Ref. No.: MEBE0005

Bhutan's Gross National Happiness:
An Economic Reality or Wishful Thinking?

"It (The GNP) does not include the beauty of our poetry or the strength of our marriage or the intelligence of our public debate or the integrity of our public officials. It measures neither our wit nor our courage, neither our wisdom nor our learning, neither our compassion nor our devotion to our country."[1]

– Robert F. Kennedy (the then US Presidential Hopeful) at University of Kansas, March 18th 1968

"Happiness is the ultimate end desired. All else for which we labour are but means to fulfilling this wish. Yet it is ironic that human society is susceptible to confusion between this simple end and the complexity of its means."[2]

– Jigmi Y. Thinley, Prime Minister of Bhutan

"Happiness is not achieved by the conscious pursuit of happiness; it is generally the by-product of other activities."[3]

– Aldous L. Huxley, English Critic and Novelist

In 1972, when Jigme Singye Wangchuck was crowned as the fourth king of Bhutan, a foreign journalist made a pointed query about Bhutan's rank near the bottom of the world's development scale. The king was, however, unfazed. He grandly proclaimed that he was more concerned with its Gross National Happiness (GNH) than its Gross National Product (GNP). The GNH is a balanced and holistic approach to development. It is based on the premise that human beings, by nature, seek happiness as their ultimate goal. The advocates of GNH argue that countries' progress should be

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[1] Krueger Alan B., et al., "National Time Accounting: The Currency of Life", http://www.krueger.princeton.edu/nta2.pdf, March 31st 2008

[2] Thinley Jigmi Y., "What Does Gross National Happiness (GNH) Mean?", http://www.gpiatlantic.org/conference/proceedings/thinley.htm, June 20th–June 24th 2005

[3] Moncur M., "(Cynical) Quotations", http://www.quotationspage.com/quote/30725.html

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measured in terms of the end (happiness) and not the means (GNP). Thus the small country Bhutan has come out with a big message for the whole world. Its shift in language from 'product' to 'happiness' – in gauging development – has spawned profound interest and pervasive impact pushing researchers and policymakers to design measuring techniques that can capture the well-being of human beings. However, no country other than Bhutan has adopted the GNH measure. This has understandably raised a powerful debate.

Logic for the Traditional Yardstick

Right from the days of Jeremy Bentham, the 18th century British philosopher and economist, the greatest happiness of the human society was recognised as the goal of a country. However, happiness or well-being was not cardinally measurable to make itself additive. Hence, individuals' well-being could not be aggregated to arrive at social well-being. Alfred Marshall tried to quantify well-being, euphemistically called utility, in terms of the amount of money people were willing to pay for the goods. His argument was met with the criticism that money – itself being subject to the Law of Diminishing Marginal Utility – could not be used to measure utility.

Hicks-Allen's ordinal measurement of utility was relied upon to indicate movement of social well-being. However, that was possible only in the practically limited case where some individuals' happiness increased but no one else's happiness decreased – thus moving the society to an optimal position, called Pareto optimality.[4] Kaldor's and Hicks' compensation criteria and later Scitovsky's double compensation criterion were attempts to identify the direction of social welfare in the case where some individuals were better off and some individuals were worse off. These criteria were, however, criticised by Prof. W.J. Baumol as they involved interpersonal comparisons, though concealed in money terms.[5] Even the limited case of Pareto optimality did not serve much as pointed out by Prof. Amartya Sen. For instance, a situation with some people wallowing in abject misery while others rolling in super luxury can as well be called Pareto optimal "so long as the miserable cannot be made better off without cutting into the luxury of the rich".[6] Therefore, social welfare is to be a matter of explicit value judgments.

Prof. Bergson propounded that social welfare curves[7] could be constructed based on explicit value judgments of an unbiased authority. This can be best represented by democratic process of majority rule. However, the majority rule, as proved by Prof. Kenneth K. Arrow in his Nobel-winning concept 'Impossibility Theorem'[8], may lead to inconsistent and inconclusive value judgments when individuals are asked to make choices from among more than two alternatives. For example,

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[4] Salvatore D., "General Equilibrium and Welfare Economics", *Microeconomics Theory and Applications*, 4th Edition (ISBN 13:978-0-19-568616-6), Oxford University, 2003, page 593

[5] Baumol William J., "General Equilibrium and Welfare Economics", *Economic Theory and Operations Analysis*, 2nd Edition, Prentice-Hall of India, New Delhi, 1970, page 379

[6] Sen A.K., "Economic Judgements and Moral Philosophy", *On Ethics and Economics*, 2nd Edition (ISBN 0 19 562761 X), Oxford University Press, 1999, pages 31–32

[7] Bergson A., "A Reformulation of Certain Aspects of Welfare Economics", *Quarterly Journal of Economics*, February 1938, pages 310–334

[8] "General Equilibrium and Welfare Economics", op.cit., page 594

of the three individuals A ,B and C constituting the society, A and B may prefer alternative X to Y; B and C may prefer alternative Y to Z; and A and C may prefer alternative Z to X instead of X to Z. The principle of transitivity does not work here because the majority in each case does not comprise the same set of people.

Because of these shortcomings in measuring national well-being, attention was focused on the means from which well-being was derived. Goods and services being such means, and GNP being their unambiguous national numeric measure, it served as a handy proxy for national well-being. Therefore, GNP or the recently more popular Gross Domestic Product (GDP), or a few other variants such as Net National Product (NNP), Net Domestic Product (NDP), etc., have routinely been used to depict the well-being of nations. Since GDP is the summation of all the final products and since apples and oranges per se cannot be added, prices of the products are multiplied with their respective quantities to achieve homogenisation that enables summation. Thus, $GDP = P_1Q_1 + P_2Q_2 + P_3Q_3 + ... + P_nQ_n$, where P stands for price, Q for quantity, and subscripts 1,2,3...n for various final products. Depending upon the use of base year and current year prices, a country terms its GDP as real and nominal. Besides this product-flow approach, countries assess their GDP in two other ways too on the logic that the value of products equals the expenditure on products, which, in turn, equals earnings of the factors of production. Equation between GDP and GNP rests on the net factor earnings from abroad while the wear and tear of capital has the role in depreciating GDP and GNP into NDP and NNP respectively.

Odds with the Traditional Yardstick

GDP has, however, many blind spots. It does not count many positives in life like childcare, do-it-yourself home activities, voluntary community services, leisure, etc. Nor does it take into account many negatives like pollution of atmosphere, depletion of natural resources, degradation of environment, disruption of social life, etc. Moreover, GDP makes no consideration of the state of income distribution. Thus, GDP is an inadequate and misleading measure of a country's true progress.

Adam Smith's celebrated doctrine of the invisible hand of the market was supposed to guide individual well-being automatically towards social well-being. However, it fails to wash in those cases where externalities drive a wedge between privately reckoned cost and social cost. Production of goods will go on till marginal private cost strikes balance with marginal benefit derived, even though marginal social cost overshoots the marginal social benefit. When the existence of externalities is overlooked, 'the invisible hand' indeed turns into 'invisible feet' and begins to trample the society. GDP, thus, fails to reflect social welfare aright.

Some economists have expressed that income-happiness relationship holds only in the lower range of income, which is indispensable to meet basic necessities of life. After a certain high level of GDP – when countries enter the era of 'satiation' as exemplified in most developed countries, notably the US and Japan – happiness does not keep company with GDP. The satiation point, to J.K. Galbraith, was reached by the Affluent Society (1958); to W.W. Rostow, by the Mass Consumption Society (1960); to Johnson, by the Opulent Society (1967); and to Bell, by the Post Industrial Society (1970).The notion that more and more products result in more and more happiness, as the conventional

measure presupposes, stood ridiculed. Galbraith remarked, "To furnish a barren room is one thing; but to continue to crowd in more furniture until the foundation buckles is quite another."[9] The baffling variety of lifestyle options proffered by dizzying affluence rather unsettles human mind and unleashes frustration.

The belief that GDP does not necessarily lead to social happiness has been fortified by a finding in 1974 by Prof. Richard A. Easterlin of South California University. His finding, known as Easterlin's Paradox[10], refers to the fact that though rich individuals tend to be much happier than poor individuals within a country, the rich countries do not. Even the same country does not tend to get happier as it becomes richer over time. Easterlin's Paradox is explained, among other things, by the fact that it is the relative income position of the people rather than their absolute income level that confers happiness. A survey of 257 participants comprising students, faculty and staff members of the Harvard School of Public Health conducted by researchers Sara J. Solnick and David Hemenway in 1998 also lent credence to this explanation. The survey revealed that about half of the participants chose the option of earning an annual salary of $50,000 in a universe having an average annual salary of $25,000, even though the other option offered a doubled annual salary of $100,000 in a universe having an average annual salary of $200,000.[11] Another explanation to Easterlin's Paradox is aspiration treadmill. People quite fast get inured to a hike in their income and begin to harbour an increasing income aspiration. Various surveys have proved this. Individuals place their self-assessed 'satisfactory income' levels at higher figures as their actual income levels rise. Rising income aspiration leads to a downward shift of the existing income-happiness function and destroys two-thirds or more of the welfare effect of an increase in income even in a year's time.[12] Prof. Richard Layard of London School of Economics has offered a dynamic exposition to Easterlin's Paradox saying that the correlation between a nation's income and its happiness tapers off at a threshold point, say, $20,000 per capita, after which "additional income is not associated with extra happiness".[13] It will then be like asking an elm tree to give pears! An economic journalist has compared income and happiness to two birds 'More' and 'Merrier'. For most of human history, the two birds roosted on the same branch; and hurling a stone at 'More' could hit 'Merrier' too. But in modern times, this happens no longer. 'Merrier' has flown off many trees across to make its own nest away from 'More'.[14] That a country's income and happiness do not necessarily march in tandem is evident from the time series data of the US covering the period from 1946 to 1996 (Exhibit I). Disconnect between income and happiness is also manifest in the cross-country data culled from the World Values Survey Project's 2000 poll (Exhibit II).

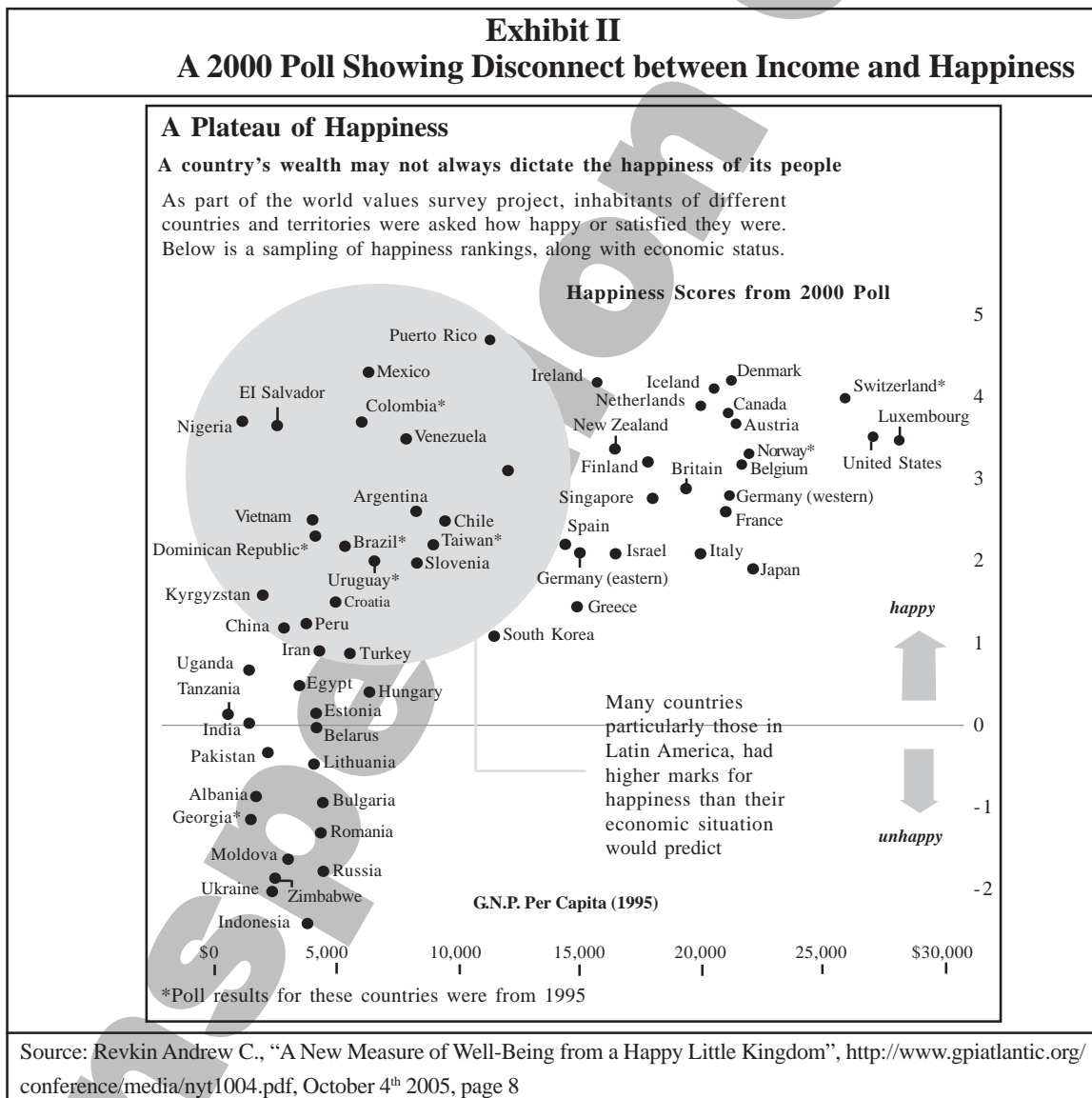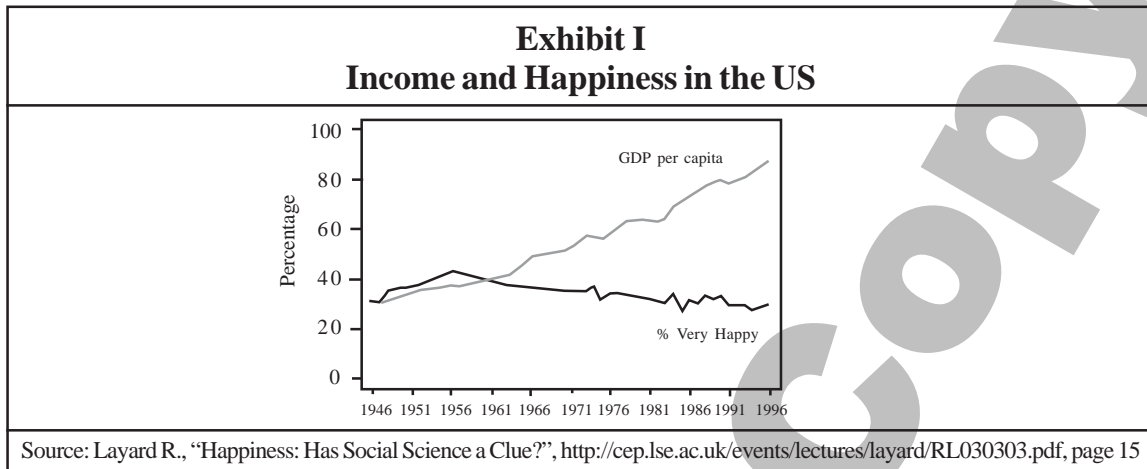9 Dale Jr. Edwin L., "Are We Living Too High on the Hog?", http://www.nytimes.com/books/99/05/16/specials/galbraith-affluent.html, June 1st 1958

10 Easterlin Richard A., "Does Economic Growth Improve the Human Lot?", http://graphics8.nytimes.com/images/2008/04/16/business/Easterlin1974.pdf, pages 118–121

11 Revkin Andrew C., "A New Measure of Well-Being From A Happy Little Kingdom", http://www.gpiatlantic.org/conference/media/nyt1004.pdf, October 4th 2005

12 Frey Bruno S. and Stutzer Alois, "Should National Happiness Be Maximised?", http://www.whatiseconomy.com/Bruno%20Frey%20on%20Happiness.pdf, March 2nd 2007, page 8

13 Norberg Johan, "The Scientist's Pursuit of Happiness", http://cache.search.yahoo-ht2.akadns.net/search/cache?ei=UTF-8&p=additional+income+is+not+associated+with+extra+ happiness&fr=slv8-acer&u=www.cis.org.au/Policy/spring05/polspr052.htm&w=additional+income+not+associated+extra+extras+happiness&d=H1gaSTWxQxu4&icp=1&.intl=us

14 McKibben B., "Citing: Deep Economy", *The Economic Times*, July 24th 2008

Exhibit I
Income and Happiness in the US

GDP per capita

% Very Happy

Percentage

100 · 80 · 60 · 40 · 20 · 0

1946 1951 1956 1961 1966 1971 1976 1981 1986 1991 1996

Source: Layard R., "Happiness: Has Social Science a Clue?", http://cep.lse.ac.uk/events/lectures/layard/RL030303.pdf, page 15

Exhibit II
A 2000 Poll Showing Disconnect between Income and Happiness

A Plateau of Happiness

A country's wealth may not always dictate the happiness of its people

As part of the world values survey project, inhabitants of different countries and territories were asked how happy or satisfied they were. Below is a sampling of happiness rankings, along with economic status.

Happiness Scores from 2000 Poll

Many countries particularly those in Latin America, had higher marks for happiness than their economic situation would predict

happy

unhappy

G.N.P. Per Capita (1995)

$0   5,000   10,000   15,000   20,000   25,000 $30,000

*Poll results for these countries were from 1995

Source: Revkin Andrew C., "A New Measure of Well-Being from a Happy Little Kingdom", http://www.gpiatlantic.org/ conference/media/nyt1004.pdf, October 4th 2005, page 8

Tibor Scitovsky, in his book *The Joyless Economy: The Psychology of Human Satisfaction*, has pointed out that the high level of income may rather reduce happiness. Increasing income affords continuous flow of comforts and thereby prevents happiness that springs from incomplete satisfaction of desires.[15] Evidences from various countries suggest that income is not the only source of happiness. It is merely one among the various sources of happiness and not even the most important one. Health, marriage, family life, living circumstances, environment, leisure, work conditions have greater influence on happiness. Researcher Rebecca North of the University of Texas at Austin analysed data from 1981 to 1991 in a study involving 274 married adults living in San Francisco Bay area. The analysis of this decade-long data indicated that happiness was tied far more strongly to family relationship than to income.[16] Similarly, a number of studies revealed that happiness holds a far more robust relationship with health compared to income. Even when money does promote happiness, it does so when spent pro-socially for others. As discovered by HBS professor Michael Norton, people with the comfortable financial positions draw happiness when they spent their money on purchasing gifts for friends or making donations to charities rather than spending on themselves.[17]

Call for a New Measure

The very fact that GDP and happiness do not move in lockstep necessitated the quest for a new measure that would better mirror happiness. In 1972, Prof. William Nordhaus and James Tobin suggested a new measure called Measure of Economic Welfare (MEW)[18] by introducing certain modifications to GDP. Around mid-1990s, in a similar vein, a group of Canadian experts headed by Prof. R. Colman recommended the Genuine Progress Indicator (GPI) by making certain additions (e.g., the value of household work), certain subtractions (e.g., the cost of pollution), and certain adjustments (e.g., income distribution) in GNP. GPI incorporated 26 variables covering social, economic and environmental aspects. In 1995, under UNDP sponsorship, Prof. Mahbub-ul-Haq, with the help from fellow economist prof. A.K. Sen, developed the Human Development Index (HDI), which enlarged the ambit of the conventional measure by including the life expectancy and educational attainments reflecting the quality of life (Exhibit III). However, all these measures of progress are extensions of the existing conventional measure. They gauge important external indicators of well-being but not the internal well-being itself. These expanded yardsticks, therefore, do not cure the problem although they obviously do offer wider band-aids.

[15] Guven C. and Sorensen Bent E., "Subjective Well-Being: Keeping up with the Joneses – Real or Perceived?", *Incomplete and Preliminary Draft*, January 2007, page 2

[16] Boyles S., "For Happiness, Seek Family, Not Fortune", http://www.cbsnews.com/stories/2008/06/19/health/webmd/main4196906.shtml, June 20th 2008

[17] Gilbert Sarah Jane, "Spending on Happiness", http://hbswk.hbs.edu/item/5944.html, June 2nd 2008

[18] Nordhaus William D. and Tobin James, "Is Growth Obsolete", http://cowles.econ.yale.edu/P/cp/p03b/p0398a.pdf, 1972

Exhibit III
Human Development Index

The first Human development report (1990) introduced Human Development Index (HDI) as a new way of measuring development. It recognises that the basic purpose of development is "to enlarge people's choices", as the founder of the Human Development Report Prof. Mahbub ul Haq has expressed; it implies "advancing the richness of human life", as Prof. Amartya Sen has observed. HDI combines three dimensions of development such as a long and healthy life, knowledge, and a decent standard of living. This is done by means of figuring out their index values and then adding and averaging the three indices. A long and healthy life is measured by life expectancy index, knowledge is measured by education index consisting of adult literacy index (with $2/3^{rd}$ weight) and gross enrolment index (with $1/3^{rd}$ weight) and a decent standard of living is measured by GDP index. For each dimension, HDI sets a minimum and a maximum called goal posts and then shows where a country stands between these goal posts expressed as a value between 0 and 1. As an example, if life expectancy of a country is 75 years with minimum and maximum goal posts 25 years and 85 years, the life expectancy index will be 75 – 25/85 – 25 = 0.833. If adult literacy is 93% with minimum and maximum goal posts 0% and 100%, the adult literacy index will be 93 – 0/100 – 0 = 0.93. If gross enrolment is 66% with minimum and maximum goal posts 0% and 100%, the gross enrolment index will be 66 – 0/100 – 0 = 0.66. The education index will be 2/3(0.93) + 1/3(0.66) = 0.62 + 0.22 = 0.84. If per capita GDP in Purchasing Power Parity (PPP) US dollar terms is \$8,840 with minimum and maximum goal posts \$100 and \$40,000, the GDP index will be log (8840) – log (100) / log (40000) – (100) = 0.748. Since achieving a respectable level of human development does not require unlimited income, the logarithms of income figures are used. The HDI being the simple average (i.e., arithmetic mean) of the life expectancy index, education index and GDP index, it will be 1/3(0.833 + 0.84 + 0.748) = 0.807 in the example.
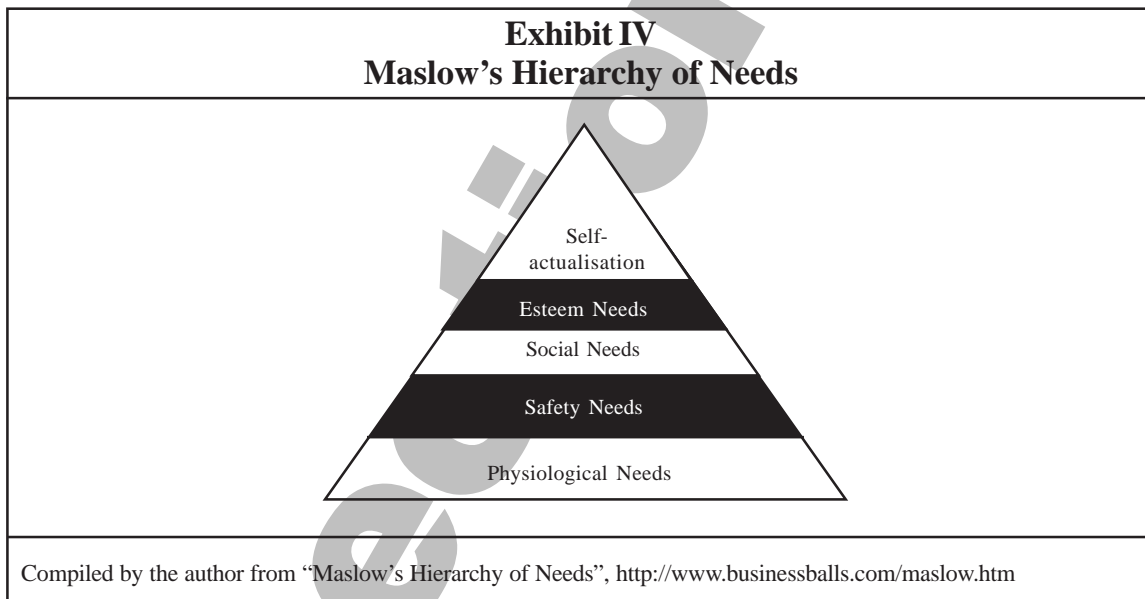
Compiled by the author from "Human Development Reports (UNDP)", http://hdr.undp.org/en/humandev/origins/ and http://78.136.31.142/external/ flash/calculator/hdi_calculator.swf

Concept of GNH

In the early 1970s, when the idea of GNH was mooted by the fourth Bhutanese monarch, it was initially dismissed by outsiders as a throw-away comment by a newly crowned leader to conceal Bhutan's poor economic performance on the existing yardstick. Some have derided that it is a case of twisting the statistics with fuzzy qualitative elements, when statistics tell a story that is unpleasant to hear. But GNH kept attracting increasing attention as Bhutanese Royal Government started articulating the concept and orienting its policies towards this guiding force.

Three international conferences have been organised on the concept and operationalisation of GNH. The first one was held in Thimpu, Bhutan in February 2004; the second in Nova Scotia, Canada in June 2005; and the third in Bangkok, Thailand in November 2007. Jigme Y. Thinley, the then Home and Cultural Affairs Minister, has articulated that GNH stands for holistic needs of individuals – both their physical and mental well-being. While acknowledging that the things measured

by GDP do contribute to enhancing physical well-being, Thinley argued that "the state of mind, which is more important than body, is not conditioned by material circumstances alone".[19] This articulation is akin to Albert Einstein's observation on well-being. According to him, "The satisfaction of physical needs is indeed the indispensable precondition of a satisfactory existence, but in itself it is not enough. In order to be content, men must also have the possibility of developing their intellectual and artistic powers to whatever extent [these] accord with their personal characteristics and abilities."[20] It is also connected to Abraham Maslow's Hierarchy of Needs, starting with physiological needs and culminating with self-actualisation needs (Exhibit IV) and also to John K. Stutz's Well-Being Mandalas (Exhibit V) reflecting three types of well-being: physical, subjective and reflective. Physical well-being is roughly synonymous with health; subjective well-being, with contentment in life; and reflective well-being with degree of comfort with choices made. These three aspects of individual well-being are, to some extent, overlapping since they are interdependent. John K. Stutz has shown them in three overlapping smaller circles rested at the centre of three concentric larger circles representing economy, society and environment (Exhibit V). The well-being circles also highlight the dependence of personal well-being not only on promotion of economy, but also on promotion of society and environment at large.

Exhibit IV
Maslow's Hierarchy of Needs

Compiled by the author from "Maslow's Hierarchy of Needs", http://www.businessballs.com/maslow.htm

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[19] "What Does Gross National Happiness (GNH) Mean?", op.cit.

[20] Dwivedi O.P., "The Well-Being of Nations: Integrating the Human and Eco-System Well-Being", *Prosperity Index: An Introduction*, (Ed.) 1st Edition (ISBN:81-314-1382-9), The Icfai University Press, Hyderabad, 2008, page 44

Exhibit V
Well-Being Mandalas
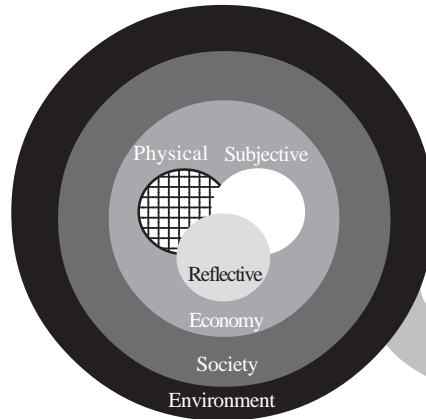
Source: Stutz John K., "What Does Happiness Look Like? The Well-Being Mandala", *Prosperity Index: An Introduction (Ed. Joshi Asha B.)*, 1st Edition (ISBN:81-314-1382-9), The Icfai University Press, Hyderabad, 2008, page 93

Thinley identified four pillars of GNH (Exhibit VI), which have become the guiding philosophy in Bhutan's new matrix of development.

Exhibit VI
Four Pillars of GNH

1. Sustainable and equitable socio-economic development

2. Conservation of environment

3. Preservation and promotion of culture

4. Good governance.

Source: Thinley Jigmi Y., "What Does Gross National Happiness (GNH) Mean?", http://www.gpiatlantic.org/conference/proceedings/thinley.htm, June 20th–June 24th 2005

The first pillar has guided Bhutan to provide education and health free of cost. A quarter of its annual budget is being set aside for schools and hospital services. Rotation of teachers from urban to rural regions is being done to ensure equal access of students to best teachers. More than 90% of the children of Bhutan have reached grade five schooling. Health service is being provided through a four-tiered network consisting of National-cum-Referral Hospitals, Regional-cum-Referral Hospitals, District Hospitals and Basic Health Units. Around 90% of Bhutan's population has access to health service, access being defined to be within 2 hours' walk. Nearly 17 hospital beds are available per 10,000 people. About 95% of the Bhutanese have their own homes. Being rooted to subsistent agrarian activities, they are largely self-sufficient. Hunger is not an issue in Bhutan. To stimulate

agrarian development, rural accessibility is given a high priority. Farm and feeder roads are being constructed under Rural Access Project to cut down on transportation costs and travel time.

The second pillar has led Bhutan to legislate for at least 65% of the land under forest cover, even though the arable land of Bhutan is only 16% and there is obvious pressure to cut trees and sell timber. The hydro-power projects, which are the main drivers of its economy, are mostly the run-of-the-river schemes. These hardly lead to environmental deterioration or human displacement. Bhutan also banned smoking and restricted foreign tourists to 6,000 per year to preserve its pristine environment, which "bestows on us", as Thinley remarks, "wholesome foods, medicines, pleasure and a host of essential materials and also development of our finer senses".[21] This dependence of human well-being on the ecosystem is comparable to the dependence of an egg's yolk on its surrounding white that supports it.

The third pillar has required Bhutan to encourage indigenous culture and etiquette. It has imposed national dress code in public places. Royals, scholars and commoners all wear to public places kimono type *gho* with knee-socks for men and wraparound-skirt type *kira* with a jacket for women (Exhibits VII and VIII). Competitive textile shows are annually organised to make *gho* and *kira* fashionable especially among the youth. The annual Buddhist dance festival is held in almost all districts of Bhutan in honour of Guru Rinpoche who brought Buddhism to Bhutan. Both monks and laymen perform a series of dance during this occasion. Bhutan's national sport archery is organised on a grand scale. The entire communities gather to eat, drink and have fun. The 13 traditional arts and crafts of Bhutan are kept alive through two training institutes. Bhutan has let in TV and Internet in a phased manner to balance tradition and modernity. It has debarred World Wrestling Federation Channel when its youth began to show enthusiasm for violence. Critics, however, point to Bhutan's vigorous pursuance of native culture as a strategic defence against homogenisation with the rest of the world in order to preserve its own identity and sovereignty.

The fourth pillar has seen Bhutan's switch to parliamentary democracy under a constitutional framework with the monarch voluntarily divesting himself of executive power and relegating to the ornamental position of the head of state. Bhutan's enlightened monarchs have guided the people into the democratic path so that governance would get attuned to people's desire. The process of Bhutan's transition to democracy over the last three decades has culminated in its first ever multi-party elections on March 24th 2008. Good governance not only makes effective delivery of public services but also creates enabling conditions for people to pursue their own good.

These four pillars of GNH have inherent interdependence. While building and buttressing these pillars, there must be the requisite balance to take advantage of the middle path. The two political parties of Bhutan have imbibed the GNH ethos that has provided perspective to Bhutan's 10th Development Plan. Bringing down the percentage of population below poverty line to 15%, providing basic health access to more than 90% of population, achieving 100% enrolment rate and maintaining full employment are among the 10th Plan's major development targets (Exhibit IX).

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[21] "What Does Gross National Happiness (GNH) Mean?", op.cit.

Exhibit VII
Bhutanese National Dress

Gho – **Bhutan's National Dress for Men**

Kira – **Butan's National Dress for Women**

Source: http://farm1.static.flickr.com/174/478872401_8ca045f608.jpg?v=0 and http://farm2.static.flickr.com/1153/760896084_b515f2afbe.jpg?v=0

Exhibit VIII
Bhutan's Royals in National Dress

From left to right – The Crown Prince of Bhutan, Prime Minister of India (Dr. Manmohan Singh),
Fourth King of Bhutan (Jigme Singye Wangchuk) and the then President of India (Dr. Abdul Kalam)

Source: http://www.sarkaritel.com/news_and_features/jan2005/26bhutanking.jpg

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Exhibit IX
Major Development Targets for the 10th Plan

Average GDP growth rate	8%–9%
Agriculture	4.5%
Non-agriculture	10.3%
Ratio of National Savings/GDP	40%
Ratio of Investment/GDP	66%
Inflation	5%–7%
Maintain full employment	
Major Social Targets	
Population living below poverty line	15%
Rural population living below poverty line	20%
Enhancing annual rural household cash income to	Nu. 35,000
Sustaining access to safe drinking water	>95%
Access to safe sanitation	>96%
Life expectancy	>70
Infant Mortality Rate (per 1,000)	20

Contd...

Under Five Mortality Rate (per 1,000)	<30
Maternal Mortality Ratio (per 100,000)	100
Basic Enrolment Rate near	100%
Net Primary Enrolment Rate near	100%
Literacy Rate	80%
Population Growth Rate	1.3%
HDI	0.700
Major Physical Infrastructure Targets	
Hydro-power generation capacity	2,705 MW
Rural population with access to electricity	84%
Proportion of rural population living within half a day's walk from nearest road head	85%
Proportion of population within 3 hours of a Basic Health Unit or ORC	>90%
Rural Telecommunications Penetration Rate	15%
Access to ICT services	60%
Establish a Cyber Park	
Establish Industrial Parks, Dry Port and Trade Centre	

Source: GNH Commission, Royal Government of Bhutan, Draft Tenth Five Year Plan (2008–2013), February 2008, page 54

"If you want people to pay attention to something, measure it", observed Ed Diener,[22] professor of Psychology at the University of Illinois. He designed a five-statement formula, using a 1–7 scale for various verbal expressions of agreeing and disagreeing, to calculate self-reported happiness (Exhibit X). Bhutan has attempted to measure happiness, the ultimate end – instead of measuring income, the imperfect means – even though it has been difficult to quantify the former. Recent years have witnessed considerable progress in the methodology of tracking happiness with some degree of accuracy. Self-reported happiness and functional Magnetic Resonance Imaging (fMRI) of brain activities are two important methods of counting happiness, though the latter method is a very expensive proposition. Under the fMRI method, brain activities in the left side of pre-frontal cortex are counted as happy feelings and those in the right side of the pre-frontal cortex are counted as sad feelings. This has been validated by showing a group of individuals a nice picture of a smiling baby and a horrendous picture of a deformed baby separately and tracking the resultant brain activities in both the situations (Exhibit XI).

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[22] Esty Amos, "Does Bhutan Have a Better Way to Measure National Progress", http://www.americanscientist.org/template/AssetDetail/assetid/37221, November–December 2004

Exhibit X
Ed Diener's Happiness Calculation Formula

A. Five Statements with Seven Options

   1. In most ways my life is ideal: (a), (b), (c), (d), (e), (f), (g)

   2. The conditions of my life are excellent: (a), (b), (c), (d), (e), (f), (g)

   3. I am satisfied with my life: (a), (b), (c), (d), (e), (f), (g)

   4. So far I have gotten important things I want in life: (a), (b), (c), (d), (e), (f), (g)

   5. If I could live my life over, I would change almost nothing: (a), (b), (c), (d), (e), (f), (g)

B. Legends: (a)= Strongly disagree, (b) = Disagree, (c) =Slightly disagree, (d)= Neither agree nor disagree, (e)= Slightly agree, (f)= Agree (g)= Strongly agree.

C. Score Points for the options: (a) 1, (b) 2, (c) 3, (d) 4, (e) 5, (f) 6, (g) 7

D. Happiness Scoring in Percentage: $\dfrac{\text{Sum of the score points}}{5 \times 7} \times 100$

Compiled by the author from "Test Your Happiness", http://news.bbc.co.uk/2/hi/programmes/happiness_formula/4785402.stm, March 8th 2006

Exhibit XI
The fMRI Method
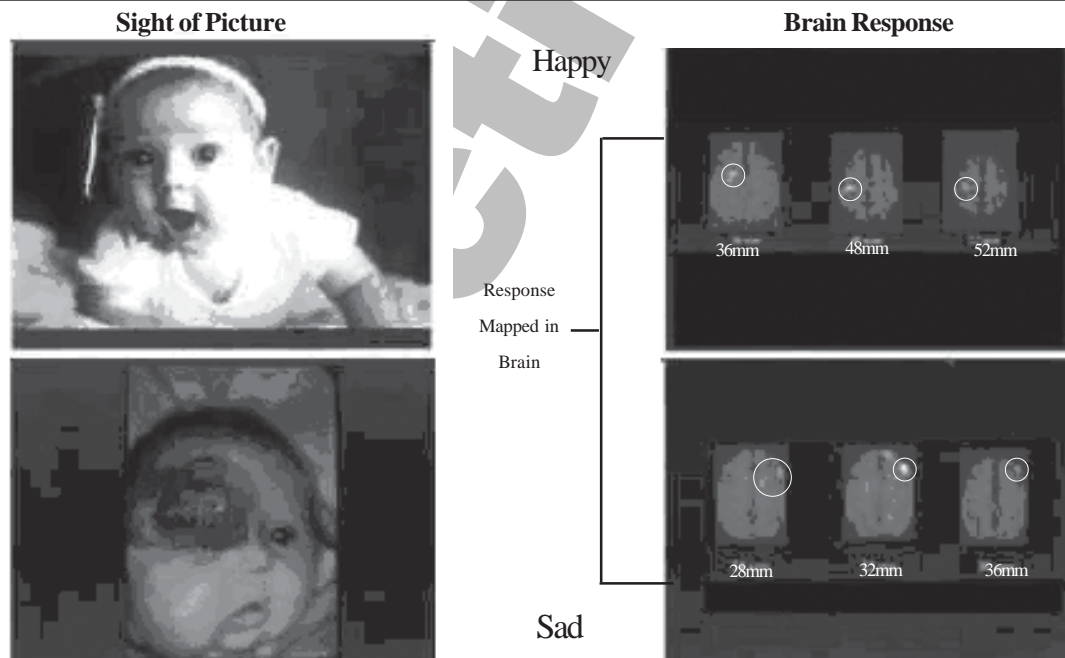
Source: Layard R., "Has Social Science A Clue", Lionel Robbins Memorial Lectures 2002/3, cep.lse.ac.uk/events/lectures/layard/RL030303.pdf, page 10

As a good starting point for creating the novel metric of happiness, seven areas of wellness have been proposed for use (Exhibit XII). Karma Tshiteem, Bhutan's Gross National Happiness Commissioner, is entrusted with the job of figuring out what adds to and subtracts from happiness. The Centre for Bhutan Studies, a local think tank, has been commissioned to conduct a comprehensive survey to determine what makes 750,000 Bhutanese happy and what turns them sad, and also to devise a way to quantify that mood. The Centre carried out a nationwide pilot survey on GNH indicators covering nine different domains (Exhibit XIII) during December 25th 2005 and March 14th 2008. More than 1,000 households have been interviewed with nearly 300 questions.[23] However, the researchers are yet to validate these indicators of GNH, for data-cleaning involved in the process is a tough and time-consuming task.

Exhibit XII **Seven Areas of Wellness**
1.   Economic wellness 2.   Environmental wellness 3.   Physical wellness 4.   Mental wellness 5.   Workplace wellness 6.   Social wellness 7.   Political wellness.
Source: Yones Med, "The American Pursuit of Unhappiness: Gross National Happiness (GNH) – A New Economic Metric", http://www.iim-edu.org/grossnationalhappiness/index.htm, January 15th 2006

Exhibit XIII **Nine GNH Indicators**
1.   Psychological well-being 2.   Good governance 3.   Education 4.   Health 5.   Time use and balance 6.   Community vitality 7.   Culture 8.   Ecological diversity and resilience 9.   Living standard.
Source: Centre for Bhutan Studies, "Nation Wide Survey on GNH", http://www.bhutanstudies.org.bt/main/highlight_detail.php?id=28, December 3rd 2007

[23] Wonacott Peter, "As Tiny Nation Tallies Up Votes, Bhutan Also Counts Its Blessings", *The Wall Street Journal*, March 25th 2008, page 36

Downside of GNH Measure

Some have argued that happiness is a fleeting state of mind and is hugely influenced by mood swings of the individual and disposition of the neighbours. It is also subject to hedonistic treadmill – wearing off as it does with time. To some others, happiness itself is illusory. For instance, in a very pitiable condition of starvation, one may feel very happy for merely two loaves of bread. Prof. Amartya Sen argues that even though people living a life of great misfortune with little hope and opportunities may get more happiness over small gains, this should not be interpreted as significant improvement in their well-being. Their happiness does not actually reveal the true picture of their deprivation because of their "hopelessly deprived lack of the courage to desire much".[24] Another downside of the GNH concept is the problem in measuring happiness of such people as sadists or psychopaths. There is also the probability of disguise reporting by individuals to manipulate state policy pertaining to happiness. Responses may be different to same questions on happiness if phrasing and placement of questions vary. "In some cultures, people may not like to express their feelings but in others they may like it."[25] Translation of happiness surveys into policy recommendations at times yields anomalous results. For example, at times of higher unemployment rates, the unemployed are happier than before because of reduced stigma of being unemployed. But raising unemployment rates as a state policy would certainly be an egregious blunder.[26] Harvard's social psychologist Daniel Gilbert has dived into another intriguing aspect of happiness. He says that people's forecast of happiness and unhappiness overrates what they eventually come to experience. For instance, the individuals getting paraplegic do not feel as unhappy as they had apprehended; nor do the persons winning lotteries feel as happy as they had expected.[27] Some experts such as Venezuelan economist Frank Bracho persist with the age-old objection that the very "act of trying to quantify happiness could threaten it."[28]

In Bhutan, the very Buddhist psyche of the people make them appreciate what they have and be contented with that. They love simplicity and tend to shun the complexity of consumerism because they have been conditioned accordingly for generations by their religion, culture and respect for the natural world. Around 95% of the Bhutanese youth studying abroad come back to settle at home. Tshiteem, in tune with the national mood, favours the existing agrarian Bhutan over its urbanisation and disfavours outsourcing that will require Bhutanese youth to "stay up all night" and "sleep all day".[29] Thus, Bhutan's attempt to go for the measurement of happiness has sprung up not only from the evidences against income-happiness correlation but also from Bhutan's unique socio-cultural impulses that impart primacy to contentment. Since happiness is an inner experience, one can experience perfect contentment by developing and training the mind. Critics, however, argue that the

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[24] "Economic Judgements and Moral Philosophy", op.cit., pages 45–46

[25] Excerpted from an exclusive internet interview with Prof. Guven C. on June 23rd 2008. For full interview please see Teaching Note.

[26] Graham C., "The Economics of Happiness", *Prosperity Index: An Introduction*, 1st Edition (Ed.) (ISBN: 81-314-1382-9), The Icfai University Press, Hyderabad, 2008, page 85

[27] Dreifus Claudia, "A Conversation with Daniel Gilbert", http://www.iht.com/articles/2008/04/23/healthscience/22conv.php

[28] "A New Measure of Well-Being from a Happy Little Kingdom", op.cit.

[29] "As Tiny Nation Tallies Up Votes, Bhutan Also Counts Its Blessings", op.cit.

concept of GNH has organically evolved from the constituent features of the Bhutanese society. It is the translation of existing socio-cultural-religious values into development priorities. GNH may gel well with the mental makeup of a long-insulated tiny nation anchored in unalloyed Buddhist philosophy; but for a large country having a huge population with diversified outlooks, attitudes and cultures, the Bhutanese concept can hardly serve as a template for emulation.

The merit of Bhutanese concept of GNH is undoubted in exposing the inherently flawed nature of GDP. GNH as the guideline has fetched good results for the people of Bhutan. Still, as admitted by the then Bhutanese Prime Minister Kinzang Dorji in the third GNH Conference, "considerable space exists between the inspirational ideal of GNH and the every day decisions of policy makers".[30] Putting GNH into practice has drawn sharp reactions as evidenced in Bhutan's deportation of over 100,000 inhabitants of Nepalese ethnicity on the grounds of non-adoption of traditional Bhutanese language, dress and religious practices. Balaram Poudyal, president of Bhutan People's Party formed by the deportees bewails, "It's not gross national happiness; it's gross national sorrow."[31] The sympathisers of the exiles read into it a conspiratorial ethnic cleansing under the cloak of GNH mumbo-jumbo. Critics comment that GNH is, at best, an empty slogan including everything and meaning nothing; while, at worst, it is an ideological cover for repressive and racist policies.[32]

It is also questionable whether Bhutan's pillars of GNH will survive the arrival of television and Internet; and the consequent onslaught of globalisation. A media impact study, conducted by Sok Sian Pek for Bhutan's Communication Ministry, detected huge changes in family life of Bhutanese. People adjust mealtimes for their favourite TV programmes. People are becoming restless and materialistic. Youngsters have started watching pop music and playing video games in dirty pubs.

There is a controversy surrounding the causal aspect of happiness as well: Whether happiness is derived by having what one desires or desiring what one has? Jeff Larsen of Texas Tech University and Amie McKibban of Wichita State University studied both the aspects. Their test showed both to be instrumental in generating happiness though the correlation between the two was found to be far from perfect.[33]

In Defence of Traditional Yardstick

From the other end of the crossfire, the Wharton academics Prof. B. Stevenson and Prof. Justin Wolfers have rebutted Easterlin's Paradox and mended the dented image of GDP as a positive correlate of happiness. By re-analysing all the relevant postwar data including those from the Gallup World Poll, these two economists posited that there is no Easterlin's Paradox, which was miss-premised

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[30] Dorji Kinley, "The World Needs Gross National Happiness", http://www.gnh-movement.org/press_detail.php?id=88

[31] "As Tiny Nation Tallies Up Votes, Bhutan Also Counts Its Blessings", op.cit.

[32] "The Pursuit of Happiness", http://www.economist.com/ PrinterFriendly.cfm?Story_ID=3445119, December 4th 2005, page 2

[33] "Is Happiness Having What You Want, Wanting What You Have, Or Both?", http://www.sciencedaily.com/releases/2008/04/080428104537.htm, April 28th 2008

on negligibly "available data that do not lend themselves to strong conclusions between GDP and happiness".[34] Stevenson and Wolfers have established that GDP and happiness do move together (Exhibit XIV); and Easterlin's Paradox was simply a case of equating "absence of evidence" with "evidence of absence".

Prof. Daniel Kahnneman, Princeton psychologist and recipient of 2002 Nobel Prize in Economics, had earlier maintained that there was little correlation between income and experienced happiness because of adaptability of people to higher income. As individuals get used to higher incomes, their aspiration levels march up and they begin to derive less happiness from the same income – or alternatively speaking, the same happiness from a higher income–compared to beforehand. This is called 'aspiration treadmill'. Later on, Kahneman gave his notion up when a sample of over 130,000 people from 126 countries exhibited a correlation between GDP and reported happiness at 0.40, "an exceptionally high value in social science". He then inferred that the "humans everywhere, from Norway to Sierra Leone" do benchmark their life "by a common standard of prosperity", asserting in effect the cross-country operation of relative income hypothesis.[35]

Economic journalist Daniel Ben-Ami is apprehensive of happiness as a social goal. For, it downplays economic prosperity that can potentially benefit the mass of the society. Secondly, the pursuit of happiness as a social goal opens the way for public authorities to regulate people's emotions.[36]

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[34] Wolfers Justin, "The Economics of Happiness, Part 5: Will Raising the Incomes of All Raise the Happiness ofAll?", http://freakonomics.blogs.nytimes.com/2008/04/23/the-economics-of-happiness-part-5-will-raising-the-incomes-of-all-raise-the-happiness-of-all/, April 23rd 2008

[35] Kahneman Daniel, "The Sad Tale of the Aspiration Treadmill", http://www.edge.org/q2008/q08_17.html

[36] Ben-Ami D., "There is no Paradox of Prosperity", *Prosperity Index: An Introduction*, 1st Edition (Ed.) (ISBN:81-314-1382-9), The Icfai University Press, Hyderabad, 2008, page 68

Exhibit XIV
A New Study Showing Positive Association Between Income and Happiness

Measuring Satisfaction

A new study shows that people in wealthier countries are more likely to be satisfied with their lives. Earlier research had suggested that satisfaction did not necessarily increase once basic needs were met.

% who rate themselves an 8, 9 or 10 on a 10-point scale of satisfaction
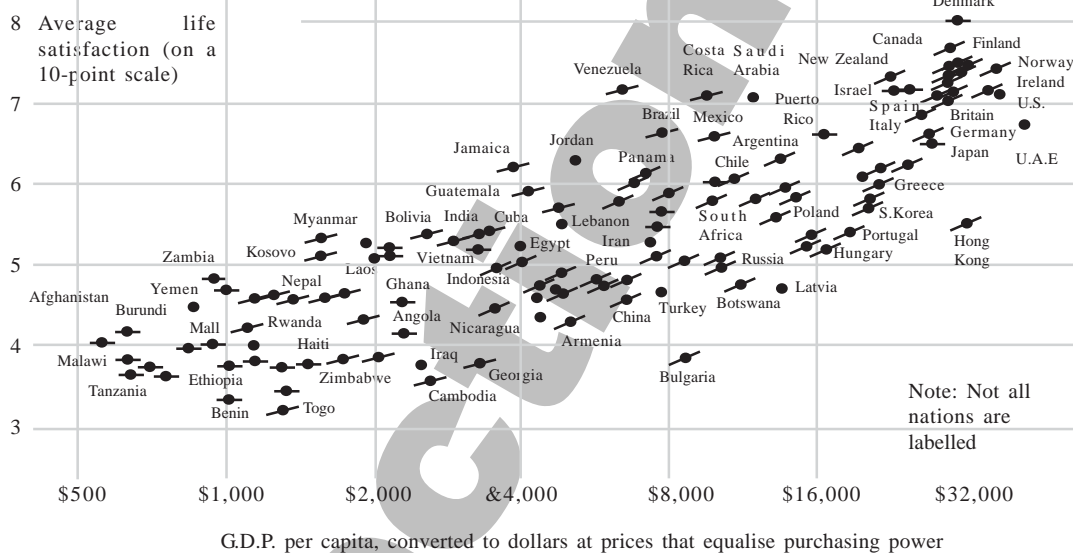
%
66
33
25
15
5
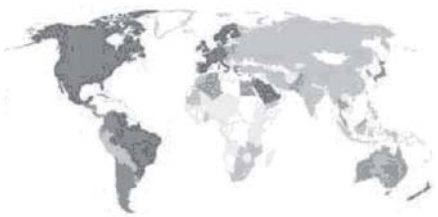
KEY

● Each dot represents one country

The line around the dot shows how satisfaction relates to income within that country:

Higher-income people are more satisfied

Higher-income and lower-income people are equally satisfied

Note: Not all nations are labelled

G.D.P. per capita, converted to dollars at prices that equalise purchasing power

A Third Dimension

Prof. Bruno S. Frey and Prof. Alois Stutzer have turned the existing dilemma into a sort of trilemma by adding another dimension to the ongoing debate. They argued that the appropriate approach is not the maximisation of social welfare, and not certainly the maximisation of GDP, but the maximisation of the processes where individuals can better express their preference and better advance "what constitute their idea of good life".[37] People prefer processes over outcomes. Processes give a sense of self, autonomy, competence and relatedness. In his book *Development as Freedom,* Prof. Amartya Sen has established that the main purpose of development is to spread freedom and not merely contentment. He harks back to the 18th century English poet William Cowper who so persuasively exulted:

"Freedom has a thousand charms to show,

That slaves howe'er contented, never know."[38]

Critics also point out that justice, personality development, loyalty, responsibility are often more obvious ultimate goals than maximisation of welfare. A mother of many children, for instance, scarcely thinks of her well-being while she attends to the responsibility of tending her off-springs Some people even find virtue in unhappiness if deep discontent is instrumental in dislodging social ills. Others argue that since one cannot become happy by trying, it is inconsistent to set happiness as a goal.

The Bhutanese concept of GNH is an attempt to redefine progress by putting spotlight on environmental care, cultural promotion and good governance in addition to equitable economic development. Although still a work in progress, it has been igniting a lot of discourse on national well-being across the countries, notably the US, Canada, UK, France, Kenya, Japan and Thailand. Two Nobel laureate economists Prof. Amartya Sen and Prof. Joseph E. Stiglitz, on the invitation of the French President Nicolas Sarkozy, are putting their minds together to suggest what constitutes national well-being and how to measure it.[39] While all the debates and discussions are going on, Bhutan is poised to come up with its second survey of national happiness to present a comparison of national progress – for the first time in the world – on the basis of GNH, evoking the immortal words of Robert Frost:

"Two roads diverged in the woods, and I –

I took the one less travelled by

And that has made all the difference."[40]

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[37] "Should National Happiness Be Maximised?", op.cit., page 15

[38] "Oxford University Press Reviews: Development as Freedom", http://www.oup.com/uk/catalogue/?ci=9780198297581

[39] Bhattacharjee Jay, "How to Track Well-Being", *The Times of India*, January 22nd 2008, page 16

[40] Frost Robert, "The Road Not Taken", http://www.tetrameter.com/frost.htm#The%20Road%20Not%20Taken