Executive Summary

The world has changed dramatically. We no longer live in a world relatively empty of humans and their artifacts. We now live in the “Anthropocene,” era in a full world where humans are dramatically altering our ecological life-support system. Our traditional economic concepts and models were developed in an empty world. If we are to create sustainable prosperity, if we seek “improved human well-being and social equity, while significantly reducing environmental risks and ecological scarcities,” we are going to need a new vision of the economy and its relationship to the rest of the world that is better adapted to the new conditions we face. We are going to need an economics that respects planetary boundaries, that recognizes the dependence of human well-being on social relations and fairness, and that recognizes that the ultimate goal is real, sustainable human well-being, not merely growth of material consumption. This new economics recognizes that the economy is embedded in a society and culture that are themselves embedded in an ecological life-support system, and that the economy cannot grow forever on this finite planet.

This report is a synthesis of ideas about what this new economy-in-society-in-nature could look like and how we might get there. Most of the ideas presented here are not new. The coauthors of this report have published them in various forms over the last several decades, and many others have expressed similar ideas in venues too numerous to mention. In particular, parts of this summary were crafted during discussions and consultations with the Royal Government of Bhutan in preparation of its draft outcome statement for its high-level meeting at the United Nations on 2nd April, 2012.

What is new is the timing and the situation. The time has come when we must make a transition. We have no choice. Our present path is clearly unsustainable. As Paul Raskin has said, “Contrary to the conventional wisdom, it is business as usual that is the utopian fantasy; forging a new vision is the pragmatic necessity.” But we do have a choice about how to make the transition and what the new state of the world will be. We can engage in a global dialogue to envision “the future we want,” the theme of Rio+20, and then devise an adaptive strategy to get us there, or we can allow the current system to collapse and rebuild from a much worse starting point. We obviously argue for the former strategy.

In this report, we discuss the need to focus more directly on the goal of sustainable human well-being rather than merely GDP growth. This includes protecting and restoring nature, achieving social and intergenerational fairness (including poverty alleviation), stabilizing population, and recognizing the significant nonmarket contributions to human well-being from natural and social capital. To do this, we need to develop better measures of progress that go well beyond GDP and begin to measure human well-being and its sustainability more directly.

Our purpose in this report is to lay out a new model of the economy based on the worldview and principles of “ecological economics.” These include the ideas that:

1. our material economy is embedded in society, which is embedded in our ecological life-support system, and that we cannot understand or manage our economy without understanding the whole, interconnected system;
2. growth and development are not always linked and that true development must be defined in terms of the improvement of sustainable well-being (SWB), not merely improvement in material consumption; and

3. a healthy balance must be struck among thriving natural, human, social, and cultural assets, and adequate and well-functioning produced or built assets. We refer to these assets as “capital” in the sense of a stock or accumulation or heritage—a patrimony received from the past and contributing to the welfare of the present and future. Clearly our use of the term “capital” is much broader than that associated with capitalism.

These assets, which overlap and interact in complex ways to produce all human benefits, are defined as:

- **Natural capital**: The natural environment and its biodiversity, which, in combination with the other three types of capital, provide ecosystem goods and services: the benefits humans derive from ecosystems. These goods and services are essential to basic needs such as survival, climate regulation, habitat for other species, water supply, food, fiber, fuel, recreation, cultural amenities, and the raw materials required for all economic production.

- **Social and cultural capital**: The web of interpersonal connections, social networks, cultural heritage, traditional knowledge, trust, and the institutional arrangements, rules, norms, and values that facilitate human interactions and cooperation between people. These contribute to social cohesion to strong, vibrant, and secure communities, and to good governance, and help fulfil basic human needs such as participation, affection, and a sense of belonging.

- **Human capital**: Human beings and their attributes, including physical and mental health, knowledge, and other capacities that enable people to be productive members of society. This involves the balanced use of time to meet basic human needs such as fulfilling employment, spirituality, understanding, skills development, creativity, and freedom.

- **Built capital**: Buildings, machinery, transportation infrastructure, and all other human artifacts and services that fulfil basic human needs such as shelter, subsistence, mobility, and communications.

We recognise that human, social, and produced assets depend entirely on the natural world, and that natural capital is therefore ultimately non-substitutable. Sustainability thus requires that we live off the interest (sustainable yields) generated by natural capital without depleting the capital itself.

Balancing and investing in all the dimensions of our wealth to achieve sustainable well-being requires that:

1. we live within planetary boundaries—within the capacity of our finite planet to provide the resources needed for this and future generations;

2. that these resources are distributed fairly within this generation, between generations, and between humans and other species; and that

3. we use these finite resources as efficiently as possible to produce sustainable human well-being, recognizing its dependence on the well-being of the rest of nature.
We have never had greater global capacity, understanding, material abundance, and opportunities to achieve these objectives. This includes scientific knowledge, communications, technology, resources, productive potential, and ability to feed everyone on earth. However, we are not achieving sustainable well-being and indeed we are moving in the wrong direction at an increasing rate. For example, global greenhouse gas emissions continue to grow, humanity is using resources much faster than they can regenerate, biodiversity is diminishing rapidly, most global ecosystem services are in decline, and inequality is growing. The United Nations has acknowledged that progress towards the Millennium Development Goals has stalled.

“Business as usual” and continued movement in present directions threaten human survival on earth and is not an option. On a finite planet, excess consumption by high-income groups leaves less for lower-income groups and does not enhance human well-being. Many of these dangerous trends are a result of our current, unsustainable, growth-based economic paradigm, which rests on misused Gross Domestic Product (GDP)-based measures of progress. These measures largely ignore the value of natural and social capital and the distribution of wealth and income. They misleadingly count natural capital depletion and many human and social costs as economic gain. The architects of GDP themselves counseled that GDP should never be used as a measure of welfare, as it incorrectly is today. The European Union, the Organization for Economic Cooperation and Development, the Stiglitz Commission, and many others have therefore recognised the need to go beyond GDP.

We will never achieve the world we want unless we change the current economic paradigm, which is a fundamental cause of the current crises. This paradigm, institutionalized at Bretton Woods in 1944, was devised prior to an understanding of finite global resource limits or the emerging science of well-being. Without a new economic paradigm, we will continue down an unsustainable and undesirable path. Bretton Woods rightly considered a growth economy better than another World War, especially when the world was relatively empty. However, times have changed.

To make the transition to a just and sustainable world will require:

1. a fundamental change of worldview to one that recognises that we live on a finite planet and that sustainable well-being requires far more than material consumption;
2. replacing the present goal of limitless growth with goals of material sufficiency, equitable distribution, and sustainable human well-being; and
3. a complete redesign of the world economy that preserves natural systems essential to life and well-being and balances natural, social, human, and built assets.

The dimensions of the new economy include, but are not limited to, the following:

**Sustainable scale: Respecting ecological limits**

- Establishment of systems for effective and equitable governance and management of the natural commons, including the atmosphere, oceans, and biodiversity.
- Creation of cap-and-auction systems for basic resources, including quotas on depletion, pollution, and greenhouse gas emissions, based on basic planetary boundaries and resource limits.
- Consuming essential non-renewables, such as fossil fuels, no faster than we develop renewable substitutes.
Building a Sustainable and Desirable Economy-in-Society-in-Nature

- Investments in sustainable infrastructure, such as renewable energy, energy efficiency, public transit, watershed protection measures, green public spaces, and clean technology.
- Dismantling incentives towards materialistic consumption, including banning advertising to children and regulating the commercial media.
- Linked policies to address population and consumption.

**Fair distribution: Protecting capabilities for flourishing**

- Sharing the work to create more fulfilling employment and more balanced leisure-income trade-offs.
- Reducing systemic inequalities, both internationally and within nations, by improving the living standards of the poor, limiting excess and unearned income and consumption, and preventing private capture of common wealth.
- Establishment of a system for effective and equitable governance and management of the social commons, including cultural inheritance, financial systems, and information systems like the Internet and air waves.

**Efficient allocation: Building a sustainable macro-economy**

- Use of full-cost accounting measures to internalize externalities, value nonmarket assets and services, reform national accounting systems, and ensure that prices reflect actual social and environmental costs of production.
- Fiscal reforms that reward sustainable and well-being-enhancing actions and penalize unsustainable behaviours that diminish collective well-being, including ecological tax reforms with compensating mechanisms that prevent additional burdens on low-income groups.
- Systems of cooperative investment in stewardship (CIS) and payment for ecosystem services (PES).
- Increased financial and fiscal prudence, including greater public control of the money supply and its benefits and other financial instruments and practices that contribute to the public good.
- Ensuring availability of all information required to move to a sustainable economy that enhances well-being through public investment in research and development and reform of the ownership structure of copyrights and patents.

This report is largely targeted at the developed world in the emerging global full-world context. We chose this focus not because we think that the developing world is unimportant; quite the contrary. But we think that the policies we recommend can best be undertaken by the developed world, which needs to both create the ecological space for the developing world and set a good example of what real, human well-being-enhancing development can be.

This report contains some policy overlaps with recent UNEP (United Nations Environment Programme) and other reports on the “green economy” (GE), but it differs significantly. GE reports assume that a green economy is still a growing economy in terms of GDP. In fact, they argue that a green economy can grow even faster than our current “brown economy.” To do this, GDP would have to be significantly “decoupled” from material and fossil energy throughput. We believe that this decoupling should be encouraged to the extent possible, but that there are significant limits. The GE approach requires massive decoupling to achieve its results; our approach does not. The more decoupling the better, but we envision an economy that does not require it, and our policies actually
incentivize it to the extent possible. We envision an economy where mere GDP growth is not the goal—an economy that can achieve truly sustainable human well-being with or without global GDP growth. What we do urgently need is reduction in material throughput that affects planetary boundaries. In addition, unlike the GE approach, we believe that a greatly expanded commons sector of the economy and new common asset institutions—not merely new markets for ecosystem services—are necessary to adequately deal with natural and social capital assets.

This report is divided into six sections.

Section 1 lays out why the current vision and system is not sustainable (it is exceeding planetary boundaries) and why it is also not desirable (it is not improving sustainable human well-being).

Section 2 briefly sketches a vision of what a sustainable and desirable economy-in-society-in-nature would look like in the year 2050. It covers the necessary changes in vision and worldview and the state of the world’s built, human, social, and natural capital.

Section 3 looks at some of the policies necessary to achieve this vision, including those devoted to respecting ecological limits, building a sustainable macro-economy, and protecting capabilities for flourishing.

Section 4 goes into more detail on four of these policy reforms as examples. These cover reversing consumerism, expanding the commons, caps on natural resource use and pollution, and sharing the work.

Section 5 investigates evidence of whether these policies are consistent and feasible, by looking at historical examples, current small scale examples, and modeling studies.

Section 6 is a summary and conclusions.

We show in Section 5 that the policies we recommend are internally consistent and that the resulting system could be feasible, sustainable, and desirable. The substantial challenge is making the transition to this better world in a peaceful and positive way. There is no way to predict the exact path this transition might take, but we hope that painting this picture of a possible end-point and some milestones along the way will help make this choice and this journey a more viable option.