

## The concept of measuring happiness and how India can go the Nordic Way

Sangeeta Bhattacharyya, R. Roy Burman and Sudipta Paul

*Quantifying subjective well being or happiness has always been intriguing and with the advent of Gross National Happiness (GNH) index of Bhutan and World Happiness Report (WHR) by UN, it has become all the way more of a global issue. This study stratifies countries into Happiness Strata in a Global Happiness Map using the WHR 2018 indices, only to find that India is among the 42 Unhappy Nations of the world. The Nordic (Western European) countries seem to top the happiness charts with Denmark being consistently among the top five. The paper also discusses what India can learn and adopt from Denmark.*

Nearly 5% of Indians suffer from mental illness<sup>1</sup> with one in five requiring mental health counselling<sup>2</sup>. By 2025, 38.1 million years of healthy life will be lost to mental illness in India<sup>3</sup>. Mental peace and happiness have become the need of the hour due to increasing stress of modern day life. It has become necessary to understand happiness, quantify it and find ways of being happy in our lives if we want to prevent the ticking time bomb of mental illness from exploding.

Psychologists define happiness as ‘a mental or emotional state of well being defined by positive or pleasant emotions ranging from contentment to intense joy’<sup>4</sup>. Happiness brings about improved physiological functioning in humans, improves capacity to combat stress, pain and lengthens life span.

### Efforts in measuring happiness

Sociologists define happiness as ‘the degree to which an individual judges the overall quality of his life-as-a-whole positively, or how well one likes the life one lives. It is usually referred to as subjective well-being (SWB) or life satisfaction’<sup>5</sup>.

Few scales have been developed to measure SWB of individuals in different countries. The Subjective Happiness Scale (SHS) is a 4-item scale requiring participants to use absolute ratings (out of 7) to characterize themselves as happy or unhappy individuals<sup>6</sup>. The Positive and Negative Affect Schedule (PANAS) is a 20-item questionnaire used to detect the relation between personality traits and positive or negative effects using a five-point Likert scale. The Satisfaction With Life Scale (SWLS) is a global cognitive assessment of life satisfaction re-

quiring a person to state their agreement/disagreement with five statements about their life. Certain surveys also track life satisfaction of citizens across the globe. The World Values Survey (WVS) is a global research project that explores people’s values and beliefs, how they change over time and what social and political impact they have<sup>7</sup>. Eurobarometer does the same in EU Member States<sup>8</sup>.

### Concept of wellbeing in Indian philosophy and related measurement efforts

The concept of wellbeing and happiness is inherent in ancient Indian philosophy like Yoga and in scriptures like *Upanishads*. Yoga helps in union of individual consciousness with the supreme consciousness leading to self-realization. Yoga is a holistic way of life leading to a state of complete physical, social, mental and spiritual wellbeing and harmony with nature<sup>9</sup>. But it seems modernization and technology has robbed us of our inner peace.

Researchers in India have time and again attempted to measure SWB and study the factors affecting SWB of people. It has been reported that extended families tend to have more SWB than nuclear families<sup>10</sup>. SWB is also hardly hit by social norms among rural Indian women<sup>11</sup> and due to between-caste than within-caste comparisons<sup>12</sup>. Rural Indian households with conspicuous consumption reported lower levels of SWB<sup>13</sup>. Agrawal *et al.*<sup>14</sup> reported Bengaluru adults to have above average levels of SWB while another study reported that about 89% of Indians suffer from stress compared to the global average of 86% (ref. 15).

### Gross National Happiness Index

A breakthrough in quantifying happiness or wellbeing was made by Bhutan by calculating their country’s Gross National Happiness (GNH) instead of Gross National Product (GNP). The term GNH was coined by the 4th King of Bhutan Jigme Singye Wangchuk.

‘GNH measures the quality of a country in more holistic way and believes that the beneficial development of human society takes place when material and spiritual development occur simultaneously to complement and reinforce each other.’<sup>16</sup>

GNH index was based on four pillars: Good governance, sustainable socio-economic development, cultural preservation and environmental conservation. Table 1 shows nine domains equally weighed (100%) and grouped into 33 indicators and 124 variables.

GNH index uses sufficiency thresholds which indicate people scoring above them were happy to a certain amount. GNH uses three cut offs: 50%, 66% and

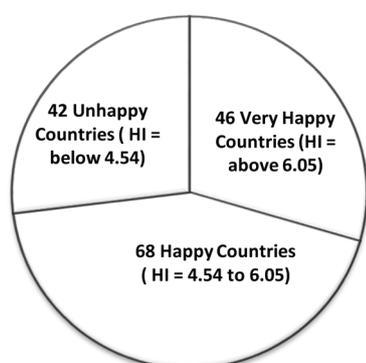
**Table 1.** Domains and indicators of GNH index

| Domains                             | Number of indicators |
|-------------------------------------|----------------------|
| Psychological wellbeing             | 4                    |
| Health                              | 4                    |
| Time use                            | 2                    |
| Education                           | 4                    |
| Cultural diversity and resilience   | 4                    |
| Good governance                     | 4                    |
| Community vitality                  | 4                    |
| Ecological diversity and resilience | 4                    |
| Living standards                    | 3                    |
| <b>Total</b>                        | <b>33</b>            |

Source: Ura *et al.*<sup>19</sup>.

**Table 2.** Denmark versus India

| Issues              | Denmark  | India   |
|---------------------|--|---|
| Health care         | 3.7 doctors per 100 population in 2015 (ref. 20)   | 0.7 doctors per 1000 population <sup>20</sup>   |
| Gender equality     | Ranks 14th in Global Gender Gap Report 2017 (ref. 21)  | Ranks 108th in Global Gender Gap Report 2017 (ref. 21)  |
| Cycling is the norm | In Copenhagen, half of the residents commute to work place on cycles which <ul style="list-style-type: none"> <li>• Saves about 34 million dollars each year</li> <li>• Reduces pollution, accidents and congestion</li> <li>• Adds an average of 1–2 years to the life expectancy of these cyclists<sup>22</sup></li> </ul> | India loses Rs 60,000 crore a year due to congestion (including fuel wastage), slow speed of freight vehicles and waiting time at toll plazas <sup>23</sup> |
| Community service   | More than 40% of all Danes do voluntary work contributing 9.6% to GDP <sup>22</sup>  | 1 crore voluntary workers but still not sufficient <sup>24</sup>  |
| Health spending     | Spent 5183 USD per capita in 2017 on health sector <sup>25</sup>   | Spent a meagre amount of USD 238 per capita on its health sector <sup>25</sup>  |



HI = Happiness Index (Authors' calculation)

**Figure 1.** Global Happiness Map.

77% for categorization. People who have achieved sufficiency in less than 50% and 50–65% of domains are 'unhappy' and 'narrowly happy' respectively, and are considered under policy priority. The 'extensively happy' people achieve sufficiency in 66–76% of the domains (i.e. in between 6 and 7) and 'deeply happy' people in 77% domains (i.e. in 7 or more). In order to have single overall index, the GNH cut off was set at 66% of the variables, i.e. the middle cut off. People can be considered happy when they have sufficiency in 66% of the (weighted) indicators or more.

The formula is as such:

$$\text{GNH} = 1 - (H_n \times A_n),$$

where  $H_n$  indicates per cent of not yet happy people (1 – per cent of happy people) and  $A_n$  indicates per cent of domains in which not yet happy people lack sufficiency.

In Bhutan the GNH was calculated to be 0.743.

The concept of GNH in Bhutan attracted global attention and inspired countries like Dubai, South Korea, Canada, UK and OECD nations to develop their own happiness/better life/wellbeing indices. The World Happiness Report (WHR) developed by the United Nations Sustainable Development Solutions Network (UN SDSN) is the most popular.

### WHR

The WHR is a landmark survey of the state of global happiness. The first report was published in 2012 which ranked 156 countries by their happiness levels using data from Gallup World Poll. The Happiness Index is based on six parameters<sup>17</sup>: real GDP per capita, healthy life expectancy, social support, generosity, freedom to make life choices and perceptions of corruption. According to the 2018 WHR, Finland is the happiest country in the world and India has ranked 133rd which is far behind compared with other SAARC nations, viz. Pakistan (75th), Bhutan (97th), Nepal (101st), Bangladesh (115th) and Sri Lanka (116th).

### Global happiness mapping

The Happiness Index values which the 156 countries have scored in WHR 2018 has been used to prepare a Happiness Map which shows the global happiness status, i.e. exactly how many countries feature in each strata. For developing strata, the cumulative cube root frequency (CCRF) method has been used.

From Figure 1 it is evident that maximum (68) countries in the world are

'Happy' (HI = 4.54 to 6.05) with 46 'Very Happy' countries (HI > 6.05). But unfortunately India (4.19) ranks among the 42 'Unhappy' nations of the world.

### India versus Denmark – what we can learn and adopt from this Nordic nation?

Among the Nordic nations, which always top the happiness charts, Denmark consistently ranks among the top five (3rd in 2018) happiest nations in the world. If we compare Indian and Danish GDP, GDP growth rate of Denmark averaged 0.40% from 1991 to 2018 whereas GDP annual growth rate of India averaged 6.16% from 1951 to 2018 (ref. 18). Indian economy is much larger and subject to heavy fluctuations as compared to Denmark. India is a country of teaming millions, booming economy, full of diversities whereas Denmark is a small country with less population and economy is not so vast.

If GDP would have been the factor leading to national happiness, then booming economies of USA and China would have occupied the top positions in WHR 2018. Hence there are some other factors other than financial prosperity that accounts for the happiness of these Nordic countries. What is so special about them? If India has to go the Nordic way, i.e. adopt some features of their happy country then what would those be? Table 2 will give us a clear idea of that.

Table 2 shows that Denmark does simple things elegantly and makes it their motto of life. Volunteerism is lacking in the attitude of Indians. It generates a feeling that one may not be a part of

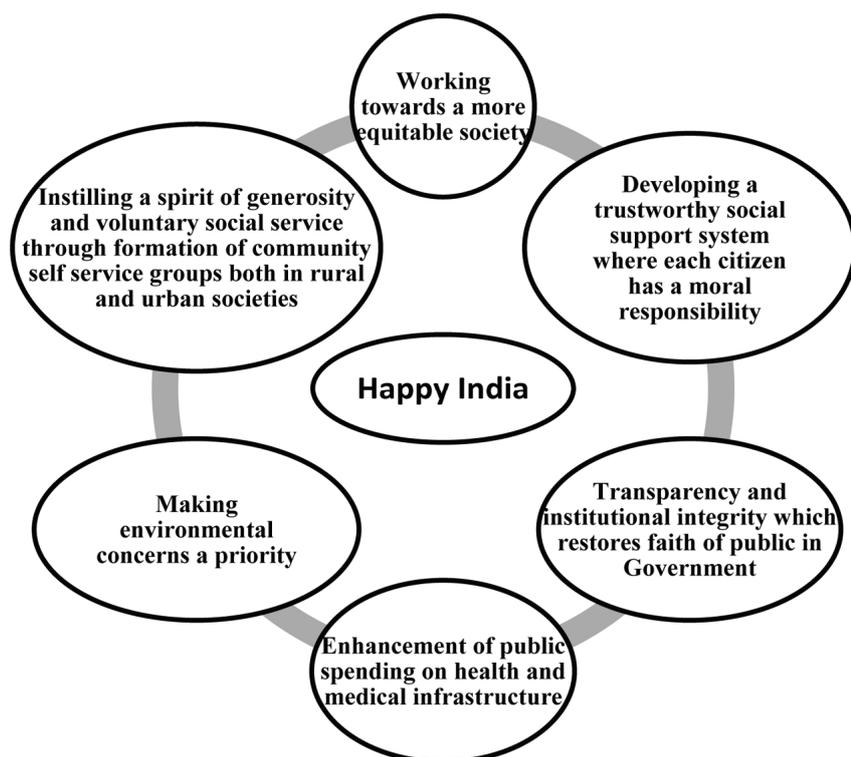


Figure 2. Six-pronged strategy for India to go the Nordic way.

the society and thus one does not hold oneself accountable for neither society's growth nor in its degradation. Indians are less bothered about environmental concerns and also has a long way to go to close the gender gap in society and excel in healthcare.

**Strategies for India to go the Nordic way**

After analysing the parameters in which India lags behind in WHR and the way of life in Nordic nations, a six pronged strategy can be suggested for India (Figure 2) to go the Nordic way and be counted as a Happy Nation in near future.

**Conclusion**

Efforts are on to rebuild a culture of yoga and meditation among Indians through National Yoga Day to improve physical and mental health. India can also combine

GDP with GNH to calculate the overall holistic progressiveness of the country. The novel concept of GNH has already set a benchmark. Now it is upon the policy makers to adopt it.

1. NCMH, Background papers: Burden of disease in India, Ministry of Health & Family Welfare, New Delhi, 2005.
2. Masand, P., One in five Indians needs mental health counselling, reveals Government statistics. *The Times of India*, 10 October 2012.
3. Mascarenhas, A., Mental illness India's ticking bomb, only 1 in 10 treated: *Lancet* study. *The Indian Express*, 19 May 2016.
4. <https://en.wikipedia.org/wiki/Happiness>
5. Kalmijn, W. and Veenhoven, R. J., *J. Happiness Stud.*, 2005, **6**, 357-396; <https://doi.org/10.1007/s10902-005-8855-7>.
6. Lyubomirsky, S. and Lepper, H. S., *Social Indicat. Res.*, 1999, **46**, 137-155.
7. Frey, B. S. and Stutzer, A., *Happiness and Economics*, Princeton University Press, 2002.

8. Kahneman, D., Diener, E. and Schwarz, N., *Well-being: The Foundations of Hedonic Psychology*, Russell Sage Foundation, New York, 1999.
9. Taneja, D. K., *Indian J. Commun. Med.*, 2014, **39**(2), 68-72.
10. Mohi-Ud-Din, M. and Barthwal, S., *Int. J. Sci. Res.*, 2016, **5**(12), 722-724.
11. Hoop, T. D., Kempen, L. V., Linssen, R. and Erdewijk, A. V., Women's autonomy and subjective well-being in India: How village norms shape the impact of self-help groups, MPRA, Paper No. 25921, 2010.
12. Fontaine, X. and Yamada, K., *World Dev.*, 2014, **64**, 407-419.
13. Linssen, R., Kempen, L. V. and Kraaykamp, G., *Soc. Ind. Res.*, 2011, **101**(1), 57-72.
14. Agrawal, J. et al., *Soc. Indic. Res.*, 2011, **101**(3), 419-434.
15. *The Economic Times*, 89 per cent of India's population suffering from stress; most don't feel comfortable talking to medical professionals, 10 July 2018.
16. <http://www.educatingforgnh.com>
17. <http://worldhappiness.report/ed/2018/>
18. <https://tradingeconomics.com/denmark/gdp-growth>
19. Ura, K., Alkire, S. and Zangmo, T., *Case Study: Bhutan Gross National Happiness and the GNH Index. Part II of the World Happiness Report* (eds Helliwell, J., Layard, R. and Sachs, J.), Centre for Bhutan Studies, Thimphu, Bhutan, 2010.
20. OECD, Doctors (indicator), 2018; doi: 10.1787/4355e1ec-en
21. World Economic Forum, The Global Gender Gap Report, 2017.
22. Melnick, M., Denmark is considered the happiest country. You'll never guess why. *The Huffington Post*, 22 October 2013.
23. Dash, D. K., India loses Rs 60,000 crore due to traffic congestion: study. *The Times of India*, New Delhi, 31 May 2012.
24. [http://www.ivoindia.org/Images/volunteer-ring-and-active-citizenship\\_tcm78-36149.pdf](http://www.ivoindia.org/Images/volunteer-ring-and-active-citizenship_tcm78-36149.pdf)
25. OECD, Health spending (indicator), 2018; doi: 10.1787/8643de7e-en.

Sangeeta Bhattacharyya\*, R. Roy Burman and Sudipta Paul are in the ICAR-Indian Agricultural Research Institute, New Delhi 110 012, India.

\*e-mail: sangeeta.bhattacharyya2012@gmail.com