Addressing Sustainability Challenges A framework for material and spiritual transformation

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International Environment Forum (IEF)

http://iefworld.org

and

ebbf - ethical business building the future

http://ebbf.org



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Conceptual Framework

- Harmony of science and religion
- Science defines the challenge of environmental sustainability
- Technical/scientific solutions are not sufficient
- Spiritual principle provides a framework for social and economic solutions
- The two need to be combined in institutional arrangements and dynamic processes

Globalization



- Globalization has created a single planetary human system within a single biospheric system
- Economic globalization is driven by powerful governments and multinational businesses for their own benefit
- Social globalization is being strongly resisted
- Globalization of environmental problems is pushing beyond planetary limits
- Governance based only on nation states is now disfunctional

Unsustainability

- Globalization has stressed economic/social systems, cultures, institutions, value systems
- Persistent poverty alongside extreme wealth
- Inability to create adequate employment
- Increasing insecurity, social breakdown
- Environmental degradation, climate change
- Growing risks to health, epidemics
- Reaching peak youth, better educated, networked, but prospects less good than their parents
- Produces destruction from within

Planetary Boundaries

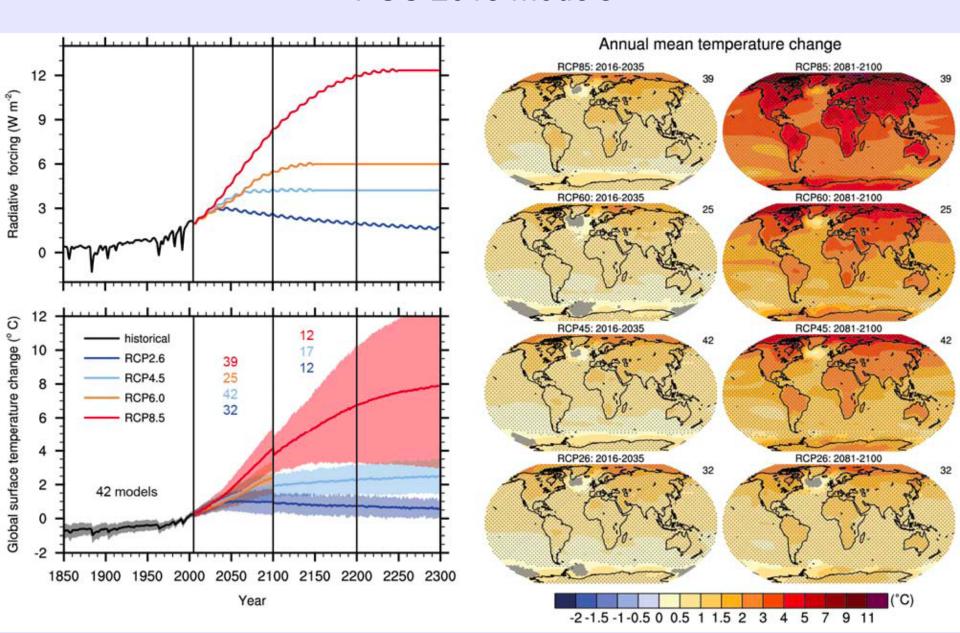
- Climate change
- Rate of biodiversity loss
- Nitrogen cycle and phosphorus cycle
- Stratospheric ozone depletion
- Ocean acidification
- Global freshwater use
- Change in land use
- Atmospheric aerosol loading
- Chemical pollution

Climate change and CO₂

- CO₂ is the most important greenhouse gas, trapping heat in the atmosphere
- Pre-industrial CO₂ concentration 280
 ppm; boundary 350 ppm; actual over 400 ppm
- Highest in at least 2 million years

Predicted climate change

IPCC 2013 models



Fossil fuels and climate change

- The accepted limit for global warming without significant damage to the planet is 2°C, and this is probably too high
- The estimated remaining capacity of the atmosphere to absorb carbon without going past this limit is 565 gigatons of CO₂, which may be reached in 16 years
- Proven oil, coal and gas reserves total 2,795 gigatons (not counting unconventional sources)
- To prevent catastrophic climate change, 80% of proven reserves need to be taken off asset accounts and left in the ground

Accelerating sea level rise

- Present estimate 80cm to 2m by 2100 and continuing
- This would displace 130 million people living within 1 m of mean sea level
- Recent evidence of destabilized
 West Antarctic glaciers could double this

BIODIVERSITY LOSS



- Extinction rate (species per million species per year) preindustrial 0.1-1, boundary 10, actual 1000
- Global warming $2^{\circ}C = 20\%$ species loss; $4^{\circ}=50\%$
- There will soon be no natural ecosystems left

Global Freshwater Use

By 2025, 1.8b people will live in regions with absolute water scarcity, and 2/3 of the world population could be subject to water stress as climate change reduces rainfall in these areas

Consumption of freshwater by humans (km³/yr): pre-industrial 415; **boundary 4000**; actual **2600**

The coming soil crisis

 Many past civilizations collapsed because they degraded their soil

Since 1945, erosion has degraded
 1.2 billion hectares, equal to China plus India, 38% of global crop land

12 million ha abandoned each year,
 1% of total

Coming Food Crisis

- Intensive agriculture requires expensive energy, fertilizer and petrochemical inputs
- World cereal production per person peaked in the 1980s and has decreased slowly since
- Feeding the growing world population and reducing hunger by half will require doubling world food production by 2050
- There were absolute planetary food shortages 2008 and 2012, with rising prices
- UN recommends community agriculture but multinational agribusiness is too powerful

Human Population

- The world population has tripled in one lifetime, and is expected by the UN to rise to 9.2 billion by 2050 before stabilizing
- We seem to be following a classic ecological pattern of overshoot and collapse
- The planetary carrying capacity depends on numbers versus standard of living; increasing one reduces the other

Refusal of Social Globalization

when climate change will cause mass migrations

- Reinforcing frontiers
- Rejection of immigrants
- Rise of xenophobia
- Fear of delocalizations
- Failure to deal with poor governance Globalization should include the free movement of people as well as capital, goods and services

Only option proposed: Materialism

Materialism, rooted in the West, has now spread to every corner of the planet, breeding, in the name of a strong global economy and human welfare, a culture of consumerism. It skilfully and ingeniously promotes a habit of consumption that seeks to satisfy the basest and most selfish desires, while encouraging the expenditure of wealth so as to prolong and exacerbate social conflict. One result is a deepening confusion on the part of young people everywhere, a sense of hopelessness in the ranks of those who would drive progress, and the emergence of a myriad social maladies.

Universal House of Justice, 2 April 2010

The attractions of consumer culture

- Materialism's vision of human progress produced today's consumer culture with its ephemeral goals
- For the small minority of people who can afford them, the benefits it offers are immediate
- The breakdown of traditional morality has led to the triumph of animal impulses and hedonism
- Selfishness has become a prized commercial resource; falsehood reinvents itself as public information; greed, lust, indolence, pride, violence are broadly accepted and have social and economic value
- Yet it fills a vacuum in the absence of any deeper meaning in life, and people take it for granted

Consumption-based economy in trouble

- Origins in the consumer society living beyond its means, accumulating debt
- Head of European Central Bank (Feb. 2009): "We live in non-linear times: the classic economic models and theories cannot be applied, and future development cannot be foreseen."
- Derivatives over \$700 trillion in 2010
- European countries on brink of insolvency

Growth-debt Trap

- Economic growth today is largely fueled by consumer, corporate and government borrowing
- As long as the growth rate is higher than the interest rate, reimbursement is possible
- If growth slows or stops, defaulting is inevitable
- The consumer society was a necessary creation to maintain the economic growth/debt paradigm
- Growth in energy and resource consumption cannot continue much longer

Moral Failures in Business

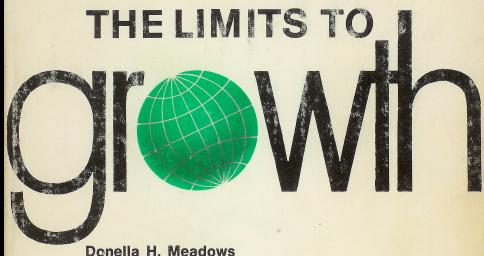
- Madoff, Enron, Worldcom and other frauds
- Transfer pricing, "creative" accounting, offshore tax havens allow escaping taxation
- Exorbitant salaries of corporate leaders and bonuses of bankers
- Corporate funding of disinformation
- Powerful lobbies influence "democratic" processes

After 40 years, we are still accumulating economic, social, and environmental debt

- Financial crisis is the most immediate threat to world stability
- Climate change is accelerating faster than the worst predictions of IPCC
- UK Chief Scientist (19 March 2009): the world faces a 'perfect storm' of problems in 2030 as food, energy and water shortages interact with climate change to produce public unrest, cross-border conflicts and mass migrations

1972

Club of Rome questioning the consumer society



Donella H. Meadows

Dennis L. Meadows

Jørgen Randers

William W. Behrens III

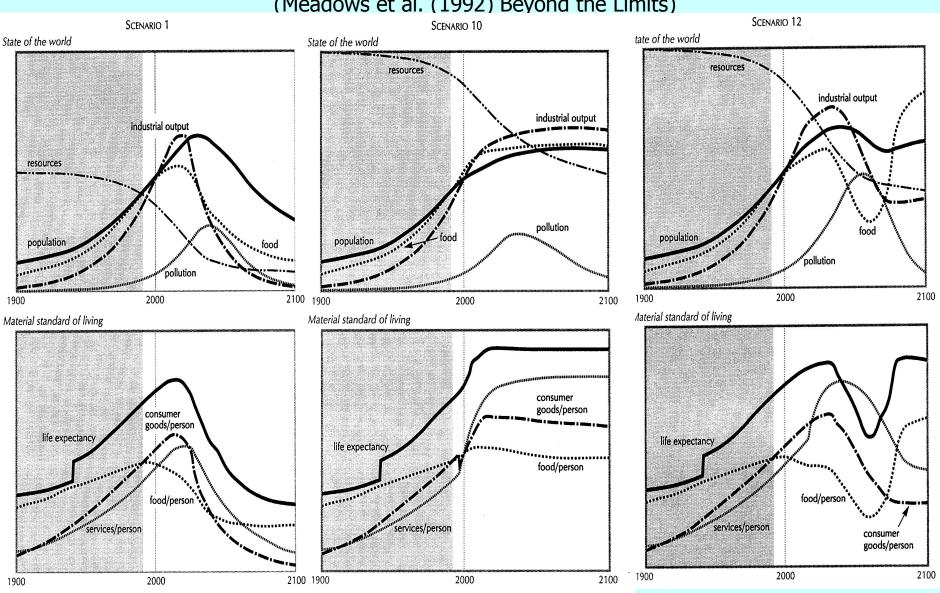
A Report for THE CLUB OF ROME'S Project on the Predicament of Mankind



A POTOMAC ASSOCIATES BOOK

Scenarios from World 3

(Meadows et al. (1992) Beyond the Limits)



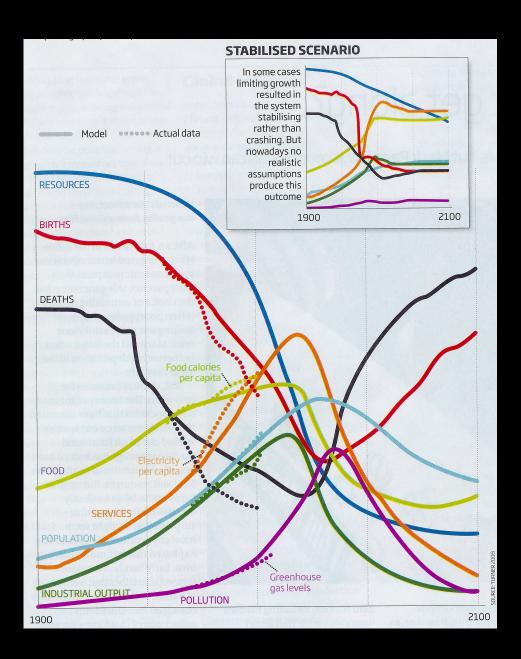
Business as usual

Transition 1995

Transition 2015

Where are we now?

MacKenzie, Debora. 2012 Doomsday Book. *New Scientist*, 7 January 2012, pp. 38-41.



Turchin's historical cycles

Peter Turchin (mathematical ecologist) *Nature* 2010:

- civilization/empire depends on social cohesion (indicator: collective violence)
- population growth/technology → oversupply of labour → expanding upper class, but youth have no prospects → factionalism → anarchy → collapse → restart (200 year cycle)
- predicted political instability/impending crisis in Western Europe and US peaking 2020
- need to reduce social inequality

Jorgen Randers (2012)

- tendency in democratic systems, capitalist economy, always choose least-cost short-term solution
- only change when we have to, too little, too late
- population peak 8 billion about 2040 because fertility drops in cities
- GDP growth only way to create jobs and distribute wealth, but slow, only doubling by 2052
- most growth in China and emerging economies
- rich countries reach limits of productivity increases, growth will stop, USA decline
- more economic effort to correct environmental damage, rebuild after natural disasters from climate change

Jorgen Randers (2012)

- beauties of nature and undisturbed ecosystems will disappear
- enough resources to meet demand but not need, 5 billion people poor, 1 billion still starving
- nothing done to address extremes of wealth and poverty
- increasing inequity in the rich world, producing more social instability
- young will rebel against their elders with comfortable retirements while leaving grandchildren to pay price for excesses
- market will not solve these problems, democracy will fail to align economic and social interests
- Wildcards: financial meltdown, revolution in USA, generational rebellion

Jorgen Randers (2012)

Five central issues:

- capitalism leads inevitably to extremes of wealth and poverty
- economic growth produces overconsumption
- democracy is too slow for the changes that are necessary
- intergenerational harmony will fail
- the climate will become increasingly unstable

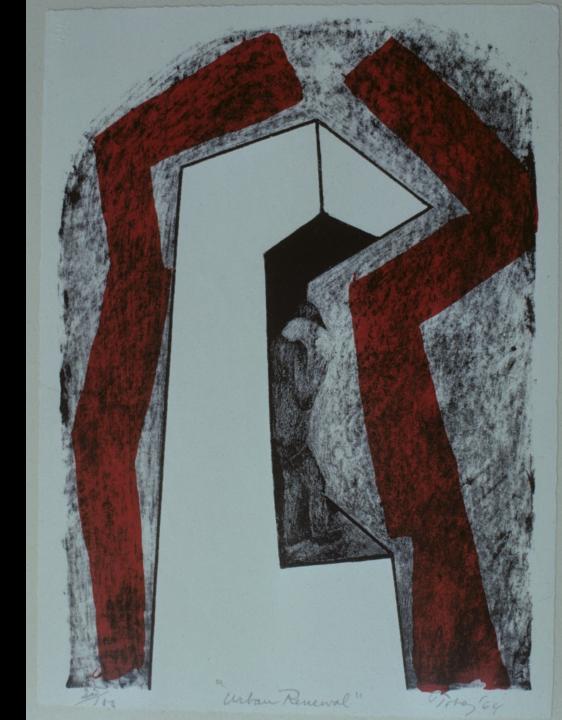
Jorgen Randers (2012)

- A much better future is technically possible
- requiring a shift of only 2% of labour and capital
- slightly more expensive, so we shall do nothing

Randers stops at 2052

- major impact of runaway climate change hits soon after
- pass the 2°C tipping point by 2050
- disaster is just over his time horizon

At the root of all this is what could be called an ethical deficit



20th century consumer society rooted in materialism

- The early twentieth century materialistic interpretation of reality has become the dominant world faith in the direction of society
- Dogmatic materialism has captured all significant centres of power and information at the global level, ensuring that no competing voices can challenge projects of world wide economic exploitation

Spiritual challenge from science

- Enlightenment focus on individualism "I think therefore I am"
- Rejection of outside (Divine) authority
- Egotism in science, we will eventually know everything
- Exclusion of anything that cannot be "proven", such as "subjective" experience

Spiritual challenge from Religion

- Rise of fundamentalism and intolerance
- Social confrontation, violence and terrorism
- Rejection of dynamic and evolutionary view of religion
- Anti-science movement (evolution, education, immunization, birth control, etc.)

Denial, Depression or Action? Do we have a choice?



Can we go and hide on a remote island?

Finding a path towards Sustainability

Three human realities

- our physical or biological reality, with needs like other animals for food, water, shelter, security, a healthy environment, basic social relationships and emotional drives;
- our intellectual reality, the realm of reason and science; and
- our spiritual reality, rising above the material reality and escaping from it

Spiritual Reality

- Spiritual reality is marginalized in secular societies
- Actively denied in some atheist circles
- The vast majority of humanity takes it as given that humankind has a spiritual nature and purpose
- Best expression of the ethical and moral principles associated with our relationship to nature
- Relevant knowledge on how to re-establish a better balance with nature
- Spiritual knowledge complements scientific knowledge.

The role of religion

Religious belief can reinforce an ethics of hope:

- Religions emphasize a higher human purpose
- Acceptance of an absolute reality (God, Allah, Brahma, nirvana, etc.) supports a drive for individual improvement
- Cultivating love for the unknown and unknowable overcomes fear and encourages exploration of the potential in oneself, in others and in the world through science
- A watching God encourages good behavior

The role of religion

- Religions provide role models and spiritual figures who exemplify how an ideal human should behave, translating abstract ideals into something each person can relate to
- Belief in an after-life where reward and punishment continue motivates good behaviour
- Religious practices such as meditation, prayer, fasting, charity, and study of religious texts help to overcome selfish desires and cultivate altruism
- Religious communities provide social reinforcement for individual efforts

The role of religion

All spiritual traditions speak of individual transformation

- from the egotistical pursuit of self-interest based on a materialistic concept of human life and purpose
- to an altruistic orientation of service to others
- with the happiness that comes from leading a virtuous life

Religious summits, gatherings and publications on faith and ecology, conservation of nature, climate change, ethics and Agenda 21, spiritual reflection and action, education for sustainable development, etc.

Religion and social cohesion

Social cohesion on a frontier builds civilization (Turchin 2006)

- The rise of a new religion creates a cultural frontier
- Those sharing the new values build social cohesion as they transform society
- A highly cohesive social and spiritual movement can overcome the negative forces around it
- Social cohesion from an inner spiritual force for unity in diversity can:
- achieve sustainability in its use of resources
- prevent the excessive concentration of wealth in an elite
- slow the cycle of rise and decline of past civilizations

Such a vision should be highly motivating to young people

Scripture as a source for sustainability principles

- Exhortations about respect for nature, moderation in its use, and a prohibition on waste
- Nature has a spiritual significance, with the qualities of God (or absolute perfection) being reflected in nature
- Contemplating nature is a path to spiritual understanding
- The wisdom in the revealed religions about nature is reinforced for believers by the power of Divine authority
- Christianity has the least reference to nature, relying more on Old Testament sources
- The Baha'i Faith has the most detailed references



An alternative to the consumer society

- sufficiently attractive to overcome resistance and habit
- worth sacrificing the superficial for what is deeper and more fundamentally rewarding
- effort comparable to religious conversion
- combines individual transformation with social action

THE ROLE OF SPIRITUAL PRINCIPLE

There are **spiritual principles**, or what some call human values, by which solutions can be found for every social problem.... Leaders of governments and all in authority would be well served in their efforts to solve problems if they would first seek to identify the principles involved and then be guided by them.

(Universal House of Justice, *The Promise of World Peace*)

Moral Values and Ethical Principles

- Moral values state what is good and of primary importance to human civilization,
- often articulated as ideals
- define right from wrong
- Ethical principles are the operational expression of moral values
- provide guidance to decision-making and action
- A capability of moral reasoning starts from abstract general ethical principles to resolve conflicts that arise from moral dilemmas and ethical problems

(from Eloy Anello (2008) A Framework for Good Governance in the Public Pharmaceutical Sector. Working draft for field testing and revision, April 2008. World Health Organization. 45 p. www.who.int/entity/medicines/areas/policy/goodgovernance/GGMFramework2008-04-18.pdf)

Ethics allow a positive process

- Both law and ethics are concerned with the application of justice
- Law: institutions for enforcement, top-down regulation of society, punishment, use of force if necessary, costly
- Ethics: individual attachment to the principle of justice and its application, bottom-up, selfmotivated, reward more than punishment
- The stronger the ethical framework and its application, the less need for law; more costeffective; process-based solution

A higher human purpose

How... can we resolve the paralyzing contradiction that, on the one hand, we desire a world of peace and prosperity, while, on the other, much of economic and psychological theory depicts human beings as slaves to self-interest? The faculties needed to construct a more just and sustainable social order—moderation, justice, love, reason, sacrifice and service to the common good—have too often been dismissed as naïve ideals. Yet, it is these, and related qualities that must be harnessed to overcome the traits of ego, greed, apathy and violence, which are often rewarded by the market and political forces driving current patterns of unsustainable consumption and production.

(Bahá'í International Community to UN CSD, 2010)

Towards an ethics of hope

- Rethink the purpose of development and the goals of sustainable consumption and production
- Formulate ethical principles to guide our collective actions as communities and social groups
- Focus on the ground rules for social organization
- Allowing a diversity of solutions that can adapt to each environment and culture while ensuring coherence as society advances
- No need to waste energy revolting against the present system
- Start with small scale experiments with alternatives

An organic change in society

Ultimately, the transformation required to shift towards sustainable consumption and production will entail no less than an organic change in the structure of society itself so as to reflect fully the interdependence of the entire social body—as well as the interconnectedness with the natural world that sustains it.

(Bahá'í International Community to UN CSD, 2010)

Ethics for social organization

 A world order characterized by competition, violence, conflict and insecurity needs to give way to one founded on unity in diversity

Karlberg, Michael. 2004. Beyond the Culture of Contest: From Adversarialism to Mutualism in an Age of Interdependence. Oxford: George Ronald.

- Cooperation rather than competition is the best foundation for social and economic progress
 Nowak, Martin A., with Roger Highfield. 2011. SuperCooperators: Altruism, Evolution, and Why We Need Each Other to Succeed. New York: Free Press.
- We need a multi-level approach to values, from individual to international

Dahl, Arthur Lyon. 2013. "A Multi-Level Framework and Values-Based Indicators to Enable Responsible Living", pp. 63-77. In Ulf Schrader, Vera Fricke, Declan Doyle and Victoria W. Thoresen (eds), *Enabling Responsible Living*, Springer Verlag, Berlin/Heidelberg

Moral dimensions of social organization

The moral dimensions of just and peaceful human relations include the generation of knowledge, the cultivation of trust and trustworthiness, eradication of racism and violence, promotion of art, beauty, science, and the capacity for collaboration and the peaceful resolution of conflicts.

Sustainability is a global challenge

Acceptance of the **oneness of mankind** is the first fundamental
prerequisite for the reorganization and
administration of the world as one
country, the home of humankind.

(Universal House of Justice, *The Promise of World Peace*, p. 13-14)

Sustainability - an ethical concept

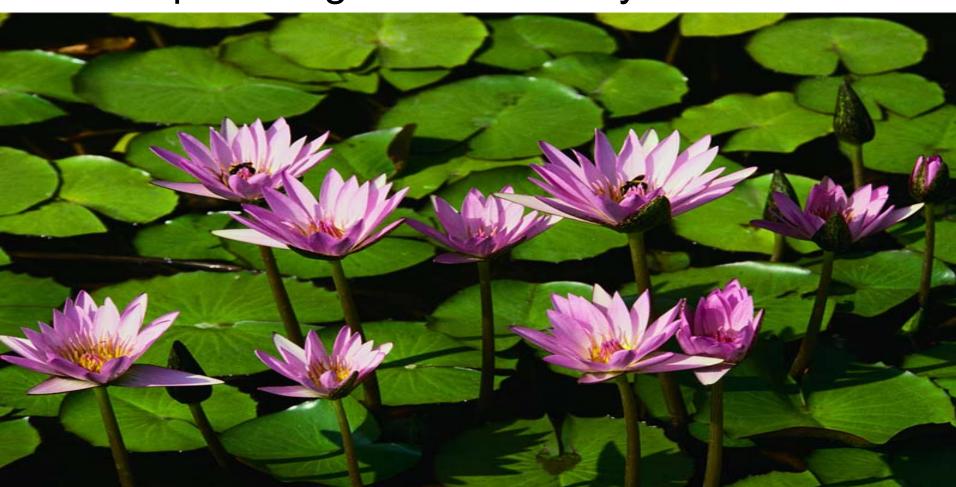
- As trustees or stewards of the planet's resources and biodiversity, we must:
- ensure sustainability and equity of resource use into distant future
- consider the environmental consequences of development activities
- temper our actions with moderation and humility
- value nature in more than economic terms
- understand the natural world and its role in humanity's collective development both material and spiritual

Sustainability - fundamental responsibility

Sustainable environmental management must come to be seen not as a discretionary commitment mankind can weigh against other competing interests, but rather as a fundamental responsibility that must be shouldered, a pre-requisite for spiritual development as well as the individual's physical survival.

For social sustainability

In increasingly diverse communities, how do we go from prejudice and withdrawal to open integration and unity?



Primacy of Oneness of Humanity

- Since humanity is one, each person is born into the world as a trust of the whole, and each bears a responsibility for the welfare of all humanity
- This collective trusteeship constitutes the moral foundation of human rights and a sustainable society
- The welfare of each country and community can only be derived from the well-being of the whole planet

Social Justice

Social justice will be attained only when every member of society enjoys a relative degree of material prosperity and gives due regard to the acquisition of spiritual qualities. The solution, then, to prevailing economic difficulties is to be sought as much in the application of spiritual principles as in the implementation of scientific methods and approaches.

Universal House of Justice, 2 April 2010

Justice and Equity

It is unjust to sacrifice the well-being of most people -- and even of the planet itself -- to the advantages which technological breakthroughs can make available to privileged minorities

Only development programmes that are perceived by the masses of humanity as meeting their needs and as being just and equitable in objective can hope to engage their commitment, upon which implementation depends

Cooperation and Reciprocity

Cooperation and reciprocity are essential properties of all natural and human systems, increasing in more highly evolved and complex systems



Trust and Trustworthiness

- honesty
- reliability
- foundation of contracts and work relationships
- bulwark against corruption

Trust is equally important in the relationships between states. If governments cannot trust each other to respect their engagements, agreements that require shared efforts become impossible.

Moderation in Material Civilization

- the golden mean
- the foundation of sustainability
- "The civilization, so often vaunted by the learned exponents of arts and sciences, will, if allowed to overleap the bounds of moderation, bring great evil upon men."
- "...be content with little, and be freed from all inordinate desire."
- "Take from this world only to the measure of your needs, and forego that which exceedeth them."

Humility

- never consider oneself above someone else
- antidote to pride and the egocentric search for power and wealth that corrupts much political and corporate leadership
- ideal lubricant for social relationships
- can inspire everyone to bring themselves to account each day in an effort to improve

A new dialogue on ethics and values

- Stiglitz, Sen & Fitousi (2009) beyond GDP
- Club of Rome: ValuesQuest http://www.clubofrome.org/?p=5821
- World Bank: indicators of individual development
- Well-being and happiness indicators (GNH, Sachs 2013)
- Partnership for Education and research about Responsible Living (PERL) http://www.pearlprojects.org/

Baha'i-inspired organizations:

- International Environment Forum http://iefworld.org
- ebbf ethical business building the future http://ebbf.org

Development for Human Well-being

The ultimate purpose of development should be to improve the prosperity and well-being of individual people.

Ideally, the best measure of successful development would be that it enables every human being to fulfill his or her potential in life both in cultivating individual qualities, personality and capacities and in contributing to the advancement of society.

Human Well-being

- a dynamic concept
- operates at several levels
- over the whole human lifecycle
- with respect to others
- with respect to one's own previous experience
- past and present limitations on well-being can limit future well-being

Human Needs

Psychological research has long identified what Maslow (1943) termed a hierarchy of needs:

- physiological needs (breathing, food, water, sex, sleep, homeostasis, excretion)
- safety needs (security of: body, employment, resources, moral certainty, the family, health, property)
- love and belonging (friendship, family, sexual intimacy)
- esteem (self-esteem, confidence, achievement, respect of others, respect by others)
- self-actualization (morality, creativity, spontaneity, problem-solving, lack of prejudice, acceptance of facts).

Characteristics of being human

- 1. a biological organism with purely physical requirements for life
- 2. a social organism, with emotional or psychological needs that can only be met through relationships with others in a family, community and society
- 3. a thinking and reasoning being with intellectual needs and capacities to develop, a desire to know and to understand
- 4. a spiritual dimension of life as the highest realization of human purpose, including acquiring spiritual qualities, refining one's character, and contributing to the advancement of civilization.

Dimensions of individual development

- physical growth and health
- security and safety
- education
- work
- financial security
- justice and fairness
- human rights and freedoms
- a place in the community
- a cultural and spiritual identity

(Dahl, Arthur Lyon. 2013. Putting the Individual at the Centre of Development: Indicators of Wellbeing for a New Social Contract. Paper presented at the Third Rencontres Internationales de Reims on Sustainability Studies, "Post-2015 Sustainable Development Goals: Towards a New Social Contract", Reims, France, 18-20 June 2013. In press in François Mancebo (ed.), *Transitions to Sustainability.* Dordrecht: Springer. http://iefworld.org/ddahl13a)

Bhutan: Gross National Happiness

In the GNH Index, unlike certain concepts of happiness in current western literature, happiness is itself multidimensional – not measured only by subjective well-being, and not focused narrowly on happiness that begins and ends with oneself and is concerned for and with oneself. The pursuit of happiness is collective, though it can be experienced deeply personally. Different people can be happy in spite of their disparate circumstances and the options for diversity must be wide.

Bhutan: Gross National Happiness

As the Prime Minister of Bhutan put it "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."

Bhutan: Gross National Happiness

i. Psychological Well-being

- Life satisfaction
- Emotional balance (positive and negative emotions)
- Spirituality

ii. Health

- Self-reported health status
- Healthy days
- Long-term disability
- Mental health

iii. Education

- Literacy
- Educational qualification
- Knowledge
- Values

iv. Culture

- Language
- Artisan skills
- Socio-cultural participation
- Driglam Namzha (Way of Harmony: formal etiquette)

Bhutan: Gross National Happiness

v. Time Use

- Working hours
- Sleeping hours

vi. Good Governance

- Political participation
- Political freedom
- Service delivery
- Government performance

vii. Community Vitality

- Social support
- Community relationships
- Family
- Victim of crime

viii. Ecological Diversity and Resilience

- Pollution
- Environmental responsibility
- Wildlife
- Urban issues

ix. Living Standards

- Household income
- Assets
- Housing quality

World Happiness Report

Prepared by the Earth Institute of Columbia University, launched at the UN on 2 April 2012. 2nd edition 2013

- based on data from the Gallup World Poll, the World Values Survey, the European Values Survey and the European Social Survey
- measures subjective well-being and happiness, both as felt at one point in time (affective), and as evaluated in a reflection on life satisfaction.
- To explain the variations in happiness, it analyzes both external factors (income, work, community, governance, values and religion) and personal factors (mental health, physical health, family, education, gender and age).
- In 2013, Jeffrey Sachs added a chapter on the happiness that comes from leading a virtuous life.

Helliwell, John, Richard Layard and Jeffrey Sachs. 2012. World Happiness Report. Earth Institute, Columbia University. http://www.earth.columbia.edu/articles/view/2960

Helliwell, John, Richard Layard and Jeffrey Sachs (eds). 2013. World Happiness Report 2013. New York: Sustainable Development Solutions Network and Earth Institute, Columbia University. 154 p. http://unsdsn.org/files/2013/09/WorldHappinessReport2013_online.pdf

Indicators based on values

European research project: values-based indicators of education for sustainable development: http://www.esdinds.eu

Indicators of empowerment, integrity, justice, trustworthiness, unity in diversity, and respect and care for the environment, expressed in behaviours that strengthen social relationships and build collective and individual well-being

Dahl, Arthur Lyon. 2012. Ethical sustainability footprint for individual motivation. Presented at Planet Under Pressure 2012 Conference, London, UK, 26-29 March 2012. http://iefworld.org/ddahl12d

Podger, Dimity, Ismael Velasco, Cardiela Amézcua Luna, Gemma Burford and Marie K. Harder. 2013. Can values be measured? Significant contributions from a small civil society organisation through action research. Action Research Journal 11(1): 8-30

Burford, Gemma, Elona Hoover, Ismael Velasco, Svatava Janoušková, Alicia Jimenez, Georgia Piggot, Dimity Podger and Marie K. Harder. 2013. Bringing the "Missing Pillar" into Sustainable Development Goals: Towards Intersubjective Values-Based Indicators. Sustainability 5: 3035-3059. doi:10.3390/su5073035

A better society and economy

- While navigating change, it helps to know your ultimate destination
- Many potential visions of a just and sustainable future society
- Most people want a world that is more peaceful, just, secure and prosperous
- Imagining such a world and the steps one might take now in order to build it can be a significant support to a hopeful viewpoint

Sustainability Requires World Order

A world federal system, ruling the whole earth and exercising unchallengeable authority over its unimaginably vast resources,... liberated from the curse of war and its miseries, and bent on the exploitation of all the available sources of energy on the surface of the planet,... such is the goal towards which humanity, impelled by the unifying forces of life, is moving.

(Shoghi Effendi, *The World Order of Bahá'u'lláh*, p. 203-204)

The true purpose of economics

Economics has ignored humanity's broader social and spiritual needs, resulting in:

- Corrosive materialism among the wealthy
- Persistent poverty for masses of the world's peoples

Economic systems should give the peoples and institutions of the world the means to achieve the real purpose of development: the cultivation of the limitless potentialities in human consciousness.

Values for the economic system

Sustainability requires new values-based economic models

The aim should be a dynamic, just and thriving social order:

Strongly altruistic and cooperative in nature

Providing meaningful employment

Helping to eradicate poverty in the world.

Complexity Economics

Eric Beinhocker (2006) The Origin of Wealth

- No equilibrium or perfect actors, but constantly evolving networks of agents and business plans
- Punctuated equilibrium, with stability followed by rapid change
- Consultation, not competition, to avoid crises and bubbles
- True wealth is information and knowledge, using entropy to increase carrying capacity, efficiency and complexity
- Businesses must balance present efficiency and innovation to prepare for the future, with a culture of learning
- We are both self-regarding and altruist, but seek strong reciprocity
- We must reduce inequality and favour social cohesion

Norms for individual behaviour

Eric Beinhocker (2006) The Origin of Wealth

Individual: a strong work ethic, individual accountability, and a belief that you are the protagonist of your own life, with benefits from living a moral life in this world, being realistic about the present situation but optimistic about the future.

Cooperative behaviour: belief that life is not a zero-sum game and that cooperation has benefits, that generosity and fairness have value, and that free-riding and cheating are sanctioned.

For innovation: valuing rational scientific explanations of the world, tolerating heresy and experimentation, supporting competition and celebrating achievement.

Ethic of investing for tomorrow, saving for future generations, sacrificing short-term pleasures for long-term gain, and enjoying high levels of cooperation.

Norms for society

Eric Beinhocker (2006) The Origin of Wealth

Both a strong sense of community and values, complemented by government leadership, are needed.

Inequalities should be reduced to build social cohesion, and priority given to health, education and a minimum living wage for the poor to empower them for their own development.

Justice and altruism can be increased through education to address the challenges of wealth distribution

Understanding processes of change

- Processes of change are well documented in biological systems
- Complex evolving systems show punctuated equilibria, periods of relative stability interspersed with rapid, sometimes chaotic change
- Triggered by new factors: mutation, invasion, change of scale
- Species, ecosystems, civilizations advance and decline or collapse
- We are in such a period of rapid change

Change is an opportunity

- Old system collapse encourages creativity and innovation
- Human society must evolve a whole new set of institutions and functional relationships at the global level
- Ethics and human values should underlie the information and knowledge that code for the newly evolving systems

Being in charge

- The hopelessness from overwhelming problems can be overcome by:
- taking charge of ourselves and acknowledging our responsibility for our own individual development
- showing moral courage and living by one's ethical principles
- building a momentum for positive change
 Successes at this level are mutually reinforcing

Being in charge

We are part of families, live in a community, and have relationships in our workplace and social networks. We can:

- invest in improving our family life and community
- contribute to the education of the next generation
- reinforce solidarity and collective action to solve problems
- take part in meaningful discussions
- establish spiritual ties through local devotional gatherings and worship

Education for Sustainability

- Moral education in human virtues
- Focus on pre-adolescence
- Practical activities of service
- Older youth help younger
- Activities and indicators for values-based learning
- Transmitting the ethical foundations for a more sustainable and hopeful society

Living within environmental limits is possible

To maintain the planet's ecological balance, we must:

- base the economy on renewable energy and resources (agriculture, forests, fisheries, bioindustries), closed materials cycles and integrated product life-cycles
- reduce human impacts to a level appropriate to the vulnerability and resilience of the systems
- restore damaged systems to the level necessary to maintain natural and human ecosystem services
- allow population growth and development only to the extent that system improvements extend the carrying capacity of the planetary system

How to get there?

- A transition is inevitable, evolutionary or catastrophic
- Best insurance is community solidarity
- Mobilize and empower the youth
- Detach from the present system
- Make the "pull" of the new vision stronger than the "push" out of the old
- Steer wasted human capacity in constructive directions

...the pathway to sustainability will be one of empowerment, collaboration and continual processes of questioning, learning and action in all regions of the world.... As the sweeping tides of consumerism, unfettered consumption, extreme poverty and marginalization recede, they will reveal the human capacities for justice, reciprocity and happiness.

(Bahá'í International Community)

The multiple challenges of sustainability require a framework for reflection and action that is both scientific and spiritual

The years ahead will be difficult, but there is reason for hope

and spiritual t

Arthur Lyon

Arthur Ivo I ahl/ir pres). Puting the I dividual at the Cer re of Decelonment: Indivitors of Well-being for a New Social Contract. Paper presented at the Third Rencontres Internationales de Reims on Sustainability Studies. Post-2015 Sustainable Development Goals: Towards a New Social Contract, Reims, France, 18/20 June 2013. http://iefworld.org/ddahl13a

eblf - ethical busines http://el

ABS/IEF, Toronto, Ca

Conceptual Framework

- Harmony of science and religion
- Science defines the challenge of environmental sustainability
- Technical/scientific solutions are not sufficient
- Spiritual principle provides a framework for social and economic solutions
- The two need to be combined in institutional arrangements and dynamic processes





Planetary Boundaries

- Climate change
- Rate of biodiversity loss
- Nitrogen cycle and phosphorus cycle
- Stratospheric ozone depletion
- Ocean acidification
- · Global freshwater use
- Change in land use
- Atmospheric aerosol loading
- Chemical pollution

Rockström, Johan et al. 2009. A safe operating space for humanity. *Nature* Gaffney, Owen. 2009. A planet on the edge. *Global change*, issue 74, Winter 2009, p. 10-13.

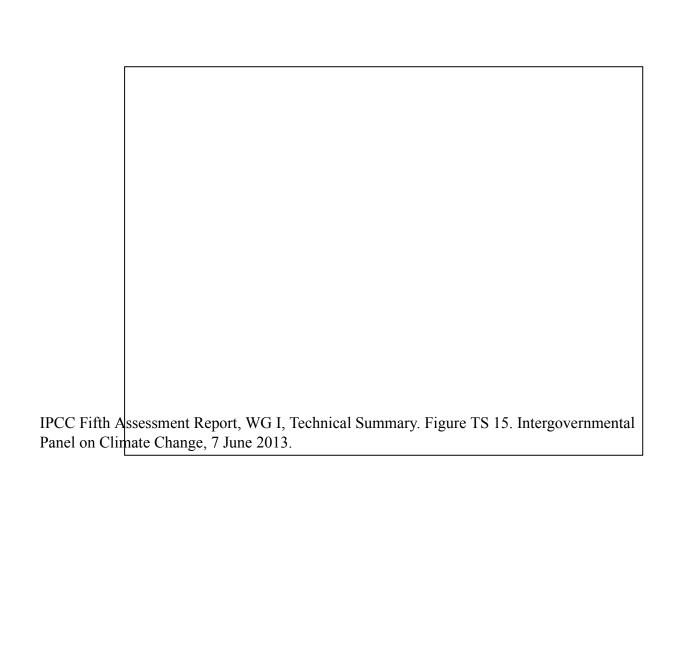
Rockström, J., W. Steffen, K. Noone, Å. Persson, F. S. Chapin, III, E. Lambin, T. M. Lenton, M. Scheffer, C. Folke, H. Schellnhuber, B. Nykvist, C. A. De Wit, T. Hughes, S. van der Leeuw, H. Rodhe, S. Sörlin, P. K. Snyder, R. Costanza, U. Svedin, M. Falkenmark, L. Karlberg, R. W. Corell, V. J. Fabry, J. Hansen, B. Walker, D. Liverman, K. Richardson, P. Crutzen, and J. Foley. 2009. Planetary boundaries:exploring the safe operating space for humanity. *Ecology and Society* 14(2): 32. [online] URL: http://www.ecologyandsociety.org/vol14/iss2/art32/

Climate change and CO₂

- CO₂ is the most important greenhouse gas, trapping heat in the atmosphere
- Pre-industrial CO₂ concentration 280
 ppm; boundary 350 ppm; actual over
 400 ppm
- Highest in at least 2 million years

UNESCO/SCOPE/UNEP Policy Briefs No. 10, The Global Carbon Cycle - 2, November 2009

Boundaries: Rockström, Johan et al. 2009. A safe operating space for humanity. *Nature* Gaffney, Owen. 2009. A planet on the edge. *Global change*, issue 74, Winter 2009, p. 10-13.



Fossil fuels and climate change

- The accepted limit for global warming without significant damage to the planet is 2°C, and this is probably too high
- The estimated remaining capacity of the atmosphere to absorb carbon without going past this limit is 565 gigatons of CO₂, which may be reached in 16 years
- Proven oil, coal and gas reserves total 2,795 gigatons (not counting unconventional sources)
- To prevent catastrophic climate change, 80% of proven reserves need to be taken off asset accounts and left in the ground

McKibben, Bill. 2012. Global Warming's Terrifying New Math. Rolling Stone, 2 August 2012.

http://www.rollingstone.com/politics/news/global-warmings-terrifying-new-math-20120719
Carbon Tracker Initiative. n.d. Unburnable
Carbon - Are the world's financial markets
carrying a carbon bubble?
http://www.carbontracker.org/carbonbubble



Ananthaswamy, Anil. 2009. Going, going... New Scientist, 4 July 2009, pp. 28-33

Forest loss: Sukhdev, Pavan, The Economics of Ecosystems and Biodiversity (TEEB), quoted in Black, Richard. 2008. Nature los 'dwarfs bank crisis', BBC News 10.10.08, also quoted in John Vidal. 2008. Earth teeters at its physical limits. The Guardian Weekly, 19.12.08, p. 7

Climate change of 2°C will cause a 20% loss of species, and 4°C will exterminate half of all species on the planet (Terry Root, Woods Institute for the Environment, Stanford University, webcast Connecting the Dots Panel: Our Changing Climate, 18 April 2014)

extinction 1000 times natural rate:

Pimm, S.L., C.N. Jenkins, R. Abell, T.M. Brooks, J.L. Gittleman, IL.N. Joppa, P.H. Raven, C.M. Roberts, and J.O.Sexton. 2014. The biodiversity of species and their rates of extinction, distribution and protection. Science 344 (6187) 30 May 2014 http://www.sciencemag.org/content/344/6187/1246752.abstract

Science, doi.org/szx, reported in New Scientist, 7 June 2014, p. 16.

Global Freshwater Use

By 2025, 1.8b people will live in regions with absolute water scarcity, and 2/3 of the world population could be subject to water stress as climate change reduces rainfall in these areas

Consumption of freshwater by humans (km³/yr): pre-industrial 415; **boundary 4000**; actual **2600**

Boundary: Rockström, Johan et al. 2009. A safe operating space for humanity. *Nature* Gaffney, Owen. 2009. A planet on the edge. *Global change*, issue 74, Winter 2009, p. 10-13.



Montgomery, David R. 2007. *Dirt: The Erosion of Civilizations*. University of California Press, Berkeley. 285 p.







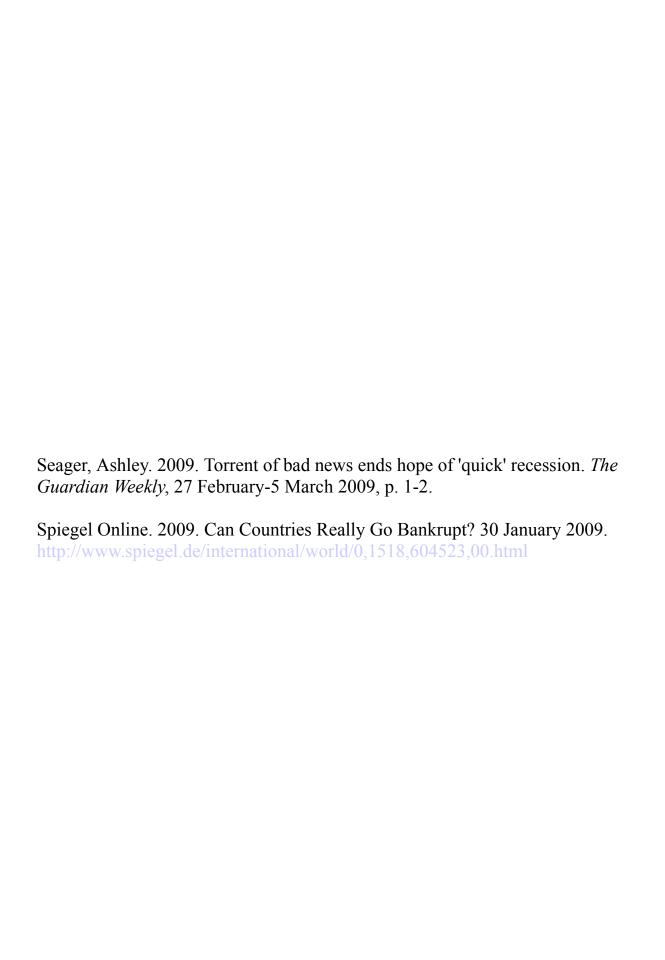
Only option proposed: Materialism

Materialism, rooted in the West, has now spread to every corner of the planet, breeding, in the name of a strong global economy and human welfare, a culture of consumerism. It skilfully and ingeniously promotes a habit of consumption that seeks to satisfy the basest and most selfish desires, while encouraging the expenditure of wealth so as to prolong and exacerbate social conflict. One result is a deepening confusion on the part of young people everywhere, a sense of hopelessness in the ranks of those who would drive progress, and the emergence of a myriad social maladies.

Universal House of Justice, 2 April 2010

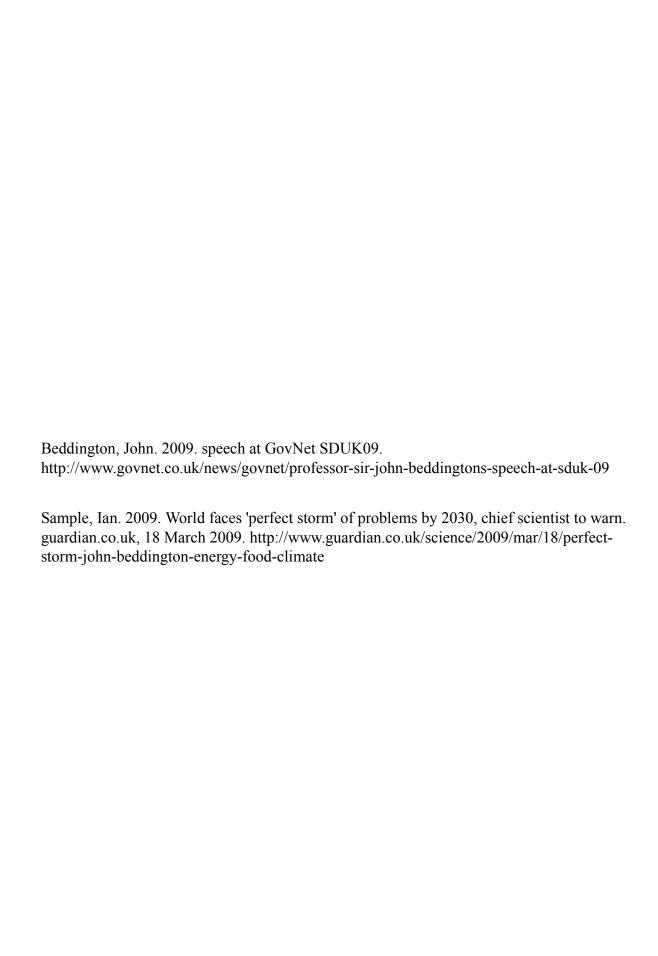
Universal House of Justice, To the believers in the Cradle of the Faith, 2 April 2010



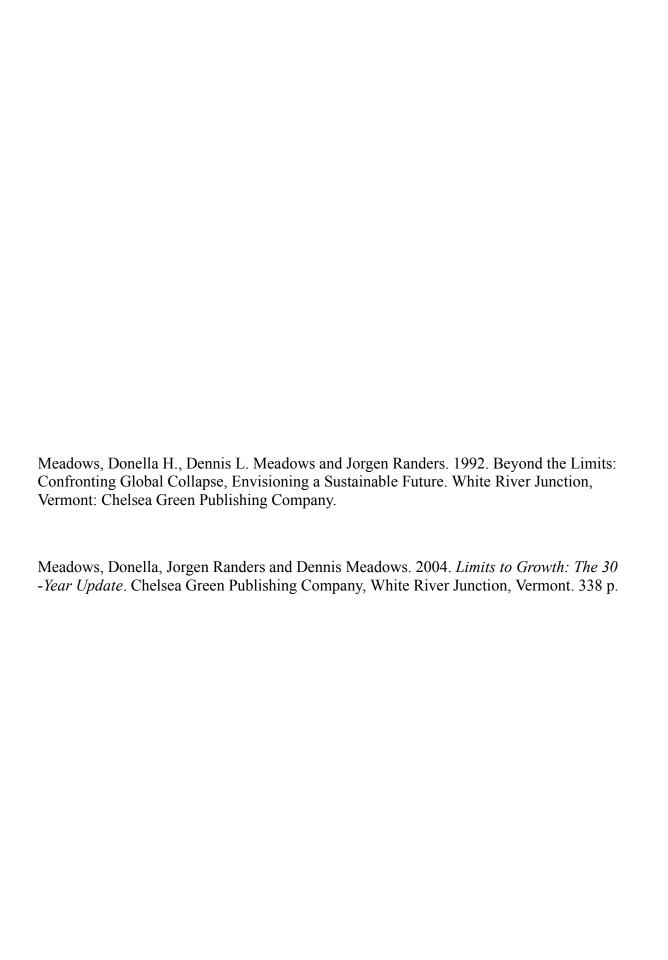


Growth-debt Trap

- Economic growth today is largely fueled by consumer, corporate and government borrowing
- As long as the growth rate is higher than the interest rate, reimbursement is possible
- If growth slows or stops, defaulting is inevitable
- The consumer society was a necessary creation to maintain the economic growth/debt paradigm
- Growth in energy and resource consumption cannot continue much longer

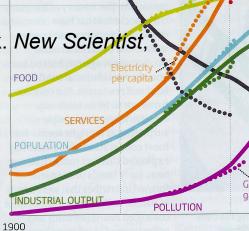








MacKenzie, Debora. 2012 Doomsday Book. New Scientist, 7 January 2012, pp. 38-41.



Food calories

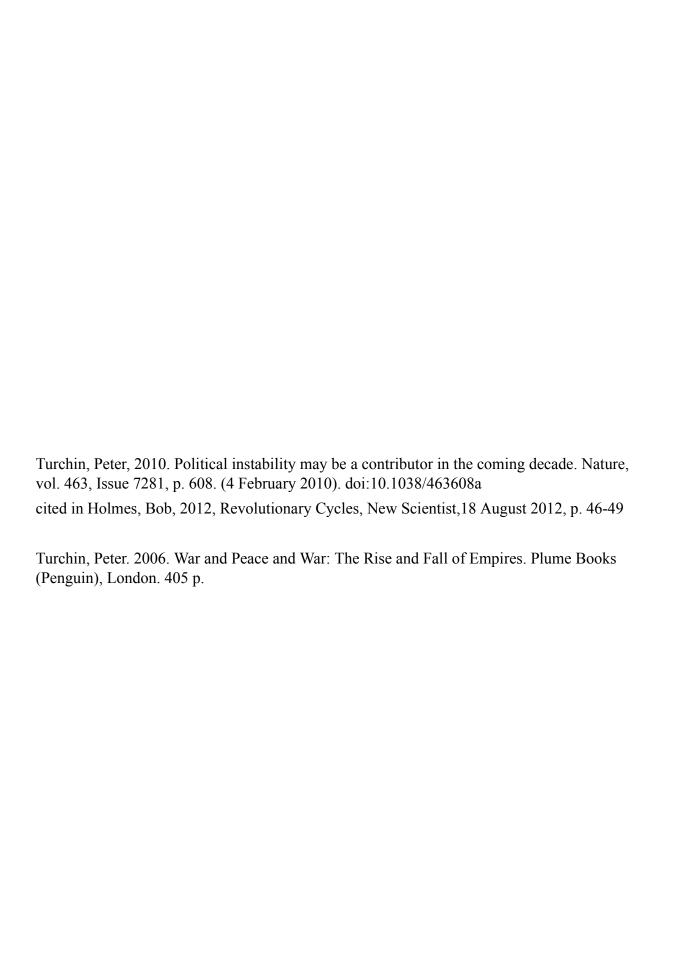
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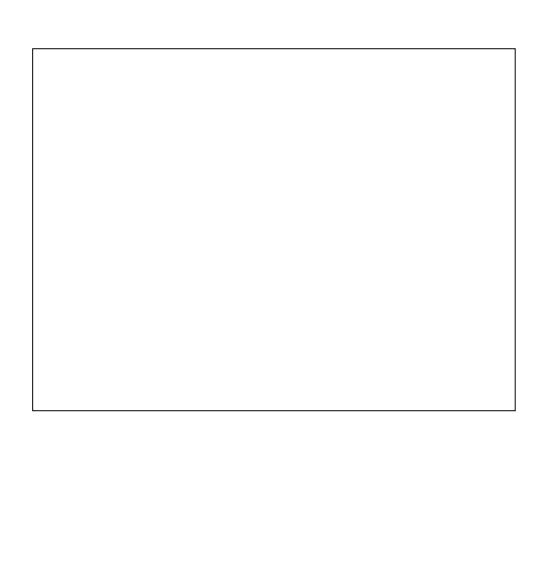
Publishing White River Junction Vermont countries reach limits wth will stop, USA decli re economic effort to co nage, rebuild after natu nge

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of Rome Commemorating the 10th Appropriate Limits to Growth Chelsen Green
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Reduces, Jorgen 2012, 2052. A Cloud Fore ast for the Next Forty Year. A deport to the Glub of Rome. Commenters in the ICh Almiver ary of the Lemits to Grown. Clelses are a Publishing, White River Junetion, vermont. jor impact of runawa on after ss the 2°C tipping po aster is just over his





Spiritual challenge from science

- Enlightenment focus on individualism "I think therefore I am"
- Rejection of outside (Divine) authority
- Egotism in science, we will eventually know everything
- Exclusion of anything that cannot be "proven", such as "subjective" experience

Spiritual challenge from Religion

- Rise of fundamentalism and intolerance
- Social confrontation, violence and terrorism
- Rejection of dynamic and evolutionary view of religion
- Anti-science movement (evolution, education, immunization, birth control, etc.)



Finding a path towards Sustainability

Three human realities

- our physical or biological reality, with needs like other animals for food, water, shelter, security, a healthy environment, basic social relationships and emotional drives;
- our intellectual reality, the realm of reason and science; and
- our spiritual reality, rising above the material reality and escaping from it

('Abdu'l-Bahá, Foundations of World Unity, p. 51)

Spiritual Reality

- Spiritual reality is marginalized in secular societies
- Actively denied in some atheist circles
- The vast majority of humanity takes it as given that humankind has a spiritual nature and purpose
- Best expression of the ethical and moral principles associated with our relationship to nature
- Relevant knowledge on how to re-establish a better balance with nature
- Spiritual knowledge complements scientific knowledge.

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Turchin, Peter. 2006. War and Peace and War: The Rise and Fall of Empires. Plume Books (Penguin), London.

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spiritual movement can

Scripture as a source for sustainability principles

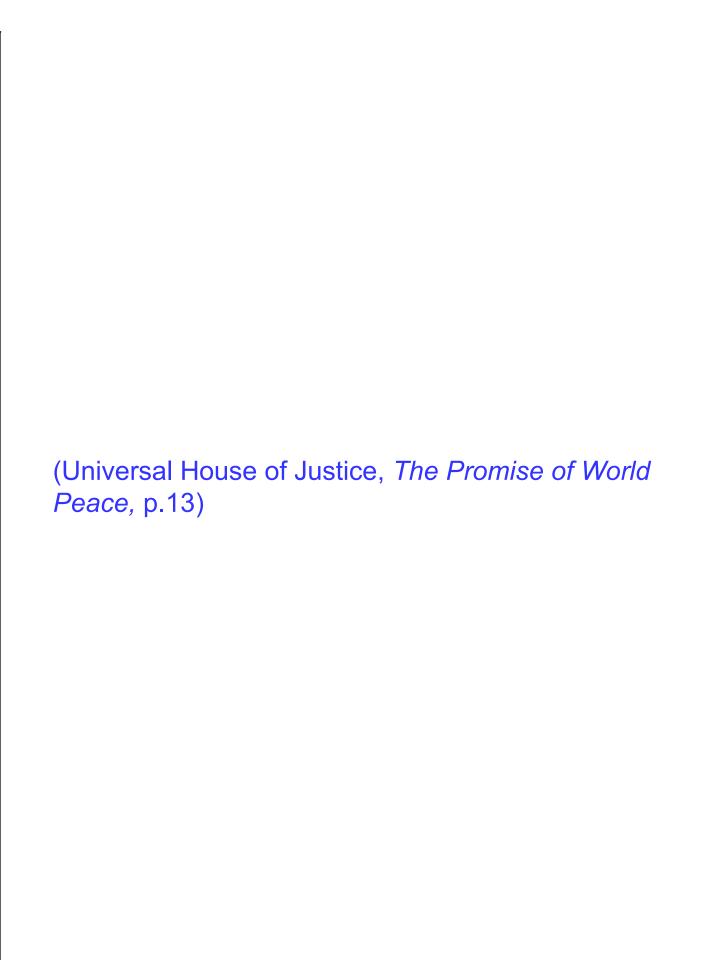
- Exhortations about respect for nature, moderation in its use, and a prohibition on waste
- Nature has a spiritual significance, with the qualities of God (or absolute perfection) being reflected in nature
- Contemplating nature is a path to spiritual understanding
- The wisdom in the revealed religions about nature is reinforced for believers by the power of Divine authority
- Christianity has the least reference to nature, relying more on Old Testament sources
- The Baha'i Faith has the most detailed references

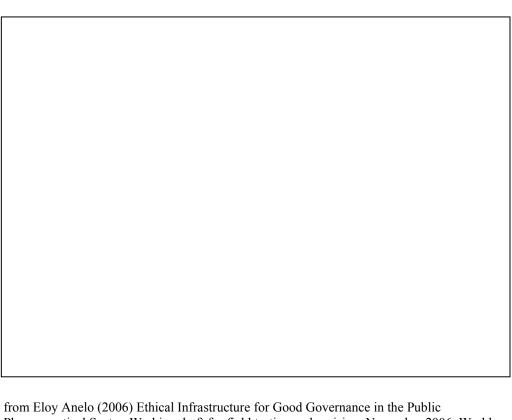


An alternative to the consumer society

- sufficiently attractive to overcome resistance and habit
- worth sacrificing the superficial for what is deeper and more fundamentally rewarding
- effort comparable to religious conversion
- combines individual transformation with social action

Dahl, Arthur Lyon. 2012a. Alternatives to the Consumer Society. Paper presented at the PERL International Conference, Berlin, 19-20 March 2012. http://iefworld.org/ddahl12a





from Eloy Anelo (2006) Ethical Infrastructure for Good Governance in the Public Pharmaceutical Sector. Working draft for field testing and revision, November 2006. World Health Organization. 30 p.

Eloy Anello (2008) A Framework for Good Governance in the Public Pharmaceutical Sector. Working draft for field testing and revision, April 2008. World Health Organization. 45 p. www.who.int/entity/medicines/areas/policy/goodgovernance/GGMFramework2008-04-18.pdf

Ethics allow a positive process

- Both law and ethics are concerned with the application of justice
- Law: institutions for enforcement, top-down regulation of society, punishment, use of force if necessary, costly
- Ethics: individual attachment to the principle of justice and its application, bottom-up, selfmotivated, reward more than punishment
- The stronger the ethical framework and its application, the less need for law; more costeffective; process-based solution

A higher human purpose

How... can we resolve the paralyzing contradiction that, on the one hand, we desire a world of peace and prosperity, while, on the other, much of economic and psychological theory depicts human beings as slaves to self-interest? The faculties needed to construct a more just and sustainable social order—moderation, justice, love, reason, sacrifice and service to the common good—have too often been dismissed as naïve ideals. Yet, it is these, and related qualities that must be harnessed to overcome the traits of ego, greed, apathy and violence, which are often rewarded by the market and political forces driving current patterns of unsustainable consumption and production.

(Bahá'í International Community to UN CSD, 2010)

Bahá'í International Community. 2010. *Rethinking Prosperity: Forging Alternatives to a Culture of Consumerism*. Contribution to the 18th Session of the United Nations Commission on Sustainable Development, New York, 3 May 2010.

http://bic.org/statements-and-reports/bic-statements/10-0503.htm

Towards an ethics of hope

- Rethink the purpose of development and the goals of sustainable consumption and production
- Formulate ethical principles to guide our collective actions as communities and social groups
- Focus on the ground rules for social organization
- Allowing a diversity of solutions that can adapt to each environment and culture while ensuring coherence as society advances
- No need to waste energy revolting against the present system
- Start with small scale experiments with alternatives

An organic change in society

Ultimately, the transformation required to shift towards sustainable consumption and production will entail no less than an organic change in the structure of society itself so as to reflect fully the interdependence of the entire social body—as well as the interconnectedness with the natural world that sustains it.

(Bahá'í International Community to UN CSD, 2010)

Bahá'í International Community. 2010. *Rethinking Prosperity: Forging Alternatives to a Culture of Consumerism*. Contribution to the 18th Session of the United Nations Commission on Sustainable Development, New York, 3 May 2010.

http://bic.org/statements-and-reports/bic-statements/10-0503.htm

Ethics for social organization

 A world order characterized by competition, violence, conflict and insecurity needs to give way to one founded on unity in diversity

Karlberg, Michael. 2004. Beyond the Culture of Contest: From Adversarialism to Mutualism in an Age of Interdependence. Oxford: George Ronald.

- Cooperation rather than competition is the best foundation for social and economic progress
 Nowak, Martin A., with Roger Highfield. 2011. SuperCooperators: Altruism, Evolution, and Why We Need Each Other to Succeed. New York: Free Press.
- We need a multi-level approach to values, from individual to international

Dahl, Arthur Lyon. 2013. "A Multi-Level Framework and Values-Based Indicators to Enable Responsible Living", pp. 63-77. In Ulf Schrader, Vera Fricke, Declan Doyle and Victoria W. Thoresen (eds), *Enabling Responsible Living*, Springer Verlag, Berlin/Heidelberg

Karlberg, Michael. 2004. Beyond the Culture of Contest: From Adversarialism to Mutualism in an Age of Interdependence. Oxford: George Ronald.

Nowak, Martin A., with Roger Highfield. 2011. SuperCooperators: Altruism, Evolution, and Why We Need Each Other to Succeed. New York: Free Press.

Dahl, Arthur Lyon. 2013b. "A Multi-Level Framework and Values-Based Indicators to Enable Responsible Living", pp. 63-77. In Ulf Schrader, Vera Fricke, Declan Doyle and Victoria W. Thoresen (eds), *Enabling Responsible Living*, Springer Verlag, Berlin/Heidelberg, (hardback/eBook). DOI: 10.1007/978-3-642-22048-7_6 http://www.springer.com/environment/sustainable+development/book/978-3-642-22047-0.

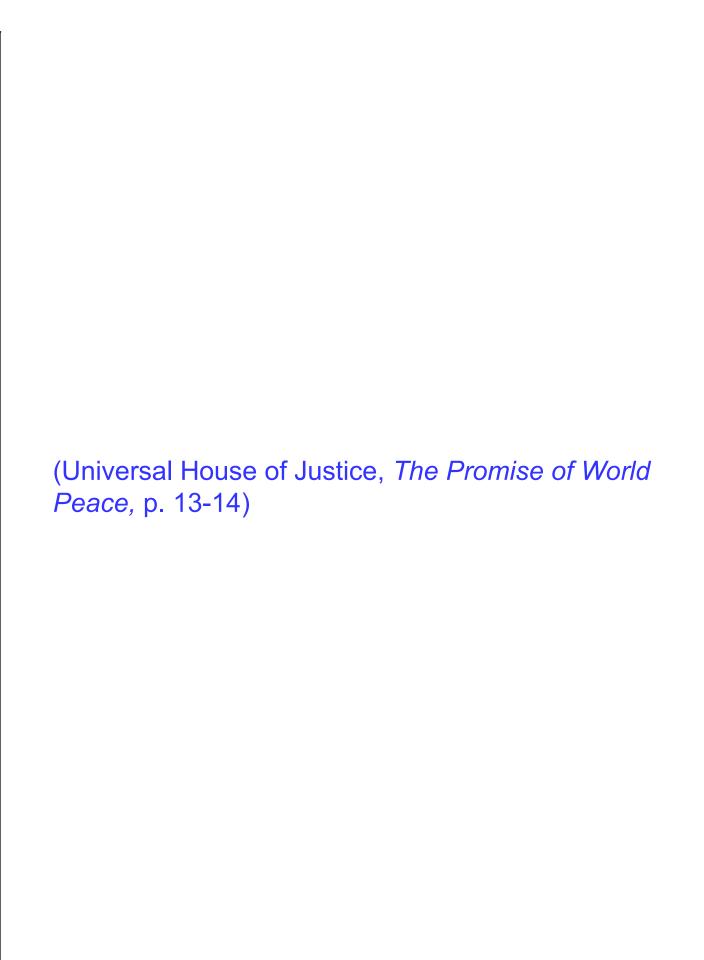
Moral dimensions of social organization

The moral dimensions of just and peaceful human relations include the generation of knowledge, the cultivation of trust and trustworthiness, eradication of racism and violence, promotion of art, beauty, science, and the capacity for collaboration and the peaceful resolution of conflicts.

(BIC 2010)

Bahá'í International Community. 2010. *Rethinking Prosperity: Forging Alternatives to a Culture of Consumerism*. Contribution to the 18th Session of the United Nations Commission on Sustainable Development, New York, 3 May 2010.

http://bic.org/statements-and-reports/bic-statements/10-0503.htm



Sustainability - an ethical concept

As trustees or stewards of the planet's resources and biodiversity, we must:

- ensure sustainability and equity of resource use into distant future
- consider the environmental consequences of development activities
- temper our actions with moderation and humility
- value nature in more than economic terms
- understand the natural world and its role in humanity's collective development both material and spiritual

(based on Bahá'í International Community, Valuing Spirituality in Development. 1998

(based on Bahá'í International Community, Valuing Spirituality in Development. 1998)

Sustainability - fundamental responsibility

Sustainable environmental management must come to be seen not as a discretionary commitment mankind can weigh against other competing interests, but rather as a fundamental responsibility that must be shouldered, a pre-requisite for spiritual development as well as the individual's physical survival.

(based on Bahá'í International Community, Valuing Spirituality in Development. 1998)

(based on Bahá'í International Community, Valuing Spirituality in Development. 1998)



Primacy of Oneness of Humanity

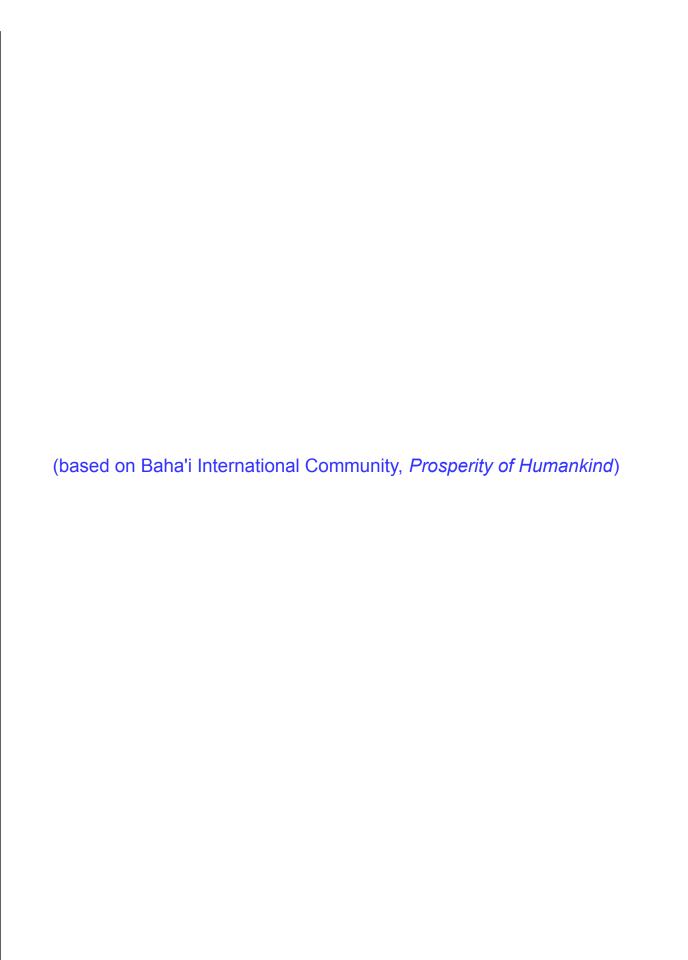
- Since humanity is one, each person is born into the world as a trust of the whole, and each bears a responsibility for the welfare of all humanity
- This collective trusteeship constitutes the moral foundation of human rights and a sustainable society
- The welfare of each country and community can only be derived from the well-being of the whole planet

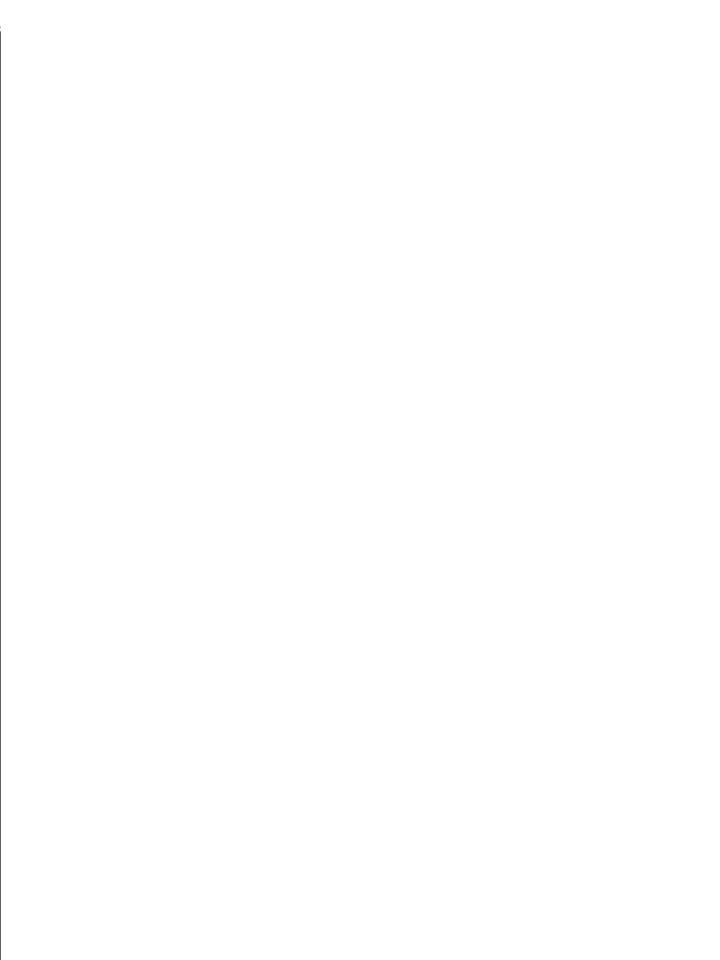
Social Justice

Social justice will be attained only when every member of society enjoys a relative degree of material prosperity and gives due regard to the acquisition of spiritual qualities. The solution, then, to prevailing economic difficulties is to be sought as much in the application of spiritual principles as in the implementation of scientific methods and approaches.

Universal House of Justice, 2 April 2010

Universal House of Justice, To the believers in the Cradle of the Faith, 2 April 2010





Trust and Trustworthiness

- honesty
- reliability
- foundation of contracts and work relationships
- bulwark against corruption

Trust is equally important in the relationships between states. If governments cannot trust each other to respect their engagements, agreements that require shared efforts become impossible. (Bahá'u'lláh, Gleanings from the Writings of Bahá'u'lláh, CLXIV, p. 342-343, and Bahá'í World Faith, p. 138-139)

Bahá'u'lláh, Kitáb-i-Iqán, p. 193-194

Bahá'u'lláh, Súriy-i-Mulúk §19, in The Summons of the Lord of Hosts, p. 193. Haifa, Bahá'í World Centre, 2002

Humility

- never consider oneself above someone else
- antidote to pride and the egocentric search for power and wealth that corrupts much political and corporate leadership
- ideal lubricant for social relationships
- can inspire everyone to bring themselves to account each day in an effort to improve

A new dialogue on ethics and values

- · Stiglitz, Sen & Fitousi (2009) beyond GDP
- Club of Rome: ValuesQuest http://www.clubofrome.org/?p=5821
- · World Bank: indicators of individual development
- Well-being and happiness indicators (GNH, Sachs 2013)
- Partnership for Education and research about Responsible Living (PERL) http://www.pearlprojects.org/

Baha'i-inspired organizations:

- International Environment Forum http://iefworld.org
- ebbf ethical business building the future http://ebbf.org

Stiglitz, Joseph E., Amartya Sen and Jean-Paul Fitoussi. (2009). Report by the Commission on the Measurement of Economic Performance and Social Progress. http://www.stiglitz-sen-fitoussi.fr

Club of Rome and the Alliance of Religions and Conservation: "ValuesQuest: the search for values which will make a world of difference" (http://www.clubofrome.org/?p=5821)

Dahl, Arthur Lyon. 2013. Putting the Individual at the Centre of Development:

Indicators of Well-being for a New Social Contract. http://iefworld.org/ddahl13a

The latest update on new thinking about development indicators, commissioned in part by the World Bank

Helliwell, John, Richard Layard and Jeffrey Sachs. 2012. World Happiness Report. Earth Institute, Columbia University. http://www.earth.columbia.edu/articles/view/2960

Helliwell, John, Richard Layard and Jeffrey Sachs (eds). 2013. World Happiness Report 2013. New York: Sustainable Development Solutions Network and Earth Institute, Columbia University. 154 p. http://unsdsn.org/files/2013/09/WorldHappinessReport2013_online.pdf

Partnership for Education and research about Responsible Living (PERL) http://www.pearlprojects.org/

International Environment Forum http://iefworld.org ebbf - Ethical Business Building the Future http://ebbf.org

Development for Human Well-being

The ultimate purpose of development should be to improve the prosperity and well-being of individual people.

Ideally, the best measure of successful development would be that it enables every human being to fulfill his or her potential in life both in cultivating individual qualities, personality and capacities and in contributing to the advancement of society.

Human Well-being

- a dynamic concept
- operates at several levels
- over the whole human lifecycle
- with respect to others
- with respect to one's own previous experience
- past and present limitations on well-being can limit future well-being

Human Needs

Psychological research has long identified what Maslow (1943) termed a hierarchy of needs:

- physiological needs (breathing, food, water, sex, sleep, homeostasis, excretion)
- safety needs (security of: body, employment, resources, moral certainty, the family, health, property)
- love and belonging (friendship, family, sexual intimacy)
- esteem (self-esteem, confidence, achievement, respect of others, respect by others)
- self-actualization (morality, creativity, spontaneity, problem-solving, lack of prejudice, acceptance of facts).

Maslow, A.H. 1943. A Theory of Human Motivation. Psychological Review 50: 370-396. http://psychclassics.yorku.ca/Maslow/motivation.htm

Characteristics of being human

- 1. a biological organism with purely physical requirements for life
- 2. a social organism, with emotional or psychological needs that can only be met through relationships with others in a family, community and society
- 3. a thinking and reasoning being with intellectual needs and capacities to develop, a desire to know and to understand
- 4. a spiritual dimension of life as the highest realization of human purpose, including acquiring spiritual qualities, refining one's character, and contributing to the advancement of civilization.

Arthur Lyon Dahl (in press). Putting the Individual at the Centre of Development: Indicators of Well-being for a New Social Contract. Paper presented at the Third Rencontres Internationales de Reims on Sustainability Studies. Post-2015 Sustainable Development Goals: Towards a New Social Contract, Reims, France, 18-20 June 2013. http://iefworld.org/ddahl13a

Dimensions of individual development

- physical growth and health
- security and safety
- education
- work
- financial security
- justice and fairness
- human rights and freedoms
- a place in the community
- a cultural and spiritual identity

(Dahl, Arthur Lyon. 2013. Putting the Individual at the Centre of Development: Indicators of Wellbeing for a New Social Contract. Paper presented at the Third Rencontres Internationales de Reims on Sustainability Studies, "Post-2015 Sustainable Development Goals: Towards a New Social Contract", Reims, France, 18-20 June 2013. In press in François Mancebo (ed.), Transitions to Sustainability. Dordrecht: Springer. http://iefworld.org/ddahl13a)

Dahl, Arthur Lyon. 2013a. Putting the Individual at the Centre of Development: Indicators of Well-being for a New Social Contract. Paper presented at the Third Rencontres Internationales de Reims on Sustainability Studies, "Post-2015 Sustainable Development Goals: Towards a New Social Contract", Reims, France, 18-20 June 2013. In press in François Mancebo (ed.), Transitions to Sustainability. Dordrecht: Springer. http://iefworld.org/ddahl13a

In the GNH Index, unlike certain concepts of happiness in current western literature, happiness is itself multidimensional – not measured only by subjective well-being, and not focused narrowly on happiness that begins and ends with oneself and is concerned for and with oneself. The pursuit of happiness is collective, though it can be experienced deeply personally. Different people can be happy in spite of their disparate circumstances and the options for diversity must be wide.

Ura et al. 2012a, p. 1

Ura, Karma, Sabina Alkire, Tshoki Zangmo and Karma Wangdi. 2012a. A Short Guide to Gross National Happiness Index. Thimphu, Bhutan: Centre for Bhutan Studies. 96 p. Available from Bhutan Gross National Happiness Commission. http://www.gnhc.gov.bt/

Ura, Karma, Sabina Alkire, Tshoki Zangmo and Karma Wangdi. 2012b. An Extensive Analysis of GNH Index. mai 2012. Thimphu, Bhutan: Centre for Bhutan Studies. 213 p. Available from Bhutan Gross National Happiness Commission. http://www.gnhc.gov.bt/

As the Prime Minister of Bhutan put it "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."

(Ura et al. 2012a, p. 7)

Ura, Karma, Sabina Alkire, Tshoki Zangmo and Karma Wangdi. 2012a. A Short Guide to Gross National Happiness Index. Thimphu, Bhoutan: Centre for Bhutan Studies. 96 p. Disponible de Bhutan Gross National Happiness Commission. http://www.gnhc.gov.bt/

Ura, Karma, Sabina Alkire, Tshoki Zangmo and Karma Wangdi. 2012b. An Extensive Analysis of GNH Index. mai 2012. Thimphu, Bhoutan: Centre for Bhutan Studies. 213 p. Disponible de Bhutan Gross National Happiness Commission. http://www.gnhc.gov.bt/

i. Psychological Well-being

- Life satisfaction
- Emotional balance (positive and negative emotions)
- Spirituality

ii. Health

- Self-reported health status
- Healthy days
- Long-term disability
- Mental health

iii. Education

- Literacy
- Educational qualification
- Knowledge
- Values

iv. Culture

- Language
- Artisan skills
- Socio-cultural participation
- Driglam Namzha (Way of Harmony: formal etiquette)

Ura, Karma, Sabina Alkire, Tshoki Zangmo and Karma Wangdi. 2012a. A Short Guide to Gross National Happiness Index. Thimphu, Bhoutan: Centre for Bhutan Studies. 96 p. Disponible de Bhutan Gross National Happiness Commission. http://www.gnhc.gov.bt/

Ura, Karma, Sabina Alkire, Tshoki Zangmo and Karma Wangdi. 2012b. An Extensive Analysis of GNH Index. mai 2012. Thimphu, Bhoutan: Centre for Bhutan Studies. 213 p. Disponible de Bhutan Gross National Happiness Commission. http://www.gnhc.gov.bt/

v. Time Use

- Working hours
- Sleeping hours

vi. Good Governance

- Political participation
- Political freedom
- Service delivery
- Government performance

vii. Community Vitality

- Social support
- Community relationships
- Family
- Victim of crime

viii. Ecological Diversity and Resilience

- Pollution
- Environmental responsibility
- Wildlife
- Urban issues

ix. Living Standards

- Household income
- Assets
- Housing quality

Ura, Karma, Sabina Alkire, Tshoki Zangmo and Karma Wangdi. 2012a. A Short Guide to Gross National Happiness Index. Thimphu, Bhoutan: Centre for Bhutan Studies. 96 p. Disponible de Bhutan Gross National Happiness Commission. http://www.gnhc.gov.bt/

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World Happiness Report

Prepared by the Earth Institute of Columbia University, launched at the UN on 2 April 2012. 2nd edition 2013

- based on data from the Gallup World Poll, the World Values Survey, the European Values Survey and the European Social Survey
- measures subjective well-being and happiness, both as felt at one point in time (affective), and as evaluated in a reflection on life satisfaction.
- To explain the variations in happiness, it analyzes both external factors (income, work, community, governance, values and religion) and personal factors (mental health, physical health, family, education, gender and age).
- In 2013, Jeffrey Sachs added a chapter on the happiness that comes from leading a virtuous life.

Helliwell, John, Richard Layard and Jeffrey Sachs. 2012. World Happiness Report. Earth Institute, Columbia University. http://www.earth.columbia.edu/articles/view/2960
Helliwell, John, Richard Layard and Jeffrey Sachs (eds). 2013. World Happiness Report 2013. New York: Sustainable Development Solutions Network and Earth Institute, Columbia University. 154 p. http://unsdsn.org/files/2013/09/WorldHappinessReport2013 online.pdf

lliwell, John, Richard Layard and Jeffrey chs. 2012. World Happiness Report. Earth titute, Columbia University.
b://www.earth.columbia.edu/articles/view/296

lliwell, John, Richard Layard and Jeffrey chs (eds). 2013. World Happiness Report 13. New York: Sustainable Development lutions Network and Earth Institute, Columbia iversity. 154 p.

b://unsdsn.org/files/2013/09/WorldHappiness port2013_online.pdf

Indicators based on values

European research project: values-based indicators of education for sustainable development: http://www.esdinds.eu

Indicators of empowerment, integrity, justice, trustworthiness, unity in diversity, and respect and care for the environment, expressed in behaviours that strengthen social relationships and build collective and individual well-being

Dahl, Arthur Lyon. 2012. Ethical sustainability footprint for individual motivation. Presented at Planet Under Pressure 2012 Conference, London, UK, 26-29 March 2012. http://iefworld.org/ddahl12d

Podger, Dimity, Ismael Velasco, Cardiela Amézcua Luna, Gemma Burford and Marie K. Harder. 2013. Can values be measured? Significant contributions from a small civil society organisation through action research. Action Research Journal 11(1): 8-30

Burford, Gemma, Elona Hoover, Ismael Velasco, Svatava Janoušková, Alicia Jimenez, Georgia Piggot, Dimity Podger and Marie K. Harder. 2013. Bringing the "Missing Pillar" into Sustainable Development Goals: Towards Intersubjective Values-Based Indicators. Sustainability 5: 3035-3059. doi:10.3390/su5073035

Dahl, Arthur Lyon. 2012. Ethical sustainability footprint for individual motivation. Presented at Planet Under Pressure 2012 Conference, London, Unitited Kingdom, 26-29 March 2012. http://iefworld.org/ddahl12d

Podger, Dimity, Ismael Velasco, Cardiela Amézcua Luna, Gemma Burford and Marie K. Harder. 2013. Can values be measured? Significant contributions from a small civil society organisation through action research. Action Research Journal 11(1): 8-30. DOI: 10.1177/1476750312467833

Burford, Gemma, Elona Hoover, Ismael Velasco, Svatava Janoušková, Alicia Jimenez, Georgia Piggot, Dimity Podger and Marie K. Harder. 2013. Bringing the "Missing Pillar" into Sustainable Development Goals: Towards Intersubjective Values-Based Indicators. Sustainability 5: 3035-3059. doi:10.3390/su5073035

ate destination ny potential visions d e society st people want a wo eful, just, secure and gining such a world t take now in order t ficant support to a h

(Shoghi Effendi, 203-204)	The World Order of Bahá'u'lláh	<i>,</i> p.



Based on Bahá'í International Community, *Valuing Spirituality in Development: Initial Considerations Regarding the Creation of Spiritually Based Indicators for Development*. A concept paper written for the World Faiths and Development Dialogue, Lambeth Palace, London, 18-19 February 1998

Based on Bahá'í International Community, Valuing Spirituality in Development: Initial Considerations Regarding the Creation of Spiritually Based Indicators for Development. A concept paper written for the World Faiths and Development Dialogue, Lambeth Palace, London, 18-19 February 1998

Complexity Economics

Eric Beinhocker (2006) The Origin of Wealth

- No equilibrium or perfect actors, but constantly evolving networks of agents and business plans
- Punctuated equilibrium, with stability followed by rapid change
- Consultation, not competition, to avoid crises and bubbles
- True wealth is information and knowledge, using entropy to increase carrying capacity, efficiency and complexity
- Businesses must balance present efficiency and innovation to prepare for the future, with a culture of learning

 We are both self-regarding and altruist, but seek strong reciprocity

reciprocity
Beinhocker, Eric D. 2006. The Origin of Wealth: Evolution, Complexity, and the Radical Remaking Wechustoseduspringequality and if a south so the Significant Remaking Business Books. 526 p.

Norms for individual behaviour

Eric Beinhocker (2006) The Origin of Wealth

Individual: a strong work ethic, individual accountability, and a belief that you are the protagonist of your own life, with benefits from living a moral life in this world, being realistic about the present situation but optimistic about the future.

Cooperative behaviour: belief that life is not a zero-sum game and that cooperation has benefits, that generosity and fairness have value, and that free-riding and cheating are sanctioned.

For innovation: valuing rational scientific explanations of the world, tolerating heresy and experimentation, supporting competition and celebrating achievement.

Ethic of investing for tomorrow, saving for future generations, sacrificing short-term pleasures for long-term gain, and enjoying

Beinhocker, Erich: 2506. Greenstion: Wealth: Evolution, Complexity, and the Radical Remaking of Economics. Cambridge: Harvard Business School Press, and London: Random House Business Books. 526 p.

Norms for society

Eric Beinhocker (2006) The Origin of Wealth

Both a strong sense of community and values, complemented by government leadership, are needed.

Inequalities should be reduced to build social cohesion, and priority given to health, education and a minimum living wage for the poor to empower them for their own development.

Justice and altruism can be increased through education to address the challenges of wealth

Beinhocker Exiripation The Origin of Wealth: Evolution, Complexity, and the Radical Remaking of Economics. Cambridge: Harvard Business School Press, and London: Random House Business Books. 526 p.

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Dahl, Arthur Lyon. 1996. *The Eco Principle: Ecology and Economics in Symbiosis*. Zed Books Ltd, London, and George Ronald, Oxford.

encourages ation

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lastiupilic st insurance is co bilize and empov tach from the pre ake the "pull" of th onger than the "p er wasted humai nstructive directio ...the pathway to sustainability will be one of empowerment, collaboration and continual processes of questioning, learning and action in all regions of the world.... As the sweeping tides of consumerism, unfettered consumption, extreme poverty and marginalization recede, they will reveal the human capacities for justice, reciprocity and happiness.

(Bahá'í International Community)

(Bahá'í International Community, Rethinking Prosperity: Forging Alternatives to a Culture of Consumerism, 2010)

