Thailand. My wife is a Professor of Women’s Studies at Chulalongkorn University in Bangkok. The second point I want to raise is that during the *Debate* show a couple of weeks ago, my wife asked, “Why in the world are you still debating this population issue?” Thailand has long been over that hump so has the whole of Southeast Asia”. She said, “Oh my God, you have such hang-ups in your country!” And I said, “you can

say that again". Viet Nam has just come out with one or two **full-page ads in the international newspapers** during their National Day. Mention was made in these ads of their five-year and fifteen-year development plans which contain their targets for reducing population growth rates by a given date. This is Communist Viet Nam and I think Bangladesh is moving in the same direction.

I really do not know why we have to sit at a Round Table discussing why population matters because it does matter. As Dr. Malayang says it should be national social policy but we cannot even get to that point. Whatever the avenue or whatever the venue, we should push for it. We did have a meeting with the President end of February. I am sure you read about her using pills during her active reproductive years. I do hope that those of us who are in positions of considerable responsibility in whatever spheres in society will continue to advocate and push for the passage of reproductive health and population bills even if this may not see light in Congress as far as passage of the concerned legislation this term. But we have to talk about it, "hindi tayo titiklop" just because there are danger signs. Leadership, I believe, is about sticking our necks out, stepping out from our comfort zones, despite text messages that say "Congressman Acosta you're really fouling up your political chances for the next election". Those of us who work on these issues, we care very deeply about women's rights, about resource scarcity, about sustainable development and the population of the future of this country, its health, education and environment.

Now I will stake my political future on these issues but thank you nonetheless for your concern. So again, thank you very much.

NS Castillo:

Next, I would like to call Mr. Peter Wallace of the Wallace Business Associates whose newspaper articles on the population problem you may have seen and read.

Peter Wallace:

The value of human life in the Philippines is PhP1,600. One Christmas some years ago, my brother was in Dumaguete. His wife was giving birth to their eighth child. She started to bleed after the birth and the hospital said it would cost PhP1,600 for the blood transfusion. He did not have 1600 pesos so he called me frantically in Manila. I called down to Gary who was there with his family for Christmas. Gary had some money, rushed across to my brother but by the time the money arrived, his wife was dead. That says something about the hospital but also it says something about children.

Now this is poverty. There are various reasons but it is incontestable that the rapid rate of population growth is a key reason. Job creation and wealth creation just cannot keep up. As it is, the Philippines is no longer self-sufficient in rice—the essential staple for Filipinos. Other Catholic countries, notably Italy, do contain their population growth rate (Italy's growth rate is -0.13% annually versus the Philippines' 2.4%). On this issue, the Philippines seem to be at odds even with its other Roman Catholic compatriots. All other Catholic countries exhibit growth rates ranging from a low of -0.5 % for Hungary to a high of 1.8 % for Venezuela. Brazil (1.2%), Mexico (1.4%) and Peru (1.6%) lie in between. No one can deny that Italy or Ireland are not staunchly Catholic, yet their population growth rates are -0.13% and 0.96%, respectively.

If the Roman Catholic Church insists on preventing the State from introducing family planning to any meaningful degree it should be required to fully support the “excess” population. A reasonable growth rate would be 1.2% so the Church should bear all the costs of bringing up the other 1.2%. If the Church believes people are entitled to a decent life, as I certainly hope it does, then it ought to become a very active participant in reducing the population growth rate through methods it accepts. Otherwise, it must accept part of the responsibility for the unavoidable poverty. What it says to me is that the Church could take a more positive approach to reducing the population growth rate without compromising its religious belief. And if it does, the people will become wealthier, have higher education and more able to determine their own family size.

NS Castillo:

We have here a representative of the *Iglesia ni Kristo*. I would like to call on Mr. Meinban.

Adriel Meinban:

Salamat po!

The *Iglesia Ni Kristo* (INK) started 89 years ago as a minority, indigenous Christian religion. The INK has always upheld the biblical mandate to go out to the world and replenish the earth but at the same time subdue, control it.

For the past forty years since Bro. Eraño Manalo assumed office as Executive Minister, the INK has promoted family planning on a very limited scale

(note that we are a minority). We know that the Roman Catholic Church does not approve of family planning whether one calls it artificial, natural, modern, jurassic or

whatever. Yet the Iglesia Ni Kristo has gone beyond discussion, beyond debate to implement what the Lord says. And we are happy to inform you that we have been unwavering in this matter as the church continues to grow globally.

For the past 35 years we have expanded into 75 countries all over the world. We see to it that all those who beget families are granted the necessary information on how to organize their families based on God's commandments and to teach everyone not only the couples but even the children later on who are the products of this love making. And the church has brought progress. We would like people to know this although our success has been limited because of our situation yet it can be done. Otherwise we will be cursed. We will be obliterated from this existence if we do not obey. On our part it is simply obedience to what is written in the Bible. Take note that it is in the first chapter of the first book of the Bible, Genesis, and Bro. Erano Manalo has continuously upheld this wherever we go. Wherever our mission has reached now (in 6 continents) we uphold the same population policy.

We hope and pray the others will follow soon. Let us go beyond discussion, let us move on and do it. Salamat po!

NS Castillo:

I now call Dr. Bienvenido Rola who retired from his post at the Social Affairs Division of ESCAP, Bangkok, and who is now Adjunct Professor at UP Los Baños.

Dr. Bienvenido Rola:

First, I would like to thank NAST for inviting me here. My only credential for being here is that while I was working with the United Nations Economic and Social Commission for Asia and the Far East (ESCAP) in Bangkok, I had the opportunity of working with Dr. Concepcion in framing and developing regional and social policy for the elderly. But having worked in the field of social development for the last ten years has not made me forget my background as a forestry graduate. I am a graduate of UP Los Baños in Forestry and I was dealing with environmental issues. Even before that, today's topic is very relevant to me because I come from a family of 16 children. I resorted to vasectomy and thus lowered the family average. I have one child, a small contribution to the problem we have at hand.

But my experience in trying to effect social changes in society makes me very sympathetic with the rest of you. When you look around you and notice that the policy makers are just like Dr. Pernia, they are economists. These are the people who make

decisions over and about the important role of women. We have many people in government who are making decisions, economic decisions, but who do not recognize the importance of population. Or they do but they cannot openly proclaim resistance to their doctrine, or to the Catholic Church.

But I think it is a very important step as proposed by Dr. Pernia here that would lead to social change in this country. But the other part is in Mr. Wallace's statement "let the Church pay". I just want to make one comment about letting the Church pay. It all goes around, in the end it is we who pay. If they let the government pay, the taxpayers pay. If business pays, they will just raise their prices, so we pay in the end. Our target should be to let everyone be responsible. It does not matter who pays because in the end we will pay.

The other part I like to contribute is instead of preaching to the converted, we might individually try in our little corners to do some action-oriented work that contributes toward spreading the Gospel to those who are not converted on population matters. We might have to do some more talking. But in the end let us lower the family size average and this is a very important message.

NS Castillo:

I would now like to give the floor to the discussants if they wish to add to their earlier remarks or to react to what has been said by the previous speakers.

Dr. Ernesto Pernia:

We have been debating on this issue for 30 years and it is really time to act now. I think the biggest stumbling block is the Church. One way or one measure of addressing the problem is for the Council of Christian Bishops headed by Bishop Magbanua to come up with a statement that would question the existence or the adamant stand of the Catholic Church on this issue.

I think it will make all the other churches come forth with a statement questioning the wisdom, the practicality and the sense of the Catholic Church's stance. I think that would make a dent on this stumbling block. I think the media will be a very important partner in this crusade. The time for talking has run out; it is really time to act because we are in crisis.

The problem with this crisis is that it is a slowly moving crisis. We do not feel it everyday but there will come a time that it will be impossible to ignore and human

nature can only adjust slowly. That is the problem and we accept, we become immured to the consequences of rapid population growth. But the problem is that it is not us who are suffering primarily, it is the poor who are suffering and the Catholic Church is being unfair to the poor because they are the ones who do not have access to family planning methods that are effective. Thank you.

Reverend Magbanua:

I am sure it will not be difficult to come up with a position paper and perhaps give it to the people in media and put some full-page ad in the newspapers citing the biblical teaching that is really being distorted by the conservatives.

I have talked with many Catholic leaders. They are not in agreement with the main thrust of the traditionalists in the church. So I think if we can teach our people that it is not really against God's teaching then I think we will have a greater success in bringing the message to the people who themselves will make a decision in the privacy of the bedrooms. We can and will do that.

NS Castillo:

Is there any one else who would like to comment? Acd. Ramon Abarquez?

Acd. Abarquez:

As a clinician, we usually start with finding out exactly where the problem developed. The problem before us is high population growth. I think our speaker did point out that it starts with fertility. So the next question is, if it starts with fertility, who among the different groups have the highest fertility? Is it the low-income bracket? If it is the low-income bracket, the next question to ask is: what influenced them to have a high fertility? Is it necessarily the Church? Do they really practice their religion? If they do not, then there might be some problems other than religion. Why do the poor have many children? Perhaps that is the only way they know to come together. If they do not have enough to eat; if they cannot afford to travel; if they cannot afford the luxuries of the rich and famous, what can they do? They can only resort to making love.

Can religion stop that? Can anybody stop that? So we have to look at that problem. What do the social scientists have to say regarding the intimate relationship of people living in one room? In fact, they make love in front of their children. Is this not true?

So I would like to emphasize that the factors contributing to the problem of population have a root cause and that root we have to identify.

NS Castillo:

Thank you, Acd. Abarquez. I see Dr. Jonathan D. Flavier of the PRRM raising his hand. Dr. Flavier, please.

Dr. Jonathan D. Flavier:

I was struck by the fact that in a setting of scientists and technologists like myself there is no consensus regarding when life begins. And when I was listening earlier, some were saying it might begin at fertilization, some say right after implantation, while some here were saying that life actually begins after 40.

I may be taking it a little lightly but it is a serious matter because in a setting where the major health administrator claims that the IUDs are abortifacient and some anti-choice forces would charge that male masturbation is genocide, I think that the Academy has the responsibility to at least assure doctors that in a scientific community life begins at implantation or whenever; just one statement of that sort.

Finally, while it is important to discuss academically when life begins, I think the more important question that is being discussed right now is when does quality life end? And unfortunately what we are hearing now is that with poverty, with poor economic growth, with lack of education, quality of life has already ended.

And I share Dr. Concepcion's hope that in 2004 we may have a better administration But that is one year away—in the meantime, 400,000 thousand more abortions, 40,000 more infant deaths, and 4,000 thousand more maternal deaths will have taken place.

For today, I would like to give the government the benefit of the doubt and try to ask Dr. Concepcion one practical question for health service providers like me. That is granting that the government will only insist on natural family planning (NFP), my question is, "If this method with 20 percent failure rate is done sincerely well with the government's PhP150,000,000 budget, something that we can look positively at versus previous attempts to promote vasectomy and tubal ligation which is 99.9 percent effective but we have only pursued with PhP20,000,000, what are your views on this reality?"

Acad. Concepcion:

Do just what Dr.Pernia has just said. Act now! Any method that will get us going is acceptable whether it be NFP, or the four Bs as defined by our president. Actually, the first two Bs are nothing but variations of periodic abstinence differing only in the method by which the fertile period is identified. The 3rd and 4th Bs refer to spacing. How do you space? You have to use some method to space births!

NS Castillo:

I would now like to present a draft resolution on population policy for your consideration and approval.

Dr . Pernia

My immediate comment here is that this draft is not strong enough because we do not address the Catholic Church as a stumbling block. We have the statement there, I think the Catholic Church has been pampered for so long and because of this having been pampered, it has held Philippine economic development and poverty hostage. I think there should be a statement to the effect that national leadership should admonish the Church to stay away. I do not know how to phrase it, but it has to be there because that is the stumbling block. I do not think this resolution will be effective enough if we do not have that sentence. It has something to do with Opus Dei types. The problem with Opus Dei types is that their argument is based on ideology, not empirical science or empirical facts. We should also bring that out because the Opus Dei guys are getting away with ideology, ideological arguments. Thank you.

Dr. Malayang:

I think it is not the Catholic Church that is pampered, rather it is the Catholic hierarchy. One should not blame the Catholic Church. I believe the hierarchy's advocacy is based not so much on the fact that they believe population growth is good but it is that they just want to display pure and simple power.

NS Castillo:

The time for adjourning this Round Table has been exceeded. I invite everyone to write down his/her comments and suggested revisions to the draft Resolution. We will try to accommodate your suggestions in the revised draft to be presented to the NAST Executive Council and to the participants of the forthcoming NAST Annual Scientific Meeting in July for approval. Thank you very much for your active participation in this forum. Good afternoon.

The Discussants

Dr. Ernesto M. Pernia is Lead Economist in the Economic and Research Department (ERD) of the Asian Development Bank (ADB). He also heads ERD's Knowledge Dissemination Unit and is the Managing Editor of the *Asian Development Review*. He also sits on the Editorial Boards of the *Review of Urban and Development Studies* (Tokyo) and of the *Philippine Review of Economics* (Diliman, Q.C.) His major fields are development economics, human development, urban and regional development, and macroeconomics. He has written a number of books and numerous articles/chapters in international professional journals/edited volumes. Prior to ADB, Dr. Pernia was Professor of Economics and Chairman, Department of Economics at the University of the Philippines. Earlier, he was Director for Research at the U.P. School of Economics. He was also a Research Fellow at the East-West Center in Honolulu, and Regional Adviser on Population and Employment Policy at the International Labour Organization in Bangkok. He served as a consultant to various international organizations, including U.N. agencies and the World Bank. He obtained his Ph.D. degree from the University of California at Berkeley. He received an Outstanding Young Scientist (economics and social sciences) award from the National Academy of Science and Technology. He was formerly the President of the Philippine Economic Society and Co-Chair of the Federation of ASEAN Economic Associations.

Dr. Ben S. Malayang III is Professor of Environmental Science and Management at the University of the Philippines Los Baños. He is also the Team Leader on Policy, Legal and Institutions of the DENR-USAID Philippine Environmental Governance Project. Dr. Malayang obtained his Ph.D in Wildland Resource Science from the University of California at Berkeley. His research interests include Environmental Policy and Environmental Philosophy and Ethics. He was formerly Undersecretary for Environmental Research and for Field Operations and Projects of the Department of Environment and Natural Resources.

Rev. Fred M. Magbanua was trained as a civil engineer. God called him to the ministry in 1956 and began his work in the ministry a year later as a pioneer *church-planter* in a rural village in Victoria, Laguna. He served as a senior pastor of Capitol City Baptist Church in Manila, while serving simultaneously as President of Far East Broadcasting Company (FEBC), Inc. in the Philippines for 21 years. Shortly after his retirement from FEBC in 1992, he founded the Jesus Our Life Family Services Foundation, Inc. Rev. Magbanua received an honorary Doctor of Divinity degree from Criswell College in

1997. He was ordained Bishop of the Jesus Our Life Church in 1999. He has served on the Lausanne Committee for World Evangelization, as well as the International Board of Wycliffe Bible Translators. At present, he is Chairman of the Council of Bishops of the Christian Bishops of the Philippines and the Christian Leaders Alliance of the Philippines. He also serves on the Board of the FEBC, Philippines for Jesus Movement, Christian Growth Ministries and Guidelines Philippines, Inc. He is the speaker of the Tagalog IN TOUCH radio program “Ugnayan”.

Ces Oreña-Drilon is one of the most awarded broadcast journalists in the Philippines. Drilon hosts the evening talk show, “Get Real With Ces” aired Mondays to Fridays, 8:00 – 8:45 p.m. on ANC or the ABS-CBN News Channel. Drilon also hosts the top rating late night current affairs program, PIPOL, aired on ABS-CBN Channel 2. PIPOL is a 30-minute news documentary that chronicles the lives of real people from all walks of life. It received the KBP Golden Dove Award as Best News Magazine Program in 2001. Drilon’s incisive and objective reporting has won her many of the industry’s most coveted awards, the latest of which was bestowed on her in 2002, the Journalist of the Year Award, by the Rotary Club of Manila. Her program “Usapang Business”, was twice cited by the Cultural Center of the Philippines as one of the ten best programs of the year. In 1996, Ces also won the Journalist of the Year Award given by the Metro Pacific Excellence in Journalism Awards. She also won in two other categories, Best Social Issues Reporter and Best Economic Issues Reporter. In 1995 and 1994, respectively, Ces won the Ulingang Ina Award and the Excellence in Journalism Award, given by the International Planned Parenthood Foundation, East Asia and Oceania Region, for her reportage on young adult sexuality.



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Academician

Focal Person on Population and Population Task Force Chair
National Academy of Science and Technology

Dr. Concepcion is Professor Emeritus, College of Social Sciences and Philosophy, University of the Philippines (UP) and appointed Commissioner, Commission on Population. She is also a Trustee of the Philippine Center for Population and Development and the Foundation for Adolescent Development. A 1951 graduate of Chemistry from the UP, Dr. Concepcion trained in Biostatistics at the School of Hygiene and Public Health, University of Sydney, in 1953-54. Later on she pursued a Ph.D. in Sociology from the University of Chicago and returned to the University of the Philippines where she first worked at the Statistical Training Center. In 1964, the Ford Foundation supported the establishment of a Population Institute at the UP and Dr. Concepcion served as its first Director, a post she held until 1985. She was elected Academician of the National Academy of Science and Technology in 1992.



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