



Gross National Happiness in Bhutan: A Living Example of an Alternative Approach to Progress

Alejandro Adler Braun

Advised by Dr. Waheed Hussain

Wharton International Research Experience

September 24, 2009

"GDP has increasingly become used as a measure of societal well-being, and changes in the structure of the economy and our society have made it an increasingly poor one. It is time for our statistics system to put more emphasis on measuring the well-being of the population than on economic production."

- Joseph Stiglitz, 2001 Nobel Laureate in Economics¹

"Economic resources are not all that matter in people's lives. We need better measures of people's expectations and levels of satisfaction, of how they spend their time, of their relations with other people in their community."

-Angel Gurría, Secretary General, OECD²

"For years statistics have registered an increasingly strong economic growth as a victory over shortage until it emerged that this growth was destroying more than it was creating. The crisis doesn't only make us free to imagine other models, another future, another world. It obliges us to do so."

-Nicolas Sarkozy, President, France³

"Gross National Happiness is more important than Gross National Product."

- Jigme Singye Wangchuck, the 4th King of Bhutan, 1986 Interview with Financial Times⁴

¹ Interview, Bloomberg Press, 14 Sept 2009

<<http://www.bloomberg.com/apps/news?pid=20601109&sid=aSblT8GZjdKI>>.

² Workshop on the Findings of the Commission on the Measurement of Economic Performance and Social Progress, 14 Sept 2009

<http://www.oecd.org/document/11/0,3343,en_2649_201185_43684683_1_1_1_1,00.html>.

³ Endorsing the recommendations of the Commission on the Measurement of Economic Performance and Social Progress, 14 Sept 2009 < <http://www.guardian.co.uk/business/2009/sep/14/sarkozy-attacks-gdp-focus>>.

⁴ Laurence J. Brahm, *The Anti-Globalization Breakfast Club: Manifesto for a Peaceful Revolution*, Singapore: John Wiley & Sons, 2009.

Abstract

As a society we care about what we measure, we use what we measure, and what we measure drives policies and society in a particular direction. We therefore need to measure progress correctly. If societies blindly accept GDP as their measure of progress, they might be trying to maximize the wrong indicator for society. In this paper I present Bhutan as a living example of a society that has opened a national dialogue about what progress means, and they have created the Gross National Happiness (GNH) index to reflect their understanding of progress. Furthermore, the political and economic architecture of Bhutan is structured around maximizing GNH rather than GDP. Institutions in Bhutan use the GNH index and a series of instruments of policy to construct policies that promote GNH. We can draw a number of lessons from the Bhutanese experiment, namely that each individual society should strive to answer the following three questions:

- What does progress mean?
- How do we develop indicators that measure progress?
- How do we use indicators to shape policies and institutions?

All societies seek to create wellbeing for individuals. The question is not whether societies desire welfare or not. The fundamental questions are: what does wellbeing mean? How do we measure it? And how do we use indicators to organize society and its institutions so as to maximize wellbeing?

Answering these complex questions is a challenging endeavor, especially given the diversity of values and worldviews around the globe. However, at the center of the essential questions of development and progress lie the indicators we use as a society to measure wellbeing and develop policies. As Hazel Henderson said, “Statistical indicators are the structural DNA codes of nations. They reflect a society’s values and goals and become the key drivers of economic and technological choices.”⁵

Indicators Matter

Indicators reveal particular information about society. They thus embody values that people care about, or at least they should if indicators are to drive policies and thus society in a genuine direction of progress. As a society we value what we measure and we use what we measure to make decisions that impact people’s lives. “Why are indicators important? Policymakers increasingly look at data like GDP to make decisions about what are good policies.”⁶ Therefore, if indicators don’t measure what people care about and a country’s economic and political architecture is designed to maximize the value of those indicators, the indicators might increase but society might not be enhanced.

⁵Mike Salvaris, *Democracy, Happiness and Progress Measurement*, OECD Global Conference on ‘Measuring and Defining the Progress of Societies’, Istanbul, June 2007.

⁶Joseph Stiglitz, *Globalizing the GDP Debate*, Conference on ‘Thailand’s Future Beyond the Global Crisis: A Regional Platform Towards the Wellbeing Society?’, Bangkok, 22 August 2009. This conference shall hereafter be referred to as Stiglitz’s Conference

Most countries utilize indicators in a similar fashion. Given a particular country at a specific time, an indicator measures a set of definite characteristics about that country. This indicator provides limited information about the country depending on what it measures. The indicator is then analyzed and used by policymakers to develop policies that seek to maximize the wellbeing of society. Since the indicator is assumed to measure wellbeing to a certain extent, it is used as a proxy for wellbeing and the objective of policies and institutions becomes to maximize the value of the indicator. These policies impact society, and then at a future time the indicator is generated again to assess the success of those policies. If the value of the indicator has grown, it is a success story. If the value has declined, then the policy is deemed faulty and it is rejected or revised until it impacts the indicator positively.

Although this is a simplified version of the way institutions use indicators to develop policies, it does illuminate the primary role that indicators play in shaping decisions and society. With such a central role in driving society in a particular direction, indicators should adequately measure wellbeing and progress. “We look at numbers that tell us what we are doing. If those numbers don’t reflect what we care about, we make decisions that actually make us worse off.”⁷

GDP and Its Discontents

Gross Domestic Product (GDP) was developed in the U.S. to manage the Great Depression and then the war time economy. “GDP is the total market value of the goods

⁷ Stiglitz’s Conference

and services produced by a nation's economy during a specific period of time.”⁸ It is simply a measure of how much money is exchanging hands, a measure of a country’s output in a given year. It was never developed as a measure of social wellbeing or progress. “Somehow, over the last 30-40 years, GDP has been seen as a measure of progress although it was never developed for that purpose... If GDP was going up, then everything was fine in our society. GDP has been guiding institutions and politics. We need to say, ‘No, GDP is not a measure of progress.’ It is one measure of progress perhaps, but there’s many other things to think about.”⁹

GDP is an addition of all the goods and services produced in an economy, that’s it. “How can we summarize something as complex as the progress and wellbeing of society in one single number like GDP? GDP fails to capture many of the components of a true wellbeing society.”¹⁰

GDP is an average. So even if most people in a country are worse off from one year to the next, GDP may increase if a few people are doing very well. In fact, “even though GDP rose steadily from 1999 to 2007 in the U.S., most Americans were worse off in 2007 than in 1999. There has been a general decline in standards of living for most Americans even if GDP had been steadily rising.”¹¹ GDP fails to capture the distribution of wealth and income. It may thus fail to accurately represent the experience of most people in a country. This sheds light on the importance of having indicators that focus on the median of society and not on the average. An indicator that uses the median income of society rather than the

⁸ "Gross Domestic Product." *Encyclopædia Britannica*. 2009. Encyclopædia Britannica Online. 23 Sept. 2009 <<http://www.search.eb.com/eb/article-9389903>>.

⁹ Jon Hall, *The OECD's Global Project on Measuring the Progress of Societies*, The First National Roundtable on 'Measuring Progress of Societies and Sustainable Development', Bangkok, 20 July 2009. This title shall hereafter be referred to as OECD Global Project.

¹⁰ Interview with Surat Horachaikul, Professor, Faculty of Political Science, Chulalongkorn University, Bangkok, 15 July 2009.

¹¹ Stiglitz's Conference

average will more accurately represent the change in standards of living of most people in a country. “In the last century there has been a marked increase in inequality in most societies, but GDP doesn’t reflect this.”¹²

Secondly, GDP is derived from prices. So when prices are not based on reality, when they are distorted, then the measures derived from them are also distorted. A clear example is housing prices prior to the current global economic crisis. Housing prices had nothing to do with reality prior to the crisis, so GDP was also removed from reality. Following the fall in housing prices, some of the fall in GDP had to do with a fall in real production, but part of it was a result of the disintegration of the mirage caused by the housing bubble. Again, GDP failed to adequately portray the reality of most people in society.

Thirdly, GDP does not reflect what money is spent on in society. Simply, the more money is spent, the higher the GDP. The U.S. spends more money per capita on healthcare than any other developed country, and the quality by any measure (longevity, morbidity, etc.) is lower.¹³ The U.S. spends more on healthcare and gets less; the healthcare system is inefficient. Any good system of national accounts would reveal this inefficiency, but GDP does not because the more people spend the higher the metric. “The fact that the U.S. has an inefficient healthcare system actually contributes to its GDP, the accepted measure of progress.”¹⁴ Healthcare is an issue that is central to public policy, and yet the metric that policymakers use the most does not reflect what people care about: the quality and efficiency of healthcare.

¹² Ibid.

¹³ Ibid.

¹⁴ Ibid.

The U.S. has one of the highest percentages of its population in prison of any country in the world. This means that taxpayers pay for the construction of prisons and for sustaining prisoners in jail. In some states in the U.S., more money is being spent on building prisons than universities.¹⁵ An adequate measure of wellbeing would diagnose that there's something wrong with a society that has such a high percentage of its population in prison, but quite the contrary with GDP. The more people are put in prison and the more prisons are built, the higher the GDP. The indicator grows as long as more money is spent, no matter what the money is used for in society.

Next, GDP fails to capture the environmental and social externalities of economic growth. Even though the U.S. produces a lot, it also destroys a lot. Americans' rate of consumption is undeniably unsustainable. If every person in the world consumed at the rate of the average American, it would take 5.5 planet earths to sustain that lifestyle.¹⁶ This level of consumption is even less sustainable when people around the world are attempting to mimic American patterns of consumption. Furthermore, when Multinational Corporations have entered developing countries in the past and created severe health hazards, GDP has gone up in that country even though social wellbeing has indisputably worsened.

Another issue that GDP fails to capture, especially in developing nations, is when a lot is produced in a country but most of the profits go abroad. This difference is reflected in the disparity between GNP and GDP. GNP is the sum of the income of citizens of a country, whereas GDP is the sum of the output in the country. Whether you use GNP or GDP is insignificant in a closed economy. But in open economies with significant Foreign Direct Investment (FDI), Multinationals invest heavily in small economies, pay them a small

¹⁵ Ibid.

¹⁶ Retrieved on 15 June 2009 from <http://www.neweconomics.org/>

royalty, and take the profits abroad. This is a situation in which GDP can increase dramatically but GNP only increases marginally.¹⁷ Again, GDP fails to capture what happens to most people's standard of living.

Over the years the world has developed what Joseph Stiglitz calls "GDP fetishism," a dogmatic fixation on GDP as a measure of progress. As a result, institutions and policies have revolved around maximizing GDP with little regard for what that means for individuals' standard of living and for social and environmental wellbeing. If societies are to strive after genuine wellbeing and progress, more holistic and comprehensive metrics need to emerge.

Alternatives to GDP

If GDP is not an appropriate measure of wellbeing and progress, what is? Questioning GDP means asking the question, 'What do we care about as a society? What does wellbeing mean for us?' "We need to open a national dialogue that sheds light on what values are important to society, and then create metrics that reflect this and are used by decision-makers."¹⁸ This dialogue is not an easy one to have, but it is definitely a fruitful one.

If more holistic, comprehensive, and sustainable indicators are to emerge, what variables should be used? Who decides what these variables are? How is the information that the indicator reveals used by decision-makers? Economists and statisticians often like GDP because it is relatively objective and easy to measure. Other measures in this objective arena are longevity, income, education, among others. A new area of scientific research that

¹⁷Presentation by Assumption University, The First National Roundtable on 'Measuring Progress of Societies and Sustainable Development', Bangkok, 20 July 2009.

¹⁸ Stiglitz's Conference

has emerged in recent years is the development of subjective measures of fear, trust, happiness, emotional resilience, and others. Subjective experiences cannot directly be measured using an instrument. Rather, these metrics rely on people's self-reports and that's why statisticians and economists are often averse to them.¹⁹

There are, however, various subjective measures that economists and statisticians already used and find quite useful. Consumer confidence, for instance, is an excellent predictor of people's future consumption patterns. Given that consumption is about 2/3 of GDP in most developed economies, consumer confidence is an excellent predictor of GDP. Furthermore, studies have shown that people's self-assessed health status -- the communication of symptoms they feel -- is often a better diagnosis tool than medical tests that use instruments.

Subjective indicators matter, especially for policymakers. It is difficult to prove a causal relationship between psychological wellbeing and health because of the number of confounding factors that affect both happiness and health. Danner et al., however, conducted an experiment in Milwaukee, Wisconsin in 1993 that found a strong causal relationship between happiness and health. When women became nuns in Milwaukee in the 1930's and 40's, they had to write a letter of application about why they wanted to join the convent. Danner et al. collected the applications from nuns in that convent and rated them on a scale of 1 to 3. Happy nuns were given a 1, neutral nuns were given a 2, and unhappy nuns were given a 3. Nuns were a good control group since they had similar living conditions: woke up at the same time, similar income, lived together, etc. His team followed the nuns until they died and found that happy nuns lived on average between 9-10

¹⁹ Hall's Presentation

years longer than unhappy nuns.²⁰ Longevity is definitely a central issue in policymaking. “A 9-10 year increase in life-expectancy is equivalent to about 50 years of development in first world countries.”²¹ Subjective wellbeing cannot be ignored by policymakers because it does impact objective measures that we care about, like longevity. “Subjective wellbeing is not just about smiling a lot; it’s about spiritual wellbeing, about identity, about culture, about the environment.”²²

Subjective measures don’t just lead to changes in objective measures; they are important in themselves. Psychological studies consistently show that people’s behavior is governed by how they feel. An experiment was conducted in an existing lottery system in Holland where anyone in the country can buy a ticket and then a random zip code is chosen and everyone in that zip code with a ticket wins a BMW car. They then looked at car-buying behavior in the winning zip codes. Economists would predict that car-buying would decrease in the winning zip codes because people have more cars, but car-buying consistently increased.²³ This means that people’s relational position in society influences their psychological wellbeing and therefore their behavior. This speaks to the issue of equality, which is central to policymaking, and the psychological and behavioral repercussions it has. Indicators should therefore not only aim at measuring absolute wealth, but also relative wealth and the subjective wellbeing it produces. Another subjective measure that is crucial for a government to have credibility and the ability to develop and implement policies is people’s confidence in the government.

²⁰ Danner, D. D., Snowdon, D. A., & Friesen, W. V. (2001). Positive emotions in early life and longevity: Findings from the nun study. *Journal of Personality and Social Psychology, 80*, 804–813.

²¹ Hall’s Presentation

²² Ibid.

²³ Kuhn, Peter J., Kooreman, Peter, Soetevent, Adriaan R. and Kapteyn, Arie, The Own and Social Effects of an Unexpected Income Shock: Evidence from the Dutch Postcode Lottery (May 2008). RAND Working Paper No. WR-574. Available at SSRN: <http://ssrn.com/abstract=1139162>

Therefore, when nations decide to open the complex but essential dialogue of “What does progress mean for us?” objective and subjective measures have to be considered side by side when constructing indicators. Orthodox economists and statisticians might be skeptical about the possibility of shifting the current GDP-centered global paradigm. There is, however, a small Himalayan kingdom that has chosen to take a more holistic and sustainable approach to development and progress. Bhutan has developed the Gross National Happiness (GNH) index, and institutions and policies in the country revolve around maximizing GNH rather than GDP. Bhutan is a living example of a society that has openly engaged the issue of wellbeing and progress, and they have developed indicators, institutions, and policies to reflect this.

Gross National Happiness in Bhutan

Bhutan is a country about the size of Switzerland located on the eastern ridges of the Himalayas. Located between the Assam-Bengal Plain of India and the Plateau of Tibet of southwestern China, Bhutan has important geopolitical significance. The country has a population of approximately 682,000 and in 2008 shifted from being an absolute monarchy to a multiparty parliamentary democracy. 70% of people live in rural areas and mostly farm for a living, although like in many other countries, rural to urban migration is a growing trend in Bhutan.²⁴

The concept of Gross National Happiness (GNH) was first introduced in 1972 by the 4th King of Bhutan, H.M. Jigme Singye Wangchuck. For years following the introduction of the concept, GNH served as a guiding philosophy for the absolute monarchy based on four pillars:

²⁴ Retrieved on 9 September 2009 from <http://www.search.eb.com/eb/article-9109743>

- Equitable Economic Development
- Environmental Preservation
- Cultural Resilience
- Good Governance

Having absolute power, the King used the four pillars of GNH to guide the construction and implementation of policies in Bhutan. In recent years, however, with more Bhutanese students pursuing education in India, the United States, and elsewhere, and with Bhutan slowly opening up to the world, the concept of GNH has been scrutinized and sometimes criticized for not being measurable or statistically sound. GNH first came to public global attention in 1986 when Jigme Singye Wangchuck, the 4th King of Bhutan, told the Financial Times, “Gross National Happiness is more important than Gross National Product” in an interview in London.²⁵

As a response to the skepticism from both Bhutanese and foreigners, the Center for Bhutan Studies (CBS), based in the capital city of Thimphu, has developed a GNH index.

The GNH index has nine domains:

- Psychological Wellbeing
- Time Use
- Community Vitality
- Cultural Diversity and Resilience
- Health
- Education
- Ecological Diversity and Resilience
- Living Standard
- Good Governance

A team of researchers was put together for each of the nine domains, and each team developed a set of statistically sound measures for each domain. For instance, a researcher with a psychology background and two researchers with a statistics background developed

²⁵ Laurence J. Brahm, *The Anti-Globalization Breakfast Club: Manifesto for a Peaceful Revolution*, Singapore: John Wiley & Sons, 2009.

the psychological wellbeing domain. The compilation of the nine teams' work resulted in the first GNH questionnaire in 2005.²⁶ The most recent GNH questionnaire, published in 2007, consists of 290 questions comprising 72 indicators, nine domains, and one GNH index (See Appendix 1).

1. Psychological Wellbeing

“As collective happiness is the main goal of a GNH society, psychological wellbeing is of primary importance in gauging the success of the state in providing appropriate policies and services.”²⁷ The psychological wellbeing domain of the GNH questionnaire covers three areas: general psychological distress indicators, emotional balance indicators, and spirituality indicators. Elements like the prevalence rates of negative emotions (jealousy, frustration, selfishness) and positive emotions (generosity, compassion, calmness), the practice of spiritual activities like meditation and prayers, and overall life enjoyment are part of this domain.

Examples of questions in this domain of the GNH questionnaire are:

Q13. On a scale of one to ten, I consider myself

Hap	Not a very happy person									Very Happy Person
	1	2	3	4	5	6	7	8	9	10

Q16. How satisfied are you with the following aspects of your life?

		Satisfied	Fairly satisfied	Not very satisfied	Dissatisfied	Don't Know
Sat1	Your health	1	2	3	4	8

²⁶ Interview with Tshoki Zangmo, Researcher, The Center for Bhutan Studies, Thimphu, Bhutan, 24 July 2009. Hereafter referred to as Interview with Zangmo.

²⁷ Karma Ura, *Explanation of GNH Index*, The Center for Bhutan Studies, Thimphu, Bhutan, 2008.

Sat2	The security of your finances/livelihood	1	2	3	4	8
Sat3	The major occupations in your daily life (could be your job if formally employed, farm work, housework)	1	2	3	4	8
Sat4	The relationship you have with your immediate family members.	1	2	3	4	8

Q32. How spiritual do you consider yourself to be

	Very	Moderately	Not at All
Spirit1	1	2	3

Q38. During the past few weeks, how often have you felt the following moods/emotions?

		Often	Sometimes	Never
Emot1	Anger	1	2	3
Emot3	Guilt	1	2	3
Emot5	Selfishness	1	2	3
Emot6	Jealousy	1	2	3
Emot7	Pride	1	2	3
Emot8	Calmness	1	2	3
Emot9	Empathy/Compassion	1	2	3
Emot10	Forgiveness	1	2	3
Emot11	Contentment	1	2	3
Emot12	Generosity	1	2	3
Emot13	Disappointment	1	2	3
Emot14	Sadness	1	2	3
Emot15	Frustration	1	2	3
Other emotions which are experienced often (please specify).....				

28

2. Time Use

“The domain of time use is one of the most effective windows on quality of life as it analyzes the nature of time spent within a 24-hour period, as well as activities that occupy

²⁸ *Gross National Happiness Questionnaire*, The Center for Bhutan Studies, Thimphu, Bhutan, November 2007.

longer periods of time.”²⁹ The time use domain highlights the value of non-work time for happiness and overall quality of life. The domain was constructed under the assumption that non-work activities such as “sleeping, personal care, community participation, education and learning, religious activities, social and cultural activities, sports, leisure, and travel add to a rich life and contribute to levels of happiness.”³⁰ Even though the “measurement of time devoted to unpaid work activities like care of children and sick members of a household, maintenance of household, and others can provide a proxy measure of the contribution made by unpaid activities to welfare,”³¹ the value of such activities are underestimated in most national accounts.

The time use domain consists of a time diary with the following format:

Time Diary–Yesterday

Q78. We would like to know how you spent your time yesterday. Beginning with when you woke up, can you please recount various activities you performed and how long they took?

Activity	Time started	Time ended	How did you feel doing this activity?*(<i>enter codes from below</i>)	Who else was/were with you?

²⁹ Karma Ura, *Explanation of GNH Index*, The Center for Bhutan Studies, Thimphu, Bhutan, 2008.
³⁰ Ibid.
³¹ Ibid.

***Feelings include:**

- | | | |
|---------------------------|---------------------|------------------------|
| 1=impatient for it to end | 5=competent/capable | 8=angry/hostile |
| 2=happy | 6=hassled/pushed | 9=worried/anxious |
| 3=frustrated/annoyed | around | 10=Enjoying myself |
| 4=depressed | 7=warm/friendly | 11=tried ³² |

3. Community Vitality

“The domain of community vitality focuses on the strengths and weaknesses of relationships and interactions within communities. It examines the nature of trust, belongingness, vitality of caring relationships, safety in home and community, and giving and volunteering.”³³ The domain consists of seven areas: family vitality, safety, reciprocity, trust, social support, socialization, and kinship density.

Examples of questions in this domain are:

Q195. During the past 12 months, have you given people unpaid voluntary help (do not consider *woola*)?

Vol1	Yes	No
	1	2
If No Go To Q200		

Q204. How would you describe your sense of belonging to your local community?
Would you say it is?

Belong	Very Strong	Somewhat Strong	Weak	Don't Know
1	1	2	3	8

³² *Gross National Happiness Questionnaire*, The Center for Bhutan Studies, Thimphu, Bhutan, November 2007.

³³ Karma Ura, *Explanation of GNH Index*, The Center for Bhutan Studies, Thimphu, Bhutan, 2008.

Q206. How much you trust your neighbours?

Trust4	Trust most of them	Trust some of them	Trust a few of them	Trust none of them	Don't Know
	1	2	3	4	8

Family Relationships

Q213. For the following statements, please tick only one that indicates your level of agreement or disagreement.

		Disagree	Neutral	Agree
Fam1	The members of your family really care about each other.	1	2	3
Fam3	You wish you were not part of your family	3	2	1
Fam4	Members of your family argue too much	3	2	1
Fam6	You feel like a stranger in your family	3	2	1
Fam7	You have enough time to spend with your	1	2	3

5
2

	family			
Fam8	There is a lot of understanding in your family	1	2	3
Fam10	Your family is a real source of comfort to you.	1	2	3

Q215. Have you been a victim of crime in the last twelve months?

Crime1	Yes	No
	1	2
If No Go To Q217		

Q219. How safe do you feel when walking alone in your neighbourhood or village after dark from....? Do you feel....?

		Always Safe	Usually Safe	Rarely safe
Safety1	Human harm	1	2	3
Safety2	Wild animals	1	2	3
Safety3	Ghost/Spirits	1	2	3

34

4. Cultural Diversity and Resilience

³⁴ Gross National Happiness Questionnaire, The Center for Bhutan Studies, Thimphu, Bhutan, November 2007.

“Maintenance of cultural traditions has been one of Bhutan’s primary policy goals, as traditions and cultural diversity contributes to identity, values, and creativity.”³⁵ This domain considers the diversity and strength of cultural traditions through six areas: dialect use, traditional sports, community festivals, artisan skill, value transmission, and basic precept.

Examples of questions in this domain are:

Q123. What was the primary language that you first learned at home in childhood? Refer to List of Languages

PrimLa1	Please record appropriate number from below for main language	
1= Dzongkha 3= Cho-ca-nga-ca-kha (Kurichu valley) 4= Tshangla (Shachop) 5= Bumthangkha 6= Khengkha 7= Kurtop 8= Nyenkha (Henkha or Mangdebikha) 9= Dzala 10= Dakpa 11= Chali kha	12= Monpahka 13= Brokpa 14= Brokkat 15= Lakha 16= B'okha (Tibetan) 17= Nepali (Lhotshamkha) 18= Lhokpu 19= Gongduk 20= Lepcha 21= English	

How well can you understand your first language

Q124. now?

PrimLa3	Very Well	Quite Well	Only a Little	Not at all
	1	2	3	8

Q128. Please indicate the importance that you assign to each of the following principles in life on a scale of 1 to 10.

		Not important at all									Extremely important
Value2	Family life	1	2	3	4	5	6	7	8	9	10
Value3	Friendship	1	2	3	4	5	6	7	8	9	10
Value4	Generosity	1	2	3	4	5	6	7	8	9	10
Value5	Spiritual faith	1	2	3	4	5	6	7	8	9	10
Value6	Compassion	1	2	3	4	5	6	7	8	9	10

³⁵ Karma Ura, *Explanation of GNH Index*, The Center for Bhutan Studies, Thimphu, Bhutan, 2008.

Value7	Self-development	1	2	3	4	5	6	7	8	9	10
Value8	Reciprocity	1	2	3	4	5	6	7	8	9	10
Value9	Responsibility	1	2	3	4	5	6	7	8	9	10
Value10	Freedom	1	2	3	4	5	6	7	8	9	10
Value11	Material wealth	1	2	3	4	5	6	7	8	9	10
Value12	Financial security	1	2	3	4	5	6	7	8	9	10
Value13	Career success	1	2	3	4	5	6	7	8	9	10
Value14	Pleasure	1	2	3	4	5	6	7	8	9	10

Q132. Do you agree with the following statements?

		Agree	Neither Agree or Disagree	Disagree	Don't Know
CValue46	Women are more suited for domestic work/ housework than men.	1	2	3	8
CValue47	Ideally, a man should earn more than his wife.	1	2	3	8
CValue49	An education is more important for a boy than a girl.	1	2	3	8
CValue50	On the whole, men make better leaders than women do.	1	2	3	8
CValue53	Females tend to carry <i>drip</i> , so certain customs like women & girls not being allowed in certain parts of <i>lhakhang</i> , or to touch the bow before a man's archery game, are valid.	1	2	3	8

Q133. Do you take part in local festivals and community events (*mongi rimdro*, *lha soe bon soe*, other types of festivals) in your village or community?

Part2	Yes	No	No such event in my village/community
	1	2	3

5. Health

“The health indicators assess the health status of the population, the determinants of health, and the health system. Health status indicators show information on self-rated health,

disabilities, body-mass index, number of healthy days per month, knowledge about HIV transmission, and breast feeding practices.”³⁶ Barriers to health are also assessed according to the walking distance to the nearest health facility and access to health services. The three areas in the health domain are health status, health knowledge, and barriers to health.

Examples of questions in the health domain are:

Q39. In general, would you say your health is:

HStatus	<u>Excellent/ Very Good</u> 1	<u>Good</u> 2	<u>Fair/Poor</u> 3
----------------	----------------------------------	------------------	-----------------------

Disability & Activity Limitations

Q40. Do you have any long-term disabilities, health problems or mental health problems (health conditions that have lasted or are expected to last 6 months or over)?

Disabilit	Yes 1	No 2
If No Go to Q43		

Q51. Does anyone in your household smoke regularly inside the house?

SmkHsld	Yes 1	No 2
----------------	----------	---------

Q67. What is your height? (*Without shoes on*)

Height		Record height in cms.
---------------	--	-----------------------

Q68. What is your weight? (*Without shoes on*)

Weight		Record weight in kgs.
---------------	--	-----------------------

Suicidal thoughts and attempts

Q69. Have you ever seriously thought of committing suicide?

Suic1	Yes 1	No 2
If No Go to Q73		

Q74. On the last occasion you went to a hospital or BHU, how satisfied were you with each of the following?

Factor	Satisfied	Neutral	Dissatisfied	Don't	Not
---------------	------------------	----------------	---------------------	--------------	------------

³⁶ Karma Ura, *Explanation of GNH Index*, The Center for Bhutan Studies, Thimphu, Bhutan, 2008.

					Know	Applicable
HCS1	Skill and competency of the staff	1	2	3	8	9
HCS2	Overall cleanliness of the hospital/BHU	1	2	3	8	9
HCS3	Friendliness and courtesy of the staff	1	2	3	8	9
HCS6	The treatment/medicine prescribed for you	1	2	3	8	9

6. Education

“Education contributes to the knowledge, values, creativity, skills, and civic sensibility of citizens.”³⁷ The emphasis of the education domain is on the effectiveness of contributing to collective wellbeing. The education domain consists of the following areas: educational attainment, Dzongkha language, folk, and historical literacy.

Examples of questions in the education domain are:

Q80. How would you rate your own knowledge and understanding of the local legends and folk stories?

	Good	Average	Poor
Legd	1	2	3

Q86. Are you able to sing traditional songs on your own i.e. do you know the lyrics to some of the common Bhutanese songs?

Songs	Yes	No
	1	2

Q90. Do you know the names of candidates from your constituency in different political parties?

Candnam	Yes	No
	1	2

Q101. Eating green vegetable is good for your health?

TspNm	Agree	Disagree	Don't know

³⁷ Karma Ura, *Explanation of GNH Index*, The Center for Bhutan Studies, Thimphu, Bhutan, 2008.

	1	2	3
--	---	---	---

Q115. How satisfied are you with the quality of education that your children receive?

Parsat	Satisfied	Dissatisfied	Don't Know	No children in school
	1	2	8	9

7. Ecological Diversity and Resilience

“By examining the state of Bhutan’s natural resources, the pressures on ecosystems, and different management responses, the domain of ecological diversity and resilience is intended to describe the impact of domestic supply and demand on Bhutan’s ecosystems.”³⁸

The ecology domain mainly focuses on perceptual data on ecology, since most of the objective measurements of ecological diversity and resilience are conducted by other environmental agencies. It uses three areas: ecological degradation, ecological knowledge, and afforestation.

Examples of questions in the ecology domain are:

Q224. Are the following environmental issues of concern in your area?

	Issues	Yes	No	Don't Know
EnviIssue1	Pollution of rivers and streams	1	2	8
EnviIssue2	Air pollution	1	2	8
EnviIssue3	Absence of proper waste disposal sites	1	2	8
EnviIssue4	Decreasing wildlife species	1	2	8
EnviIssue5	Landslide	1	2	8
EnviIssue6	Soil erosion	1	2	8
EnviIssue7	Flood	1	2	8
EnviIssue8	Erratic weather pattern	1	2	8

Q230. How would you rate the quality of your drinking water in terms of the following?

		Excellent	Good	Poor	Don't Know
WatQua1	Turbidity	1	2	3	8

Q237. What kind of energy do you use for cooking?

³⁸ Karma Ura, *Explanation of GNH Index*, The Center for Bhutan Studies, Thimphu, Bhutan, 2008.

		Yes	No
Energy1	Fuel wood	1	2
Energy2	Electricity	1	2
Energy3	LPG	1	2
Energy4	Kerosene	1	2
Energy5	Solar	1	2
Energy6	Others, please specify:-	1	2

Q240. How serious a problem do you consider the issues of climate change or global warming to be? Is it

Cchange2	Very serious problem	Somewhat serious problem	Not very serious problem	Not a serious problem at all	Don't Know
	1	2	3	4	8

Q251. Has your household waste production increased compared to the previous year?

Waste1	Yes	No	Don't Know
	1	2	8

Q255. How would you rate the quality of your agricultural land?

AgriQua	Excellent	Good	Poor	Don't Know
	1	2	3	8

8. Living Standard

“The domain of living standard covers the basic economic status of the people. The indicators assess the levels of income at the individual and household level, sense of financial security, room ration, and house ownership.”³⁹ The indicators also reflect economic hardships like inability to repair households and the purchase of second-hand

³⁹ Karma Ura, *Explanation of GNH Index*, The Center for Bhutan Studies, Thimphu, Bhutan, 2008.

clothing. The living standard domain consists of four areas: income, housing, food security, and hardship.

Examples of questions in the living standard domain are:

Q261. Approximately how much cash income did you receive during the past twelve months from each of the following sources? (**Note- Income of respondent**)
If no income is received from a source, enter 0. Only leave blank if respondent refuses to answer.

Sources of Income		Income in Nu
Income1	Wages/Salary	
Income2	Own business	
Income3	Own farm enterprise	
Income6	Remittances	
Income7	Pensions	
Income8	Rental/Real Estate	
Income9	Inheritance	
Income12	Sale of land or other assets	
Income13	Other	
If "Other" please specify.....		

Q262. What was the approximate total cash income for your household during the past 12 months?

HIIncome		Record approximate income in Nu [enter 8 for Don't Know]
-----------------	--	--

Relative Income

Q263. Within your community, do you consider your family to be:

Income14	Wealthier than most families	About the same as most families	Poorer than most families	Don't Know
	1	2	3	8

Q266. How well does your total household income meet your family's everyday needs for food, shelter and clothing?

FinSce2	Not enough	Just enough	More than enough
	1	2	3

Q272. What is your current debt?

If there is no debt from a source, enter 0. Only leave blank if respondent does not

answer. Be sure to enter Total in Debt9

Debt1	Housing Loans		Please record amount in Nu
Debt2	Vehicle Loans		Please record amount in Nu
Debt3	Land purchase Loans		Please record amount in Nu
Debt4	Agricultural Loans		Please record amount in Nu
Debt5	Business Loans		Please record amount in Nu
Debt6	Educational Loans		Please record amount in Nu
Debt7	Personal Loans		Please record amount in Nu
Debt8	Other Loans		Please record amount in Nu
Debt9	Total		Please record amount in Nu

9. Good Governance

“The domain of good governance evaluates how people perceive various government functions in terms of their efficacy, honesty, and quality. The themes... include human rights, leadership at various levels of government, performance of government in delivering services and controlling inequality and corruption, and people trust in the media, the judiciary, and the police.”⁴⁰ The areas of the good governance domain are three: government performance, freedom, and institutional trust.

Examples of questions in the good governance domain are:

Q157. For each of the following, please rate the performances of the government in the past 12 months?

		Excellent	Good	Poor	Don't Know
Centra1	Creating jobs	1	2	3	8
Centra2	Reducing gap between rich & poor	1	2	3	8
Centra3	Providing educational needs	1	2	3	8
Centra4	Improving health services	1	2	3	8
Centra6	Fighting corruption	1	2	3	8
Centra8	Protecting environment	1	2	3	8
Centra9	Providing road	1	2	3	8
Centra10	Providing electricity	1	2	3	8

⁴⁰ Karma Ura, *Explanation of GNH Index*, The Center for Bhutan Studies, Thimphu, Bhutan, 2008.

Q159. In the past 12 months, how would you rate the performances of the following leaders? Thrompon must be asked only to urban residents.

		Excellent	Good	Poor	Don't Know
Leader2	<i>Dzongdag</i>	1	2	3	8
Leader3	<i>Chimi</i>	1	2	3	8
Leader4	<i>Gup</i>	1	2	3	8
Leader5	<i>Tshogpa</i>	1	2	3	8
Leader6	<i>Thrompon</i>	1	2	3	8

Q164. Did you vote for *Gup*, *Chimi* or *Thromdey* representative in the last election?

Elect1	Yes	No
	1	2

Q165. On the whole, how would you rate the freeness and fairness of such election process?

Elect2	Free and fair	Not free and fair	Don't Know
	1	2	8

Q168. In your opinion, how independent is our courts from external influence and interference?

Court1	Independent	Not Independent	Don't Know
	1	2	8

Q169. Please rate our courts in:

		Excellent	Good	Poor	Don't Know
Court2	Providing quick justice	1	2	3	8
Court3	Providing a fair and impartial trial	1	2	3	8
Court4	Making judicial process transparent	1	2	3	8

Q173. Do you feel that you :

		Yes	No	Don't know
Rights2	Have right to freedom of speech and opinion	1	2	8
Rights3	Have right who to vote	1	2	8
Rights4	Have right to join political party of your choice	1	2	8
Rights6	Have right to form <i>tshogpa</i> or be a member of <i>tshogpa</i>	1	2	8
Rights7	Have right to equal access and opportunity to join public service	1	2	8
Rights8	Have right to equal pay for work of equal value	1	2	8
Rights9	Are free from discrimination based on race, sex, religion, language, politics or other status	1	2	8

In sum, the GNH Questionnaire has 290 questions divided into 72 indicators. These 72 indicators make up the nine domains of GNH. The value of these nine domains is aggregated to construct the final GNH index which has a value between 0 and 1.

Methodology for GNH Index Construction

To construct the GNH index, the first step is to determine whether each household has “attained sufficiency” in each of the nine dimensions (See Appendix 2). Just like a poverty line is used in poverty measurement to differentiate the poor from the people who have enough money, the Center for Bhutan Studies applies a “sufficiency cutoff” to each domain to assess whether households have attained sufficiency. “The sufficiency cutoff is set, naturally, at a higher level than a poverty line. The level at which the sufficiency cutoff is set is a value judgment, which can be a topic for public discussion, but the fact that it may be difficult to set an exact cutoff should not obscure the reasonableness of setting *some* sufficiency cutoff.”⁴¹ A person who has achieved the sufficiency cutoff in all nine domains is considered happy by the CBS.

After applying the sufficiency cutoffs to each of the nine domains, the CBS aggregates the data from each domain using a statistically sound method (see Appendix 2) to come up with a number between 0 and 1 that is deemed the GNH index, with 1 being the highest possible value of the index. “The number of indicators in each of the nine domains is different, and so, in order to avoid biasness, the domains are attached with equal weights. For instance, the psychological wellbeing domain consists of 11 indicators. Each of the 11 indicators would be assigned a weight of 1/11.”⁴²

⁴¹ Karma Ura, *Method for GNH Index Construction*, The Center for Bhutan Studies, Thimphu, Bhutan, 2008.

⁴² Ibid.

In order for the GNH index to be useful as an instrument of policy, both the CBS and the GNH Commission in the government use it as follows:

- First, they compare the GNH index across the districts of Bhutan to see which districts have higher scores.
- Second, they compare the value of the GNH index across time to assess if GNH is decreasing or increasing.
- Third, they decompose the GNH by domain, by indicator, by gender, by occupation, by age group, etc. to see how “shortfalls” in GNH vary at disaggregated levels. This decomposition highlights the dimensions of life where shortfalls from sufficiency are most severe.
- Fourth, they track the decomposition of GNH across time to see in which domains sufficiency is increasing or decreasing.
- Fifth, they study the average severity of deprivations to identify whether the gap below the sufficiency cutoff is increasing or decreasing over time.⁴³

Policy Making Based on GNH

The Center for Bhutan Studies (CBS) focuses on the construction of the GNH index. The Gross National Happiness Commission (GNHC) is the planning branch of the government, and they use the information that the GNH index reveals to construct policies that promote GNH. The GNHC develops most of the policies and programs in Bhutan, and they are increasingly using the information from the GNH index to channel resources to the areas and issues where they are most needed.

⁴³ Ibid.

During an interview with the day-to-day head of the GNH Commission, Karma Tshiteem, he told me, “The Prime Minister is the chairman of the GNHC, the finance minister is the vice-chairman, and I am the secretary. The 10 ministries and the National Environment Commission are the members. Our main responsibility is to give physical expression to ensuring that our development is on the GNH path. We partnered up with the Center for Bhutan Studies and said, ‘You need to give us concrete tools that as policymakers we can use to allocate resources and expand the conventional framework for policymaking, which is traditionally the economy with a passive treatment of the environment and society. So the CBS developed the GNH survey with its nine domains and the GNH Policy Lens to help us develop pro-GNH policies and programs.’”⁴⁴

The GNH index is not the only instrument of policy that the GNHC uses; the CBS has also constructed a “GNH Policy Lens” that ensures policies are promoting GNH before they are actually implemented. (See Appendix 3) “The purpose of the GNH Policy Lens is to provide a systematic appraisal of the potential effects of proposed policies and actions on the Gross National Happiness of the population, based on expected impacts on key determinants of GNH. The primary benefits of this policy lens are:

- It requires that all relevant dimensions are considered in the policy impact process and, consequently, supports a holistic approach to policy development.
- It forces an acknowledgement of areas where potential effects are not known and penalizes the policy accordingly.

⁴⁴ Interview with Karma Tshiteem, Secretary, Gross National Happiness Commission, Thimphu, Bhutan, 28 July 2009.

- It provides a vehicle for a number of participants from a variety of backgrounds to work towards a consensus about policy impacts.”⁴⁵

Secretary Karma Tshiteem explained that “the GNH index and its indicators are used to allocate resources to the most essential issues in the most essential areas of Bhutan. The data illuminates which issues and areas are most pressing for policymakers. The numbers of the latest survey point to certain things that we have begun to address through policies we develop here. Consistently women are at a disadvantage. We have a lot of work for promoting gender equality. Also, life deprivation is most pronounced in rural areas. This is information that an index like GDP wouldn’t reveal. The GNH index reduces the disconnect between what individuals consider important for wellbeing at the individual level and what the government considers important for policymaking. Screening tools like the GNH Policy Lens are then used to ensure that policies are pro-GNH. We ask, what impact will this policy have on time use? On health? On education? On culture? On the environment? And so on.”⁴⁶

The GNH Policy Lens consists of a set of 23 questions that assess the impact of a policy on 23 different dimensions related to GNH. If a policy is not at least GNH-neutral (has an average score of at least 3), it is revised until it is or it is rejected. Examples of the questions in the GNH Policy Lens are:

1. Equity			
Will probably favour higher income groups more than lower income groups	Do not know the differential effects on income groups	Should not have any appreciable effects on income distribution	Will probably favour lower income groups more than higher income groups
1	2	3	4

⁴⁵ *Policy Selection Tools*, The Center for Bhutan Studies, Thimphu, Bhutan, 2009.

⁴⁶ Interview with Karma Tshiteem

2. Security			
Will probably result in a net decrease in economic security within the population	Do not know the differential effects on economic security within the population	Should not have any appreciable effects on economic security within the population	Will probably result in a net increase in economic security within the population
1	2	3	4

3. Material			
Will probably result in a net decrease in feelings of material well-being within the population	Do not know the differential effects on feelings of material well-being within the population	Should not have any appreciable effects on feelings of material well-being within the population	Will probably result in a net increase in feelings of material well-being within the population
1	2	3	4

4. Pollution			
Will probably increase the amount of pollution or degradation of the air, land or water	Do not know the effects on pollution or degradation of the air, land or water	Will probably not have any effect on pollution or degradation of the air, land or water	Will probably decrease the amount of pollution or degradation of the air, land or water
1	2	3	4

47

The CBS conducted the first pilot GNH survey in 2005 with a sample size of 350 subjects. The sample was representative of the population in that about 80% were rural, 50% women, etc. The first official GNH survey was conducted during 2007-2008 and had a sample size of 950 people, again representative of the 682,000 people of Bhutan in the domains of gender, region, age, marital status, employment status, and district (see Appendix 4). After aggregating the nine domains of the latest GNH survey, the CBS found that Bhutan has a GNH index of 0.81.

⁴⁷ *Policy Selection Tools*, The Center for Bhutan Studies, Thimphu, Bhutan, 2009.

When I asked Tshoki Zangmo, a researcher at the CBS, what some of the important findings from the first official GNH survey were, she responded, “There were huge and consistent gender differences. Females in Bhutan have lower psychological wellbeing, more working hours, and overall lower life satisfaction. Another interesting finding is that even though Thimphu [the capital city of Bhutan] has the highest income of all districts, in terms of subjective perceptions of income, whether they have enough or not, they are lower than rural Bhutan. Even though they are making more money in absolute terms, urban people feel less satisfied with their income. We also found that community vitality is lower in urban areas. Although urban areas are lower in some subjective measures, they are higher in net income, health, and education. So the first priority for rural communities is basic needs and infrastructure.”⁴⁸

Both the CBS and the GNHC have analyzed the index according to the five guidelines described earlier, and they have used the information to construct policies that address the most severe issues in the most affected districts of Bhutan. The GNHC has also utilized the GNH Policy Lens to ensure that policies actually promote GNH before they are implemented. Tshoki Zangmo at the CBS said, “We should increase income, but not at the expense of other GNH domains. Increase in income is definitely desirable, especially for low-income families, as long as it doesn’t negatively affect other domains. Decision makers should consider this and that is why we developed the GNH Policy Lens.”⁴⁹

The CBS is currently in the process of designing the latest version of the GNH survey and it is gathering funds to conduct a survey in 2010. They hope to increase their sample size and include residents of the most remote regions of the country.

⁴⁸ Interview with Tshoki Zangmo, Researcher, The Center for Bhutan Studies, Thimphu, Bhutan, 24 July 2009.

⁴⁹ Interview with Zangmo

GNH and Its Challenges

Bhutan is indeed a living example of a society that has actively opened a dialogue that addresses the questions of ‘What is progress? What matters to us as a society? How do we measure it? How do we use statistics to shape institutions and policies?’ As any other country in the South Asian region and other developing regions of the world, Bhutan faces many social, economic, and political challenges. But what does differentiate Bhutan from other nations is that it has fully embraced an alternative, more holistic, and more sustainable approach to development in using Gross National Happiness as their metric of progress and as the driver for policies in the country. However, GNH is potentially problematic on various dimensions.

Is GNH Democratic?

Given that the GNH survey inquires into people’s personal lives and their attitudes, does it impose certain values through the nature of its questions? Is GNH dictating what values the Bhutanese ‘should’ embrace and which they should not? Does it allow for a truly open and free society? These are not easy questions to answer, but definitely fruitful ones to ask if other societies are to extract lessons from the case of GNH in Bhutan.

When I approached Secretary Karma Tshiteem at the GNH Commission and inquired about GNH’s compatibility with democracy, he told me, “We have plans in the near future to make the GNH index and the 72 indicators and all the data public to democratize the GNH process. When respondents to the survey see that their participation in the survey actually influences policymaking, they will be more engaged in the whole process and improve the quality of the index. Because GNH allows for people to voice what

matter to them and let that influence policymaking, it promotes democracy in a country that just last year became a democracy. GNH is a democratic tool. Happiness still remains an individual responsibility, but the State makes sure that the necessary conditions are there for people to pursue the path they choose. Everything is a means to the end of having an open and free society.”⁵⁰

In another interview, Dasho Karma Ura, president of the Center for Bhutan Studies (CBS), told me that “the main objective of the CBS in 2009 has been to disseminate the findings of the GNH index to all sectors of society: civil society, the private sector, policymakers, students, and others. We take our data and then transmit it to people in a way that they can see how GNH and its domains are applicable to their everyday life.”⁵¹

Gross National Happiness seems to promote democracy in that it facilitates the process of citizens voicing their opinions on various dimensions of their lives to the Bhutanese government. The GNH survey and the index that the CBS constructs from it open a channel of communication between the government and society at large. People’s voices on an array of domains reflected in the GNH index are the practical guiding forces for policy making in Bhutan. GNH seems to be a democratic tool, and the recent introduction of democracy in Bhutan facilitates the dissemination of GNH and incentivizes people to participate in the survey.

GNH: Policy Driver or Policy Passenger?

Does GNH shape institutions and policies, or is the GNH index developed to justify and endorse existing institutions and policies? Ideally GNH should be a measure of social

⁵⁰ Interview with Karma Tshiteem, Secretary, Gross National Happiness Commission, Thimphu, Bhutan, 28 July 2009.

⁵¹ Interview with Dasho Karma Ura, President, The Center for Bhutan Studies, Thimphu, Bhutan, 25 July 2009.

welfare, and thus it should be a policy driver. But given that the index is so recent and is continually revised, existing policies and institutions might shape the content and methodology of the survey to promote politicians' agendas. The theoretical Bhutanese model suggests that the GNH index drives policies, but theory and practice are often not aligned, especially in politics.

I asked GNHC Secretary Karma Tshiteem to provide concrete example of policies that have specifically been developed to maximize GNH. He said, "Right now, when 23% of Bhutanese live on less than a dollar a day, I don't think anything else could be more urgent than equitable economic growth. Other than that all education and healthcare in Bhutan is free, public, and universally accessible. Also, by law 70% of Bhutan is government-protected forest, which makes us a net absorber rather than emitter of greenhouse gases. To try to promote the ideal time use of the 24-hour day, eight hours for work, eight for sleep, and eight for leisure, it is illegal to work more than eight hours per day in Bhutan.

"A recent issue that has directly affected policymaking with the rural to urban migration is the question of who looks after old people. Instead of following the Western alienating model of putting them in old age homes, we have pursued an alternative that promotes psychological wellbeing, health, and community vitality. Many old people in Bhutan decide to pursue the spiritual path of meditation and other practices in their preparation for death. We are designing a project to set up dormitories, health facilities, food, and other service in temples where old people can decide to retire during their last

years. This is an expression of GNH. The four initial pillars of GNH really do guide most policymakers in Bhutan. Most bureaucrats are in tune.”⁵²

Policies like the designation of 70% of Bhutan’s territory to government-protected forests would not positively impact traditional measures of progress like GDP, since many natural resources and potential land for construction are legally inaccessible. For a country like the US where people often work 14 or 15 hours per day, a policy making it illegal to work more than eight hours per day would sound unreasonable, as it would interfere with potential growth in output. Through Bhutan’s GNH Policy Lens, however, these policy’s do contribute to the GNH index, and therefore to the welfare of society.

GNH: Too Subjective?

Many outsiders have criticized the GNH index for being too subjective. As described earlier, subjective indicators affect people’s behavior, and are therefore relevant to policy makers. Furthermore, there has been serious scientific research in the last few decades that has operationalized subjective measures into statistically sound metrics. A pioneer in this field is the founder of the Positive Psychology Movement, Martin Seligman of the University of Pennsylvania who has extensively studied subjects like happiness, emotional resilience, self-esteem, life satisfaction, among others.⁵³

When I approached Dasho Karma Ura at the CBS about this issue, he told me, “The GNH indicator is often criticized for being too subjective. But stock market prices are to a large extent based on expectations and confidence. So, subjective components are important in how people make decisions. Also, the consumer confidence index is quite predictive of

⁵² Interview with Karma Tshiteem, Secretary, Gross National Happiness Commission, Thimphu, Bhutan, 28 July 2009.

⁵³ Positive Psychology Center, Philadelphia, USA, 23 Sept 2009 < <http://www.ppc.sas.upenn.edu/index.html>>.

consumer spending, which is the largest component of GDP in most countries. Both objective and subjective measures of wellbeing are important, and the GNH indicator includes both.”⁵⁴

Is the GNH Index Representative of Bhutan’s Population?

Even though Bhutan’s population is homogenous in terms of race and religion, there is still diversity in terms of the demographic makeup of the Bhutanese. Namely, although Dzongkha is the official language in Bhutan, there are 19 different local dialects spoken in distinct regions of the country. Furthermore, there are rural communities that are difficult to reach, with some of them being at a walking distance of up to four days from the nearest road. Both of these factors pose challenges for an index like the GNH that seeks to incorporate as much of the population into its data as possible.

Dasho Karma Ura said, “So many different dialects are spoken in Bhutan that it is difficult to translate the survey into every dialect. Furthermore, it is hard to make sure that the questions mean the same thing to the respondent in each dialect. The survey also takes a considerable amount of time to complete, so we are working on educating people on GNH and how they can directly influence policies in the country with their participation.”⁵⁵

The GNH survey is undoubtedly far from perfect in its current form because of the challenges mentioned, and the CBS recognizes these flaws. They are working on making the index more representative and statistically significant for the next survey in 2010.

GNH Awareness

⁵⁴ Interview with Dasho Karma Ura, President, The Center for Bhutan Studies, Thimphu, Bhutan, 25 July 2009.

⁵⁵ Interview with Dasho Karma Ura

GNH might be a useful metric for assessing social welfare and for guiding policies to effectively increase welfare, but how aware are Bhutanese citizens of GNH and of the index that the CBS has recently constructed? If Bhutan claims to be a true democracy, then transparency is fundamental. If the GNH index is used by the government as the primary instrument of policy making, then citizens should be aware of it.

When I asked a retired government official in the capital city what he thought about GNH, he told me, “GNH started as a simple philosophy guiding policies in Bhutan and the way people lead their everyday lives and relate to others. The King introduced it in 1972 as a guiding principle for his country, and it was based on Buddhism and spirituality. Recently, as GNH has become quantified and has received so much international attention, it has been blown out of proportion and separated from its original intention: to provide a simple philosophy for living everyday life.”⁵⁶ This well-educated man is well aware of the GNH philosophy and how it has recently been quantified, but he thinks that the transition of GNH from a guiding philosophy to a concrete metric is completely unnecessary and actually distances GNH from its initial purpose.

Namkha, a Buddhist monk in a mountain monastery, said, “GNH is about using yourself and your potentials to benefit all sentient beings. Considering the individual as separate from others and his environment is a delusion and not reality. All is connected. Here at the monastery we pray for the wellbeing of not only the people of Bhutan, but for all sentient beings of the world. This is our ability and we use it for the happiness of all. This is GNH.”⁵⁷ Namkha understands GNH to be deeply rooted in the spiritual foundation of Bhutan, in Buddhism. He further explained that Buddhism is alive in the country and

⁵⁶ Street Interview, Thimphu, Bhutan, 3 August 2009.

⁵⁷ Interview with Namkha, Bumthang, Bhutan, 31 July 2009.

present in all facets of people's everyday life. This spiritual wellbeing, Namkha said, is part of GNH and the Bhutanese way of life. Namkha is, however, completely unaware of the recent GNH index developed by the CBS.

Thubten, a Buddhist hermit who spent most of his time meditating in isolation next to Tiger's Nest, Bhutan's holiest site, told me, "GNH is a very Buddhist concept. It's about contemplating the way you lead your life and relating to others with right values. With Bhutan opening up to the world, our culture is being challenged by values of consumption and individualism. People are looking less to internal personal growth and more to material growth. GNH is about maintaining a balance between the two. Will GNH survive? I don't know. That is the challenge of this generation and it depends on us and how strong our culture is."⁵⁸ Like Namkha, Thubten recognizes that GNH is rooted in traditional Bhutanese Buddhist culture, but he also points out the contemporary challenges to continuing the GNH way of life. Again, Thubten had never heard of the GNH index.

Most people I talked to in rural Bhutan had heard of GNH and knew its guiding principles, but very few knew about the recently developed GNH survey that the CBS uses to construct the GNH index. That is probably because the survey is only four years old and has only been conducted twice on relatively small scales. As both Dasho Karma Ura of the CBS and Karma Tshitem of the GNHC said in their interviews, both institutions are working to educate all sectors of Bhutanese society about GNH, the survey, and the index to democratize the GNH process. With so little current awareness about the GNH survey and the index, the CBS and the GNHC have a challenging goal ahead of them.

Would GNH Work Outside Bhutan?

⁵⁸ Interview with Tup Ten, Bumthang, Bhutan, 2 August 2009.

Bhutan is a small homogenous country. Virtually 100% of Bhutanese are practicing Buddhists, and there is little ethnic diversity. Is a model like GNH applicable in more diverse and more populous societies? Or does GNH work well in Bhutan because of its unique characteristics and history? If a similar model is to be implemented elsewhere, these are fundamental questions to address.

I asked Tshoki Zangmo at the CBS what she thought about the applicability of GNH outside of Bhutan. She replied, “If you don’t measure what really matters, you might lose it before you realize it. The concept of GNH, of concentrating on what really matters to society, is universally applicable. All societies want wellbeing. The questions and concepts just need to be adapted to local contexts. The desire for happiness is universal, and sustainable happiness is multi-dimensional, not just dependant on money. The ultimate outcome of policies should be to increase the welfare of the people, not just economic growth. And that’s what we’re measuring. Countries are now equating human development with GDP when it was never developed for that reason, so that’s a big mistake. That’s why the UNDP came up with the Human Development Index (HDI), but that’s not sufficient according to GNH because they only measure life-expectancy and not quality of life. They also measure literacy rate, but they don’t measure what the actual purpose of education is, to become a better human being. GNH is a more holistic and completely different approach. A change in the index we use is at the center of a change in society.”⁵⁹

Although GNH was developed to specifically reflect Bhutanese values and culture, what GNH represents is indeed applicable outside of Bhutan. GNH represents a movement towards developing metrics that measure what people in society care about. As Tshoki Zangmo points out, all societies want welfare. The important questions are about what

⁵⁹ Interview with Zangmo

welfare means for that society and how they develop metrics to measure it. Bhutan has definitely answered both of these questions, questions that are undoubtedly applicable outside the Bhutanese context.

Will GNH Survive?

GNH is deeply rooted in traditional Bhutanese Buddhist culture. With Bhutan slowly opening up to the rest of the world, will GNH survive? As FDI in Bhutan increases, as the negotiations with the WTO are coming to a successful conclusion, and as Bhutan becomes more economically and politically integrated to our globalized world, will GNH remain intact?

When I asked Bhutan's leading WTO negotiator and former finance minister Lyonpo Yeshey Zimba if globalization is a challenge to GNH, he told me, "We are in the process of negotiating our membership with the WTO. From Bhutan's side there is some hesitation because people fear that obligations under the WTO might go against the objectives of GNH. Our success as a country depends on our ability to compete, and we are already open in many ways. We should open up, liberalize trade, and take advantage. I really don't think liberalization is inconsistent with GNH. One of the pillars of GNH is sustainable and equitable economic development. You can't enjoy GNH if people don't have their basic needs. We have to make sure that our culture is not diluted. The danger to our culture is not liberalization and trade, it is education. Globalization has already entered Bhutan through TV and the internet. If they have not changed our culture, nothing else will. You regulate liberalization to slowly open up and protect the culture. It is going to

strengthen the economy, lead to employment, and lead to exports. As long as there are regulations, I see no problems.”⁶⁰

Lyonpo Yeshey Zimba thinks that GNH can coexist in harmony with our contemporary integrated global economy if Bhutan embraces liberalization carefully and in accordance with GNH. In fact, he fully endorses economic liberalization and deems it to contribute to GNH.

Other people in Bhutan believe economic liberalization is a great threat to GNH. Sonam Dodo, a guesthouse owner in Bhutan’s rural district of Punakha said, “GNH is a great concept. Achieving it is a very different thing. If Bhutan had remained a monarchy, the King would have ensured the policies are for a GNH society. Now that we are a democracy, it is more difficult to have a GNH society. We are starting to imitate outside models and values.”⁶¹ Thomas Chupein, a master’s student of Public Administration and International Development at Harvard’s Kennedy School, had been interning at the GNH Commission in Thimphu for two months developing instruments to assess the impact of government programs on rural communities in Bhutan when I talked to him. He thinks GNH is a wonderful concept and metric, but that its survival is in grave jeopardy because of various foreign pressures. “Located between the capitalist giants of India and China,” Thomas said, “GNH in Bhutan is like a mouse struggling to stay alive in the face of two capitalist elephants.”⁶² He went on to explain his worries that increased foreign direct investment (FDI) in Bhutan, the introduction of Indian banks, and most importantly Bhutan’s increasingly successful negotiations to become a member of the WTO in the next

⁶⁰ Interview with Lyonpo Yeshey Zimba

⁶¹ Interview with Sonam Dodo, Punakha, Bhutan, 29 July 2009.

⁶² Interview with Thomas Chupein, Thimphu, Bhutan, 3 August 2009.

couple of years, would dissolve GNH and Bhutan if the government did not handle these affairs delicately.

Lessons from GNH

Gross National Happiness is a manifestation of the unique values and worldview of the Himalayan people of Bhutan. Trying to blindly adopt this indicator in a new context, especially in Western context, would be unreasonable.

Bhutan has decided to open a national dialogue about progress and has arrived at a consensus about the meaning of wellbeing that is reflected in GNH and its corresponding indicator. Karma Tshiteem, Secretary of the GNH Commission, says “progress should mean more than economic growth. It must be about a society that is really evolved, a holistic development of the individual, including material and other needs. It’s about people finding meaningful work and a purpose in life. This is what GNH seeks to achieve, an enlightened society. We have to acknowledge the great contributions of scientific and industrial progress, but not forgetting the other components of what makes us human. If we can foster external, material wellbeing and internal, spiritual wealth, we will have achieved a GNH society.”⁶³

Bhutan has debated about what progress means for them and have arrived at a conclusion, they have operationalized this definition of welfare into an indicator that reflects the fruits of that dialogue, and they have created a political and economic architecture around Gross National Happiness. The lessons to learn from the pioneering Bhutanese experiment are:

⁶³ Interview with Karma Tshiteem, Secretary, Gross National Happiness Commission, Thimphu, Bhutan, 28 July 2009.

- Current indicators of progress like GDP do not adequately capture welfare
- Countries need to open a national dialogue about what progress means for them
- Indicators should be developed to reflect the outcomes of this dialogue
- Indicators of genuine welfare should be used by decision makers to structure institutions and guide policies
- Bhutan is a living example of a country that has pioneered in the process described above, and its institutions and policies put Gross National Happiness in practice.

Even though Bhutan epitomizes what an alternative approach to progress and development means in practical terms, they are not alone in this movement. French president Sarkozy has put together the Commission on the Measurement of Economic Performance and Social Progress that includes six Nobel laureates and other people in the diverse fields of economics, sociology, psychology, business, and others to address this precise issue.⁶⁴ Chaired by Nobel laureate Joseph Stiglitz, the commission has recently published a report on three principal issues:⁶⁵

- Questioning and analyzing the classical GDP measure
- Seeking frameworks for broader measures of wellbeing
- Addressing sustainability

The OECD has also embarked on an ambitious endeavor called the *Global Project*.⁶⁶ “The Global Project aims to foster the development of sets of key economic, social, and environmental indicators to provide a comprehensive picture of how the wellbeing of a

⁶⁴ Commission on the Measurement of Economic Performance and Social Progress, 23 Sept 2009 <<http://www.stiglitz-sen-fitoussi.fr/en/index.htm>>

⁶⁵ *Report by the Commission on the Measurement of Economic Performance and Social Progress*, 23 Sept 2009, < http://www.stiglitz-sen-fitoussi.fr/documents/rapport_anglais.pdf>

⁶⁶ *Measuring the Progress of Societies*, OECD Global Project, http://www.oecd.org/pages/0,3417,en_40033426_40033828_1_1_1_1_1,00.html

society is evolving and seeks to encourage each society to consider in an informed way the crucial question: is life getting better? It brings together the large and growing movement that seeks to understand and measure progress. The Global Project is the first systematic global effort to go ‘beyond GDP’ by enabling and promoting new ways to measure societal progress.”⁶⁷

Thailand’s government has recently partnered up with several universities to develop the National Progress Index (NPI) which seeks to integrate the ‘sufficiency model,’ which takes into account social, economic, and environmental wellbeing, into its metrics. The NPI will be utilized to develop more sustainable and comprehensive policies in Thailand.⁶⁸ Furthermore, Chulalongkorn, Thailand’s most prestigious university has recently founded the ‘School for Wellbeing Studies and Research’ at its Faculty of Political Science.⁶⁹ The New Economics Foundation (nef) in the U.K. has developed the Happy Planet Index (HPI), which takes into account life expectancy, life satisfaction, and environmental footprint to quantify welfare.⁷⁰ Canada’s Genuine Progress Index (GPI) for Atlantic Canada movement has a well developed metric that is slowly being embraced by the government.⁷¹

All these global movements that seek to promote more sustainable, equitable, and prosperous societies are reasons for optimism in the collective effort to improve measures of progress. Societies around the world should observe and learn from these movements, especially from GNH in Bhutan, in order to ask the right questions, develop the right

⁶⁷ Hall’s Presentation

⁶⁸ The First National Roundtable on ‘Measuring Progress of Societies and Sustainable Development’, Bangkok, 20 July 2009.

⁶⁹ Retrieved on 12 September 2009 from <http://www.schoolforwellbeing.org/>

⁷⁰ Retrieved on 12 September 2009 from <http://www.neweconomics.org/>

⁷¹ Retrieved on 12 September 2009 from <http://www.gpiatlantic.org/>

indicators, and construct institutions and policies that foster genuine wellbeing and progress in society.

References

- "Bhutan." Encyclopædia Britannica. 2009. Encyclopædia Britannica Online. 12 Sept. 2009 <<http://www.search.eb.com/eb/article-9109743>>.
- Brahm, Laurence J. *The Anti-Globalization Breakfast Club: Manifesto for a Peaceful Revolution*, Singapore: John Wiley & Sons, 2009
- Chupein, Thomas, Interview, Thimphu, Bhutan, 3 August 2009.
- Commission on the Measurement of Economic Performance and Social Progress, 18 Sept. 2009 <<http://www.stiglitz-sen-fitoussi.fr/en/index.htm>>.
- Danner, D. D., Snowdon, D. A., & Friesen, W. V. (2001). Positive emotions in early life and longevity: Findings from the nun study. *Journal of Personality and Social Psychology*, 80, 804–813.
- The First National Roundtable on ‘Measuring Progress of Societies and Sustainable Development’, Bangkok, 20 July 2009.
- Genuine Progress Index for Atlantic Canada / Indice de progress veritable – Atlantique, Canada. 18 Sept. 2009 <<http://www.gpiatlantic.org/>>.
- "Gross Domestic Product." Encyclopædia Britannica. 2009. Encyclopædia Britannica Online. 23 Sept. 2009 <<http://www.search.eb.com/eb/article-9389903>>.
- Gross National Happiness Questionnaire*, The Center for Bhutan Studies, Thimphu, Bhutan, November 2007.
- Hall, Jon. *The OECD’s Global Project on Measuring the Progress of Societies*, The First National Roundtable on ‘Measuring Progress of Societies and Sustainable Development’, Bangkok, 20 July 2009.
- Horachaikul, Surat. Interview, Professor, Faculty of Political Science, Chulalongkorn

University, Bangkok, 15 July 2009.

Karma Tshiteem, Interview, Secretary, Gross National Happiness Commission, Thimphu, Bhutan, 28 July 2009.

Karma Ura, *Explanation of GNH Index*, The Center for Bhutan Studies, Thimphu, Bhutan, 2008.

Karma Ura, Interview, President, The Center for Bhutan Studies, Thimphu, Bhutan, 25 July 2009.

Karma Ura, *Method for GNH Index Construction*, The Center for Bhutan Studies, Thimphu, Bhutan, 2008.

Kuhn, Peter J., Kooreman, Peter, Soetevent, Adriaan R. and Kapteyn, Arie, *The Own and Social Effects of an Unexpected Income Shock: Evidence from the Dutch Postcode Lottery (May 2008)*. RAND Working Paper No. WR-574.

Lyonpo Yeshey Zimba, Interview, Minister of Works and Human Settlement, Thimphu, Bhutan, 4 August 2009.

Measuring the Progress of Societies, OECD Global Project, 12 Sept. 2009
<<http://www.oecd.org/progress/>>.

Namkha, Interview, Bumthang, Bhutan, 31 July 2009.

New Economics Foundation, London, U.K. 12 Sept. 2009
<<http://www.neweconomics.org/>>.

“OECD Welcomes Experts’ Call on Need for New Measures of Social Progress.” OECD, 14 Sept 2009 <http://www.oecd.org/document/11/0,3343,en_2649_201185_43684683_1_1_1_1,00.html>.

Policy Selection Tools, The Center for Bhutan Studies, Thimphu, Bhutan, 2009.

Positive Psychology Center, Philadelphia, USA, 23 Sept 2009

<<http://www.ppc.sas.upenn.edu/index.html>>.

Report by the Commission on the Measurement of Economic Performance and Social Progress, 23 Sept 2009, < http://www.stiglitz-sen-fitoussi.fr/documents/rapport_anglais.pdf>

Salvaris, Mike. *Democracy, Happiness and Progress Measurement*, OECD Global Conference on ‘Measuring and Defining the Progress of Societies’, Istanbul, June 2007.

“Sarkozy Attacks Focus on Economic Growth” 14 Sept 2009 < <http://www.guardian.co.uk/business/2009/sep/14/sarkozy-attacks-gdp-focus>>.

School For Wellbeing Studies and Research, Faculty of Political Science, Chulalongkorn University, Bangkok, Thailand. 12 Sept. 2009
<<http://www.schoolforwellbeing.org/>>.

Sonam Dodo, Interview, Punakha, Bhutan, 29 July 2009.

Street Interview, Thimphu, Bhutan, 3 August 2009.

Stiglitz, Joseph. *Globalizing the GDP Debate*, Conference on ‘Thailand’s Future Beyond the Global Crisis: A Regional Platform Towards the Wellbeing Society?’ Bangkok, 22 August 2009.

“Stiglitz Says Bank Problems Bigger Than Pre-Lehman” Bloomberg Press, 14 Sept 2009
<<http://www.bloomberg.com/apps/news?pid=20601109&sid=aSbIT8GZjdKI>>.

Tup Ten, Interview, Bumthang, Bhutan, 2 August 2009.

Zangmo, Tshoki. Interview, Researcher, The Center for Bhutan Studies, Thimphu, Bhutan, 24 July 2009.

Appendix 1

Respondent #			

Gross National Happiness Pre-Test Questionnaire #3 November 2007

FINAL

Int	Interviewer		=Enter Code
IntDat	InterviewDate		=Enter
dzcode	Dzongkhag		=Enter Code
cbcode	Gewog/Town		=Enter Code
newcbcode	Chiwog/Block Code		=Enter Code
villcode	Village		=Enter Code
eacode	Enumeration Area		=Enter Code
stnum	Structure #		=Enter Code
chuum	Census Home #		=Enter Code
hhnum	Household Serial #		=Enter Code



You and Your Household

Q1. Are you male or female? (Please circle appropriate number below)

Sex	Male	Female
	1	2

Q2. What is your age?

Age		= Please enter your age in years
-----	--	----------------------------------

Q3. What is your current marital status? (Please circle appropriate number below)

Marital	Never married	Married	Divorced	Separated	Widowed
	1	2	3	4	5

Q4. What is your highest level of education? (Please circle appropriate number below)

PostSec	Vocational	College (Undergraduate)	University	Post-Grad (PhD)	Class	Not Applicable
	1	2	3	4	5	9
Class	If 5, record the class..... (in figure)					

Q5. Have you had any non-formal education?

NFE		= Record # of years of NFE
-----	--	----------------------------

Q6. Have you had monastic education?

MonEd		= Record years of monastic education
-------	--	--------------------------------------

Q7. Which of the following languages can you read and write?

Literacy	Dzongkha	Nepali	English	None	Other
	1	2	3	4	5

Q8. What is your religion?

Religion	Buddhism	Hinduism	Other	None
	1	2	3	4
If other, please record-				

Q9. What is your current employment status? [*Circle appropriate number*]

Unemp	1	Unemployed
Farmer	2	Farmer
Trader	3	Trading / shopkeeper /Businessman
Student	4	School student/ VTI student/Trainees/University students
Civilserv	6	Civil Servant
GYTDYT	9	GYT/DYT member
Security	10	RBA / RBP/ RBG
Monk	11	Monk



Gomchen	12	<i>Gomchen/anim</i>
Driver	14	Driver
Corp	16	Corporate employee
NGO	17	NGO Staff
NWF	19	National Workforce
Others	20	Specify:

Q10. Who currently lives in your household with you?

	Relationship to You (please enter appropriate code from right hand column)	Sex 1 = Male 2 = Female Enter 1 or 2	Age Enter Age in Years =	Enter one of these codes in the "Relationship to Respondent" column 1 = Wife/husband 2 = Son/daughter 3 = Father/mother 4 = Sister/brother 5 = Grandchild 6 = Grandparent 7 = Niece/nephew 8 = Son-in-law/daughter-in-law 9 = Brother-in-law/Sister-in-law 10 = Father-in-law/Mother-in-law 11 = Other family relative 12 = Live in servant
Person01				
Person02				
Person03				
Person04				
Person05				
Person06				
Person07				
Person08				
Person09				
Person10				
Person11				
Person12				
Person13				
Person14				

TO BE COMPUTED FROM THE ABOVE TABLE

Q11. Household Size

HHSize		= Record total # currently in household, including respondent
--------	--	---



Your Well-being

Sense of Satisfaction

Q12. What are the six or seven things that you consider to be most important in leading to a happy and contented life?

	Record Answer Below	Code
HapSc1		
HapSc2		
HapSc3		
HapSc4		
HapSc5		
HapSc6		
HapSc7		

Q13. On a scale of one to ten, I consider myself

Hap	Not a very happy person										Very Happy
	1	2	3	4	5	6	7	8	9	10	

Q14. How would you rate the quality of your life?

LifeQua1	Very poor	Poor	Neither poor nor	Good	Very good
	1	2	3	4	5

Q15. How much do you enjoy life?

LifeQua2	Not at all	A little	Quite a lot	An extreme
	1	2	3	4

Q16. How satisfied are you with the following aspects of your life?

		Satisfied	Fairly satisfied	Not very satisfied	Dissatisfied	Don't Know
Sat1	Your health	1	2	3	4	8
Sat2	The security of your	1	2	3	4	8
Sat3	The major occupations in your daily life (could be your job if formally employed, farm work, housework)	1	2	3	4	8
Sat4	The relationship you have with your immediate family	1	2	3	4	8



Q17. How often is each of the following kinds of support available to you when you need it?

		None of the time	Some of the time	Most or all of the time	Don't Know
SS1	Someone to help you when you are sick	1	2	3	8
SS2	Someone to help you when you have problems (decision making, financial, emotional,	1	2	3	8

Stress

Q18. During the last year, would you describe your life as-

Stress1	Very Stressful	Somewhat Stressful	Not At All	Don't Know
	1	2	3	8

If 3 Go To Item # Q20 (GHQ1)

Q19. What are your main sources of stress?

	Sources of stress	Code
Stress1		
Stress2		
Stress3		
Stress4		
Stress5		
Stress6		
Stress7		

Please consider the last four weeks and answer the following questions by selecting and circling one of the four answer options

Q20. Been able to concentrate on what you're doing

GHQ1	More Than Usual	Same As usual	Less Than usual	Much less Than Usual	Don't Know
	1	2	3	4	8

Q21. Lost much sleep over worry

GHQ2	Not At All	No More Than usual	Rather more Than	Much More Than usual	Don't Know
	1	2	3	4	8

Q22. Felt you were playing a useful part in things

GHQ3	More Than Usual	Same As usual	Less Than usual	Much less Than Usual	Don't Know
	1	2	3	4	8



Q23. Felt capable of making decisions about things

GHQ4	More Than Usual	Same As usual	Less Than usual	Much less Than Usual	Don't Know
	1	2	3	4	8



Q24. Felt constantly under strain

GHQ5	Not At All	No More Than usual	Rather more Than	Much More Than usual	Don't Know
	1	2	3	4	8

Q25. Felt you couldn't overcome your difficulties

GHQ6	Not At All	No More Than usual	Rather more Than	Much More Than usual	Don't Know
	1	2	3	4	8

Q26. Been able to enjoy your normal day-to-day activities

GHQ7	More Than Usual	Same As usual	Less Than usual	Much less Than Usual	Don't Know
	1	2	3	4	8

Q27. Been able to face up to your problems

GHQ8	More Than Usual	Same As usual	Less Than usual	Much less Than Usual	Don't Know
	1	2	3	4	8

Q28. Been feeling unhappy and depressed

GHQ9	Not At All	No More Than usual	Rather more Than	Much More Than usual	Don't Know
	1	2	3	4	8

Q29. Been losing confidence in yourself

GHQ10	Not At All	No More Than usual	Rather more Than	Much More Than usual	Don't Know
	1	2	3	4	8

Q30. Been thinking of yourself as a worthless person

GHQ11	Not At All	No More Than usual	Rather more Than	Much More Than usual	Don't Know
	1	2	3	4	8

Q31. Been feeling reasonably happy, all things considered

GHQ12	More Than Usual	Same As usual	Less Than usual	Much less Than Usual	Don't Know
	1	2	3	4	8



Spirituality

Q32. How spiritual do you consider yourself to be

Spirit1	Very	Moderately	Not at All
	1	2	3

Q33. Do you say/recite prayers?

Spirit4	Daily	Occasionally	Not at All
	1	2	3

Q34. Do you practice meditation?

Spirit5	Daily	Occasionally	Not at All
	1	2	3

Q35. Do you visit local temples and other places of spiritual significance within your community?

Spirit7	Daily	Occasionally	Not at All
	1	2	3

Q36. If you are a parent, do you discuss spiritual issues with your children?

Spirit9	Daily	Occasionally	Not at All	Not a Parent
	1	3	3	9

Q37. Do you consider Karma in the course of your daily life?

Spirit11	Always	Sometimes	Never
	1	2	3

Emotional Experience

Q38. During the past few weeks, how often have you felt the following moods/emotions?

		Often	Sometimes	Never
Emot1	Anger	1	2	3
Emot3	Guilt	1	2	3
Emot5	Selfishness	1	2	3
Emot6	Jealousy	1	2	3
Emot7	Pride	1	2	3
Emot8	Calmness	1	2	3
Emot9	Empathy/Compassion	1	2	3
Emot10	Forgiveness	1	2	3
Emot11	Contentment	1	2	3
Emot12	Generosity	1	2	3
Emot13	Disappointment	1	2	3
Emot14	Sadness	1	2	3
Emot15	Frustration	1	2	3
Other emotions which are experienced often (please specify).....				



Your Health Status

Q39. In general, would you say your health is:

HStatus	Excellent/ Very	Good	Fair/Poor
	1	2	3

Disability & Activity Limitations

Q40. Do you have any long-term disabilities, health problems or mental health problems

(health conditions that have lasted or are expected to last 6 months or over)?

Disabilit	Yes	No
	1	2
<i>If No Go to Q43</i>		

Q41. Does this long-term condition restrict the amount of activity you do?

RestHome	All the	Sometimes	Never
	1	2	3

Q42. How long has it lasted?

DisMos		<i>= Record number of months you have been restricted by the condition so far.</i>
--------	--	--

Healthy days & short-term activity limitation

Now, we need information about your health over the past 30 days.

Q43. Thinking about your physical health, which includes physical illness and injury, for how many days during the past 30 days was your physical health not

good?		<i>= Record number of days [Not more than 30]</i>
SickDays		

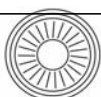
Q44. Now thinking about your mental health, which includes stress, depression, and problems with emotions, for how many days during the past 30 days was your mental health not good?

MHDays		<i>= Record number of days [Not more than 30]</i>
--------	--	---

If "0" days for both question 43 and 44, Go to Q46.

Q45. During the past 30 days, for about how many days did poor physical or mental health keep you from doing your usual activities, such as self-care, work or

recreation?		
-------------	--	--



ResDays = *Record number of days [Not more than 30]*

Alcohol



Now we need to ask you some questions about your alcohol consumption. This includes any type of alcoholic drinks, but does not include drinking a few sips of alcohol for religious purposes.

Q46. 77. In your entire life, have you ever drink any kind of alcohol?

AlcLife	Yes	No
	1	2
If No, Go to Q51		

Q47. About how old were you when you first started drinking?

AlcAge		= Record Age [Enter 99 for don't know]
--------	--	--

Q48. During the last 12 months, did you drink any type of alcohol?

Alcurr	Yes	No
	1	2
If no, go to Q51		

Q49. During the last 12 months, how often did you drink any type of alcohol?

AlcFreq	Everyday	Occasionally
	1	2

Q50. During the last 12 months, how often did you drink enough to feel intoxicated or drunk, that is, when your speech was slurred, you felt unsteady on your feet, or you had blurred vision?

IntFreq	Everyday	Occasionally	Never
	1	2	3

Smoking

Q51. Does anyone in your household smoke regularly inside the house?

SmkHsld	Yes	No
	1	2

Q52. Have you ever smoked cigarettes at all?

SmkLife	Yes	No
	1	2
If No, Go to Q57		

Q53. At what age did you begin to smoke cigarettes?

SmkAge		= Record Age [Enter 99 for don't know]
--------	--	--

Q54. During the last 12 months, did you smoke cigarettes?

SmkCurr	Yes	No
	1	2
If No, Go to Q57		



Q55. Do you smoke daily or occasionally?

SmkStatu	Daily	Occasionally
	1	2
If Occasionally, Go to Q57		

Q56. How many cigarettes do you smoke each day now?

SmkPerDa		= Record number of cigarette sticks per day
----------	--	---

Tobacco

Tobacco includes Baba, Raja, Surti, Leaf, snuff, others

Q57. Have you ever chewed/snuffed tobacco?

ChewLife	Yes	No
	1	2
If No, Go to Q61		

Q58. At what age did you begin to chew tobacco?

ChewAge		= Record Age [Enter 99 for don't know]
---------	--	--

Q59. During the last 12 months, did you chew/snuff tobacco?

ChewCurr	Yes	No
	1	2
If No Go to Q61		

Q60. If yes, do you snuff/chew tobacco daily or occasionally?

ChewStat	Daily	Occasionally
	1	2
If Occasionally, Go to Q61		

Doma

Q61. Have you ever chewed Doma?

DomaLife	Yes	No
	1	2
If No, Go to Q66		

Q62. At what age did you begin to chew Doma?

DomaAge		= Insert age [Enter 99 for don't know or no answer]
---------	--	---

Q63. During the last 12 months, did you chew Doma?

DomaCurr	Yes	No
	1	2
If No Go to Q66		

Q64. Do you chew daily or occasionally?

DomaStat	Daily	Occasionally
----------	-------	--------------



	1	2
<i>If Occasionally, Go to Q66</i>		

Q65. How many *khamto* do you chew each day now?

Khamto		= Record number of <i>khamtos</i> per day
---------------	--	---

BMI

For female respondents aged 15-49 only.

Q66. Are you pregnant?

Pregnant	Yes	No
	1	2
<i>If Yes, Go To Q69</i>		
<i>If No Go To Q67</i>		

For all respondents

Q67. What is your height? (*Without shoes on*)

Height		Record height in cms.
---------------	--	-----------------------

Q68. What is your weight? (*Without shoes on*)

Weight		Record weight in kgs.
---------------	--	-----------------------

Suicidal thoughts and attempts

Q69. Have you ever seriously thought of committing suicide?

Suic1	Yes	No
	1	2
<i>If No Go to Q73</i>		

Q70. Has this happened in the past 12 months?

Suic2	Yes	No
	1	2

Q71. Have you ever attempted to commit suicide?

Suic3	Yes	No
	1	2
<i>If No Go to Q73</i>		

Q72. Has this happened in the past 12 months?

Suic4	Yes	No
	1	2

BHU or Hospital Services

Q73. Have you been a patient at a hospital or BHU within the past 12 months?

HCVisit	Yes	No
	1	2



Q74. On the last occasion you went to a hospital or BHU, how satisfied were you with each of the following?

Factor		Satisfied	Neutral	Dissatisfied	Don't Know	Not Applicable
HCS1	Skill and competency of the	1	2	3	8	9
HCS2	Overall cleanliness of the	1	2	3	8	9
HCS3	Friendliness and courtesy of the	1	2	3	8	9
HCS6	The treatment/medicine prescribed for	1	2	3	8	9

Barriers

Q75. On the last occasion you needed to see a doctor or health care provider, to what extent did each of the following factors make it difficult for you to do so?

Barrier		Very difficult	A little difficult	Not difficult at	Don't Know
Barrier1	Distance to hospital/ BHU	1	2	3	8
Barrier2	Transportation problems	1	2	3	8
Barrier3	Waiting time to see doctor or health care provider	1	2	3	8

Q76. How long does it usually take you to walk to the nearest health care centre.

Barrier6 = Record approximate number of minutes

Q77. When you have a sickness or health problems, whom do you contact first?

FstConta
Record appropriate code from below
1 = Lama
2 = Paow/Pamo/Bonpo
3 = Tsip
4 = Choep (gelong/gomchen/anim)
5 = Crude healers/home treatments
6 = BHUs
7 = Hospitals
8 = Indigenous health care centre
9 = Village Health worker



10= Others (specify)_



***Feelings include:**

1 = impatient for it to end

2 = happy

3 = frustrated/annoyed

4 = depressed

5 = competent/capable

6 = hassled/pushed around

7 = warm/friendly

8 = angry/hostile

9 = worried/anxious

10 = Enjoying myself

11 = tired



Your Educational Experiences

Historical literacy

Q79. Do you know your great-grandparents' name?

GFname	Yes	No
	1	2

Q80. How would you rate your own knowledge and understanding of the local legends and

folk stories?

Legd	Good	Average	Poor
	1	2	3

Q81. Beginning *Gongsar Ugyen Wangchuck*, how many kings have ruled Bhutan including the present King?

Kings	Record number of kings (if don't know enter 99)
-------	-------	---

Q82. How would you rate your own knowledge of the significance of national day (*Guelyong Duechen*)?

Comm	Good	Average	Poor
	1	2	3

Cultural literacy

Q83. Do you know when your local *tshechu*, festival (like *kharam*, *lha*, *roop*, *kharphe*, *chodpa*, etc) is conducted each year?

Fest1	Yes	No
	1	2

Q84. Do you know for what purpose the festival is celebrated/conducted?

Fest3	Yes	No
	1	2

Q85. How would you rate your own knowledge and understanding of the mask and other

dances performed during national *tsechu*?

Msk	Good	Average	Poor
	1	2	3

Q86. Are you able to sing traditional songs on your own i.e. do you know the lyrics to some of the common Bhutanese songs?

Songs	Yes	No
	1	2

Q87. Can you recite any traditional *lozey*?



CENTRE FOR BHUTAN STUDIES • POST BOX 1111, THIMPHU, BHUTAN
PHONE • 975 2 321111 • 975 2 321005 • 975 2 321003
FASCIMILE • 975 2 321001 • EMAIL • CBS@DRUKNET.BT • WWW.BHUTANSTUDIES.ORG.BT

Aids	Yes	No
	1	2

Q88. If you are audience to traditional *lozey* exchange, would you be able to understand the contents?

Lozey2	Would understand	Would understand	Would understand	Would not understand at
	1	2	3	4

Civic literacy

Q89. Do you know at what age can Bhutanese vote?

PtNm	Age (Years)	Don't know
		99

Q90. Do you know the names of candidates from your constituency in different political parties?

Candnam	Yes	No
	1	2

Q91. Do you know the names of political parties?

PdNm	Yes	No
	1	2

Q92. Do you know the names of the presidents of political parties?

PdNm	Yes	No
	1	2

Q93. What is the main source of political information for you?

PtInfo	Radio	Newspapers	Television	Party members/ Tshogpas	Internet	Others (specify..... ..)
	1	2	3	4	5	6

Q94. Do you know the name of your *Dzongdag/Drungpa*?

DZNm	Yes	No
	1	2

Ecological literacy

Q95. Do you know the names of species of plants and animals around your local surrounding?

TspNm	Yes	No
	1	2



Q96. Do you consider maintenance of watershed in your local area important?

TspNm	Yes	No	Don't know
	1	2	9

Q97. Do you support government's policy of restriction of hunting and fishing?

TspNm	Yes	No
	1	2

Q98. Do you support other environmental conservation policies of the government?

TspNm	Yes	No
	1	2

Q99. Does your community observe or practise *Ladham* and *Ridam*?

TspNm	Yes	No	Don't know
	1	2	9

Q100. Do you plant trees around your farm and houses?

TspNm	Yes	No
	1	2

Food and nutrition literacy

Q101. Eating green vegetable is good for your health?

TspNm	Agree	Disagree	Don't know
	1	2	3

Q102. Eating excessive amount of fat foods is bad for your health?

TspNm	Agree	Disagree	Don't know
	1	2	

Q103. It is important to eat meat and fish for your good health?

TspNm	Agree	Disagree	Don't know
	1	2	

Q104. Eating fruits regularly is good for your health?

TspNm	Agree	Disagree	Don't know
	1	2	

Q105. Which one do you prefer between one that is organically produced and the other produced using chemical fertilizers?

Orgfood	Organically	Non-organically	Both	Don't Know
	1	2	3	4



Health literacy

Q106. It is safe to have unprotected sex.

TspNm	Agree	Disagree	Don't know
	1	2	

Q107. Do you know how HIV/AIDS virus is transmitted?

Aids	Yes	No
	1	2

Q108. Do you know how to treat minor ailments such as headache, cough and cold, diarrhoea, etc.

Aids	Yes	No
	1	2

Q109. How long should a child be breast fed exclusively?

Exbreast	Enter number of months
----------	-------	---------------------------

Indigenous knowledge literacy

Q110. How would you rate your own knowledge and understanding of the traditional practices related to pregnancy, childbirth and care?

Cldbt	Good	Average	Poor
	1	2	3

Q111. Do you know the following things?

		Yes	No
Arts1	Weaving (<i>Thagzo</i>)	1	2
Arts2	Embroidery (<i>Tshenzo</i>)	1	2
Arts3	Painting (<i>Lhazo</i>)	1	2
Arts4	Carpentry (<i>Shingzo</i>)	1	2
Arts5	Carving (<i>Parzo</i>)	1	2
Arts6	Sculpture (<i>Jinzo</i>)	1	2
Arts7	Casting (<i>Lugzo</i>)	1	2
Arts8	Blacksmithing (<i>Garzo</i>)	1	2
Arts9	Bamboo works (<i>Tszhazo</i>)	1	2
Arts10	Goldsmithing and Silversmithing (<i>Serzo</i> and <i>Nguelzo</i>)	1	2
Arts11	Masonry (<i>Dozo</i>)	1	2
Arts12	Leather works (<i>Kozo</i>)	1	2
Arts13	Papermaking (<i>Dezo</i>)	1	2

Formal education

Ask only to literate respondents. If illiterate Go to Q114



CENTRE FOR BHUTAN STUDIES • POST BOX 1111, THIMPHU, BHUTAN
PHONE ◦ 975 2 321111 ◦ 975 2 321005 ◦ 975 2 321003
FASCIMILE ◦ 975 2 321001 • EMAIL ◦ CBS@DRUKNET.BT • WWW.BHUTANSTUDIES.ORG.BT

Q112. Would you say your reading skills in ...

		Excellent	Good	Average	Poor	Don't know	Not applicable
Read1	Dzongkha	1	2	3	4	8	9
Read2	English	1	2	3	4	8	9
Read3	Nepali	1	2	3	4	8	9

Q113. Would you say your writing skills in ...

		Excellent	Good	Average	Poor	Don't know	Not applicable
Write1	Dzongkha	1	2	3	4	8	9
Write2	English	1	2	3	4	8	9
Write3	Nepali	1	2	3	4	8	9



Q114. Do you agree or disagree with the statement “*what your children learn in the classroom is applicable to their day-to-day life?*”

EdApp1	Agree	Disagree	Don't Know	No children in
	1	2	8	9

Q115. How satisfied are you with the quality of education that your children receive?

Parsat	Satisfied	Dissatisfied	Don't Know	No children in
	1	2	8	9

Q116. Do you tell folk stories to your children?

Folk	Yes	No	No children
	1	2	9

Ask only to those who are currently enrolled in the educational institutions (If not student Go to Q123)

Q117. Do you agree or disagree with the statement “*What I learn in the classroom is applicable in my day-to-day life?*”

EdApp	Agree	Disagree	Don't Know
	1	2	8

Q118. How satisfied are you with the quality of the contents of your education?

Edncon	Satisfied	Dissatisfied	Don't Know
	1	2	8

Q119. How satisfied are you with the quality of teaching in your school?

EdSat	Satisfied	Dissatisfied	Don't Know
	1	2	8

Q120. How satisfied are you with the quality of infrastructure such as classrooms, library, science labs, playgrounds, etc. in you school?

EdSat	Satisfied	Dissatisfied	Don't Know
	1	2	8

Q121. In the previous academic year have you participated in the following extra curricular activities?

		Yes	No
Act1	Games/sports	1	2
Act2	Cultural programmes	1	2
Act3	Debate/quiz	1	2
Act4	Skills acquiring activities (home science, knitting, weaving, carpentry, etc.)	1	2
Act5	Gardening/plantations	1	2



Act6	Others (Please specify.....)		
-------------	------------------------------	--	--



Q122. What is the highest level of education you would like to complete? (*Do not read the list. Mark only one response*)

EdAsp	=Enter code from below
1= Primary education (class VI)	
2= Lower secondary education (class VIII)	
3= Middle secondary education (class X)	
4= Higher secondary education (class XII)	
5= Some Diploma	
6= College Degree	
7= Post Graduate and above	



CULTURAL DIVERSITY & RESILIENCE

Language

Q123. What was the primary language that you first learned at home in childhood?
Refer to List of Languages

PrimLa1	=Please record appropriate number from below for main language	
1= Dzongkha	12= Monpahka	
3= Cho-ca-nga-ca-kha (Kurichu valley)	13= Brokpa	
4= Tshangla (Shachop)	14= Brokkat	
5= Bumthangkha	15= Lakha	
6= Khengkha	16= B'okha (Tibetan)	
7= Kurtop	17= Nepali (Lhotshamkha)	
8= Nyenkha (Henkha or Mangdebikha)	18= Lhokpu	
9= Dzala	19= Gongduk	
10= Dakpa	20= Lepcha	

Q124. How well can you understand your first language now?

PrimLa3	Very Well	Quite Well	Only a Little	Not at all
	1	2	3	8

Q125. How well can you speak your first language now?

PrimLa4	Very Well	Quite Well	Only a Little	Not at all
	1	2	3	8

Identity

Q126. How important is it to you to maintain Bhutanese traditions within your everyday life?

Ident1	Not Important	Important	Very	Don't Know
	1	2	3	8

Core Values

Q127. To what extent do you agree with the following statements?

		Agree	Neither agree or disagree	Disagree	Don't Know
Value1	One must always love and respect parents, while the parents should do their best for their children even at the expense of their own	1	2	3	8
CValue5	Both husband and wife should maintain a faithful	1	2	3	8



	marriage.				
CValue10	The employer or manager should ensure the welfare of his/her employees, while the employees in turn should carry out their services with dedication.	1	2	3	8



Q128. Please indicate the importance that you assign to each of the following principles in life on a scale of 1 to 10.

		Not important at all										Extremely important
Value2	Family life	1	2	3	4	5	6	7	8	9	10	
Value3	Friendship	1	2	3	4	5	6	7	8	9	10	
Value4	Generosity	1	2	3	4	5	6	7	8	9	10	
Value5	Spiritual faith	1	2	3	4	5	6	7	8	9	10	
Value6	Compassion	1	2	3	4	5	6	7	8	9	10	
Value7	Self- developmen	1	2	3	4	5	6	7	8	9	10	
Value8	Reciprocity	1	2	3	4	5	6	7	8	9	10	
Value9	Responsibility	1	2	3	4	5	6	7	8	9	10	
Value10	Freedom	1	2	3	4	5	6	7	8	9	10	
Value11	Materia l wealth	1	2	3	4	5	6	7	8	9	10	
Value12	Financia l	1	2	3	4	5	6	7	8	9	10	
Value13	Career success	1	2	3	4	5	6	7	8	9	10	
Value14	Pleasure	1	2	3	4	5	6	7	8	9	10	

Q129. On the same scale of 1 to 10, please indicate the importance you think other Bhutanese assign to the same principles in life:

		Not important at all										Extremely important
Value15	Family life	1	2	3	4	5	6	7	8	9	10	
Value16	Friendship	1	2	3	4	5	6	7	8	9	10	
Value17	Generosity	1	2	3	4	5	6	7	8	9	10	
Value18	Spiritual faith	1	2	3	4	5	6	7	8	9	10	
Value19	Compassion	1	2	3	4	5	6	7	8	9	10	
Value20	Self- developmen	1	2	3	4	5	6	7	8	9	10	
Value21	Reciprocity	1	2	3	4	5	6	7	8	9	10	
Value22	Responsibilit	1	2	3	4	5	6	7	8	9	10	
Value23	Freedom	1	2	3	4	5	6	7	8	9	10	
Value24	Materia l wealth	1	2	3	4	5	6	7	8	9	10	
Value25	Financia l	1	2	3	4	5	6	7	8	9	10	
Value26	Career success	1	2	3	4	5	6	7	8	9	10	
Value27	Pleasure	1	2	3	4	5	6	7	8	9	10	



Q130. Please tell me for each of the following statements whether you think it *can always be justified, never be justified, or sometimes justified*:

		Can Always Be Justified	Can Sometimes Be Justified	Can never Be Justified	Don't Know
CValue21	Killing	1	2	3	8
CValue22	Abortion	1	2	3	8
CValue23	Prostitution	1	2	3	8
CValue24	Rape	1	2	3	8
CValue25	Stealing	1	2	3	8
CValue26	Lying	1	2	3	8
CValue27	Creating disharmony in human relations	1	2	3	8
CValue28	Harsh and offensive speech	1	2	3	8
CValue29	Gossip (frivolous speech)	1	2	3	8
CValue31	Harmful thoughts	1	2	3	8
CValue32	Divorce	1	2	3	8
CValue33	Suicide	1	2	3	8
CValue60	Sexual misconduct	1	2	3	8
CValue61	False/wrong views	1	2	3	8
CValue62	Covetousness	1	2	3	8

Q131. Here is a list of qualities that children can be encouraged to learn at home. How important are each of them?

		Not Important	A Little Important	Important	Very Important	Don't Know
CValue34	Independence	1	2	3	4	8
CValue35	Respect for elders	1	2	3	4	8
CValue36	Respect for parents	1	2	3	4	8
CValue37	Discipline (Drig)	1	2	3	4	8
CValue38	Honesty	1	2	3	4	8
CValue39	Tolerance for other people	1	2	3	4	8
CValue40	Hard work	1	2	3	4	8
CValue41	Obedience to authority	1	2	3	4	8
CValue43	Caring for family	1	2	3	4	8



	members and relatives					
CValue44	Helping others	1	2	3	4	8
CValue45	Impartiality towards rich, poor, different	1	2	3	4	8



Q132. Do you agree with the following statements?

		Agree	Neither Agree or Disagree	Disagree	Don't Know
CValue46	Women are more suited for domestic work/ housework than men.	1	2	3	8
CValue47	Ideally, a man should earn more than his wife.	1	2	3	8
CValue49	An education is more important for a boy than a	1	2	3	8
CValue50	On the whole, men make better leaders than women do.	1	2	3	8
CValue53	Females tend to carry <i>drip</i> , so certain customs like women & girls not being allowed in certain parts of <i>lhakhang</i> , or to touch the bow before a man's	1	2	3	8

Participation in Community Events

Q133. Do you take part in local festivals and community events (*mongi rimdro, lha soe bon*

soe, other types of festivals) in your village or community?

Part2	Yes	No	No such event in my
	1	2	3

Q134. On an average, how many days do you spend in a year attending social and cultural activities, such as community festivals or *chokus* of neighbours?

Local29	None	1-5 days	6-12 days	13-20 days	+20 days	Don't Know
	1	2	3	4	5	8

Q135. How important is it for you to participate in such community festivals and gatherings?

Part12	Important	A Little	Not Important	Don't know
	1	2	3	8

Q136. In your opinion, are such practices ...?

Part13a	Being well-	Getting weaker	Mostly died out	Don't know
	1	2	3	8
If 2 or 3, Go to				

Q137. If you know of any such practices that have died out/been discontinued or is getting weaker, what do you think are the reasons for it?

	Record Reasons Below	Code
Duez1		



Duez2		
Duez3		
Duez4		
Duez5		
Duez6		
Duez7		

Q138. Give the name of one local festival that you consider to be the main one in your community.

Name of Festival
------------------	-------

Local Customs & Traditions

Q139. List the ways by which you observe *duezang* or auspicious days (e.g. by visiting *lhakhangs*).

	Record how you observe <i>duezang</i>	Code
Cust1		
Cust2		
Cust3		
Cust4		
Cust5		
Cust6		
Cust7		

Q140. Do you consult the astrologer for matters related to you and your family's wellbeing?

Astro	Yes	No
	1	2

Q141. Do you consult Pow/Pam?

Local 12	Yes	No
	1	2

Q142. Do you pay homage to/propitiate the local deity in your village or community?

Local 19	Yes	No	There is no deity local to my village or
	1	2	3

Q143. During the past 12 months, how often have you played traditional sports (archery, *khuru*, *degor*, etc)?

	More than once a	Once or twice a	A few times a	Never
Sport1	1	2	3	4

Q144. During the past 12 months, how often have you played modern games/sports (e.g. football)?

	More than once a	Once or twice a	A few times a	Never
Sport2	1	2	3	4



Etiquette

Q145. Is *Driglam Namzha* (etiquette and code of conduct) important?

Namzha1	Not Important	Important	Very	Don't Know
	1	2	3	8

Q146. How do you perceive the change in practice and observance of *Driglam Namzha* (etiquette and code of conduct) during the past 12 months?

Namzha2	Getting weaker	Stayed the same	Getting stronger	Don't know
	1	2	3	8



Value Changes

Q147. During the last few years, most people in Bhutan have become-

Change1	More generous	Stayed the same	Less generous	Don't Know
	1	2	3	8

Change2	More compassionate	Stayed the same	Less compassionate	Don't Know
	1	2	3	8

Change3	More concerned about material	Stayed the	Less concerned about material	Don't Know
	1	2	3	8

Change4	More selfish	Stayed the same	Less selfish	Don't Know
	1	2	3	8

Change5	More honest	Stayed the same	Less honest	Don't Know
	1	2	3	8

Change6	More spiritual	Stayed the same	Less spiritual	Don't Know
	1	2	3	8

Change7	More tolerant	Stayed the same	Less tolerant	Don't Know
	1	2	3	8

Folktales, Songs and films

Q148. What types of songs do you usually listen to most?

		Listen to the most
Songs3	Zhungdra	1
Songs4	Boedra	1
Songs8	Tsangmo	1
Songs13	Gurma	1
Songs14	Rigsar	1
Songs15	Hindi	1
Songs16	Nepali	1
Songs17	Tibetan	1
Songs18	English	1
Songs20	Other (specify)	

Q149. Have you watched some of the Bhutanese films that have been made over the last few years?

Films	None	1-10	11-20	21-30	More than 30
	1	2	3	4	5



Q150. Do you think it is important to learn/know folktales because of the values contained in it?

Tale1	Not Important	Important	Very	Don't Know
	1	2	3	8



Q151. Do you know/read some Bhutanese folktales?

Tale2	Yes	No
	1	2

Architecture

Q152. Do you notice any changes in the architectural designs of the houses/buildings over the year in Bhutan?

House	Yes	No	Don't know
	1	2	8



Your Opinions About Quality of Governance in Bhutan

Political Participation

Q153. In the past 12 months, have you attended *zomdue* ?

Zom1	Yes	No
	1	2
If No Go To Q157		

Q154. How many times have you participated *zomdue* at:

Zom2	Village/Chiwo g level		=Record number of times during past 12 months(<i>If not</i>)
Zom3	<i>Gewog</i> level		=Record number of times during past 12 months(<i>If not</i>)
Zom6	<i>Thromdue</i> level		=Record number of times during past 12 months (<i>If not Applicable enter 99</i>)

Q155. Did you speak out at *zomdue*?

Zom4	Yes	No
	1	2
If No Go To Q157		

Q156. How often?

Zom5	Every time	Most of the times	Sometimes
	1	2	3

Effective Government

Performances of government at national and local level

Q157. For each of the following, please rate the performances of the government in the past 12 months?

		Excellent	Good	Poor	Don't Know
Centra1	Creating jobs	1	2	3	8
Centra2	Reducing gap between rich &	1	2	3	8
Centra3	Providing educational needs	1	2	3	8
Centra4	Improving health services	1	2	3	8
Centra6	Fighting corruption	1	2	3	8
Centra8	Protecting environment	1	2	3	8
Centra9	Providing road	1	2	3	8
Centra10	Providing electricity	1	2	3	8

Q158. In general, how would you rate the performance of the *dzongkhag* administration in the past 12 months?

		Excellent	Good	Poor	Don't Know
Dzong1	Providing educational needs	1	2	3	8
Dzong2	Improving sanitation	1	2	3	8



Dzong3	Improving health services	1	2	3	8
Dzong4	Providing agricultural	1	2	3	8
Dzong6	Providing clean drinking water	1	2	3	8
Dzong7	Approving allocation of timber permits	1	2	3	8
Dzong11	Providing farm and feeder roads	1	2	3	8

Leadership performance

Q159. In the past 12 months, how would you rate the performances of the following leaders?

Thrompon must be asked only to urban residents.

		Excellent	Good	Poor	Don't Know
Leader2	<i>Dzongdag</i>	1	2	3	8
Leader3	<i>Chimi</i>	1	2	3	8
Leader4	<i>Gup</i>	1	2	3	8
Leader5	<i>Tshogpa</i>	1	2	3	8
Leader6	<i>Thrompo</i>	1	2	3	8

If respondent is not rural resident, Go to Q162

Q160. Please rate your *Gup* on the following:

		Excellent	Good	Poor	Don't Know
Gup1	Reading and writing	1	2	3	8
Gup2	Understanding capacity	1	2	3	8
Gup3	Resolving disputes	1	2	3	8
Gup4	Past experience	1	2	3	8
Gup5	Confidence & articulation	1	2	3	8
Gup6	Respecting people's views	1	2	3	8
Gup8	Verifying applications for timber and fuel wood	1	2	3	8
Gup9	Verifying applications for <i>kidu</i>	1	2	3	8
Gup10	Promoting harmony and cooperation among	1	2	3	8

Q161. Please rate your *Tshogpa* on the following:

		Excellent	Good	Poor	Don't Know
Tshog1	Reading and writing	1	2	3	8
Tshog2	Understanding capacity	1	2	3	8
Tshog3	Resolving disputes	1	2	3	8
Tshog4	Overseeing overall affairs of the <i>Chiwog</i>	1	2	3	8
Tshog5	Coordinating between Gup office &	1	2	3	8

Overall satisfaction with government institutions



2. What about the overall direction of the government? Would you say that the government is : Gov1	Going in the right	Going in the wrong	Don't Know
	1	2	8

Q163. Overall, how satisfied are you with the functioning of: (Thromde Leyzin must be asked only to urban residents)

		Satisfied	Not Satisfied	Don't Know
Gov2	Central ministries	1	2	8
Gov3	<i>Dzongkhag</i> Administration	1	2	8
Gov4	<i>Gewog</i>	1	2	8
Gov5	<i>Thromde Leyzin</i>	1	2	8

Fair and Equal Law

Perception of electoral process

Q164. Did you vote for *Gup*, *Chimi* or *Thromdey* representative in the last election?

Elect1	Yes	No
	1	2

Q165. On the whole, how would you rate the freeness and fairness of such election process?

Elect2	Free and fair	Not free and fair	Don't Know
	1	2	8

Q166. In the recent past, did anyone from your area or outside your area approach you to vote for a particular party or an individual?

Elect6	Yes	No	Don't Know
	1	2	8

Q167. Will you participate in the upcoming general election?

Elec	Yes	No	Don't know
	1	2	3

Judicial independence, fairness, speediness and affordability

Q168. In your opinion, how independent is our courts from external influence and interference?

Court1	Independent	Not Independent	Don't Know
	1	2	8

Q169. Please rate our courts in:

		Excellent	Good	Poor	Don't Know
Court2	Providing quick justice	1	2	3	8
Court3	Providing a fair and impartial	1	2	3	8
Court4	Making judicial process	1	2	3	8



Q170. In the past five years, were you involved in any case before the court?

Court6	Yes	No
	1	2
If No Go To Q173		

Q171. How many months did the case take to settle?

Court7		=Enter # of months
---------------	--	--------------------

Q172. Please estimate the cost of your litigation.

Court8	Nu:
---------------	-----------



Respect for fundamental rights

Q173. Do you feel that you :

		Yes	No	Don't know
Rights2	Have right to freedom of speech and opinion	1	2	8
Rights3	Have right who to vote	1	2	8
Rights4	Have right to join political party of your choice	1	2	8
Rights6	Have right to form <i>tshogpa</i> or be a member of <i>tshogpa</i>	1	2	8
Rights7	Have right to equal access and opportunity to join public service	1	2	8
Rights8	Have right to equal pay for work of equal value	1	2	8
Rights9	Are free from discrimination based on race, sex, religion, language, politics or other status	1	2	8

Perception of police

If you are neither educated nor urban residents, go to 310.

Q174. How satisfied are you with the performance of police in:

		Satisfied	Not Satisfied	Don't know
Police1	Enforcing law	1	2	8
Police5	Preventing crime	1	2	8
Police2	Responding promptly to a problem	1	2	8
Police3	Investigating and solving a crime	1	2	8
Police4	Being approachable and easy to talk to	1	2	8

Freedom and Quality of Media

Media freedom/independence, access & quality

Q175. To what degree is media (BBS TV and radio, Newspapers, etc.) free from government influences?

Media1	Free	Not Free	Don't Know
	1	2	8

Q176. Do you have access to the following? (Mark all that apply)

		Yes	No
Media2	BBS Radio	1	2
Media3	BBS Television	1	2
Media19	Newspaper	1	2
Media7	Internet	1	2

Q177. Please rate the quality of news/ newspaper of:

		Excellent	Good	Poor	Don't Know
Media14	BBS Radio	1	2	3	8



Media15	BBS Television	1	2	3	8
Media20	Newspaper	1	2	3	8



Transparency, Accountability and Honesty

Trust in institutions and leaders

Q178. To what extent do you trust the following?

		Trust	Somewhat	Distrust	Don't Know
GovTr3	Courts	1	3	2	8
GovTr5	Police	1	3	2	8
GovTr6	Central Ministries	1	3	2	8
GovTr9	<i>Dzongkhag</i>	1	3	2	8
GovTr10	<i>Gewog</i> administration	1	3	2	8
GovTr15	<i>Thromde Leyzin</i>	1	3	2	8
GovTr16	Media	1	3	2	8
GovTr19	Financial institutes	1	3	2	8
GovTr7	<i>Dzongdag</i>	1	3	2	8
GovTr11	<i>Gup</i>	1	3	2	8
GovTr12	<i>Chimi</i>	1	3	2	8
GovTr13	<i>Mangmi</i>	1	3	2	8
GovTr14	<i>Tshogpa</i>	1	3	2	8

Accountability

Q179. Does your *Gup* implements activities according to the decisions of GYT?

Account5	Yes	No	Don't Know	Not Applicable
	1	2	8	9

If Not Applicable, Go to 317

Q180. Does your *Gup* or *Tshogpa* consult you in proposing agenda for the GYT meeting?

Account2	Yes	Sometimes	No	Don't Know
	1	2	3	8

Q181. Are you informed of the decisions taken by the GYT?

Account3	Yes	Sometimes	No	Don't Know
	1	2	3	8

Q182. Are you informed of the decisions taken by the *Thromde Tshogde*?

Account4	Yes	Sometimes	No	Don't Know	Not Applicable
	1	2	3	8	9

Perception of corruption

Q183. In your opinion, how common is corruption in the country?

Corrup1	Common	Not Common	Don't Know
	1	2	8



Q184. In your opinion, how far do you agree that the following incidences exist?

	Activities of corruption	Agree	Partly agree	Disagree	Don't know
Corrup2	Misuse of government money	1	2	3	8
Corrup3	Misuse of subordinate staff	1	2	3	8
Corrup4	Misuse of government pool vehicle	1	2	3	8
Corrup5	Misuse of government construction equipments (dozer, nav loader, excavator, etc)	1	2	3	8
Corrup6	Favour in issuance of timber, mining, sand or quarry	1	2	3	8
Corrup42	Favour in issuance of trade licenses	1	2	3	8
Corrup7	Favour in employment	1	2	3	8
Corrup8	Favour in training	1	2	3	8
Corrup9	Favour in promotion	1	2	3	8
Corrup10	Favour in transfer	1	2	3	8
Corrup1	Favour in award of contracts	1	2	3	8
Corrup13	Malpractice in procurement of goods and services	1	2	3	8
Corrup14	Delay of payment for corrupt motives	1	2	3	8
Corrup17	Allocate budget and implement activities that are not part of regular plan and program	1	2	3	8
Corrup18	Doing favour or giving money or gifts to buy votes	1	2	3	8

Q185. Do you agree that following are the reasons for corruption in the country?

	Reasons	Agree	Partly agree	Disagree	Don't know
Corrup19	Lack of clear rules and laws	1	2	3	8
Corrup21	Common practices giving gifts to employers, superiors, and other influential people	1	2	3	8
Corrup23	Weak enforcement of law	1	2	3	8
Corrup43	Complicated and lengthy				

Q186. How many civil servants do you think are involved in corruption? Is it:

Corrup24	All	Most	A Few	None	Don't know
	1	2	3	4	8

Q187. In the past 12 months, did your household contribute to official hospitality (in cash or kind)?

Hosp1	Yes	No	Don't Know
	1	2	8



If 2 and 8, Go to Q191

Q188. If your household contributed in cash, please specify the amount?

Hosp2		= Record Amount in Nu
-------	--	-----------------------

Q189. If your household contributed in kind or in person, what kind of the following?

		Yes	No
Hosp11	Cereals (rice, maize,	1	2
Hosp12	Eggs, cheese, butter, milk,	1	2
Hosp13	<i>Ara, bangchang,</i>	1	2
Hosp14	Vegetables	1	2
Hosp15	Firewood	1	2
Hosp16	<i>Woola</i>	1	2
Hosp17	Others, Please specify	1	2

Q190. How much did your household contribute in a year?

	Items	Record approx. in Nu.
Hosp4	Cereals (rice, maize. Wheat)	
Hosp5	Eggs, cheese, butter, milk	
Hosp6	<i>Ara, bangchang, singchang</i>	
Hosp7	Vegetables	
Hosp8	Firewood	
Hosp9	<i>Woola (no. of days)</i>	
Hos10	Others (Specify.....)	



Migration and Length of Stay

Length of stay

Q191. How long have you lived in your current village/town?

Mobil1		= Record number of years
---------------	--	--------------------------

Migration Out Of Your Community

Q192. Have any members of your household migrated away from your current community

during the past 12 months?

Moveaw1	Yes	No
	1	2
If No Go To Q195		

Q193. Has their move created any problems for you?

Moveaw2	Yes	No
	1	2
If No Go To Q195		

Q194. What problems do you face as a result of their departure?

Problems Caused By Migration		Yes	No
MigProb1	Labour shortages	1	2
MigProb2	Break-up of family	1	2
MigProb3	Leaving old people behind	1	2
MigProb5	Other- please specify.....		

Your Community and Community Activities

Volunteering

Q195. During the past 12 months, have you given people unpaid voluntary help (do not consider *woola*)?

Vol1	Yes	No
	1	2
If No Go To Q200		

Q196. What kind of help did you provide?

Volunteerism		Yes	No
Vol2	Labour contribution towards construction/renovation of religious establishments (e.g. <i>goendey</i> , <i>shedra</i> , <i>lhakhang</i> and	1	2
Ritual	Labour during rituals	1	2
Refig	Labour contribution for religious figures	1	2
Vol3	Labour to house construction	1	2
Vol4	Labour to house repair	1	2
Vol8	Labour during annual <i>chboku</i> in a household in village	1	2
Vol9	Labour contribution during times of death in a family	1	2
Vol11	Labour contribution during paddy plantation and harvest	1	2
Vol14	Clean-up campaign	1	2



Vol15	Fund-raising	1	2
Vol17	Teaching	1	2
Thung	Labour for <i>thungchu</i>	1	2
Irriga	Labour for construction/repair of irrigation channel	1	2
Vol18	If "Others" please specify	1	2

Q197. On average, about how many days did you spend during the past 12 months doing voluntary activity on your own?

Voldays = Enter # of days

Q198. Were the individuals you helped on your own:

	Yes	No
Vol19 Poor people	1	2
Vol20 Sick people	1	2
Vol21 Old people	1	2
Vol22 Disabled people	1	2
Vol23 Bereaved families	1	2
Vol24 Victims (of crime, accidents, natural)	1	2
Vol25 Orphans	1	2
Vol26 Others	1	2
If Others, please specify:		

Q199. Overall, how satisfying has your experience as a volunteer been?

Vol27	Satisfying	Neither satisfying or	Dissatisfying
	1	2	3

Donations

Q200. In the past 12 months, did you donate money to the following?

Activities	Yes	No
Don1 Religious Establishments	1	2
Don2 Religious rituals	1	2
Don3 To other families (e.g. during times of death,	1	2
Don4 Individuals (other than your relatives)	1	2
Don5 Educational institutes	1	2
Don6 NGOs (e.g. Tarayana, VAST, etc)	1	2
Don7 Others	1	2
If "others" please specify.....		
If No to all Go to Q202		

Q201. How much money did you donate?

Activities	Amount of donation in
Don8 Religious Establishments	
Don9 Religious rituals	
Don10 To other families (e.g. during times of death,	



Don11	Individuals (other than your relatives)	
Don12	Educational institutes	
Don13	NGOs (e.g. Tarayana, VAST, etc)	
Don14	Others	
If "others" please specify.....		

Q202. In the past 12 months, did you donate goods to the following?

Activities	Yes	No
Don15 Religious Establishments	1	2
Don16 Religious rituals	1	2
Don17 To other families (e.g. during times of death, etc)	1	2
Don18 Individuals (other than your relatives)	1	2
Don19 Educational institutes	1	2
Don20 NGOs (e.g. Tarayana, VAST, etc)	1	2
Don21 Others	1	2
If "others" please specify.....		
If No to all Go to 341		

Q203. What was the approximate value of the goods that you donated?

Activities	Approximate value of goods in Nu.
Don22 Religious Establishments	
Don23 Religious rituals	
Don24 To other families (e.g. during times of death, etc)	
Don25 Individuals (other than your relatives)	
Don26 Educational institutes	
Don27 NGOs (e.g. Tarayana, VAST, etc)	
Don28 Others	
If "others" please specify	

Sense of Belonging

Q204. How would you describe your sense of belonging to your local community?
Would you say it is?

Belong 1	Very Strong	Somewhat Strong	Weak	Don't Know
	1	2	3	8

Sense of Trust

Q205. How much do you trust Bhutanese people in general?

Tgene	Trust most of them	Trust some of them	Trust a few of them	Trust none of them	Don't Know
	1	2	3	4	8



Q206. How much you trust your neighbours?

Trust4	Trust most of them	Trust some of them	Trust a few of them	Trust none of them	Don't Know
	1	2	3	4	8

Community Vitality

Q207. People in this community treat you fairly.

Comm4	Always	Sometimes	Rarely	Never	Don't Know
	1	2	3	4	8

Q208. Would you say this is a neighbourhood where neighbours help one another?

Comm7	Always	Sometimes	Rarely	Never	Don't Know
	1	2	3	4	8

Q209. Did you exchange labour with any community members during the past 12 months?

Exchange	Yes	No
	1	2

Q210. In the last month, how often did you socialize with your neighbours? Was it:

TUSoc1	Few times per week	Few times a month	Once a month	Not in last	Don't Know
	1	2	3	4	8

Q211. In the last month, how often did you socialize with your friends? Was it:

TUSoc2	Few times per week	Few times a month	Once a month	Not in last	Don't Know
	1	2	3	4	8

Q212. In the last month, how often did you socialize with your relatives (outside of the people you live with)? Was it:

TUSoc4	Few times per week	Few times a month	Once a month	Not in last	Don't Know
	1	2	3	4	8

Family Relationships

Q213. For the following statements, please tick only one that indicates your level of agreement or disagreement.

		Disagree	Neutral	Agree
Fam1	The members of your family really care about each other.	1	2	3
Fam3	You wish you were not part of your	3	2	1
Fam4	Members of your family argue too much	3	2	1
Fam6	You feel like a stranger in your family	3	2	1
Fam7	You have enough time to spend with your	1	2	3



	family			
Fam8	There is a lot of understanding in your family	1	2	3
Fam10	Your family is a real source of comfort to you.	1	2	3

Relatives

Q214. Now we want to ask you some questions about contacts you have with your **relatives**, including all relatives such as aunts, uncles, cousins, and in-laws. Exclude people who live in your household.

Think of all the relatives you had contact with in the past month. Of all these people how many live in the same community as you?

Comm11	All	Most	About Half	A few	None
	1	2	3	4	5

Crime and Safety

Q215. Have you been a victim of crime in the last twelve months?

Crime1	Yes	No
	1	2
If No Go To Q217		

Q216. If yes, what was the nature of the offense or offenses?

Theft1	Theft		<i>Record number of</i>
Robbery1	Robbery		<i>Record number of</i>
Crime3	Vandalism		<i>Record number of</i>
Crime4	Family Violence		<i>Record number of</i>
Crime5	Sexual Assault		<i>Record number of</i>
Crime6	Other Assault or Violence		<i>Record number of offences</i>
Crime7	Fraud		<i>Record number of</i>
Crime8	Other		<i>Record number of</i>
Please specify:.....			

Q217. Did you see/knew other people being victimized of crime in the last twelve months?

Crime9	Yes	No
	1	2
If No Go To Q219		

Q218. If yes, what was the nature of the offense or offenses?

Theft2	Theft	Yes	No
Robbery2	Robbery	1	2
Crime10	Vandalism	1	2
Crime11	Family Violence	1	2
Crime12	Sexual Assault	1	2



Crime13	Other Assault or Violence	1	2
Crime14	Fraud	1	2
Crime15	Other	1	2
If others, please specify.....			

Q219. How safe do you feel when walking alone in your neighbourhood or village after dark from....? Do you feel....?

		Always Safe	Usually Safe	Rarely safe
Safety1	Human harm	1	2	3
Safety2	Wild animals	1	2	3
Safety3	Ghost/Spirits	1	2	3

Q220. Did enmity arise in the community during the last twelve months?

Enmity1	Yes	No
	1	2
If Yes Go To Q222		

Q221. If yes, state the reason/reasons.

	Record Reasons Below	Code
Enmity2		
Enmity3		
Enmity4		
Enmity5		
Enmity6		



Ecological Issues

Connectedness to nature

Q222. Do you agree or disagree with the following statements?

	Statement	Agree	Disagree	Don't Know
EcolVal1	Besides human beings, nature is also the domain of spirits and deities.	1	2	8
EcoVal3	Living beings have to depend on non-living beings in order to	1	2	8

Public support for environmental policy

Q223. State whether you agree or disagree with the following?

		Agree	Disagree	Don't Know
EnviPro1	There should be tougher anti-pollution laws.	1	2	8
EnviPro2	Those businesses that do not meet environmental regulations should be closed down.	1	2	8
EnviPro3	Government should impose heavy taxes for those who import environmentally damaging goods.	1	2	8
EnviPro4	The government should strictly reinforce ban on plastic as it has not been very	1	2	8

Environmental issues

Q224. Are the following environmental issues of concern in your area?

	Issues	Yes	No	Don't Know
EnviIssue1	Pollution of rivers and streams	1	2	8
EnviIssue2	Air pollution	1	2	8
EnviIssue3	Absence of proper waste disposal sites	1	2	8
EnviIssue4	Decreasing wildlife species	1	2	8
EnviIssue5	Landslide	1	2	8
EnviIssue6	Soil erosion	1	2	8
EnviIssue7	Flood	1	2	8
EnviIssue8	Erratic weather pattern	1	2	8

Government's effort in protecting environment

Q225. To what extent do you feel that the government is protecting environment for future generations?

GovEnviProt	Enough	Not enough	Don't Know
	1	2	8

Agricultural land lost to development



Q226. In the past five years, have you lost your agricultural land to development? (Ask **this only to farmer respondents**)

AgriLand	Yes	No	Not Applicable
	1	2	9
	If Not Applicable Go To		



Land lost as a result of naturally growing trees

Q227. Have you lost land as a result of growing trees naturally on your land?

NatTreeLand	Yes	No
	1	2

Urbanization

Q228. Which of the following is the biggest problem urban area is facing today?

UrbanProb	Garbage	Traffic and air	Housing crunch	Crime	Don't Know
	1	2	3	4	8

Q229. Do you feel that government should initiate green parks for children and adults in urban areas?

UrbanPark	Yes	No	Don't Know
	1	2	8

Water Quality

Q230. How would you rate the quality of your drinking water in terms of the following?

		Excellent	Good	Poor	Don't Know
WatQua1	Turbidity	1	2	3	8

Q231. Have you witnessed increase or decrease in water borne diseases in your area?

WatQua6	Increase	Decrease	Don't Know
	1	2	8

Q232. Do you notice any change in the level of water in the streams and rivers nearby your area?

	Increased	Decreased	Stayed the same	Don't Know
WatLevelCh	1	2	3	8

Air Quality

Q233. How would you rate the overall quality of air in your area?

AirQua1	Excellent	Good	Poor	Don't Know
	1	2	3	8

Q234. Have you witnessed increase or decrease in diseases related to bad air quality in your area?

AirQua2	Increased	Decreased	Don't Know
	1	2	8

Transportation

Q235. Do you own vehicle?

Trans1	Yes	No
--------	-----	----



	1	2
	If No Go To Q237	



Q236. If public transportation is available, would you reduce trips by your personal vehicle?

Trans2	Yes	No	Don't Know
	1	2	8

Energy

Q237. What kind of energy do you use for cooking?

		Yes	No
Energy1	Fuel wood	1	2
Energy2	Electricity	1	2
Energy3	LPG	1	2
Energy4	Kerosene	1	2
Energy5	Solar	1	2
Energy6	Others, please specify:-	1	2

Q238. What kind of energy do you use for heating your home?

		Yes	No
Energy7	Fuel wood	1	2
Energy8	Electricity	1	2
Energy9	LPG	1	2
Energy10	Kerosene	1	2
Energy11	Solar	1	2
Energy12	Others, please specify:-	1	2

Climate change

Q239. How aware are you about climate change?

ClimChange1	Very much	Reasonably	Unaware	Don't Know
	1	2	3	8

Q240. How serious a problem do you consider the issues of climate change or global warming to be? Is it

Cchange2	Very serious problem	Somewhat serious problem	Not very serious problem	Not a serious problem at all	Don't Know
	1	2	3	4	8

Q241. To what extent, are you concerned about climate change?

ClimeChange3	Very much	A lot	A little	Not at all	Don't Know
	1	2	3	4	8

(If the respondents are in other professions other than farmers Go To Q251)



Biodiversity

Q242. Have you noticed any change in the vegetation cover around your region as compared to previous years?

Bio1	Yes	No	Don't Know
	1	2	8



Q243. Do you have access to the following non-wood forest products?

	Non-wood forest products	Yes	No	Not Available
Nonwood1	Mushroom	1	2	10
Nonwood2	Cane shoots	1	2	10
Nonwood3	Fern tops	1	2	10
Nonwood4	Fodder	1	2	10
Nonwood5	Lemon grass oil	1	2	10
Nonwood6	Turpentine (thangchu)	1	2	10
Nonwood7	Raw materials for colorants and dyes	1	2	10
Nonwood8	Bamboo	1	2	10
Nonwood9	Jungle potato	1	2	10
Nonwood10	Exudates - resin (sey or varnish for dapa, phob, etc.)	1	2	10
Nonwood11	Bettle leaf (pani)	1	2	10
Nonwood12	Daphne (bark for making paper)	1	2	10
Nonwood13	Damru	1	2	10
Nonwood14	Edible jungle fruits	1	2	10
Nonwood15	Zaa, baw	1	2	10

Q244. How satisfied are you with your access to the following non-wood forest products?

NonWoodSat	Satisfied	Dissatisfied	Don't Know
	1	2	8

Q245. Do you have access to the following wood products?

		Yes	No
Wood1	Fuel wood	1	2
Wood2	Timber for construction of houses and animal	1	2
Wood3	Fencing materials (farm and around houses)	1	2
Wood4	Cane shoot	1	2
Wood5	Fodder (branches of trees used for animal feed)	1	2

Q246. How satisfied are you with your access to wood products?

WoodSat	Satisfied	Dissatisfied	Don't Know
	1	2	8

Q247. Have the distance changed in accessing each of the above resources?

WoodDist1	Yes	No	Don't Know
	1	2	8

Q248. Has the distance increased in collecting firewood?

WoodDist2	Yes	No	Don't Know
	1	2	8

Q249. How far do you travel in collecting firewood?



WoodDist3	Less than 1 hour	1-3 hours	4-6 hours	More than 7 hours
	1	2	3	4



Q250. Do you think the following affects your access to natural resources?

		Yes	No	Don't Know
NatRes1	Nature reserves and parks	1	2	8
NatRes2	Community and private	1	2	8

Household Waste

Q251. Has your household waste production increased compared to the previous year?

Waste1	Yes	No	Don't Know
	1	2	8

Q252. During the past 12 months, what kind of waste did your household produce?

Waste2	Ecologically friendly (vegetable waste and others that decompose easily)	Ecologically unfriendly (metals, plastics, etc. that does not decompose easily)	Both
	1	2	3

Q253. How often do you sort glass or tins or plastic and so on for reuse?

Waste3	Always	Sometimes	Never
	1	2	3

Q254. How do you dispose your household waste?

Waste 4	Composting and burning	Municipal garbage pick-up	Dump in rivers/streams	Dump in forest	Dump on open land	Others, please specify.....
	1	2	3	4	5	6

Agriculture (Ask this only to farmer respondents)

Quality of agricultural land

Q255. How would you rate the quality of your agricultural land?

AgriQua	Excellent	Good	Poor	Don't Know
	1	2	3	8

Fertilizers

Q256. Which do you use most, manure or chemical fertilizers?

Fert	Manure	Chemical	Both
	1	2	3

Insecticides

Q257. Have you used any pesticides/insecticides/herbicides in your farm?

Insect	Yes	No	Don't Know
	1	2	8
If No, Go To			



Agricultural Constraints

Q258. Which of the following were important constraints to your crops during the last year?

		Yes	No	Don't Know
CropCo1	Wild Animals	1	2	8
CropCo2	Pests and Diseases	1	2	8
CropCo3	Drought	1	2	8
CropCo4	Excessive rain	1	2	8
CropCo5	Hailstorm	1	2	8
CropCo6	Late supply of approved seed by agency	1	2	8
CropCo7	Damage by domestic animals	1	2	8
CropCo8	Soil erosion	1	2	8
CropCo9	Landslides	1	2	8
CropCo10	Labour shortage	1	2	8
CropCo11	Lack of stable water supply/irrigation system	1	2	8
CropCo12	Lack of chemical fertilizer	1	2	8
CropCo13	Lack of manure	1	2	8
CropCo14	Other	1	2	8

Human-wildlife conflict

Q259. In the past one year, has your crops been damaged by wild animals?

	Yes	No
HumanWild1	1	2
	If No Go to Q261	

Q260. Do you have any land that you have not been cultivated specifically because of the wildlife threats?

HumanWild2	Yes	No
	1	2



Living Standards

11.1 Income

- Q261. Approximately how much cash income did you receive during the past twelve months from each of the following sources? (**Note- Income of respondent**)
If no income is received from a source, enter 0. Only leave blank if respondent refuses to answer.

Sources of Income		Income in Nu
Income1	Wages/Salary	
Income2	Own business	
Income3	Own farm enterprise	
Income6	Remittances	
Income7	Pensions	
Income8	Rental/Real Estate	
Income9	Inheritance	
Income12	Sale of land or other assets	
Income13	Other	
If "Other" please specify.....		

- Q262. What was the approximate total cash income for your household during the past 12 months?

HIncome		=Record approximate income in Nu [enter 8 for Don't Know]
---------	--	---

Relative Income

- Q263. Within your community, do you consider your family to be:

Income14	Wealthier than most families	About the same as most	Poorer than most	Don't Know
	1	2	3	8

- Q264. How has your family's financial position changed over the past few years, compared to other families in your community?

Income15	Financial position has improved more than most	Financial position has changed about the same as most	Financial position has improved less	Don't Know
	1	2	3	8

Financial Security

- Q265. In the next two years, do you think your family's financial situation will get better, worse or stay the same?

FinSec1	Get Better	Stay The Same	Get Worse	Don't Know
	1	2	3	8



Q266. How well does your total household income meet your family's everyday needs for food, shelter and clothing?

FinSce2	Not enough	Just enough	More than enough
	1	2	3



Q267. If you or someone in your household had to make an unexpected payment of 5,000 NU today, would you-

		Yes	No
FinSec11	Use savings	1	2
FinSec12	Borrow from relative	1	2
FinSec13	Borrow from a friend	1	2
FinSec14	Borrow from a bank	1	2
FinSec15	Borrow from other informal lender	1	2
FinSec16	Sell an asset	1	2
FinSec17	Other	1	2
If "Other, please specify....."			

Q268. If you or someone in your household had to make an unexpected payment of 25,000

NU today, would you-

		Yes	No
FinSec21	Use savings	1	2
FinSec22	Borrow from relative	1	2
FinSec23	Borrow from a friend	1	2
FinSec24	Borrow from a bank	1	2
FinSec25	Borrow from other informal lender	1	2
FinSec26	Sell an asset	1	2
FinSec27	Other	1	2
If "Other, please specify....."			

Q269. In the past 12 months, did any of the following happen to your family?

		Yes	No
FinSec31	Bought second hand clothes instead of new ones to keep costs down.	1	2
FinSec32	Continued wearing clothes and shoes that were worn out because you couldn't afford replacements.	1	2
FinSec35	Had difficulty in contributing to community festivals	1	2
FinSec36	Could not send children to school due to costs	1	2
FinSec38	Could not repay loans or mortgages on time.	1	2
FinSec39	Had difficulty providing financial assistance to parents and extended family members.	1	2
FinSec40	Postponed urgent repairs and maintenance of your household.	1	2
FinSec41	Sold equipment, land or other assets to raise cash for basic	1	2
FinSec42	Other-	1	2
If Other, please specify-			

Food Insecurity



Now I am going to read you some statements that may be used to describe the food situation for a household. Please tell me whether it occurred or not in the past 12 months?

Q270. In the past 12 months, did you cut the size of your meal or skip meals because there wasn't enough food or money for food?

FS1	Yes	No
	1	2
If No Go to Q272		

Q271. 116. How often did this happen—almost once a month, some months but not every month, or in only one or two months?

FS3	Almost once a month	Some months but not every month	Only one or two months
	1	2	3

Debt

Q272. What is your current debt?

If there is no debt from a source, enter 0. Only leave blank if respondent does not answer. Be sure to enter Total in Debt9

Debt1	Housing Loans		= Please record amount in
Debt2	Vehicle Loans		= Please record amount in
Debt3	Land purchase Loans		= Please record amount in
Debt4	Agricultural Loans		= Please record amount in
Debt5	Business Loans		= Please record amount in
Debt6	Educational Loans		= Please record amount in
Debt7	Personal Loans		= Please record amount in
Debt8	Other Loans		= Please record amount in
Debt9	Total		Please record amount in Nu

Q273. From whom did you borrow?

		Yes	No
Debt10	Family	1	2
Debt11	Friends	1	2
Debt12	Banks/Financial	1	2
Debt13	Other	1	2

Q274. Are you comfortable with your current level of household debt?

Debt14	Yes	No
	1	2

Housing

Q275. Is the dwelling in which you live, rented or owned?

If owned, be sure to enter an amount in 542, even if it is 0



HTenure	Rented	Owned
	1	2
If Owned Go to Q277		

Q276. If rented, what is the current monthly rent?

HRent		= Record amount in Nu
-------	--	-----------------------



Q277. If owned, what type of roof-material is used for your house; circle all that applies?

RoMat1	Concrete/brick/stone	1
RoMat2	CGI/Metal	1
RoMat3	Mud	1
RoMat4	Wood	1
RoMat5	Straw/leaves	1
RoMat6	Bamboo	1
RoMat7	Slate	1
RoMat8	Others (specify).....	1

Q278. What type of wall material is used for your house; circle all that applies

WaMat1	Concrete/brick/stone	1
WaMat2	CGI/Metal	1
WaMat3	Mud	1
WaMat4	Wood	1
WaMat5	Straw/leaves	1
WaMat6	Bamboo	1
WaMat7	Slate	1
WaMat8	Others (specify).....	1

Q279. How many rooms are in the dwelling? (*Exclude bathrooms and toilets*)

HRooms		= Record number of rooms
--------	--	--------------------------

Q280. Is your dwelling in need of repairs?

<i>Please check one of the answers below</i>		
HRepair	No repairs	1
	Yes, minor repairs are needed.	2
	Yes, major repairs- leaking roof, defective plumbing, wiring, structural repairs to walls, ceilings, roof etc	3

In-Kind Income

Q281. During the past year, did you receive any contributions of food from family or friends?

InKind1	Yes	No
	1	2
If No Go To Q283		

Q282. If yes, what was the approximate value of these contributions?

InKind2 = Please enter approximate value

		in NUs
--	--	-----------

Q283. During the past year, did you receive any contributions in the form of clothes, household items, livestock animals, etc.

InKind3	Yes	No
	1	2



If No Go To Q285

Q284. If yes, what was the approximate value of these contributions?

InKind4	= Please enter approximate value
---------	----------------------------------

in
NUs



Q285. During the past year, did you receive any contributions of labour from family or friends?

InKind5	Yes	No
	1	2
If No Go To Section Q287		

Q286. If yes, what was the approximate value of these contributions?

=Please enter approximate value

InKind6		in NU\$
----------------	--	------------

Q287. How many acres of land do you own?

Type of land	Acres
Dry land	
Pangzhing	
Tseri	
Wetland	
Others	
Total	

Q288. How many livestock animals do you own?

Type of animals	No.
Yaks	
Cows	
Bulls	
Goats	
Sheep	
Horses	
Donkeys	
Mules	
Chickens	
Pigs	

Q289. Which of the following pieces of equipment do you own?

		Yes	No
Equip1	Tractor	1	2
Equip2	Power Tiller	1	2
Equip3	Power Thresher	1	2
Equip4	Paddle Thresher	1	2
Equip6	Rice Mill Set	1	2
Equip7	Oil Mill Set	1	2
Equip8	Power Reaper	1	2
Equip 19	Four wheel vehicles	1	2
Equip 20	Two-wheel vehicles	1	2



Q290. During the past 12 months, have each of the following increased, decreased or stayed the same?

		Increased	Stayed the Same	Decreased	Not Applicable
AGTrend1	Number of acres you own	1	2	3	4
AGTrend2	Number of acres planted	1	2	3	4
AGTrend3	Amount of livestock you own	1	2	3	4
AGTrend4	Size of your cereals harvest	1	2	3	4
AGTrend5	Size of your fruits harvest	1	2	3	4
AGTrend6	Size of your vegetables harvest	1	2	3	4
AGTrend7	Number of kgs of meat produced	1	2	3	4
AGTrend8	Number of kgs of dairy product produced	1	2	3	4
AGTrend9	Cash Income	1	2	3	4



Appendix 2

Method for GNH Index Construction

The Gross National Happiness Index (GNH) is constructed in 2 steps, one of which pertains to identification and one to aggregation.^[1] We also describe the mechanism for breaking the index down to report dimensional achievements for each district or group.

Identification

The *first* step is to define whether each household has attained sufficiency in each of the nine dimensions. This is done by applying a sufficiency cutoff to each dimension. As this is an innovative methodology, and is not familiar to most readers, we pause to explain.

In poverty measurement, it is quite common to apply a poverty line, which distinguishes people who do not have enough money from those who are non-poor. Of course income poverty lines are very imperfect, but the concept of being able to distinguish people who are poor is well-understood. Bhutan holds that it is possible to distinguish, additionally, between those people who have attained sufficient level of achievement and those whose attainments fall short of sufficiency.

Sufficiency Cut-off

The first part of the Gross National Happiness measure applies a sufficiency cutoff to each indicator. The sufficiency cutoff is set, naturally, at a higher level than a poverty line. In some indicators it is set at the top level of achievement for that indicator. In other indicators it is set at a level that is deemed sufficient for most people. A person is identified as having a *sufficient* quality of life if his or her achievements in that indicator meet or exceed the cutoff. If the achievements do meet or exceed the cutoff, the persons actual achievements are replaced by the sufficiency level. For example, if actual income were 1,000 and sufficiency cut-off were 150, then the person would be treated as if they earned 150. Thus achievements *above* the sufficiency cutoff do not further *increase* someones quality of life score. The level at which the sufficiency cutoff is set is a value judgment, which can be a topic for public discussion, but the fact that it may be difficult to set an exact cutoff should not obscure the reasonableness of setting *some* sufficiency cutoff.

To give a simple example, suppose some might think 9 years of education to be sufficient. Others think that 16 years of education a University degree is sufficient. But consider a person who has been in graduate school for 10 years but has still not finished a doctorate, that is, who has been studying for 27 years. Do these many years of schooling really

contribute a great deal more to the persons happiness than the first 12 or 16 years of education? Is the long-time student better off than a genius who finished her doctorate in merely 3 years? The answer to this question varies by person. For some scholars it might be deeply meaningful. For others education might have been alienating. They will never finish the degree and later regard these years as wasted. In this example, more years of education are not necessarily better. Still, it may be possible to identify some *sufficient* level of education, the attainment of which would correspond to increased well-being for most people in the population.

The Gross National Happiness Index takes the position that beyond a certain point, we dont need to keep adding in higher achievements to the quality of life mechanically; we confine our attention somewhat to a middle band of achievements that contribute significantly to human well-being for most people.

The sufficiency cutoffs are applied as follows: The value of each indicator in which a household attains sufficiency or above sufficiency is given a 0. Subsequently all achievements that are less than sufficient are replaced by the distances from the cut-offs. It is calculated by subtracting the actual achievement from the sufficiency cutoffs, and that difference is divided by the sufficiency cutoff itself. This way, the depth (distances from the cutoffs) will rise if any poor person drops further away from the sufficiency cutoff. For example, if the poverty line is 8 and the achievement is 6, the gap is $(8-6)/8$, or 0.25. Further, in order to take account of the severity of the insufficiency levels, the distances from the cutoffs are squared. This reflects the *inequality* of achievements among the persons below the cutoffs, thereby placing a greater penalty to low achievements.

Now how do we identify who is happy? The GNH takes what is known as the union approach to identification in the literature on multidimensional measurement. That is, any shortfall from sufficiency that any household experiences in any indicator within any dimension is considered to depress Gross National Happiness. A person who has achieved sufficiency in all 9 dimensions is considered happy.

Aggregation

The *second* step is to aggregate the data of the population a decomposable measure that is sensitive to the depth as well as severity of achievements. That is, first we identify the shortfalls from gross national happiness and calculate the squared distances from the cutoffs. The resulting measure is the GNH.

$$\mathbf{GNH = 1 - Average\ squared\ distance\ from\ cutoff}$$

Break Down by Dimension

Having calculated the Gross National Happiness index, it is very easy to break down the index to identify how achievements in each dimension extend or dampen Gross National Happiness. The number of indicators in each of the nine domains is different and so, in order to avoid biasness the domains are attached with equal weights. For instance, psychological

wellbeing consists of 11 indicators. Each of the 11 indicators would be assigned a weight of 1/11. The domain index would then be 1- Average squared distance from cutoff for 11 indicators.

In sum:

We calculate the GNH. It will merely be one number. How can we make sense of the measure?

First, we compare the GNH in different districts surveyed, to see which districts have higher GNH scores.

Second, we can compare the GNH across time to see if GNH is decreasing or increasing after we conduct future surveys.

Third, we *decompose* the GNH by dimension (or indicator), by district, by gender, by occupation, by age group etc. In this way we can see how *shortfalls* in GNH vary across disaggregated levels. This information reveals immediately in what dimensions of life *shortfalls* from sufficiency are most acute.

Fourth, we track the decomposition of GNH across time, to see in which dimensions sufficiency is increasing, and also to track whether or not it is decreasing in any dimensions.

Fifth, we study the average severity of deprivations, to identify whether the *gap* below the sufficiency cutoff is deepening or narrowing across time.

In these ways, the GNH can be used as an instrument of policy, and can capture a great deal of interconnected information that can not otherwise be presented so succinctly.

Example of construction of the GNH

Step 1. Apply sufficiency cutoff to obtain insufficiency headcounts

Matrix A:

$$\begin{bmatrix} 1 & 3 & 30 & 4 & 3 & 4 & 3 & 1 & 2 \\ 1 & 2 & 30 & 3 & 3 & 10 & 2 & 2 & 2 \\ 1 & 2 & 24 & 3 & 3 & 50 & 2 & 2 & 1 \\ 1 & 3 & 30 & 4 & 3 & 10 & 2 & 2 & 2 \end{bmatrix}$$

Sufficiency cutoff

$$[3 \ 3 \ 26 \ 3 \ 3 \ 11 \ 2 \ 2 \ 2]$$

A person is insufficient if in a given indicator, the achievement is less than the respective cutoff. Whether the data are cardinal or ordinal, we construct the matrix A, by recoding the entries into either 1 i.e. if they fall below the sufficiency cutoffs and into 0 if they have achieved equal or above the cutoffs. For the above example, the matrix A would give the following B matrix.

Matrix B:

$$\begin{bmatrix} 1 & 0 & 0 & 0 & 0 & 1 & 0 & 1 & 0 \\ 1 & 1 & 0 & 0 & 0 & 1 & 0 & 0 & 0 \\ 1 & 1 & 1 & 0 & 0 & 0 & 0 & 0 & 1 \\ 1 & 0 & 0 & 0 & 0 & 1 & 0 & 0 & 0 \end{bmatrix}$$

Step 2. Calculation of distance from cutoff

The distances from cutoffs are calculated for the entries of persons who are insufficient (denoted by 1) by using the following formula:

For variables where minimum are zeros such as voluntary days and amount donated, distance from cutoff is calculated by (sufficiency cutoff-actual) / (sufficiency cutoff).

For variables where minimum is one, distance from cutoff is calculated by (sufficiency cutoff- actual) / (sufficiency cutoff) - (one).

After calculation of distances from the cutoffs, Matrix B would generate Matrix C:

Matrix C:

$$\begin{bmatrix} 1 & 0 & 0 & 0 & 0 & 0.64 & 0 & 1 & 0 \\ 1 & .50 & 0 & 0 & 0 & 0.09 & 0 & 0 & 0 \\ 1 & .50 & 0.08 & 0 & 0 & 0 & 0 & 0 & 1 \\ 1 & 0 & 0 & 0 & 0 & 0.09 & 0 & 0 & 0 \end{bmatrix}$$

Step 3. Squaring distance from the cutoff

In order to give a greater weight to low achievements, and place a stronger value on equality, the distances from the cutoffs of each indicator may also be squared prior to aggregation to emphasize the severity of insufficiency.

Matrix D:

$$\begin{bmatrix} 1 & 0 & 0 & 0 & 0 & .40 & 0 & 1 & 0 \\ 1 & .25 & 0 & 0 & 0 & .01 & 0 & 0 & 0 \\ 1 & .25 & .01 & 0 & 0 & 0 & 0 & 0 & 1 \\ 1 & 0 & 0 & 0 & 0 & .01 & 0 & 0 & 0 \end{bmatrix}$$

Step 4. Compute the GNH Index.

Step 4a. GNH Index = 1- Squared Distance from Cutoff

Matrix E:

$$\begin{bmatrix} 0 & 1 & 1 & 1 & 1 & .60 & 1 & 0 & 1 \\ 0 & .75 & 1 & 1 & 1 & .99 & 1 & 1 & 1 \\ 0 & .75 & .99 & 1 & 1 & 0 & 1 & 1 & 0 \\ 0 & 1 & 1 & 1 & 1 & .99 & 1 & 1 & 1 \end{bmatrix}$$

Step 4b. GNH Index = Average(1- squared distance from cutoff) or 1- Average squared distance from cutoff

Hence in this case GNH Index is:

$$=(1+0.75+0.75+1+1+1+0.99+1+1+1+1+1+1+1+1+0.60+0.99+1+0.99+1+1+1+1+1+1+1+1+1)/36 = 0.808$$

Break Down by Dimension

Matrix D:

$$\begin{bmatrix} 1 & 0 & 0 & 0 & 0 & .40 & 0 & 1 & 0 \\ 1 & .25 & 0 & 0 & 0 & .01 & 0 & 0 & 0 \\ 1 & .25 & .01 & 0 & 0 & 0 & 0 & 0 & 1 \\ 1 & 0 & 0 & 0 & 0 & .01 & 0 & 0 & 0 \end{bmatrix}$$

Matrix D comprises of the squared distances from cutoffs. Lets say the first four indicators corresponding to first four columns belong to psychological wellbeing dimension and the next five to culture. In order to give equal weights to each dimension, each of the four indicators in psychological wellbeing is assigned a weight of 0.25 and similarly, each of the five indicators in culture is assigned 0.2. Then the weighted Matrix D is as follows:

$$\begin{bmatrix} .25 & 0 & 0 & 0 & 0 & .08 & 0 & .2 & 0 \\ .25 & .0625 & 0 & 0 & 0 & .002 & 0 & 0 & 0 \\ .25 & .0625 & .0025 & 0 & 0 & 0 & 0 & 0 & .2 \\ .25 & 0 & 0 & 0 & 0 & .002 & 0 & 0 & 0 \end{bmatrix}$$

Next, the average squared distance from cutoff is calculated for each indicator in each dimension.

$$[.25 \ .03125 \ .000625 \ 0 \ 0 \ .021 \ 0 \ .05 \ .05]$$

So, GNH Index for psychological wellbeing is 1 Sum of squared distances from cutoffs for four psychological wellbeing indicators. Here, instead of average the sum of squared distances from cutoffs is calculated because the weights add up to 1 in each dimension.

$$\begin{aligned} &= 1 - (.25 + .03125 + .000625 + 0) \\ &= 1 - .281875 \\ &= .718 \end{aligned}$$

Likewise, for culture:

$$\begin{aligned} &= 1 - (0 + .021 + 0 + .05 + .05) \\ &= 1 - .121 \\ &= .879 \end{aligned}$$

To calculate the percentage contribution by each dimension to the final GNH index, one sums the squared distances from cutoff in each dimension and divides this sum by the total squared distances from cutoff experienced in the population.

The new methodology for Gross National Happiness Index consist of

- (i) a cutoff identification method that identifies sufficiency both in terms of achievements in each dimension, and achievements across a range of dimensions and
- (ii) an aggregation methodology that satisfies a range of desirable properties including decomposability.

The sufficiency cutoffs are set so that any person who had achieved full sufficiency in every dimension would be regarded as fully happy. The measure seems to be *understandable and easy to describe*, because it relies on a cutoff approach which is widely used in policy already. It can reflect *common sense notions of happiness* in that the dimensions and indicators directly were chosen because of their relevance in the Bhutanese context. Furthermore this measure is specifically geared not just to notice incremental changes over time, but also to *target, track changes, and guide policy*. This is because the measure is actually developed by considering the sector of the population who does *not* enjoy a sufficient quality of life at

present, and scrutinizing the dimensions in which they fall short. The measure *can be decomposed* by variables such as district or language group, and the quality of life can then be broken down by dimension to *identify which dimensions show the highest shortfalls* in different regions or groups. This last characteristic makes it a good tool for tracking changes across time, or for guiding policies to address specific needs of different groups efficiently. It is *technically solid*, enjoying properties of dimensional monotonicity and decomposability.

Appendix 3

Policy Selection Tools by Dasho Karma Ura (word under progress)

GNH POLICY SELECTION TOOLS

The purpose of the GNH Policy Lens is to provide a systematic appraisal of the potential effects of proposed policies and actions on the Gross National Happiness of the population, based on expected impacts on key determinants of GNH.

The primary benefits of this policy lens are:

It requires that all relevant dimensions are considered in the policy impact process and, consequently, supports a holistic approach to policy development.

It forces an acknowledgement of areas where potential effects are not known and penalizes the policy accordingly.

It provides a vehicle for a number of participants from a variety of backgrounds to work towards a consensus about policy impacts.

Policy Indicators

Contents

GNH POLICY SELECTION TOOLS..... 1

Policy Indicators 2

 1. Equity 3

 2. Security 3

 3. Material 3

 4. Pollution 3

 5. Biodiversity 3

 6. Nature 4

 7. Learning 4

 8. Productivity 4

 9. Family 4

 10. Spiritual 5

 11. Recreation 5

 12. Support 5

 13. Health 5

 14. Stress 5

 15. Information 6

 16. Participation 6

 17. Corruption 6

 18. Judiciary1 6

 19. Judiciary2 7

 20. Rights 7

 21. Culture 7

 22. Discrimination 7

 23. Values 7

Policy Selection Tools by Dasho Karma Ura (word under progress)

1. Equity			
Will probably favour higher income groups more than lower income groups	Do not know the differential effects on income groups	Should not have any appreciable effects on income distribution	Will probably favour lower income groups more than higher income groups
1	2	3	4

2. Security			
Will probably result in a net decrease in economic security within the population	Do not know the differential effects on economic security within the population	Should not have any appreciable effects on economic security within the population	Will probably result in a net increase in economic security within the population
1	2	3	4

3. Material			
Will probably result in a net decrease in feelings of material well-being within the population	Do not know the differential effects on feelings of material well-being within the population	Should not have any appreciable effects on feelings of material well-being within the population	Will probably result in a net increase in feelings of material well-being within the population
1	2	3	4

4. Pollution			
Will probably increase the amount of pollution or degradation of the air, land or water	Do not know the effects on pollution or degradation of the air, land or water	Will probably not have any effect on pollution or degradation of the air, land or water	Will probably decrease the amount of pollution or degradation of the air, land or water
1	2	3	4

5. Biodiversity			
Will probably decrease the health and diversity of wildlife	Do not know the effects on wildlife	Should have little or no effect on the health and diversity of wildlife	Will probably increase the health and diversity of wildlife
	2	3	4

Policy Selection Tools by Dasho Karma Ura (word under progress)

1			
6. Nature			
Will probably provide a net decrease in the number of persons who can access and enjoy nature	Do not know the effects on peoples ability to access and enjoy nature	Should have little or no effect on peoples ability to access and enjoy nature	Will probably provide a net increase in the number of persons who can access and enjoy nature
1	2	3	4

7. Learning			
Will probably decrease the number of persons who have an opportunity to increase skills and learning	Do not know the effect on persons opportunities for increasing skills and learning.	Should have little or no effect on persons opportunities for increasing skills and learning.	Will probably create an net increase in the number of persons who have an opportunity to increase skills and learning
1	2	3	4

8. Productivity			
Will probably decrease the number of persons who have the opportunity to participate in productive activities.	Do not know the effect on opportunity to participate in productive activities.	Should have little or no effect on opportunity to participate in productive activities	Will probably increase the number of persons who have the opportunity to participate in productive activities
1	2	3	4

9. Family			
Will probably decrease the opportunities that people have to spend time with family and friends	Do not know the effect on opportunities that people have to spend time with family and friends	Should have little or no effect on opportunities that people have to spend time with family and friends	Will probably increase the opportunities that people have to spend time with family and friends
1	2	3	4

Policy Selection Tools by Dasho Karma Ura (word under progress)

10. Spiritual			
Will probably decrease the opportunities that people have to spend time in spiritual pursuits.	Do not know the effect on opportunities that people have to spend time in spiritual pursuits.	Should have little or no effect on opportunities that people have to spend time in spiritual pursuits.	Should increase the opportunities that people have to spend time in spiritual pursuits.
1	2	3	4

11. Recreation			
Will probably decrease the opportunities that people have to spend time in recreational pursuits	Do not know the effect on opportunities that people have to spend time in recreational pursuits	Should have little or no effect on opportunities that people have to spend time in recreational pursuits	Should increase the opportunities that people have to spend time in recreational pursuits
1	2	3	4

12. Support			
Will probably decrease the amount of social support available to people in time of need.	Do not know the effect on the amount of social support available in time of needs	Should have little or no effect on amount of social support available in time of needs	Should increase the amount of social support available to people in time of need.
1	2	3	4

13. Health			
Will probably increase the rate of disability or other health limitations in the population	Do not know the effect on the rate of disability or other health limitations in the population	Should have little or no effect on the rate of disability or other health limitations in the population	Should decrease the rate of disability or other health limitations in the population
1	2	3	4

14. Stress			
Will probably increase the number of people feeling stressed in the population	Do not know the effect on the number of people feeling stressed in the population in the	Should have little or no effect on the number of people feeling stressed in the	Should decrease the number of people feeling stressed in the population in the

Policy Selection Tools by Dasho Karma Ura (word under progress)

	population	population in the population	population
1	2	3	4

15. Information			
Will probably decrease the amount of information that most people have about government activities	Do not know the effect on the amount of information that most people have about government activities	Should have little or no effect on the amount of information that most people have about government activities	Should increase the amount of information that people have about government activities.
1	2	3	4

16. Participation			
Will probably decrease the opportunity for equitable participation in government decisions	Do not know the effect on opportunity to participate in government decisions.	Should have little or no effect on equitable participation in government decisions	Should increase the opportunity for equitable participation in government decisions
1	2	3	4

17. Corruption			
Will probably increase the opportunity for corrupt behaviour within government	Do not know the effect on opportunity for corrupt behaviour in government	Should have little or no effect on opportunity for corrupt behaviour in government	Should decrease the opportunity for corrupt behaviour in government
1	2	3	4

18. Judiciary1			
Should decrease equitable access to judicial system (courts and police)	Do not know the effect on equitable access to judicial system	Should have little or no effect on equitable access to judicial system	Should increase equitable access to judicial system
1	2	3	4

Policy Selection Tools by Dasho Karma Ura (word under progress)

19. Judiciary2			
Should decrease effectiveness of judicial system (courts and police)	Do not know the effect on quality of judicial system	Should have little or no effect on effectiveness of judicial system	Should increase effectiveness of judicial system
1	2	3	4

20. Rights			
Should decrease protection for individual rights	Do not know the effect on protection for individual rights	Should have little or no effect on protection for individual rights	Should increase protection for individual rights
1	2	3	4

21. Culture			
Should decrease the opportunity for people to learn about or participate in cultural practices and traditions	Do not know the effect on opportunity to learn about or participate in cultural practices and traditions	Should have little or no effect on opportunity to learn about or participate in cultural practices and traditions	Should increase opportunity to learn about or participate in cultural practices and traditions.
1	2	3	4

22. Discrimination			
Will increase probability of discrimination based on ethnicity, religion or gender	Do not know the effect on probability of discrimination based on ethnicity, religion or gender	Should have little or no effect on probability of discrimination based on ethnicity, religion or gender	Should decrease the probability of discrimination based on ethnicity, religion or gender
1	2	3	4

23. Values			
Reduces the importance of compassion, generosity and gratitude.	Do not know the effect on the perceived importance of compassion, generosity and gratitude.	Should have little or no effect on the perceived importance of compassion, generosity and gratitude.	Reinforces the importance of compassion, generosity and gratitude

Policy Selection Tools by Dasho Karma Ura (word under progress)

1	2	3	4
---	---	---	---

Appendix 4

Demographics of Respondents

Gender	Frequency	Percentage
Male	478	50.3%
Female	472	49.7%
Total	950	100%

Region	Frequency	Percentage
Rural	791	83.2%
Urban	159	16.8%
Total	950	100%

Age	Frequency	Percentage
13-17	59	6.2%
18-30	386	40.7%
31-45	276	28.2%
46-60	173	18.2%
Above 60	63	6.6%
Missing	2	0.2%
Total	950	100%

Marital Status	Frequency	Percentage
Never married	243	25.6%
Married	648	68.2%
Divorced	35	3.7%
Separated	5	0.5%
Widowed	19	2.0%
Total	950	100%

Level of Education	Frequency	Percentage
Vocational	6	0.6%
College (Undergraduate)	47	4.9%

University (Masters)	11	1.2%
Post-Grad (PhD)	1	0.1%
Class	339	35.7%
Not applicable	546	57.5%
Total	950	100%

Employment Status	Frequency	Percentage
Unemployed	18	1.9%
Farmers	604	63.6%
Students	131	13.8%
Employed	156	16.4%
Religious community	15	1.6%
Others	26	2.7%
Total	950	100%

Dzongkhag (District)	Frequency	Percentage
Dagana	96	10.1%
Gasa	29	3.1%
Haa	55	5.8%
Pemagatshel	84	8.8%
Samdrupjongkhar	139	14.6%
Samtse	83	8.7%
Thimphu	88	9.3%
Tashigang	142	14.9%
Tashiyangtse	56	5.9%
Tsirang	60	6.3%
Wangdue	59	6.2%
Zhemgang	59	6.2%
Total	950	100%

Dzongkhag ranking by domain weighted GNH Index

Sl no.	Dzongkhag	Weighted GNH Index
1	Wangdue Phodrang	0.818
2	Thimphu	0.814
3	Haa	0.813
4	Tsirang	0.811
5	Zhemgang	0.809
6	Samdrup Jongkhar	0.808
7	Tashi Yangste	0.806
8	Samtse	0.804
9	Pemagatshel	0.804
10	Dagana	0.801
11	Gasa	0.795
12	Tashigang	0.790

Dzongkhag ranking by unweighted GNH Index

Sl no.	Dzongkhag	GNH Index
1	Haa	0.8273
2	Zhemgang	0.8216
3	Tsirang	0.8185
4	Wangdue Phodrang	0.8173
5	Samdrup Jongkhar	0.8142
6	Pemagatshel	0.8138
7	Tashigang	0.8112
8	Tashi Yangste	0.8106
9	Samtse	0.8062
10	Gasa	0.8032
11	Thimphu	0.8030
12	Dagana	0.8026