

***National Happiness as Defining Mantra- A MAHB Dialogue with
Author, and Former Environment Secretary of Bhutan,
Dr. Uygen Tshewang***



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“Achieving happiness requires more than just economic prosperity. Bhutan’s development policy does not focus on economic prosperity alone but on a holistic development approach for happiness.”

GH: In your new book, *Bionomics in the Dragon Kingdom*, written with Michael Charles Tobias and Jane Gray Morrison, you write ‘the primary responsibility for any government is to create happiness for the people’, with ‘Gross National Happiness or ‘GNH’ as Bhutan’s primary economic indicator. How has that idea shaped Bhutan’s economic, social, and political design?

UT: In Bhutan, Gross National Happiness (GNH) is the central national policy objective for development and progress and is considered a primary goal for the people and nation in general. Achieving happiness requires more than just economic prosperity. Bhutan’s development policy does not focus on economic prosperity alone but on a holistic development approach for happiness. GNH embraces four development building blocks.

- 1) preservation of culture and tradition,
- 2) conservation and protection of nature and environment

3) socio-economic development

4) good governance

The government elected by the people of Bhutan is guided by the GNH policy. Certainly, economic indicators are one of the main pillars of achieving gross national happiness. In essence, GNH philosophy deepens the environmental, socio-economic and cultural values that can contribute to a happy and sustainable future.

Globally, GNH philosophy has sparked many western philosophers, policy makers, spiritual gurus, scientists and researchers, to share invigorating dialogues and discussions. During the RIO+ 20 summit in 2012, all the Heads of States pledged to support sustainable development and to advance an economic, social, and environmentally sustainable future for our planet.

How is Gross National Happiness (GNH) different than Gross National Product (GNP), and Gross Domestic Product (GDP), the two primary indicators of market-driven economics?

UT: Essentially, GDP and GNP are very important prescriptions for measuring the size of an economy of any given nation. Progress and development cannot be gauged solely by economic prosperity. A holistic approach encompassing socio-economic, spiritual and environmental dimensions of development is a much better barometer of progress. Gross National Happiness balances material and non-material development. His Majesty the Fourth King of Bhutan developed the philosophy of Gross National Happiness (GNH) in the early 1970s. For the social, spiritual and environmental wellbeing, His Majesty underscored that economic development cannot singularly address and sustain human needs. His Majesty proclaimed that “GNH is more important than Gross National Product”. This idea resonates fully with the traditional Bhutanese belief that there is more to life than just material development. The level of GNH that determines the developmental progress of the nation and its people is measured through nine domains: Psychological Well-Being, Health, Time Use, Education, Cultural Diversity and Resilience, Good Governance, Community Vitality, Ecological Diversity and Resilience, and Living Standards. To ensure that GNH remains at the center of growth and development in all sectors of Bhutan, every public policy of the government is critically reviewed through GNH screening tools.

GH: In much of the world, market forces apply enormous pressure to consume products and resources. Citizens are manipulated and referred to as consumers. How does Bhutan’s choice of happiness over consumption offer the world a pathway into the future that is both sustainable and personally fulfilling?

UT: Scientists have documented that the compelling market forces and human interferences with the planet's ecosystems are pushing natural resources beyond their sustainable boundaries. The Living Planet Report (2014) warns that current trajectory of consumption practices would require 1.5 planets – we have only one. In Bhutan, conservation of environment and ensuring development pursuits are shaped to fit within the limits of environmental sustainability, without impairing the biological productivity and diversity of the natural environment. Conservation and sustainable development are inseparable entities and fundamentally similar to the complimentary functions of a lock and key for socio-economic development and well-being of a nation. A major environmental policy decision was undertaken by making a statement on “Carbon Neutral Declaration” at Copenhagen during 15th Conference of Parties meeting on Climate Change in December 2009. In order to implement the Carbon Neutral Declaration, the National Strategic and Action Plan for Low Carbon Development was developed in 2012 for short, medium and long term action. Bhutan has made significant strides in the pursuit of sustainable development in view of its outstanding performance indicators for natural resource management, spiritual wellbeing and rapid economic development through sound national policies.

In addition to the conservation of natural resources through ecological governance, Bhutan has strong initiatives that encourage agrobiodiversity of food crops and livestock species. Almost 80% of the global food supply is provided by just twenty kinds of plants. Much research is required for assessing the untapped potential for increasing the source and range of food products suitable for human consumption. Globally, continuing population growth and increased over-consumption will mean that food insecurity grows along with the adverse impacts of climate change on agriculture.

GH: Climate change is impacting weather patterns around the world, including in Bhutan. How does this evoke the idea that all things are connected?

UT: Climate change transcends all geo-political boundaries. By and large, the industrialized countries generate most of the green house gas emissions that create adverse environmental impacts globally, but all countries are impacted by climate change. Bhutan creates a negligible interference in the global ecosystems through the carbon negative environmental impact of its extensive forests, which cover more than 75% of its land. CO₂ sequestration by its forests and land use sector in 2000 amounted to 6,309.6 Gg. Total GHG emissions, including LUCF, are estimated to be -4,750.04 Gg CO₂-equivalent, indicating that Bhutan is a net sink for GHG emissions. Despite Bhutan's good record, our nation has been experiencing erratic hydrological cycles, early monsoons, heavy landslides, flash floods and glacial lake outbursts, along with more frequent windstorms, hailstorms and heat waves. Such climatic events have severely

impacted Bhutan's agricultural systems, health and economic prosperity. Global warming and climate change are very much connected worldwide. Corrective action is the responsibility of all nations.

GH: A study just released reports that all of the Himalayan glaciers could be gone by 2100. What impact would that have on Bhutan and its people?

UT: Bhutan is in a region that currently provides water for one-fifth of the world's population through its glaciers in the Eastern Himalayas. In addition, Bhutan's forests help to moderate the world's climate change by absorbing carbon dioxide. If the Himalayan glaciers disappear by 2100, as some have predicted, the whole biological diversity of the region will be severely impacted. The natural life support systems that Bhutan and other Himalayan nations depend on could collapse.

GH: Glacial Lake Outburst Flooding [GLOF] is a prominent concern in Bhutan. What is GLOF? How is it driven by climate change, and how does it impact Bhutan's plan to export hydropower in the future?

UT: Geographically Bhutan is tucked away in the southern slopes of Eastern Himalayas, bordered by two giant neighbors – with India to the south, south-west and east & China to the north and north-west, with high snow bound mountainous terrains. Due to global warming there have been many incidences of Glacial Lake Outburst in the snow bound mountains. As we all know, fossil fuels used in transportation and industry release greenhouse gases, heat trapping gases that absorb heat being radiated from the surface of earth, resulting in climate change and glacier melting. As glaciers retreat, glacial lakes form moraine or ice 'dams' and these 'dams' are comparatively weak. They have been known to breach very suddenly, discharging huge floods of water and debris. Such outbursts have the potential of releasing millions of cubic meters of water in a few hours, causing catastrophic flooding downstream with serious damage to life and property. Glacier retreat caused by greenhouse climate change has resulted in the formation of new glacial lakes and the enlargement of existing ones due to the accumulation of glacial melt-water.

In Bhutan 677 glaciers and 2674 glacial lakes have been identified at the Higher Himalayas, out of which 24 of the lakes could lead to GLOF hazards in the future. These impending threats are daunting challenges given that several of the major river systems in Bhutan originate from these glaciers and glacial lakes at the "Higher Himalayas" sectors. Due to global warming, a series of GLOFs have already occurred in Bhutan at varying intensities, causing damage to livelihood and infrastructures downstream. GLOF events could be very disruptive to hydropower systems, which are the backbone of our economy. In the long term, the loss of our

glaciers could dry up our river systems, leading to the collapse of our hydropower generating capacity.

GH: How does Mahayana Buddhism impact governance, given the conflict between tourism and development and Bhutan's commitment to protect 60% of its land in its natural state?

UT: Mahayana Buddhist practices are deeply embedded across all facets of life and society in Bhutan. One of its fundamental principles is the interdependence of everything in this planet, where everything directly or indirectly depends on one another for existence. For Bhutanese, living with nature has been the way of life over many centuries, and the central focus of Buddhist tradition is to revere and respect all forms of nature and living beings. Our country's environment has benefitted significantly from deep-rooted Buddhist ethics and a long history of conservation leadership.

GH: Bhutan sits within the Eastern Himalayan Biodiversity Hotspot. What are some of the prominent, at risk, wild animal species protected by Bhutanese environmental policy?

UT: Bhutan's protected areas are endowed with immense biological diversity and ecological integrity. The bio-regions of Bhutan range from our mountains with glaciers and snow, to alpine meadows and scree in the north, temperate forests in central mountains and valleys, to tropical/ sub-tropical forests in the southern foothills of Bhutan bordering India. We have diverse ecosystems of global importance, with more than 5,400 species of vascular plants, 770 species of birds and 170 species of mammals. Native wildlife—including endangered Royal Bengal tigers, elusive snow leopards, elegant black cranes and elephants—all roam free in the country's five million acre network of protected areas.

However, if climate change destruction continues at current pace, the protected natural systems in Bhutan could be severely impacted, putting the following globally threatened species at greater risk: the one-horned rhinoceros, wild water buffalo, snow leopard, royal Bengal tiger, Asian elephant, gaur, rarer golden langur, pygmy hog, golden langur, sloth bear, and hispid hare, and Ganges river dolphin. Many globally threatened bird species live in Bhutan's protected areas, including the rufous-necked hornbill, chestnut-breasted partridge, and the pallas fish eagle.

GH: What is the future of conservation in Bhutan, given the recommendations of the BAP3 (Bio-diversity Action Plan), and the countervailing pressures of modernity on your country?

UT: Bhutan's natural resources are more vulnerable now than ever before, despite the government's conservation commitment. The country's natural environment has transformed more in the last 50 years than in the past 300 years combined. Rapid modernization, the

adoption of democracy, and a dramatic shift in demographics have all contributed to a country in transition.

With change comes new challenges, particularly for the environment and for biological diversity. Natural resources and environment are exploited as new industries are created and existing ones grow to meet the needs of an increasing population. There are fewer guardians of the land in rural areas, as people migrate to cities in search of jobs and modern life. If Bhutan does not address these current daunting challenges, there is eminent risk of losing all the natural wealth it has worked so hard to protect.

Going forward, we must balance economic development with the need to protect natural resources. We need jobs in the cities and also jobs in rural villages, and we must balance tradition and age-old religious beliefs with modernization. We must have good conservation management plans for national parks and protected areas, and we must encourage rural communities to minimize exploitation of natural resources. We need to do more to adapt with the rapid changes impacting Bhutan, and we must resist climate change and the erosion of our natural ecosystems.

GH: If all things are connected, does this mean that all humans - regardless of gender, ethnicity, or spiritual following – must come to see themselves as members of a community of planetary citizens with shared rights and responsibilities?

UT: It is extremely urgent that the global community make firm commitments to combat the escalation of green house gas emissions, and the resulting impacts of climate change, such as altered ecosystems, and dangerous weather extremes. Further warming of the planet will cause lasting harm to the biosphere we all depend on.

The Intergovernmental Panel on Climate Change, reported that the global temperature increase should be held below 2⁰C for future climate stability, while the recent Paris International Agreement among governments calls for limiting global temperature rise to 1.5⁰C. The IPCC report also calls for a combined international effort to cut greenhouse gas (GHG) emissions by 50% from 1990 levels by 2050.

While the historical emissions reduction responsibility has to be assumed by the developed countries, the United Nations Framework Convention on Climate Change (UNFCCC) at the 13th Session of the Conference of Parties (COP13) at Bali agreed to Nationally Appropriate Mitigation Actions (NAMAs) in developing countries for future emission reductions. The intent of the Paris Agreement is to strengthen the global response to the threat of climate change by keeping a global temperature rise in this century below 2 degrees Celsius above pre-industrial

levels and to pursue efforts to limit the temperature increase even further to 1.5 degrees Celsius (Paris Agreement, 2015). In addition, the agreement aims to reinforce the capacity of countries to cope with the adverse impacts of climate change.

In July of 2011, Bhutan put forth a U.N. resolution that was named "Happiness: Towards a Holistic Approach to Development." Sixty-eight nations joined Bhutan in sponsoring this vision, which was adopted by the United Nations.

We are all in this together. It is the shared responsibility of all nations to fight climate change, to manage natural resources sustainably, and to build a much happier world for present and future generations!

Dr. Tshewang is currently the chief scientist in a critical undertaking -in collaboration with key conservation NGOs and government agencies throughout Bhutan, as well as the US-based Dancing Star Foundation. Its goal is to find innovative and efficient mechanisms for calling attention to heretofore under-represented species and biomes throughout the Eastern Himalayan biological hotspot; and for merging conservation biology, animals rights and sustainability into a major rallying cry for ameliorating pain and expanding in situ networks of protection that will help provide viable recommendations in these domains for human communities everywhere.

Geoffrey Holland is a Portland, Oregon based writer/producer, and principal author of [The Hydrogen Age](#), Gibbs-Smith Publishing, 2007

The MAHB Dialogues are a monthly Q&A blog series focused on the need to embrace our common planetary citizenship. Each of these Q&As will feature a distinguished author, scientist, or leader offering perspective on how to take care of the only planetary home we have.

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