MEASURING PROGRESS OF PHILIPPINE SOCIETY: GROSS NATIONAL PRODUCT OR GROSS NATIONAL HAPPINESS?

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ABSTRACT

The Gross Domestic Product (GDP) and the Gross National Product (GNP) have been calumniated many times in the past as being inappropriate or invalid measures of progress and development. Critics claim that neither the GDP nor the GNP measures well-being, showing statistics that poverty has persisted despite economic "growth". Thus, other measures such as the human development index, families of measures of poverty, the Millennium Development Goals indicators and happiness index, among others, have surfaced in efforts to improve the monitoring of the development of a nation.

While recent years have seen relatively good growth for the Philippines in terms of the GDP/GNP, poverty continues to haunt economic and social planners. And yet, the Philippines has done very well in surveys that rank countries in terms of a happiness index. Are the Filipinos happily poor then? Do poverty reduction programs generally or systematically fail because we are happy despite our poverty? Is the GDP/GNP not the appropriate tool for measuring the progress of the Filipino nation?

This paper addresses the question of defining progress in more holistic terms by measuring well-being through the Philippine Happiness Index (PHI) and progress in terms of the Philippine Gross National Happiness Index(PGNHI) – an index that takes into consideration economic progress as measured by the Philippine System of National Accounts, as well as indicators meant to measure the happiness of an individual. Despite the obvious difficulties in measuring the latter, this paper presents a conceptual and a statistical framework that uses available and new information that can be generated by the Philippine Statistical System. The paper shall present results from a specific group, reflecting an attempt to show how official statisticians can be more relevant to the needs of society.

Keywords: Philippine Happiness Index, Philippine Gross National Happiness Index , gross domestic product, gross national product, progress of societies, well-being, human development

I.   Introduction

Measuring a nation's progress is important in any country, regardless of the level of its development. Over the years, progress has been conventionally and traditionally measured in terms of economic growth with gross domestic product (GDP) and gross

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national product (GNP)[3] as measures. However, GDP and GNP do not really measure welfare, so that despite economic growth, the well-being of a large sector of society, usually in the lowest income deciles, may have in fact deteriorated. Because of this inherent weakness of the SNA macroeconomic aggregates as a measure of progress, many other indicators have surfaced.

Recent data on the Philippine System of National Accounts (PSNA) compiled by the National Statistical Coordination Board (NSCB) show that for the second quarter of 2007, GDP grew at a record high of 7.5 percent from 5.5 percent last year. On the other hand, GNP year-on year growth for the same quarter was registered at 8.3 percent from 6.4 percent in the previous year (see [1]). In terms of economic growth, one might say that the country achieved much progress, at least during the second quarter. However, many do not seem to agree, raising a number of questions about the second quarter PSNA figures. In fact, not a few doubted the integrity of the NSCB numbers; while others ask the long-standing question of whether growth, as measured by the GDP or GNP, is trickling down to the poorer sectors of society.

Information provided by the national accounts is generally supplemented by social and environmental statistics and indicators produced by the national statistical system. While the national accounts would give a measure of economic growth, social and environmental statistics would provide measures of welfare. In th e case of the Philippine Statistical System (PSS), these include the country's official poverty statistics, income inequality measures like the Gini coefficients, human development index (HDI), health and education statistics, environmental sustainability indicators and StatDev (Statistical Indicators on Philippine Development), among others.

The paper is organized as follows. The next section presents statistics being compiled by the PSS, aside from the GDP/GNP of the PSNA, to measure progress of the Philippine society in the traditional/conventional manner. The third section presents efforts, both at the international and local level, on the measurement of happiness as an important dimension of progress of societies. The fourth section presents the conceptual framework and the estimation methodology for the proposed Philippine Happiness Index (PHI) and the Philippine Gross National Happiness Index (PGNHI), as alternative measures to monitor the progress of Philippine society. The fifth section provides some pilot results from a survey to

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[3] In the 1993 System of National Accounts, this has been replaced by the Gross National Income (GNI).

measure happiness. In the last section, some concluding remarks and recommendations are made.

II. Traditional/Conventional statistics/indicators to measure progress of the Philippine society

2.1 The Philippine System of National Accounts (PSNA)

The PSNA adopts the framework of the System of National Accounts developed by the United Nations in collaboration with other international organizations, the latest of which is 1993 SNA (see [2]). Under the System of Designated Statistics (SDS)[4], the PSNA is compiled by the NSCB. PSNA estimates of the country's Gross Domestic Product (GDP) and Gross National Product (GNP) are released on a quarterly basis with a time lag of 2 months for the first three quarters and 1 month for the fourth quarter.[5] Estimates are also available on an annual basis for the regions and one of the initiatives being pushed is the compilation of the accounts for the provinces and key cities.

In addition, the NSCB has compiled satellite accounts for tourism, health and education and Is now in the process of producing a satellite account on expenditures on research and development as well as reviving its efforts to measure the contribution of women to the economy. The PSNA thus produces measures of economic and to some extent, social and environmental development.

2.2 Official poverty statistics

With poverty reduction as an overarching goal in the national development agenda, the importance of poverty statistics cannot be overemphasized. In the Philippines, the NSCB is also mandated to generate official poverty statistics under the SDS. The poverty estimates follow the definition of poverty under Republic Act 8425, the Social Reform and Poverty Alleviation Act, which refers to the poor as those families and individuals whose income fall below the poverty threshold and who cannot afford in a sustained manner to provide for their minimum basic needs. The NSCB releases estimates of poverty incidence and count of the poor every three years using the Family Income and Expenditures Survey

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[4] Under E.O. 352 signed by President Fidel V. Ramos on 1 July 1996.
[5] This schedule is in accordance with the Advance Release Calendar of the NSCB.

(FIES) by the National Statistics Office (NSO)[6]. In addition, food and poverty thresholds are estimated annually by the NSCB, which are useful in determining the minimum income requirements to be able to meet basic food and nonfood needs.

Relatedly, the NSO publishes estimates of the Gini coefficient from the FIES. The Gini coefficient is a measure of inequality in distribution, with limits 0 for perfect equality and 1 for perfect inequality (see [3]). Using this measure, one can assess whether development brought about by economic growth is   benefiting those in the lower income brackets and not just the richer income brackets.

2.3   Human development index

The Human development index (HDI), which was conceptualized by the United Nations Development Programme (UNDP) in 1990, provides a measure that promotes a more balanced concept of human development rather than focusing mainly if not solely on economic growth as what the SNA does. The HDI measures society's progress in creating an enabling environment for people to enjoy long, healthy and creative lives.

In collaboration with the Human Development Network, the NSCB has been compiling provincial level HDIs. Just like the UNDP HDI, the Philippine HDI consists of three components, namely: 1) life expectancy index; 2) education index; and 3) income index (see [4]). The life expectancy index measures health and longevity, using life expectancy at birth as an indicator. The education index, on the other hand, uses functional literacy rate and combined elementary and secondary net enrolment rate as measures of knowledge. The income index, which measures standard of living, uses average per capita income as an indicator. These indices are computed compositely to come up with a "measure of quality of life" that can be used to evaluate progress.

2.4   StatDev (Statistical Indicators on Philippine Development)

The StatDev, the Statistical Indicators on Philippine Development, is an instrument formulated and maintained by the NSCB to strengthen the planning system by providing the means by which economic progress and social change can be monitored and measured more effectively. Specifically, the StatDev Philippines is a statistical indicator system to monitor the achievements of the goals set forth in the

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[6] The 2006 FIES Public Use Files are scheduled to be released by the NSO this month and the NSCB is committed to release the poverty statistics within two months.

Medium-Term Philippine Development Plans (MTPDP). Thus, the StatDev Philippines framework is congruent with that of the MTPDP, and is revised each time a new plan is formulated (see [1]). However, unlike the other above-mentioned indicators, the StatDev Philippines is focused on highlighting sectoral performance during the plan period, with no overall measure to provide information on the overall attainment of the development programs articulated in the MTPDP.

2.5 Philippine Millennium Development Goals (MDGs)

In September 2000, member states of the United Nations (UN) gathered at the Millennium Summit to affirm commitments towards reducing poverty and the worst forms of human deprivation. The Summit adopted the UN Millennium Declaration, which embodies specific targets and milestones in eliminating extreme poverty worldwide. The Philippines, as one of the signatories in the UN Millennium Declaration, has institutionalized the monitoring process on MDG indicators, with the NSCB acting as the official repository of MDG indicators. Available statistics from various sources are compiled to monitor the country's progress towards the attainment of the MDGs. So far, the Philippines through the National Economic and Development Authority (NEDA), has come up with two Philippines Progress Reports on the MDGs, which not only define where the country is relative to the MDGs, but also outline the challenges that have to be overcome in order to attain these goals (see [1]).

Table 1 shows some statistics through which one can assess our national development. There is economic growth, particularly between 2003 and 2004, income inequality has gone down and poverty has been reduced. Is the Filipino happy or unhappy with this achievement?

The challenge now faced by official statisticians is whether these statistics produced by the PSS sufficiently and accurately measure and capture the progress of Philippine society. Do these statistics capture progress in our individual and collective aspirations? Are they useful in monitoring progress in our personal goals? Or are these statistics useful only in measuring progress defined for us by others? Worse, are these statistics useful only in measuring progress for others?

Table 1. Selected Traditional/Conventional Measures of Progress in the Philippine Society, 1997-2003

Indicator	1997	2000	2003
GDP [a/]	5.2%	3.0% [c/]	6.4% [d/]
GNP [a/]	5.3%	3.5% [c/]	6.9% [d/]
Poverty incidence [a/]	28.1%	27.5%	24.4%
Gini coefficient [b/]	0.4872	0.4822	0.4605
HDI [a/]	0.629	0.656	0.610 [e/]

Sources:
a/ - NSCB
b/ - NSO
c/ - Refers to 2000-2001 growth rates as the 2000-2003 series is not linked to the 1949-1999 (as of May 2003).
d/ - Refers to 2003-2004 growth rates as the 2003-2005 series is not linked to the 2002 backwards (as of May 2006).
e/ - Estimates for 2003 are based on the initial computations made by the NSCB Technical Staff using the proposed revisions on the official estimation methodology. Thus, the 1997 and 2000 HDIs are not comparable to the 2003 HDI.

III. Efforts on the Measurement of Happiness

It is safe to assume that an overwhelming majority, if not all individuals aspire for happiness. Different individuals, of course, derive different degrees of happiness from different sources. Sources of satisfaction in life include family, education, work, friendship, community participation, leisure, religion, sports, health, income and financial security, technological know-how, etc (see [5]).

So how is happiness to be measured, at the individual or at the collective level? Should national statistical systems be involved in the measurement of happiness? Can happiness be equated with progress? Should it be a component of progress? Is there such a thing as the national happiness of a people?

3.1 Bhutan's Gross National Happiness

As early as 1972, the government of Bhutan started with the computation of gross national happiness (GNH) to respond to its citizens' growing concern about their quality of life (see [6]). It was in 1972 when Bhutan founded a visionary strategy of

development by the King of Bhutan Jigme Singye Wangchuk.– the measurement of GNH, which they regarded to be more important than GDP/GNP. The measurement of the GNH was meant to contribute to the realization of Bhutanese desire for ultimate happiness . "Like GNP, Gross National Happiness addresses the importance of evaluating the economy and material advancement, but also recognizes and highlights positive social, emotional and spiritual values, respect for the natural environment and traditional culture, and the essential need for good governance as cornerstones of national planning and goals. (see [7])"

GNH in Bhutan was based on the premise that "true development of human society takes place when material and spiritual development occur side by side to complement and reinforce each other. (see [6])" This has been the guiding principle of Bhutan's government to ensure that spiritual development is not sacrificed for economic growth.

However, it was only in recent years that this strategy of Bhutan started to gain recognition in the international arena. Per invitation from the UNDP, Bhutan presented the concept of GNH at the Asia-Pacific Millennium Summit in Seoul in 1998.

On 18-20 February 2004, Bhutan, through its Centre for Bhutan Studies (CBS), hosted a three-day conference, the *International Seminar on Operationalizing Gross National Happiness*, attended by almost 400 participants. These include 20 other countries, who openly shared and discussed their views on a "new" measure of progress, i.e., the GNH, which goes beyond GDP/GNP, and takes into account the spiritual, social, and environmental concerns of the society. One of the agreements during the conference is that "while Bhutan's GNH endeavor is unique, the concept itself need not be restricted to either Buddhist societies or small homogenous countries" (see [6]).

On 20-24 June 2005, the Second International Conference on Gross National Happiness was held in Nova Scotia, Canada, attended by some 450 participants from Bhutan, Brazil, Canada, India, Kenya, Mali, the Netherlands, the USA, Mexico, Iceland, etc. Some of the new learnings from the said assembly include "how the Dutch government gave its citizens far more free time and sharply reduced unemployment by encouraging shorter work hours. Other workshops focused on wind power and

sustainable energy use, and one examined the innovative solar energy and rainwater harvesting practices of India's remarkable Barefoot College. The founder of Honey Care Africa presented award-winning sustainable community-based development practices that have been introduced in Kenya (see [8]).

The Bhutanese development policy framework, based on its GNH, is comprised of four strategies or four pillars on which happiness is measured: 1) promotion of equitable and sustainable socio-economic development; 2) preservation and promotion of cultural values; 3) conservation of the natural environment; and 4) establishment of good governance (see [7]).

Figure 1. Four Pillars of Bhutan's GNH
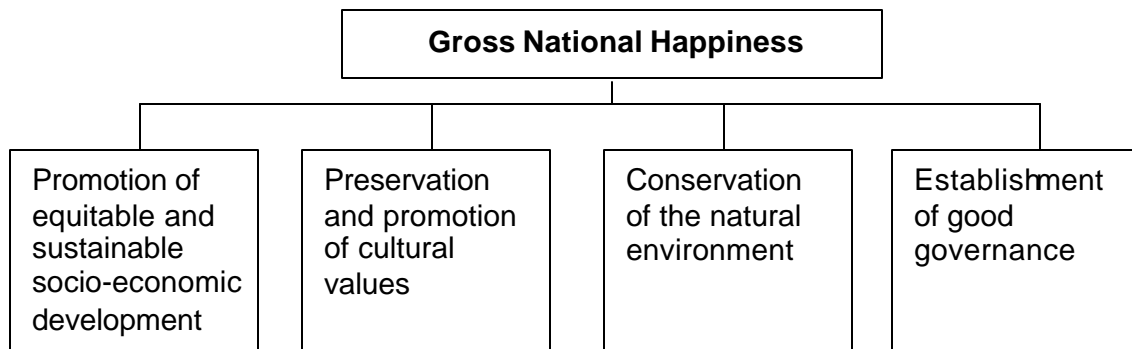
3.2   Istanbul Declaration during the Second OECD World Forum on Statistics, Knowledge and Policy

The Organisation for Economic Co-operation and Development (OECD) brings together the governments of countries committed to democracy and the market economy from around the world to: 1) support sustainable economic growth; 2) boost employment; 3) raise living standards; 4) maintain financial stability; 5) assist other countries' economic development; and 6) contribute to growth in world trade (see [9]).

On 27-30 June 2007, the 2nd OECD World Forum on Statistics, Knowledge, and Policy[7] was held in Istanbul, Turkey in cooperation with the European Commission, the Organisation of the Islamic Conference, and the United Nations and the World Bank. Curiously, the OECD, whose members mainly consist of highly-developed countries,

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[7] The principal author presented a paper entitled "Empowering and Challenging Voters Through Governance Indicators: The Philippine Experience" and was a discussant on "Building Statistical Capacity To Monitor The Progress of Societies"

reported during the 2nd World Forum that "a consensus is growing around the need to develop a more comprehensive view of progress – one that takes into account social, environmental and economic concerns – rather than focusing mainly on economic indicators like Gross Domestic Product, which, while an important measure of economic activity, was not developed to be the sole measure of a nation's progress." (see [9]) In fact, one of the sessions during that forum is on "Measuring Happiness and Making Policy". This pursues the Bhutanese initiative that progress of societies should not be measured purely only in terms of economic growth or human development as conceptualized by the UNDP, but in terms of the greatest happiness for the greatest number of people.

3.3   World Database of Happiness

The World Database of Happiness is an ongoing register of scientific research on subjective appreciation of life, presenting the extent by which happiness has been researched around the world.   It brings together findings on the following studies/collections: 1) Bibliography of Happiness – which provides a collection of contemporary publications on specific issues of happiness; 2) a database which provides a collection of correlational findings (Correlates of Happiness) and distributional findings (Happiness in Nations); and 3) Directory of Investigators – which lists addresses of scientists who have published on happiness (see [10]). The compilation is being led by Prof. Ruut Veenhoven of Erasmus University Rotterdam.

In particular, the World Database of Happiness provides data on correlates of happiness, the average happiness in 95 nations in 1995-2005, a measure of "how much people enjoy their life-as-a-whole" and happy life years, or "how long and happy people live". It carefully cautions though, that correlations say little about cause and effect.

3.4   Social Weather Stations' Survey on the Expected Change in the Quality of Life

The Social Weather Stations (SWS), a private non-stock, nonprofit social research institution, is the pioneer in conducting self-rated/perception-based surveys in the Philippines that have generated data that supplement, sometimes "contradict" statistics from government. The SWS produces among others, data on self-rated happiness, poverty and hunger and changes as well as expected changes in the quality of life. These indicators are regularly measured by the SWS, intended to provide trends

in economic and social conditions in the country. The SWS data reflect on the sentiments of the people at given points in time, and while the conceptual validity of the SWS self-rated measures can be questioned, the usefulness of the information generated by the SWS surveys cannot be ignored.

From the period 1991 to 2006, the SWS conducted 14 national surveys on happiness. Latest results, covering the period November 2006, showed that 39 percent of adult Filipinos are "Very Happy," 45 percent "Fairly Happy," 14 percent "Not Very Happy," and 3 percent "Not At All Happy." On the quality of life, according to the latest SWS release on 14 June 2007, "optimism has gone up about future trends in the personal Quality of Life and in the economy, in three national SWS surveys since the start of the year." Further, "optimism with the future of Philippine economy turned neutral only in the past two quarters, after being dominantly pessimistic for five years since July 2001." (see [11])

IV. The Philippine Happiness Index

While the desirability of combining quantitative and qualitative methods in statistical analysis is now increasingly being recognized, official statisticians continue to focus generally on quantitative measures. This is partly because decision makers have not mustered sufficient political will to invest in statistics thereby constraining the opportunities and challenges that official statisticians can address; partly because of the principle of division of labor among the various stakeholders of statistics (see [12]), in particular, the notion that government should not compete in areas where the private sector has created a niche; and partly because statisticians are uncomfortable delving into something that they have not been originally trained for.

But official statisticians need to be relevant to all stakeholders and statistics must be useful to society! Therefore, national statistical systems should generate statistics to monitor emerging concerns of society – democracy, human rights and governance, violation of children and women, women's contribution to economic growth, the Filipino diaspora and happiness. A recent report by the World Economic Forum noted the greater appreciation of private entities in the improvement of individuals' well-being – with the birth of the concept of corporate social responsibility (see [6]). In addition, increasing attention has been given worldwide on the need to measure genuine progress of societies. Thus, the current environment has become conducive for national statistical agencies to consider the

compilation of the Gross National Happiness Index.

As already mentioned, the progress of Philippine society has been measured traditionally through the GDP/GNP, supplemented by other indicators on poverty, income inequality and human development, among others. However, in the light of recent developments and initiatives for alternative measures of progress, accompanied by the openness of the global community to embrace the concept of happiness as a component of progress, this paper now provides an alternative measure of Philippine society's progress, the Philippine Gross National Happiness Index (PGNHI) inspired by the GNH of Bhutan.

The guiding principle in coming up with the PGNHI is the fact that economic progress and happiness are not synonymous. In the "Statistically Speaking" article written in August 2007 (Virola), it is claimed that Filipinos are among the happiest people on earth, whilst being among the poorest. And yet, while the government targets for high economic growth, the MTPDP says nothing about planning for Filipinos to be happy with their lives.

It is therefore important to integrate in a measure of progress of Philippine society the two distinct although not mutually-exclusive concepts of economic progress and happiness. The PGNHI thus expands the concept of progress beyond, without ignoring GDP/GNP growth. It is therefore not meant to replace the PSNA framework . It supplements the PSNA by incorporating a component of national progress that takes into consideration differences in individual aspirations and desires.

The PGNHI has thus two components: the Philippine Economic Index (PEI) which is based on the PSNA and the Philippine Happiness Index (PHI).

The following are important features of the PHI.

1. **The computation of happiness starts from the point of view of the individual.**
   The individual is asked to assess his personal happiness on several domains. It is thus a bottom-up approach that respects the individual's views of his enjoyment of life.
2. **The PHI is not normative; it recognizes individual differences.**
   The domains of happiness and the relative importance of each domain are determined by each individual. Thus, the components of an individual's happiness index or the sources of one's happiness can vary from individual to individual. In addition the weights of each domain of happiness can also be different for different individuals.
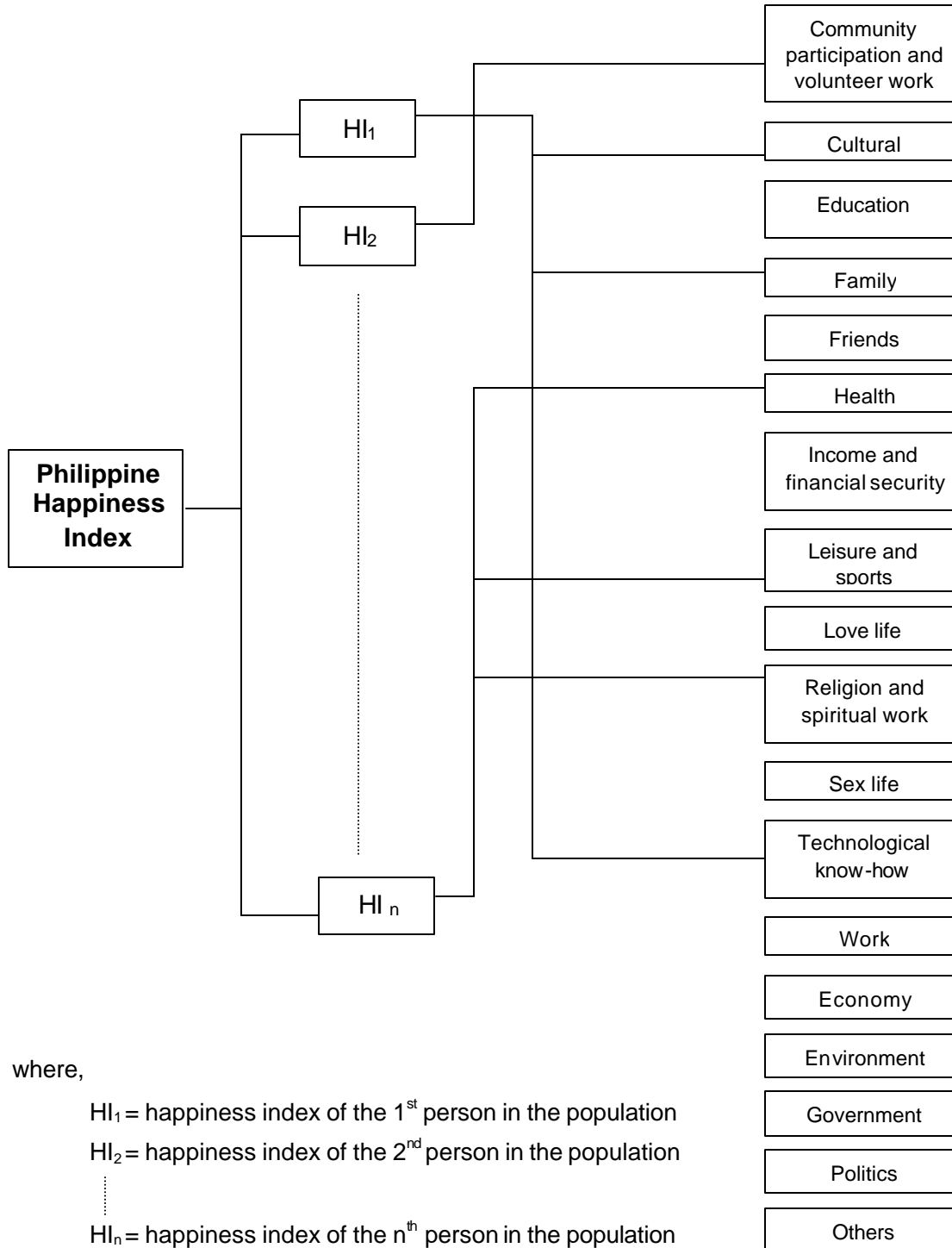3. **The PHI questionnaire provides test for validation/robustness**

In addition to the PHI to be derived from the different domains of happiness, a question is asked on the individual's overall assessment of his happiness. This can be compared with the derived PHI for each individual. Thus, the PHI may be considered to be not purely perception-based as consistency and validation checks can be done - overall happiness level for an indivdual and his/her happiness index as aggregated from the domain indices, as well as the individual domain indices.

The PHI will be derived for individuals and for groups of individuals (office, municipality or city, province, region and country). The PHI can also be computed for each domain of happiness. With these computations, we can compare groups of individuals in terms of overall happiness and for each domain. For example, we will be able to tell whether the employees in organization A are happier with their work than employees in organization B.

4.1   Conceptual Framework of the Philippine Happiness Index (PHI)

In the compilation of the PHI, the individual plays an important role. The main consideration is that an individual has his/her own definition/sources of happiness. Hence, it is important to allow the individual to identify the domains of his/her happiness (or unhappiness) and to recognize individual differences in their choices. For example, if an individual finds that family is a more important source of happiness than work and that community participation does not affect the degree of his/her happiness, all these should be captured in his/her happiness index. The framework is in Figure 2.

Figure 2. Conceptual Framework of the Philippine Happiness Index (PHI)

where,

      HI_1 = happiness index of the 1st person in the population

      HI_2 = happiness index of the 2nd person in the population

      HI_n = happiness index of the nth person in the population

The conceptual framework of the PHI includes an initial list of possible domains of happiness that has been drawn taking into consideration the need to address the following:

i)   Cultural, regional, ethnic differences

ii)   Emotional well-being

iii)   Priorities of society

iv)   Some degree of stability of preferences

v)   Minimum overlap among the domains

4.2   ESTIMATION METHODOLOGY OF THE PHILIPPINE HAPPINESS INDEX

Note: The pilot study, which will be described in more detail in the next section, was conducted for a specific group. The respondents were not randomly chosen so the results to be presented will only be descriptive. In the actual application of the methodology, the sampling design will have to be considered in the estimation methodology.

The basic data are to be collected through a survey. If funds are going to be made available, this can be conducted as a rider to one of the rounds of the quarterly Labor Force Survey of the NSO.

To compute for the PHI, the Questionnaire shown in Annex 1 is used to do the following :

1. Identification of domains of happiness by each individual

Individuals will be asked to identify domains of their happiness from a list that includes Others. The list consists of 1) community participation and volunteer work; 2) cultural activities; 3) education; 4) family; 5) friends; 6) health; 7) income and financial security; 8) leisure and sports; 9) love life; 10) religion and/or spiritual work; 11) sex life; 12) technological know-how; 13) work; 14) economy; 15) environment; 16) government; 17) politics; and 18) others. Domains not identified by the respondent will not figure in the computation of his/her happiness index.

As this study is still work-in-progress, domains need not be limited to the list given. In fact, sex life, love life, and friends were not in the initial list; they have been added upon the suggestion of some respondents in the test of the questionnaire.

2. Determination of the weights (relative importance) of each domain for each individual

The individual weights will be obtained from the individual responses. For each of the domains that the individual has identified to be a source of happiness, he/she will be asked to give a degree of importance from 1 to 10 (least important to most important). The weights are derived from these responses.

3. **Measuring the Level of Happiness of each individual for each identified domain of happiness**

The respondents will choose the level of their happiness (very unhappy, unhappy, neutral, happy and very happy) for each of the identified domain of happiness.

4. **Computation of the Happiness Index for each Individual**

Based on the identified domains, the weights and the level of happiness for each identified domain, the happiness index of the individual is computed. The derived Happiness Index can be compared with the general assessment of the individual based on a separate question in the questionnaire.

5. **Computation of the PHI**

The PHI is simply the average of the individual Happiness Index. The PHI can also be computed for various subgroups. Alternatively, the PHI can be computed using the direct responses (not the derived happiness index of the individual). The two PHI can then be compared with each other. It is recommended however to use the derived index rather than the direct response as the individual Happiness Index.

4.3   Computation of the Philippine Economic Index (PEI)

The PEI is computed based on the economic performance of the country for the given quarter relative to its performance during the past three quarters; and the Philippine' economic performance relative to selected competing countries in the Region. Performance is measured through the quarterly GNP growth rate. For every yes answer to the following seven questions one point is given: 1) is the growth rate an acceleration from the previous year? 2) is the growth rate higher than the targeted annual growth rate? 3) is the growth rate higher than in the previous quarter? 4) is the growth rate higher than two quarters ago? 5) . is the growth rate higher than three quarters ago? 6) is the growth rate higher than the

growth rate of Thailand? and 7) is the growth rate higher than the growth rate of Vietnam? The PEI is simply the total number of points divided by seven.

4.4 Computation of the Philippine Gross National Happiness Index (PGNHI)

The PGNHI is simply the average of the PHI and the PEI. Thus,

PGNHI = composite measure of society's progress using data from the national accounts and results of the happiness survey

$$= \frac{PHI + PEI}{2}$$

Annex 2 illustrates the computation procedures.

V. Pilot Computations on the Philippine Happiness Index

5.1 Description of the Pilot

The pilot is being conducted in two phases. The first phase was conducted in September 2007 using questionnaires administered to a group of selected (not randomly) public and private sector employees working in Makati City. The second phase will be conducted on 1 October 2007, the 1st day of the 10th National Convention on Statistics (NCS) and the International Conference on Millennium Development Goals Statistics (ICMDGS). All NCS and ICMDGS participants will be requested to accomplish the questionnaire (Annex 1), which will be provided in the participants' kit..

Preliminary results of the first phase of the pilot survey are presented in this section while the results from the second phase will be included in the presentation of this paper during the 2nd day of the NCS, Session on the Economic Accounts.

5.2 Indicative Results (based on the results of the 1st phase of the pilot)

The questionnaire developed for this study was piloted in September 2007. A total of 92 respondents participated in the pilot. The profile of the sample respondents is as follows: women (63%); between 25-44 years old (56%); married (55%); college graduate (54%); with monthly personal income between PhP 6,001 – 15,000 (51%); and government employees (89%) (Annex 3, Table 3).

Note that the results from the survey of the NCS participants are not included in the paper but will be presented during the 10th NCS.

- **RESPONDENTS FIND FAMILY AND HEALTH AS MOST IMPORTANT DOMAINS OF HAPPINESS, POLITICS AND GOVERNMENT AS THE LEAST!**

After health, the other top sources of happiness are religion, income, work and education. However, the respondents are happiest with family (86.96%), religion (78.91%), health (75.00%), education (72.67%) and technological know-how (72.09%). They are least happy with politics (39.56%) , government (50.99%), economy (60.22%) cultural activities (62.79%) and environment (62.92%). (Annex 3, Table 4.1)!

- **"QUALITATIVE" HAPPINESS IS HIGHER THAN "QUANTITATIVE" HAPPINESS!**

Based on the single question on happiness, the respondents gave an average of 73.70% compared to the 67.09% derived from the various domains of happiness - a difference of 6.60 points! With the observed large difference in the computed indices using both approaches[8], is it right that we simply ask people whether they are happy or not? Or would deriving happiness from various sources/domains be a more valid approach?

- **HAPINESS DERIVED FROM OTHER SOURCES OF HAPPINESS NOT ON THE LIST IS HIGHER THAN THE OVERALL PHI!**

Happiness derived from other sources of happiness (72.73) scored higher by six points than the PHI of 67.09. This possibly indicates that sources of happiness identified in the pilot questionnaire did not capture domains that respondents find as important sources of happiness. In line with this, as mentioned earlier in section 4, other domains such as sex life, love life, and friends, which were not in the initial list, have been added, also upon the suggestion of some respondents in the test of the questionnaire.

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[8] Regardless of the approach, choice of the reference period can also affect the responses.

- **HAPPINESS DERIVED FROM DOMAINS CONTROLLABLE (INTERNAL FACTORS) BY AN INDIVIDUAL IS HIGHER THAN THOSE THAT ARE NOT (EXTERNAL FACTORS)!**

Happiness derived by respondents based on their welfare/personal involvement in domains considered to be more or less within their control, namely: community and volunteer work, cultural activities, education, family, health, income and financial security, leisure and sports, religion and spiritual work, technological know-how, and work – showed is higher at 71.99% compared to 53.42% for external factors, namely: economy, environment, government, and politics.

- **WOMEN ARE HAPPIER THAN MEN!**

78 percent of women who participated in the survey were either happy or very happy, while only 50 percent of men indicated the same level of happiness (Annex 3, Table 5).

- **AS INCOME RISES, HAPPINESS ALSO RISES!**

57 percent of those in the lower-income bracket (PhP 6,001-15,000) indicated that they are either happy or very happy compared to 73 percent for the middle-income group (PhP 15,001-30,000) and 92 percent for the non-poor (PhP 30,001-200,000) (Annex 3, Table 5).

- **HALF OF THE RESPONDENTS THINK THAT PROGRESS IS SYNONYMOUS TO HAPPINESS!**

- **THERE ARE MORE OPTIMISTS THAN PESSIMISTS!**

According to Dr. Allen Tan, a former president of the Psychological Association of the Philippines, happiness could be viewed as a choice – whether from an optimistic explanatory style or a pessimistic explanatory style. The optimist would attribute good things happening to his life as doings of himself/herself and bad things to something external. On the other hand, a pessimist would explain good things as a result of other people's doings/help while bad things to something internal (see [5]).

In the survey, the optimists (28%) were twice as many as the pessimists (14%) (Annex 3, Table 6). However, the pessimists are happier, 85% versus 54% (Annex 3, Table 7).

Interesting to note is that half of those who responded feel that whatever happens to them, whether good or bad, is the result of their own hard work/mistakes or personal choices/misdoings. Eight percent think that external factors cause their happiness/unhappiness.

- **9 OUT OF 10 RESPONDENTS WHO ARE 35 YEARS OR OVER, ARE HAPPY REGARDLESS OF MARITAL STATUS!**

If the results presented above were indicative of the happiness of Filipinos and progress of the society, it would be interesting to know the changes over time – whether it would improve, or worsen, over the next quarter or year. It must be stressed however, that the information shown is very preliminary and based on a nonrandom sample. Nonetheless, these statistics show that it is possible to provide indices of happiness for each individual, source/domain, or particular subgroups. It also offers an alternative measure of progress, through the PGNHI, by using an objective measure of the country's economic performance (GNP), while taking into consideration the happiness of society derived from various domains.

VI.   Concluding Remarks and Recommendations

The SWS has conducted self-rated poverty surveys for years. In fact, the SWS is recognized as a pioneer in the work that it has been doing on this subject.[9] But in general, the PSS has not ventured into the conduct of surveys to arrive at perception-based or self-rated measures of social, economic or environmental phenomena. Recently, however, the Bureau of Agricultural Statistics, the Food and Nutrition Research Institute and the National Statistics Office conducted surveys with SWS-type questions on hunger.

Should national statistical systems do such surveys? It may interest the reader to know that the Australian Bureau of Statistics, well-recognized as one of the best national statistical systems in the world is doing just that in their measurement of economic hardship/financial stress. In their Household Income and Expenditures Survey, respondents

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[9]The SWS surveys generally do not provide provincial level estimates.

are asked whether they feel they are experiencing financial stress. The respondents are then asked perception-based questions on the possible causes of such stress.

Relatedly, national statistical systems have been asked to measure democracy, human rights and governance.[10] Should we or shouldn't we?

The groundwork for the measurement of the Philippine Gross National Happiness Index (PGNHI) and the Philippine Happiness Index (PHI) has started, but obviously there is room for improvement. Toward this end, the following recommendations are being forwarded:

1. **In order to enhance the relevance of the statistical agencies to its stakeholders and of statistics to society, the PSS should get involved in the measurement of progress of society such as on the measurement of happiness, democracy, human rights and governance.**
2. **The PSS and the private sector should do collaborative work in order to minimize duplication of efforts and optimize the use of limited resources.**
3. **Existing surveys of the PSS like the FIES/LFS and the private sector should be tapped to save on costs.**
4. Provincial level estimates should be generated for the indicators to be useful.
5. **Compilation of the PGNHI and the PHI should be pursued to provide a more relevant measure of progress of society.** However, strong statistical advocacy is needed to ensure that the public is made aware of its significance and for the public to be supportive of data collection activities of government. And the methodology should be continuously improved.
6. **If indeed, happiness is a component of progress of society, government including local government units should take a pro-active role of in considering happiness of the citizens in the design of policies and programs.**

In conclusion, demand for high quality statistics has significantly increased over the years. With the advent of the knowledge-based economies of the Third Millennium, indeed, statistics are needed to be able to survive the challenges and the competition in the global market. Some countries have decided to give higher budgetary priority to statistics. It is time the Philippines followed suit.

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[10] The METAGORA project of the OECD hosted by PARIS 21 is very active in this area.

ACRONYMS

FIES	Family Income and Expenditures Survey
GDP	Gross Domestic Product
GNH	Gross National Happiness
GNI	Gross National Income
GNP	Gross National Product
HDI	Human Development Index
MDG	Millennium Development Goals
MTPDP	Medium-Tem Philippine Development Plan
NSCB	National Statistical Coordination Board
NSO	National Statistics Office
OECD	Organization for Economic Cooperation and Development
PGNHI	Philippines Gross National Happiness Index
PHI	Philippine Happiness Index
PSNA	Philippine System of National Accounts
PSS	Philippine Statistical System
SDS	System of Designated Statistics
SWS	Social Weather Stations
UNDP	United Nations Development Programme

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Pilot Study on the Measurement of Progress of Philippine Society
September 2007

Sir/Madam:

Greetings!

In line with our study entitled, "Measuring Progress of Philippine Society: Gross National Product or Gross National Happiness?," we are undertaking a pilot of the questionnaire we have developed for the study.

We seek your cooperation by accomplishing the questionnaire.

Please be assured that the data that you will supply will be held STRICTLY CONFIDENTIAL.

Thank you and best regards.

Very truly yours,

ROMULO A. VIROLA
Secretary General
National Statistical Coordination Board (NSCB)

Last Name (optional)

First Name (optional)

Middle Name (optional)

E-mail address (optional)

Respondent No.

Date accomplished

I.   HAPPINESS SURVEY

Please tick the appropriate box.

	1 Very unhappy	2 Unhappy	3 Neutral	4 Happy	5 Very happy
1.1 For the past 7 days, taking all things together, would you say you were happy in your life?	☐	☐	☐	☐	☐

1.2   Which statement describes your opinion on happiness? (Choose one only.)

☐ The good things that happen to me are results more of my own hard work, personal choices.

☐ The good things that happen to me are results more of other people's help, other factors around me.

1.3   Which statement describes your opinion on unhappiness? (Choose one only.)

☐ The bad things that happen to me are results more of my own mistakes and misdoings.

☐ The bad things that happen to me are results more of other people's interference, other factors around me.

1.4 Based on your personal experiences, ple ase indicate which of the following are your sources of happiness. If happiness is derived from a domain identified below, indicate the level of importance (1 for least important and 10 for most important) and level of happiness (1 for very unhappy and 5 for very happy)

Source/Domain (1)	Source of happiness (Yes or No) (2)	Level of importance (1 for least important; 10 for most important – can have ties) (3)	If yes in column (2), please indicate the following:				
			Level of happiness for the past 7 days (4)				
			1	2	3	4	5
			Very unhappy	Unhappy	Neutral	Happy	Very happy
Personal welfare/involvement on the following:							
Community and volunteer work							
Cultural activities							
Education							
Family							
Friends							
Health							
Income and financial security							
Leisure and sports							
Love life							
Religion and spiritual work							
Sex life							
Technological know-how							
Work							
B. Personal appreciation of the following:							
Economy							
Environment							
Government (i.e., gov't . system and institutions, behavior of leaders)							
Politics (i.e., political system, behavior of politicians)							
Others *(please specify)* _____							

1.5   In your opinion, is progress synonymous to happiness? ☐ Yes   ☐ No

II.   DEMOGRAPHIC INFORMATION
Please tick the appropriate box.

2.1   Sex

☐ Male   ☐ Female

2.2   Age

☐ Below 25 years   ☐ 45-54 years

☐ 25-34 years   ☐ 55-64 years

☐ 35-44 years   ☐ 65 years and above

2.3   Marital Status

☐ Single   ☐ Divorced/separated

☐ Married   ☐ Common law/live-in

☐ Widowed

2.4   **Ownership of house**

☐ Owned   ☐ Rented

☐ Living with parents/ relatives   ☐ Others (please specify)

_____

2.5   Years living in current residence   _____

III.   EDUCATION AND EMPLOYMENT BACKGROUND
Please tick the appropriate box.

3.1   Highest grade completed

☐ No grade completed   ☐ Technical-vocational

☐ Grade I to V   ☐ Some college

☐ Elementary graduate   ☐ College

☐ 1st to 3rd year high school   ☐ Post-graduate

☐ High school graduate

3.2   Have a job/business?

☐ Yes   ☐ No (If answer is no, go to question no. ___)

3.3   Occupation

☐	Official/employee of government	☐	Farmer, forestry worker, or fishermen
☐	Professional	☐	Trade and related worker
☐	Technician or associate professional	☐	Plant and machine operator
☐	Clerk	☐	Laborer and unskilled worker
☐	Service worker	☐	Special occupation

3.4   Kind of business/industry you are engaged/employed in

☐	Wholesale and retail trade	☐	Health and social work
☐	Agriculture, hunting, forestry	☐	Real estate, renting, and business
☐	Manufacturing	☐	Financial intermediation
☐	Private households	☐	Transport, storage, and communication
☐	Education	☐	Fishing
☐	Public administration/Government	☐	Construction
☐	Hotels and restaurants	☐	Electricity, gas, and water
☐	Other community, social, & personal	☐	Extra-territorial organizations
☐	Mining and quarrying		

3.5   Years with the present company _____

3.6   Monthly personal income

☐	PhP 6,000 and below	☐	PhP 30,001 – 200,000
☐	PhP 6,001 – 15,000	☐	Above PhP 200,000
☐	PhP 15,001 – 30,000		

The researchers highly appreciate your participation in this survey. The answers you provided will contribute in our effort to come up with an appropriate measure of progress. We would appreciate it if you could give us any comments/suggestions to improve our future studies on this topic. Thank you very much.

Comments/Suggestions:

_____

_____

_____

***** END OF SURVEY *****

Table 2. Individual Ratings of Happiness

Domain	Person 1		Person 2		Person n	
	Level importance (1 - least important, 10 – most important)	Actual level of the individual's happiness (1 for very unhappy and 5 very happy)	Level importance (1 - least important, 10 – most important)	Actual level of the individual's happiness (1 for very unhappy and 5 very happy)	Level importance (1 - least important, 10 – most important)	Actual level of the individual's happiness (1 for very unhappy and 5 very happy)
1. Community participation and volunteer work	X_{11}	Y_{11}	X_{21}	Y_{21}	X_{n1}	Y_{n1}
2. Cultural activities	X_{12}	Y_{12}	X_{22}	Y_{22}	X_{n2}	Y_{n2}
3. Education						
4. Family						
5. Friends						
6. Health						
7. Income and financial security						
8. Leisure and sports						
9. Love life						
10. Religion and spiritual work	.	.	.	.	.	.
11. Sex life	.	.	.	.	.	.
12. Technological know-how	.	.	.	.	.	.
13. Work	.	.	.	.	.	.
14. Economy	.	.	.	.	.	.
15. Environment	.	.	.	.	.	.
16. Government	X_{116}	Y_{116}	X_{216}	Y_{216}	X_{n16}	Y_{n16}
17. Politics	X_{117}	Y_{117}	X_{217}	Y_{217}	X_{n17}	Y_{n17}
18. Others	X_{118}	Y_{118}	X_{218}	Y_{218}	X_{n18}	Y_{n18}
OVERALL HAPPINESS	X_1	Y_1	X_2	Y_2	X_n	Y_n

1. **Computation of an individual's level of happiness** .

HI_i = happiness index of person i

$$= \frac{\sum_{j=1}^{15}\left(\frac{X_{ij}}{\sum_{j=1}^{15} X_{ij}} * Y_{ij}\right)*100}{5}$$

where,

X = importance of domain j to individual's happiness

Y = actual level of the individual's happiness for domain j

j = domains of happiness: community participation and volunteer work, cultural activities, …, technological know-how, work

Hence, each person would have varying indices of happiness, depending on the importance of a specific domain defined by an individual.

2. **Computation of an aggregate measure of happiness per domain**

PHI_j = Philippine happiness index, all persons 1 to n, for domain j

$$= \left(\frac{\sum_{i=1}^{n} Y_i \big/ n}{5}\right)*100$$

where,

Y = Level of happiness for domain j

i = persons 1, 2, …., n

3. **Computation of an aggregate measure of happiness, PHI**

PHI = Philippine happiness index aggregating happiness index of each domain

$$= \left(\frac{\sum\limits_{j=1}^{18} PHI_j}{18} \right) *100$$

where,

PHI$_j$ =   Happiness index for domain j

j   =   domains of happiness: community participation and volunteer work, cultural activities, ..., technological know-how, work

4. Computation of an overall assessment of happiness, PHI*

PHI* = Philippine happiness index, all persons 1 to n, based on their overall assessment of their state of happiness

$$= \left(\frac{\frac{\sum\limits_{i=1}^{n} Z_i}{n}}{5} \right) *100$$

where,

Z   =   Overall state of happiness, regardless of domain

i   =   persons 1, 2, ..., n

Computed indices would range from 0 to 100. In line with this, results will be assessed based on the following classification:

HI/PHI	Level of happiness
0-20	Not happy
21-40	Not very happy
41-60	Quite happy
61-80	Happy
81-100	Very happy

5. Computation of a measure of society's progress

The PGNHI is simply the average of the PHI and the PEI. Thus,

PGNHI = composite measure of society's progress using data from the national accounts and results of the happiness survey

$$= \frac{PHI + PEI}{2}$$

where,

PHI = Philippine happiness indices computed in Stage 4

PEI = Philippine economic index

=

$$\left(\frac{\sum_{m=1}^{7} EI_m}{7} \right) *100$$

where,

$EI_1 = 1$, if GNP for the quarter is an acceleration; 0, otherwise

$EI_2 = 1$, if GNP for the quarter is greater than the annual target; 0, otherwise

$EI_3 = 1$, if GNP for the quarter is greater than the previous quarter; 0, otherwise

$EI_4 = 1$, if GNP for the quarter is greater than the past two quarters; 0, otherwise

$EI_5 = 1$, if GNP for the quarter is greater than the past three quarters; 0, otherwise

$EI_6 = 1$, if GNP for the quarter is greater than GNP of Thailand for the same quarter; 0, otherwise

$EI_7 = 1$, if GNP for the quarter is greater than the GNP of Vietnam for the same quarter; 0, otherwise

To illustrate,

Note: The survey has been conducted during the 3rd quarter of 2007 (i.e, 3rd week of September), however, GNP of the Philippines for the same quarter is scheduled to be released later in November 2007.

For purposes of illustration, the PGNHI in this study will be computed using the results of the 3d quarter "happiness survey" and the 2nd quarter GNP of the Philippines, treating the latter as figures for the 3rd quarter.

Given the following:

PHI = 73.70 (PHI based on the overall assessment of happiness)

PHI_D = 67.09 (PHI based on the happiness indices of all domains)

GNP_{Phils} = 8.3% (2nd quarter 2007 GNP growth of the Philippines)

GDP_{Phils} = 7.5% (2nd quarter 2007 GDP[11] growth of the Philippines)

GNP_{Thai} = 5.2% (2nd quarter 2007 GNP growth of Thailand)

GDP_{Viet} [12] = 8.0% (2nd quarter 2007 GDP[1] growth of Vietnam)

PGNHI is computed as follows:

$$PGNHI = \frac{67.09 + 85.71}{2}$$
$$= 76.40$$

6. Validation/Consistency check on the computed PHI

As information that would be obtained from the questionnaire would include not only levels of happiness for each domain, but also a general assessment of the respondent's overall state of happiness – it is easy to validate whether computed happiness index of an individual is consistent with his/her general assessment of his/her level of happiness, regardless of domain.

This would provide useful information whether an individual's assessment differs when asked simply or straightforwardly whether he/she is happy or not (as usually done in opinion polls/surveys) vis-à-vis questions that takes into account various domains of happiness before one is assessed as either happy or not.

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[11] 2nd quarter 2007 GDP growth of the Philippines was compared with GDP growth of Vietnam for the same quarter.
[12] 2nd quarter 2007 GNP growth of Vietnam is not available from their General Statistics Office' website.