The Gross National Happiness Index of Bhutan: Method and Illustrative Results

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Background:

Legal code of 1729 “if the government cannot create happiness for its people, then there is no purpose for government to exist”

4th King of Bhutan, 1972 “Gross National Happiness is more important than Gross National Product”

Constitution of Bhutan 2008 Article 9: The State shall strive to promote those conditions that will enable the pursuit of Gross National Happiness.
We must always remember that as our country, in these changing times finds immense new challenges and opportunities, whatever work we do, whatever goals we have – and no matter how these may change in this changing world – ultimately without peace, security and happiness we have nothing. That is the essence of the philosophy of Gross National Happiness. Our most important goal is the peace and happiness of our people and the security and sovereignty of the nation.”

HM Jigme Khesar Namgyel Wangchuck, 5th King of Bhutan
9 domains of GNH
10th Plan
K. Ura

- Ecological Diversity and Resilience
- Living Standard
- Education
- Psychological well-being
- Health
- Community Vitality
- Good Governance
- Cultural Diversity and Resilience
- Time - Use
Quality of Life and GNH Dimensions

Stiglitz-Sen-Fitoussi
- Health
- Education
- Economic security
- Personal Security
- Balance of Time
- Voice & Governance
- Social Connections
- Environment
- Subjective measures of quality of life

Bhutan’s GNH
- Health
- Education
- Material Std of living
- Time Use
- Governance
- Community Vitality
- Ecological Diversity
- Culture & spirituality
- Emotional Well-being
Happiness is Multidimensional

“We have now clearly distinguished the ‘happiness’ … in GNH from the fleeting, pleasurable ‘feel good’ moods so often associated with that term. We know that true abiding happiness cannot exist while others suffer, and comes only from serving others, living in harmony with nature, and realizing our innate wisdom and the true and brilliant nature of our own minds.”

Prime Minister of Bhutan, 2009
Objectives of GNH Index:

drawing on 2008 Pilot Index & tools

“capture the essence of GNH”

“help in tracking national progress”

The GNH Index (GNHI) is that critical evaluation tool for results-based planning… to ensure that development truly contributes to the achievement of GNH.”

10th Five-year Plan of Bhutan, 2008
Limitations of GNH Index:

It is unlikely that the GNHI will be a fully comprehensive measure or be able to entirely capture the diversity and significance of GNH...

The measure... will also need to be dynamic, [to] incorporate relevant changes....

10th Five-Year Plan
GNH Index Survey, 2010

Identified sample = 8700
Completed Interviews = 7142
Retained Sample size = 6539
Sample representative of 20 districts, and by rural and urban areas

758 variables, covering all 9 domains

55 enumerators: unusually high data quality

Draws on 2006 Pre-Pilot GNH Survey and the 2008 Pilot GNH Survey
GNH Indicators were selected according to:

1) **Normative** values, official documents
2) **Statistical** properties (always tested)
3) **Category: objective /** (subjective)
4) **Policy** relevance
5) **Simplicity** of interpretation

Here we present one trial GNH Index – not finalized.
The GNH thresholds were selected by:

- **International standards**: Eg. MDGs, ILO, Habitat
- **National standards**: Eg. Twice income poverty line
- **Normative judgements**: Eg. Positive emotions
- **Participatory meetings**: Focus group discussions (FGDs). Eg. FGDs suggested that threshold for land depends upon land quality; here in Wangdiphodrang 5 acres is enough.
Weighting:
- 9 domains are equally weighted
- There are 33 sub-domains
- Subjective sub-domains have light weights except in psych well-being
- Robustness tests are performed
Living standard

Household income per capita
(50% weight)

- Mobile phone
- Fixed phone
- Personal computer
- Refrigerator
- Washing machine
- Television
- Livestock
- Land size (5 acres threshold)

Housing indicator
(25% weight)
- Toilet
- Electricity
- Quality of roof
- Persons per room

Assets indicator
(25% weight)
- Mobile phone
- Fixed phone
- Personal computer
- Refrigerator
- Washing machine
- Television
- Livestock
- Land size (5 acres threshold)
Psychological Wellbeing

- Satisfaction
  - Health
  - Living standard
  - Occupation
  - Relationships
  - Work-life balance

- Positive emotions
  - Calmness
  - Empathy/compassion
  - Forgiveness
  - Contentment
  - Generosity

- Negative emotions
  - Anger
  - Fear
  - Worry
  - Selfishness
  - Jealousy

Spirituality
- Spirituality level
- Prayer recitation
- Meditation
- Consideration of Karma
Mental health:
- Able to concentrate
- Lost sleep over worry
- Playing useful part
- Capable of making decisions
- Constantly under strain
- Difficult to cope with difficulties
- Able to enjoy
- Able to face problems
- Feeling unhappy and depressed
- Losing confidence
- Thinking of self as a worthless person

Disability
- Long-term disability that restricts activities

Number of Healthy days

Self reported health status – 10% weight

Health
Value: Little justification for
- Killing
- Stealing
- Lying
- Creating disharmony among people
- Sexual misconduct

Knowledge Index:
- Local legends and folk stories
- Local tshechus and festivals
- Constitution
- How HIV/AIDS is transmitted

Schooling

Education

Literacy
Artistic skills
- Weaving, Embroidery, Painting, Carpentry, Carving, Sculpture, Casting, Blacksmithing, Bamboo works, Gold/silversmith, Masonry, Leather works, Paper making

Cultural diversity

Speak native language

Cultural participation:
- Number of days spent in socio-cultural events in a year

Etiquette
- Importance
- Changes in practice
Good governance

- Voting, and
- Attending Zomdue at:
  - Chiwog level
  - Gewog level
  - Thromdue level

Service index
- Walking time to nearest health care centre
- Waste disposal
- Quality of drinking water
- Participation in elections

Rights
- Freedom of speech & opinion
- To vote
- To join political party
- To form/join tshogpa
- To join public service
- Equal value of work
- Freedom from discrimination

Performance index
- Creating jobs
- Reducing gap between rich and poor
- Providing education
- Improving health services
- Fighting corruption
- Protecting environment
- Preserving cultural and traditions
Donations time & money
- Proportion of household income donated
- Days of volunteering

Community vitality

Family
- Family care
- Wish you were not part of your family
- Family members argue too much
- Feel like a stranger in the your family
- Understanding in your family
- Family is a real source of comfort for you

Safety
- Having been a recent victim of crime

Community relationship
- Sense of belonging
- Trust neighbours
Ecological diversity and resilience

Responsibility towards Environment

Pollution index
- Pollution of rivers and steams
- Air pollution
- Absence of waste disposal
- Landslides
- Soil erosion
- Floods
- Littering
- Noise pollution
Methodology

- The GNH Index uses a form of the Alkire Foster Methodology (2007, 2011), used in MPI of UNDP, and for national poverty

• **Sufficiency Cutoffs**
  - Each sub-domain identifies a person as deprived if they have not achieved ‘sufficiency’ in that indicator.

• **Identification of ‘Happiness’**
  - To allow for diversity, a person is identified as ‘happy’ if he or she has achieved sufficiency in 70% of domains.
A person is happy if he/she achieves sufficiency in 70% of the 9 domains.

Dorji
Happy in 7 of the 9 domains, so he is categorised as happy.

Tashi
Happy in only 4 domains so she is categorised as unhappy.
The GNH Index uses the Alkire Foster aggregation for ordinal data.

- **Headcount**
  - This is the percentage of people who are unhappy

- **Breadth (Intensity)**
  - This is the average percentage of deprivations amongst the unhappy

*Headcount and Breadth focus on deprivations so as to inform policy*
Formula for GNH Index

Results are only Illustrative

\[ \text{GNH Index} = 1 - (\text{Headcount} \times \text{Breadth}) \]

\[ \text{GNH Index} = 1 - (0.822 \times 0.431) = 0.645 \]

82% of Bhutanese lack sufficiency in more than 30% of domains.

18% have achieved ‘happiness’

On average, people are deprived in 43% of the domains, or more than 4 of the 9 domains.
When cutoff = 30%, 82% of people are deprived. 18% of people are ‘happy’ and enjoy sufficiency in 70% of domains.

When cutoff = 40%, 48% of people are deprived. 52% of people are ‘happy’ and enjoy sufficiency in more than 60% of domains.
When cutoff = 30%, the average unhappy person is deprived in 43% of domains.
What do 'unhappy' people lack?

- Psychological wellbeing: 13.04%
- Health: 4.99%
- Time use: 13.53%
- Education: 11.80%
- Cultural diversity: 12.49%
- Good governance: 7.65%
- Community vitality: 11.32%
- Ecological diversity and resilience: 14.37%
- Living standards: 10.80%
GNH Index by dzongkhag (district) and region

- Paro: 0.701
- Haa: 0.681
- Tsirang: 0.674
- Zhongkham: 0.668
- Dagana: 0.667
- Gasa: 0.667
- Pema Gangtey: 0.661
- Urban: 0.656
- Mongar: 0.655
- Punakha: 0.653
- National: 0.649
- Rural: 0.644
- Chukha: 0.640
- Samtse: 0.639
- Wangdue Ph: 0.633
- Tashi Yangtse: 0.627
- Lhuntse: 0.624
- Bumthang: 0.622
- Tashigang: 0.618
- Trongsa: 0.607
- Samdrup: 0.583
Contribution of deprived to subgroup happiness by domain

0% 20% 40% 60% 80% 100%

Urban areas are deprived in community vitality.

Psychological wellbeing
Health
Time Use
Education
Cultural diversity
Good governance
Community vitality
Living standards
Ecological diversity and resilience
GNH in Policy Making: since 2008 GNHC

National Index

GNH PROJECT SELECTION TOOLS

GNH INDICATORS

SINGLE NUMBER GNH INDEX

Influence

GNH POLICY SCREENING TOOLS

GNH POLICY SCREENING TOOLS

GNH PROJECT SELECTION TOOLS

Policy Making

Progress Measurement

Project Formulation
Thank you
Tashi Delek