

The background features a light orange grid on the left and several large, overlapping curved shapes in blue, red, yellow, and green on the right. There are also some small green and white decorative elements in the upper left.

# **An Introduction to Sustainable Development**

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- 1 Sustainable development (SD)
- 2 Indicators for SD
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# What is sustainable development?

SD: Development which meets the needs of the present without compromising the ability of future generations to meet their own needs.

SD integrates economic development, social development and environmental protection.



SD has three overarching objectives and essential requirements:

Poverty reduction;

Changing unsustainable patterns of production and consumption;

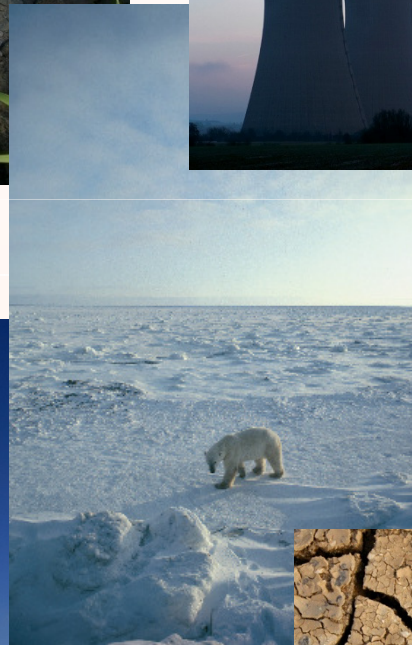
Protecting and managing the natural resource base of economic and social development.

Source:

3  
taken from the influential Brundtland report 'Our Common Future' (World Commission on Environment and Development, 1987, <http://www.un-documents.net/ocf-ov.htm#l.3>)



# Climate Change



# The millennium development goals



Source:

# What are Indicators?

- Indicators are pieces of information which simplify complex phenomena and highlight the trends of system functioning, through summarising or typifying the characteristics of particular systems.
- Sustainability indicators aim at monitoring key aspects of the interactions between society and nature, to generate information regarding current state and underlying causes.
- In order to achieve sustainability, it is necessary to have appropriate performance indicators of the economy and natural systems that give us appropriate information about the status of those systems.
- Indicators are useful tools to communicate simplified, concise and scientifically credible information on problems of sustainable development, which are too complex to measure directly.

Source:



# Criteria for selection of indicators

- Data for indicator development should be readily available.
- Indicator should be easy to understand and communicate.
- Indicators should relate to data that can be measured.
- Indicators should be specific and appropriate, illustrating key aspects of relevant issues.
- There should be a short time-lag between aspects being measured and presentation of developed indicators referring to these, to enable indicators to be used for effective policy-making.
- Indicators should be based on information that can be used to compare what happens at different times, developments and geographical areas.

Indicators should facilitate international comparisons

Source:

# Social Indicators

- Education
- Health/water supply/sanitation
- Welfare and quality of life
- Poverty/Income distribution
- Population
- Social and ethical values
- Role of women
- Access to land and resources

Source:



# Environmental Indicators

- Fresh water/groundwater
- Agriculture/secure food supply
- Marine environment/coral reef protection
- Fisheries
- Biodiversity/biotechnology
- Sustainable forest management
- Air pollution and ozone depletion
- Sustainable use of natural resources
- Sustainable tourism
- Restricted carrying capacity
- Land use change

Source:

# Economic indicators

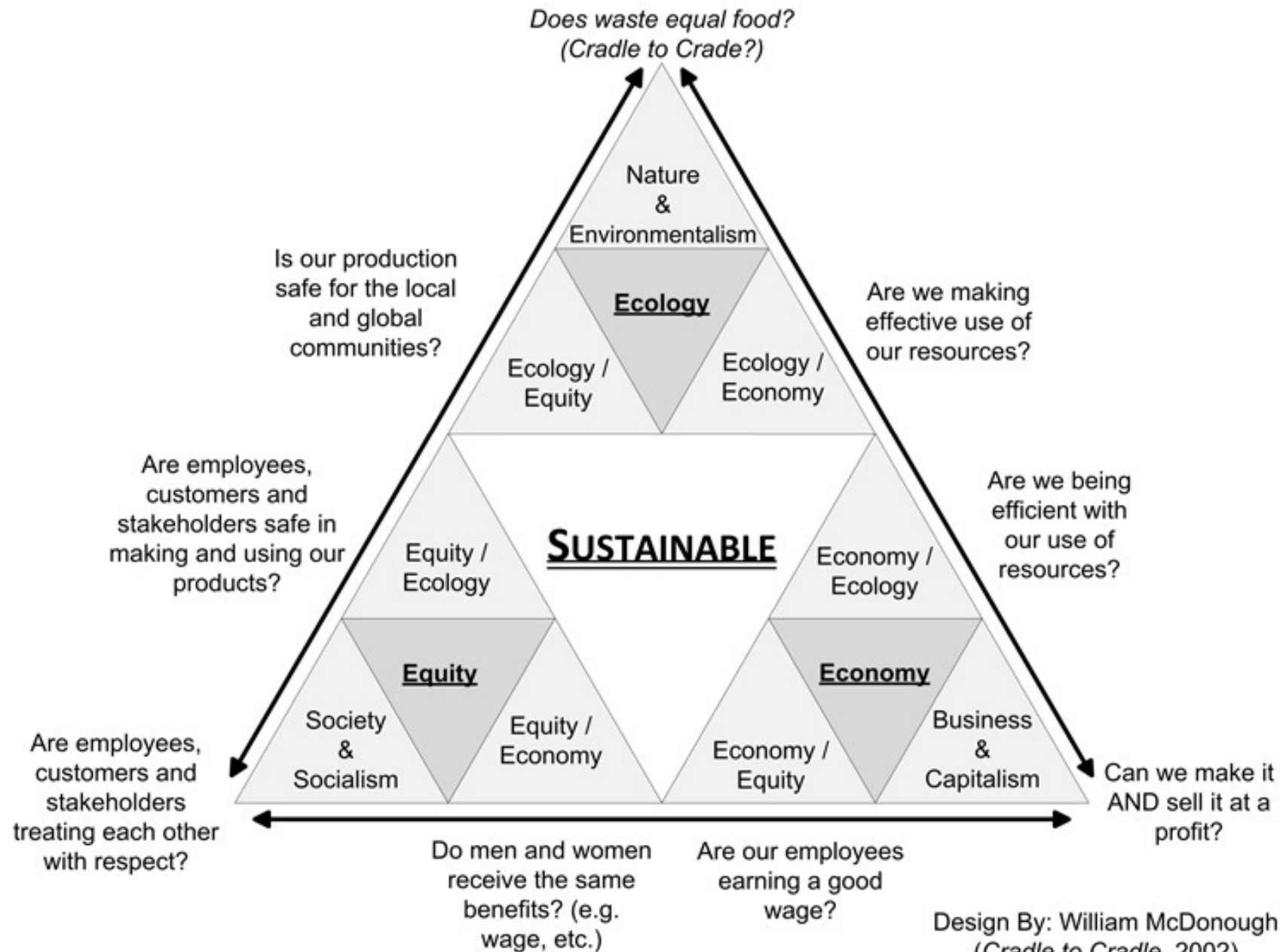
- Economic dependency/Indebtedness/ODA
- Energy
- Consumption and production patterns
- Transportation
- Mining
- Economic structure and development
- Trade
- Productivity

Source:

# Institutional Indicators

- Integrated decision-making
- Capacity building
- Science and technology
- International conventions and cooperation,
- Governance/role of civic society
- Institutional and legislative frameworks
- Disaster preparedness
- Public participation

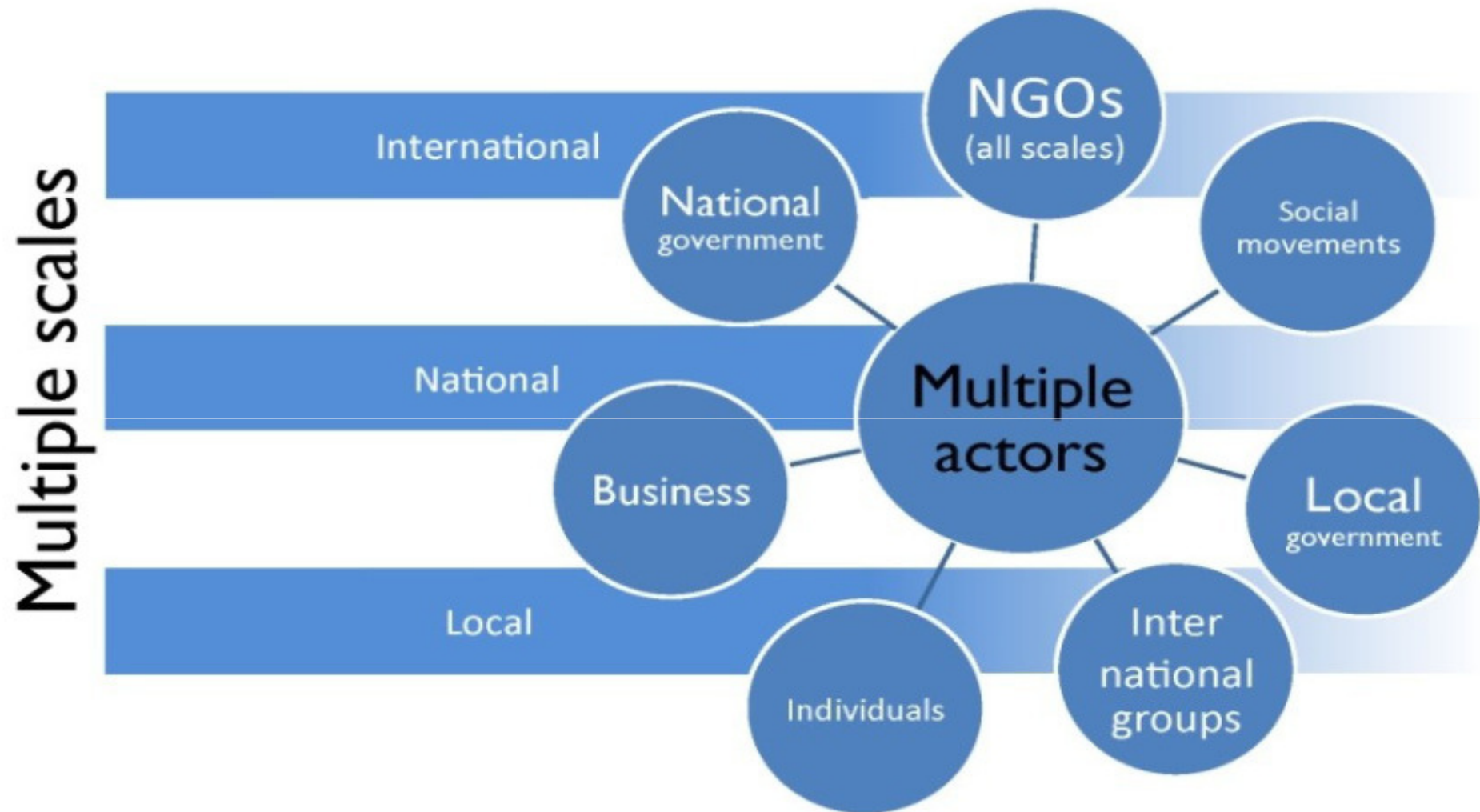
# Sustainability Pyramid







# From government to governance



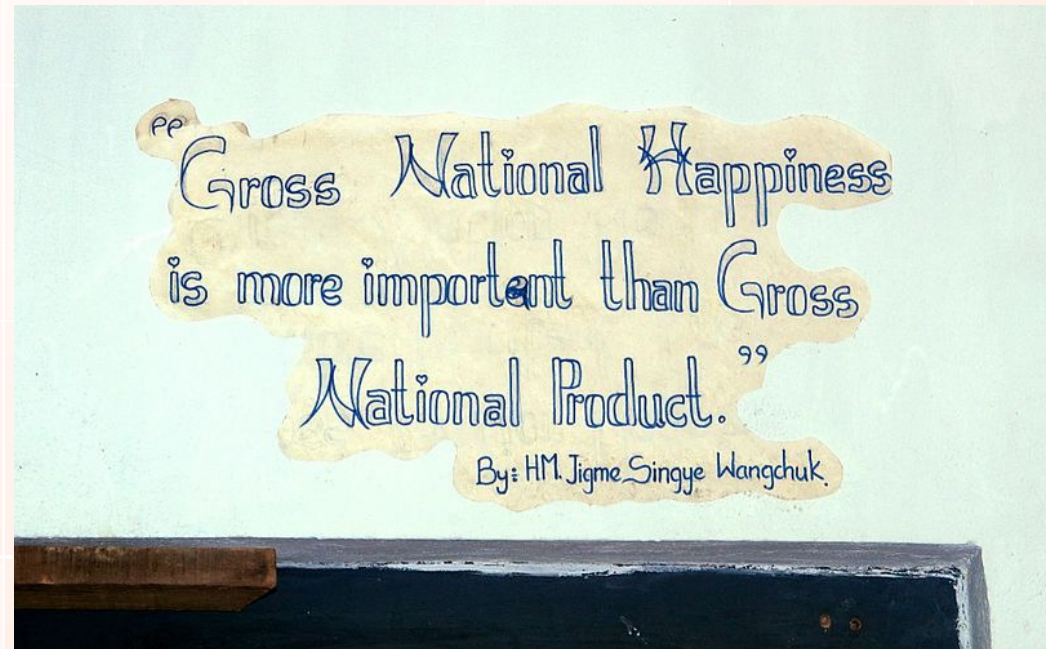
# Bhutan and National Gross Happiness



# National Gross Happiness

- The term "gross national happiness" was coined in 1972 by Bhutan's fourth Dragon King, Jigme Singye Wangchuck

1. Economic Wellness
2. Environmental Wellness
3. Physical Wellness
4. Mental Wellness
5. Workplace Wellness
6. Social Wellness
7. Political Wellness



Source:

# Discussion

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**Thank You!**