



# Sustainability and Gross National Product (GNP)

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Eco-building conference 2011

MAURITIUS



# Sustainability & GNP – Outline

- Gross National Product/Gross Domestic Product
- Importance of Economic Growth
- Sustainability
- The actual paradigm
- Challenges – Pursuit of economic growth
- The sustainable approach
- Gross National Well-being
- Natural capitalism
- Green Economy
- The new paradigm
- Opportunities

# Gross National Product (GNP)



Gross National Product is the total value of all final goods and services produced within a nation in a particular year, plus income earned by its citizens (including income of those located abroad), minus income of non-residents located in that country. Basically, GNP measures the value of goods and services that the country's citizens produced regardless of their location.

GNP is one measure of the economic condition of a country, under the assumption that a higher GNP leads to a higher quality of living, all other things being equal.

# GNP & Economic growth

- The most important use of gross national product is to help gauge growth of the economy. Analysts often compare the current GNP to that of the previous quarter and the same quarter of the previous year.
- GNP is important to economists because it defines whether the economy is stable, inflationary, or deflationary. The GNP is a good measurement tool to determine the fiscal health of a nation.
- GNP values help to determine if a country is in a recession or not and if the economy is growing or contracting.
- GNP makes it easier to compare the size and growth rate of economies all over the world.



# Importance of economic growth

No growth = economic decline = lower profits/unused capacity = Investors discouraged = less investment = less bank loans = less money entering into circulation = less money to repay the past debts = less consumers to spend = business sentiment down = no further investment = unemployment = even less consumption = more unemployment = crime etc etc etc



Decline in economic growth



Investment creates employment

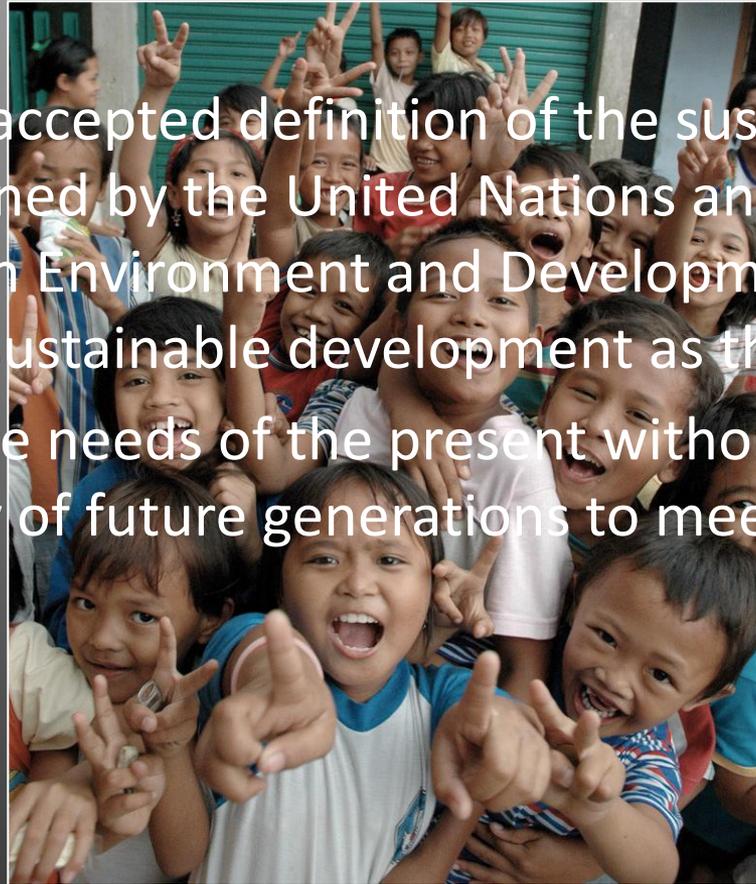


# Average Happiness



# Sustainability

- The generally accepted definition of the sustainability concept is the one defined by the United Nations and Brundtland Commission on Environment and Development, which characterizes sustainable development as that which  
“meets the needs of the present without compromising the ability of future generations to meet their own needs.”



# Sustainability

- The Earth Charter speaks of  
“a sustainable global society founded on respect for nature, universal human rights, economic justice, and a culture of peace.”
- “Sustainable development comprises types of economic and social development that protect and enhance the natural environment and social equity.”

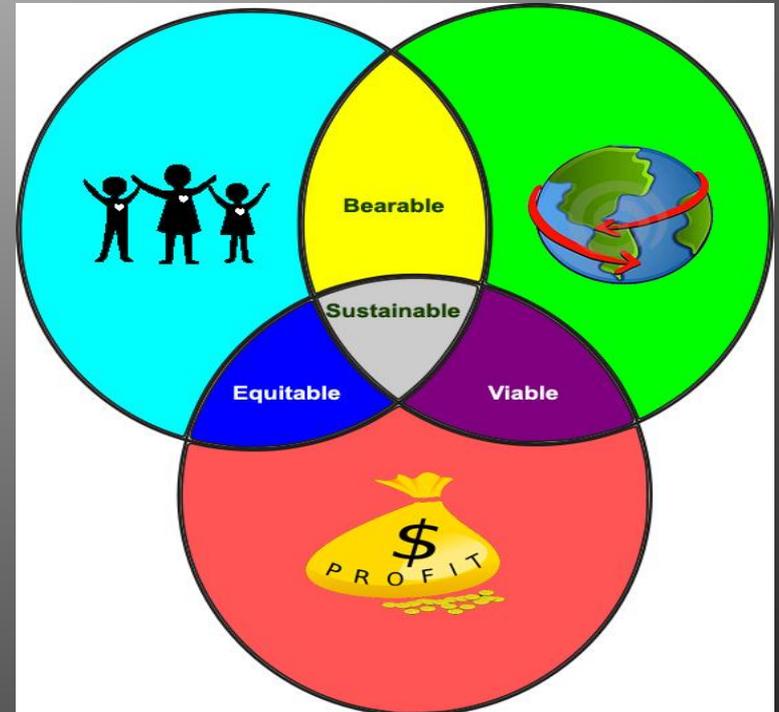


# The 3 pillars of sustainability

## Triple Bottom Line

“The Triple Bottom Line, is the place where corporate and societal interests intersect. It is a new way to measure the bottom line — where profits go side-by-side with environmental and social performance — and an illuminating way to understand the often-fuzzy concept of sustainability,”

Andy Savitz



# The Old Paradigm

- Increase in GNP/GDP = Improved well being
- Market prices do not reflect unsustainable use and over-exploitation
- Rapid accumulation of capital
  - Physical
  - Financial
  - Human
- Gross misallocation of capital
  - Property
  - Fossil fuels
  - Structured financial assets (derivatives etc)
- Unaccounted and unchecked social and environmental externalities/impacts



# Challenges - increase in GNP

- Cleaning of oil spills
- Dealing with asthma brought by fumes
- Weapons used in war
- Work generated by dealing with traffic accidents
- Incarceration



Not necessarily causes increase in well-being



- Over farming and overfishing
- Deforestation
- Exploitation of natural resources
- Over-consumption



Causes environmental degradation

# Challenges to the pursuit of growth

- Economic drivers influence the over-exploitation of natural resources
- Excessive depletion of natural capital/natural wealth (often irreversibly)
- Endowment of natural systems and ecosystems
- Detrimental impacts on well being of future generations

*(source UNEP 2011)*

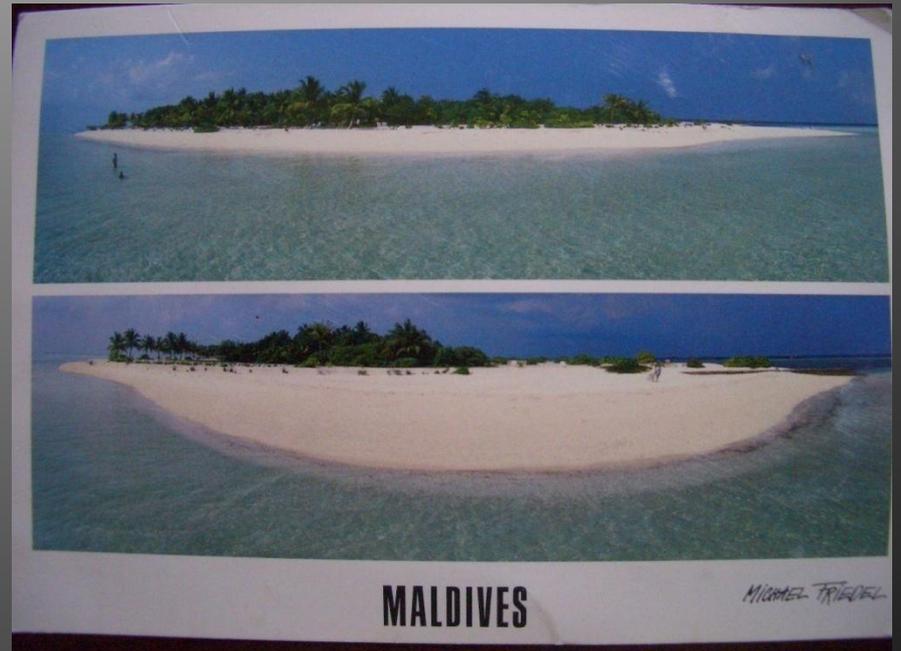
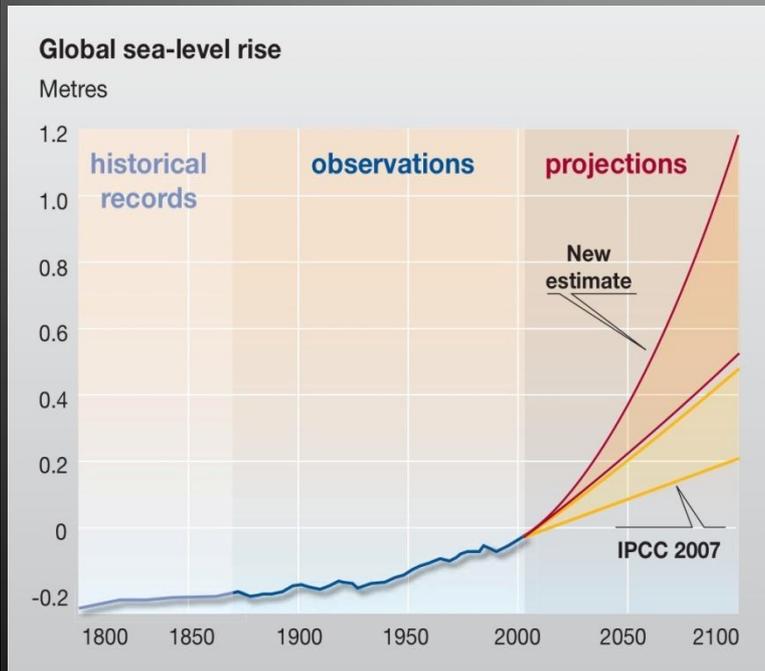


# Crises

- Climate (Acceleration of carbon emissions which has detrimental human consequences)
- Biodiversity
- Food (skyrocketing food and commodity price)
- Water
- Fuel (Fuel price shock of 2007 – 2008)
- Global financial system
- Social

# Climate

- Rising sea levels



# Climate

- Drought



# Climate

- Coastal erosions



# Climate

- Frequent storms



# Climate

- Floods



# Biodiversity

## Resource depletion (*example*)

- Only 20% of fish stocks are underexploited
- 52% are fully exploited (no further room for expansion)
- 8% depleted

*Source (FAO 2009)*



# Biodiversity

- Deforestation
  - 13 million hectares lost annually *Source (FAO 2010)*



# Biodiversity

- Pollution



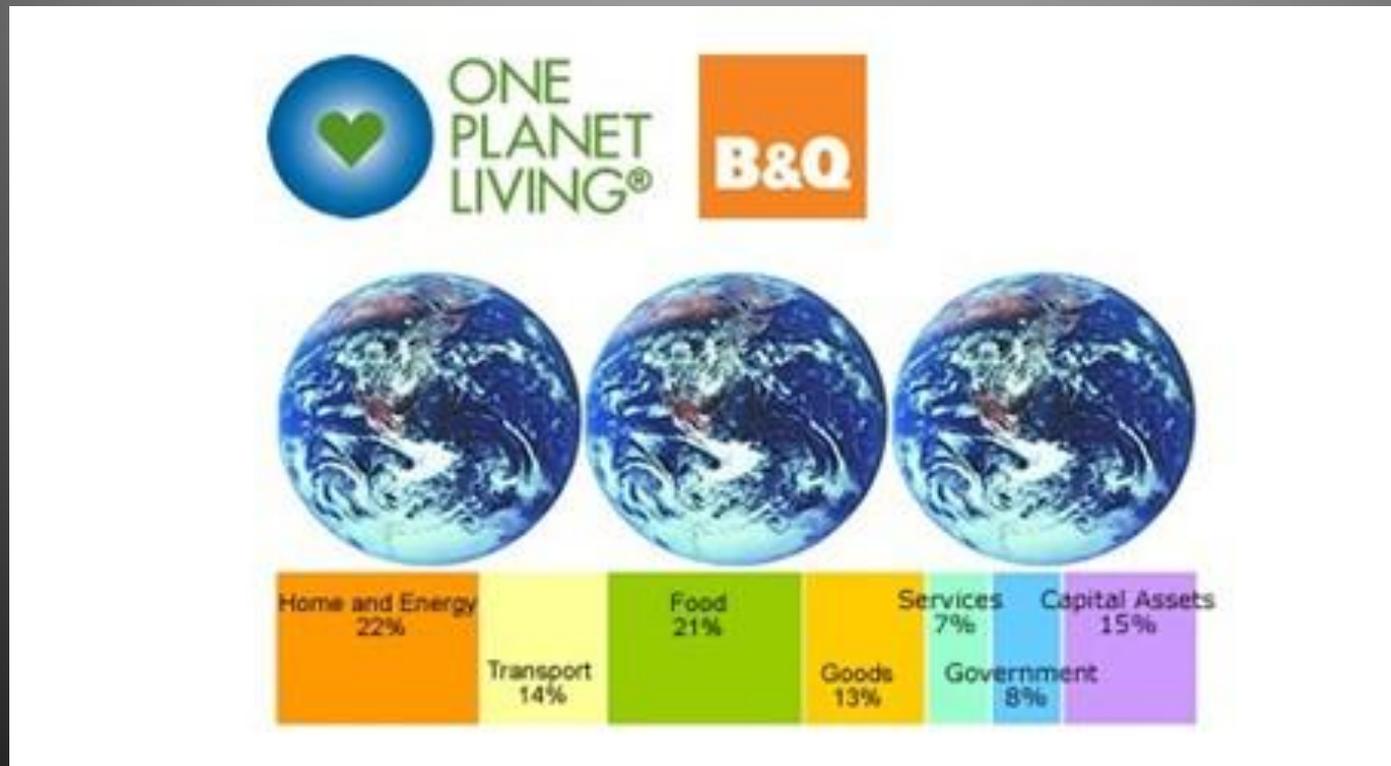
# Food

- Agriculture – declining soil quality, land degradation



# Food

- Scarcity



# Food

- External factors affecting supplies



# Water

- Water supply 2030 – only 60% of the world demand will be met *(source: Mc Kinsey 2009)*
- Past peak ecological water in many regions



# Water

- *844 million still have no access to clean drinking water*

*(source UNICEF 2010)*



# Water

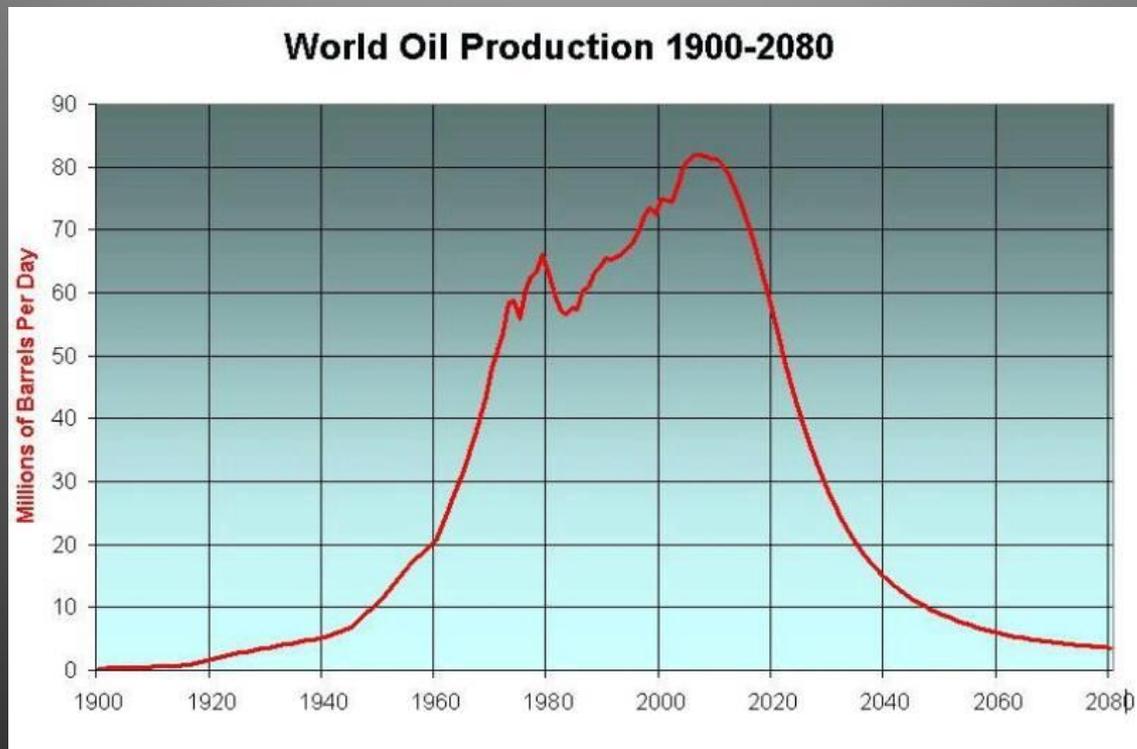
- 2.6 billion people – no basic sanitation

*(Source WHO 2010)*



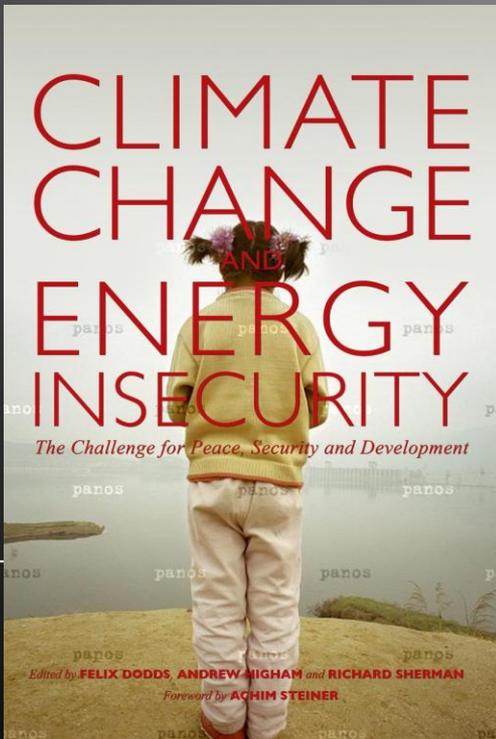
# Energy

- Peak oil



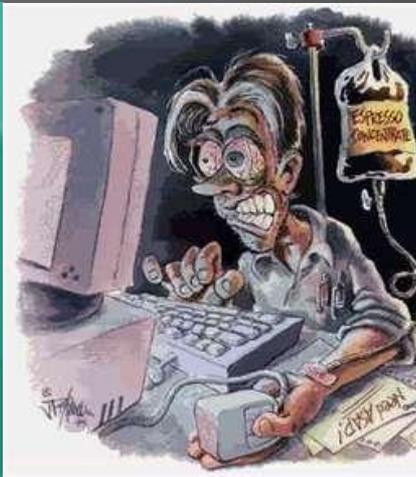
# Energy

- Energy insecurity
- Carbon dependency
- 1.6 billion people – No access to electricity



# Social

- Social marginalisation
- Increase in relative poverty (causing increased inequality)
- Less leisure time
- Rise in the number of diseases and illnesses related to increased prosperity – example obesity and stress



# The sustainable approach

- Gross national well-being
- Natural Capitalism
- Green Economy



# Concept of gross national well-being

"Our motivation in life is completely different from GNP." King Jigme Singye Wangchuck of Bhutan, devised "GNH (gross national happiness)" in the 1970s.

The four pillars of GNH are as follows:

1. Affluence of natural environment
2. Conservation and promotion of traditional culture
3. Good government - Bhutan is a rare example, in that the king himself called for the peaceful change from a monarchy to a democracy
4. Economic growth, or rather, "fair economic growth"; the idea is that a small minority of people becoming wealthy cannot be called economic growth.



Administrative map of Bhutan

# Canada index of well--being

- **our standard of living**
- **our health**
- **the quality of our environment**
- **our education and skill levels**
- **the way we use our time**
- **the vitality of our communities**
- **our participation in the democratic process**
- **the state of our leisure and culture**



# Natural capitalism

Natural capitalism is a new approach to economic growth, which not only protects the biosphere but also improves profits and competitiveness. It shows that some very simple changes to the way we run our businesses, built on advanced techniques for making resources more productive, can yield startling benefits both for today's shareholders and for future generations. The four central strategies of natural capitalism are:

- Radical resource productivity
- Biomimicry
- Service and flow economy
- Investing in natural capital



# Green economy

“A green economy is one whose growth in income and employment is driven by public and private investments that reduce carbon emissions and pollution, enhance energy and resource efficiency, and prevent the loss of biodiversity and ecosystem services.

## Results

- Improved well-being
- Improved social equity
- Reduction in environmental risks
- Reduction in ecological scarcities
- Assured long term economic performance
- Rebuilding capacity to generate future prosperity
- Decent employment
- Reduced poverty



- Source (UNEP 2011 and *UNEP 2010*)

# Current trends

- Re-allocation of capital
  - Renewable Energy
  - Energy Efficiency
  - Public transportation
  - Sustainable Agriculture
  - Ecosystem and Biodiversity protection
  - Land and water conservation
- New public policies, including pricing and regulatory measures
  - Elimination of perverse subsidies
- Green public procurement
- Carbon metric
- Accounting for natural capital/Rebuilding of natural capital
- New consumer reaction/New market demand
- More sustainable business philosophies/Total corporate responsibility

# Opportunities

- Myth – Inescapable trade off between sustainability and economic growth
- Stimulus packages – Green recovery
- New engine for growth
  - Green sectors
  - Green jobs
  - Social entrepreneurship
  - Green buildings



# Built Environment

- Sustainable design
- Green buildings
- Green planning
- Energy efficiency
- Material efficiency
- Environmental quality
- Waste management
- Renewable energy
- Innovations



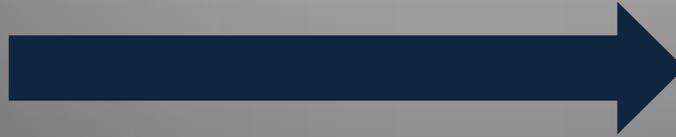






# Is the current paradigm still suitable in today's world, for directing the goal of life, wellbeing?

CURRENT  
PARADIGM



Capitalist model  
Brown Economy  
Misallocation of capital  
Environmental degradation  
Social problems  
**Threat to humanity**

NEW  
PARADIGM



Sustainable model  
Natural capital conscious  
Green Economy  
Clean energy  
Resource efficiency  
New growth opportunities  
New sustainable jobs  
Social wellbeing  
Positive economic growth





**ecosis**



**THANK YOU!!!**  
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