



Theme 2

Key Concepts and Context

EC SO6001: Sustainable Communities & Global Development





Some Definitions of Environment

- ▶ [noun] 1 : the circumstances, objects, or conditions by which one is surrounded
- ▶ 2 a : the complex of physical, chemical, and biotic factors (such as climate, soil, and living things) that act upon an organism or an ecological community and ultimately determine its form and survival
- ▶ 2 b : the aggregate of social and cultural conditions that influence the life of an individual or community.

(Merriam-Webster Online Dictionary, 2004)

Different Environments

- Throughout this Module we will be exploring these different concepts of 'environment'
- This will include what we sometimes call the 'natural' environment





...through all kinds of urban environments...



St. Lawrence Market, Toronto



Quinta Fay, Gustine, California



Yates Street Heritage District, St. Catharines



Old Town, Hastings, East Sussex

Including 'privileged' urban environments



Sherman Avenue North, Hamilton, Ontario



Dharavi district, Mumbai, India



La Oroya, Peru



Love Canal, New York

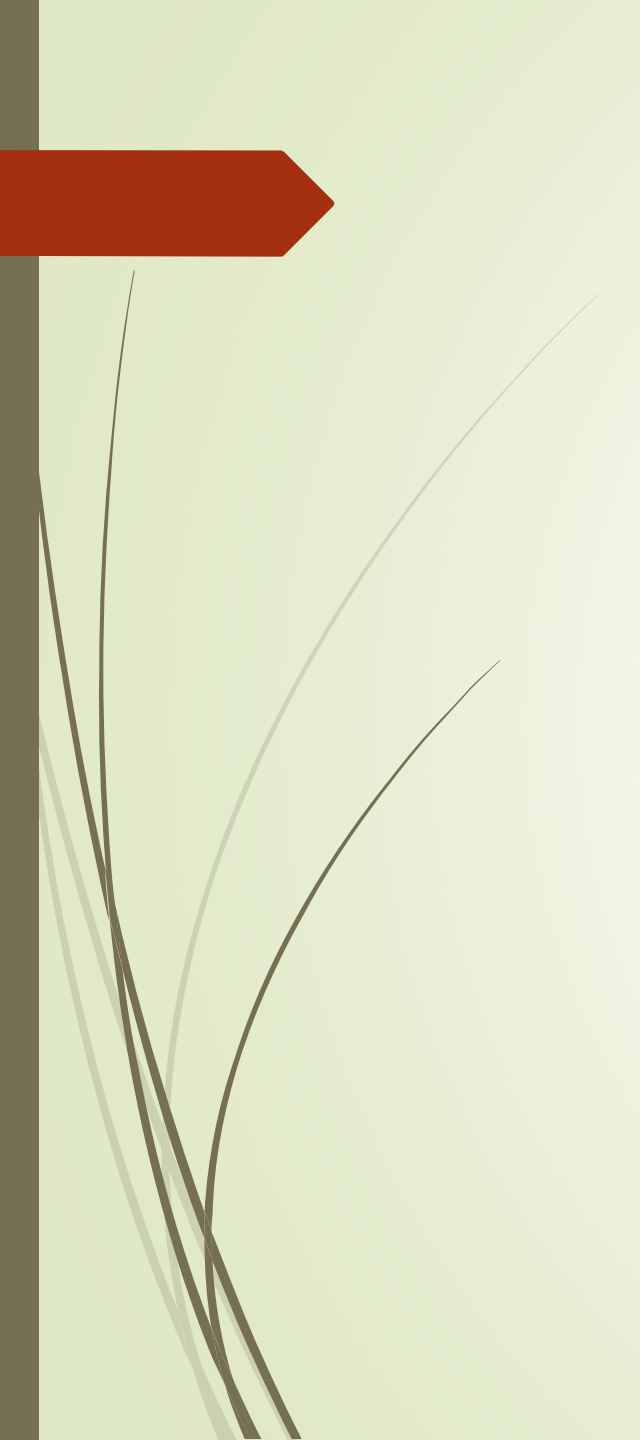
As well as 'deprived' urban environments



...through industrial environments...



*...to defined natural and anthropogenic
environments at all scales.*



**“But what do WE mean by
‘anthropogenic’?”**

Anthropogenic

Chiefly of environmental pollution and pollutants
Originating in human activity





Future Lectures

- ▶ We will also be exploring the way in which
 - ▶ Government
 - ▶ and other policy
- ▶ Can contribute
 - ▶ to sustainability and equality
 - ▶ both positively and negatively



Definitions: Policy

- 'a course or general plan of action to be adopted by a government, party, person, etc'.
- 'a set of ideas or a plan of what to do in particular situations that has been agreed to officially by a group of people, a business organization, a government, or a political party'

(Cambridge English Dictionary, 2022)



Issues to Consider

- How sustainability and its historical development relate to;
 - Social change
 - Social mobility
 - Power
 - Social capital
 - Inequality
 - Social justice



Defining Sustainability

- Sustainability is concerned with the;
 - The welfare of future generations*
 - Including the management of irreplaceable natural resources
 - As opposed to the gratification of present needs

(Kuhlman & Farrington, 2010)



The contested nature of sustainability

Two opposing views of the relation between humankind and nature

- One stresses
 - adaptation to
 - and harmony with nature
- The other sees nature as
 - something to be conquered
 - or exploited
- The latter view has been dominant in
 - Northern Hemisphere,
 - at least in recent centuries
 - but its counterpoint has never been absent



A Short History of Sustainability

- It is argued that
 - Palaeolithic peoples
 - worried about their prey becoming extinct
 - Early farmers must have been
 - apprehensive about maintaining soil fertility
 - Traditional beliefs enjoined thinking in terms of
 - stewardship and concern for future generations,
 - As expressed in the oft-quoted Native American saying
 - “we do not inherit the earth from our ancestors, we borrow it from our children”
- (Wilderer, 2007)



A Short History of Sustainability: 1713

- Nachhaltigkeit
 - German term for sustainability
 - Originally coined in forestry industry
 - Concept of not harvesting more than what the forest yields in new growth
 - Preserving natural resources is perennial

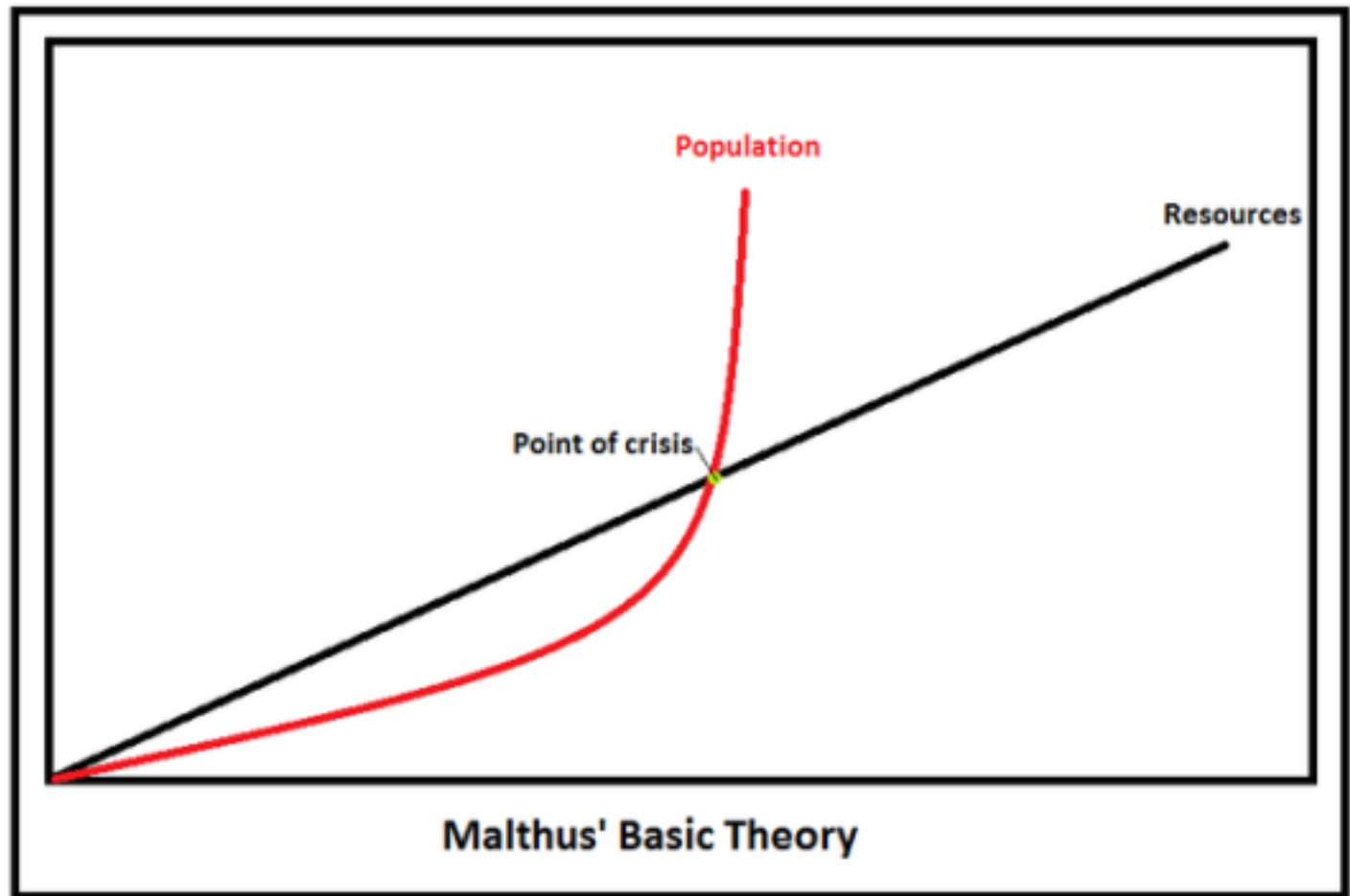
(Wilderer, 2007)



A Shorty History of Sustainability

1798 Thomas Malthus

- Theory regarding the
 - inevitability of mass starvation
- Food production increases arithmetically but
 - population increases geometrically
- More and more agricultural land needed to feed
 - an expanding population
- Although this theory is now outdated it does highlight an important issue of sustainability





A Short History of Sustainability:

1931 Harold Hotelling

- There is an optimal rate of exploitation of non-renewable resource
 - e.g., oil, iron, steel
- Owners of these resources will only produce them if it is
 - profitable to do so
- That is to say that
 - the 'market',
 - the people who buy products will
 - define the price
 - and producers will only produce the resource
 - 'if the price is right'
- This, in very simple terms is what is known as
- market economics
 - we will return to this concept later in the module

(Hotelling, 1931)

What Do We Mean by 'Non-Renewable' Resource?

- Take some time to consider this question
- Then share your thoughts with the whole group





The market and 'non-renewable' resources

- ▶ Take a look at these two BBC news stories from
 - ▶ 2020
 - ▶ and 2022
- ▶ What do these two stories tell us about the 'market' for fuel?
- ▶ Share your thoughts with the group
- ▶ "US oil prices turn negative as demand dries up"
 - ▶ BBC 21/04/2020
- ▶ "Fuel prices: Why is petrol so expensive in the UK?"
 - ▶ BBC 20/07/2022



A Short History of Sustainability

Brundtland Report - 1987

- Growing concern that
 - natural resources crucial to our survival
 - would be exhausted in one or two generations
- This situation is caused by
 - public policy which should exist to improve things
- The UN World Commission on Environment & Development (WCED) produced the
 - Brundtland Report 'Our Common Future' which;
 - Identified a way out of the impending crisis
 - Adopted the concept of sustainable development

(Brundtland, 1987)

- <http://www.un-documents.net/our-common-future.pdf>



'People, Planet, Profit'

Defining sustainable development

- "Development is a
 - multidimensional undertaking to achieve
 - a higher quality of life for all people.
 - Economic development,
 - social development
 - and environmental protection
 - are interdependent
 - and mutually reinforcing components of sustainable development"

(United Nations, 1997)



Happiness, Well-being and Welfare

Defining Sustainable Development:

- ▶ A primary goal of government policy is
 - ▶ to improve people's lives
- ▶ In this context
 - ▶ well-being,
 - ▶ welfare
 - ▶ and happiness
 - ▶ are commonly seen as synonyms
- ▶ However, as we will see this can become problematic

(Ormerod, 2007)



Happiness

Defining Sustainable Development:

- Happiness is the broadest concept
- Difficult to design a 'Happiness Policy'
 - Happiness is a subjective state of mind
- Happiness as a basic goal of human behaviour
- Can governments 'make' people happy?
- Can governments 'promote' happiness?
- What are the 'conditions' which create/promote happiness?

(Ormerod, 2007)



Happiness & Subjective Well-Being

Defining Sustainable Development

- ▶ Ruut Veenhoven developed a scheme of
 - ▶ 'qualities of life'
 - ▶ Concept of the
 - ▶ 'liveability of the environment'
 - ▶ Asks 'what can Policy do to advance happiness?'
 - ▶ It is not just about;
 - ▶ 'Basic needs' (e.g. food, shelter etc.)
 - ▶ Material goods (e.g. luxuries)
 - ▶ But also supporting the individual's capability to achieve their potential
- (Veenhoven, 2004)



Well-Being and Policy

Defining Sustainable Development

- Concepts include:
 - Freedom
 - Education
 - Security
 - Democracy
 - Justice
- Concept is now discernible in the
 - 'Wellbeing of Future Generations Act' (2015)
 - <https://gov.wales/well-being-future-generations-wales-act-2015-guidance>

(Sen, 1993)



Welfare

Defining Sustainable Development

- A more limited concept which views prosperity in terms of material needs such as;
 - Food
 - Water
 - Health
 - Shelter
- As such it is easier to measure than 'well-being'
- Therefore, it is often used by policy makers as it is easier to measure

(Slee, 2007)



Dimensions of Sustainability

Defining Sustainable Development

- Well-being could replace
 - Social and Economic measures
- It is a policy goal that must be
 - balanced with sustainability
- Measuring
 - well-being and sustainability separately
 - will allow for clear choices to be made by
 - individuals,
 - society
 - and policy makers
 - <https://www.gov.uk/government/speeches/pm-speech-on-wellbeing>

(Slee2007)

Sustainability: Resources and the Future

Defining Sustainable Development

- Some resources are non-renewable, and others are renewable
- Some resources are natural and others man-made
- The main man-made renewable is 'capital' which is produced by exploiting other resources

(Solow, 1992)

Table 1. A Fourfold Classification of Natural and Cultural Resources.

	Non-renewable	Renewable
Natural	e.g., soil, biodiversity, fossil fuels	e.g., water, forest, clean air
Man-made	e.g., paintings, landscapes	capital



Weak and Strong Sustainability

Defining Sustainable Development

- What are we measuring?
 - The sustainability of natural resources
 - The quality of the environment
 - Capital growth
 - Is sustainability what we bequeath to coming generations?

(Solow, 1992; Pearce et al, 1989)



The Sustainability Tensions

Defining Sustainable Development

- i. That the next generation should inherit
 - i. a stock of wealth,
 - ii. comprising man-made assets
 - iii. and environmental assets,
 - iv. no less than the stock inherited by the previous generation;
- ii. That the next generation should inherit
 - i. a stock of environmental assets
 - ii. no less than the stock inherited by the previous generation

(Pearce *et al*, 1989)



Strong Sustainability

Defining Sustainable Development

- Two principal arguments
- **Provision of 'services'** – grouped into 4 broad categories;
 - provisioning, such as the production of food and water;
 - regulating, such as the control of climate and disease;
 - supporting, such as nutrient cycles and crop pollination; and,
 - cultural, such as spiritual and recreational benefits.
- **Stewardship of resources**
 - ethical and responsible planning and the ethical and responsible management and use of resources

(Solow, 1997; Stiglitz, 1997)

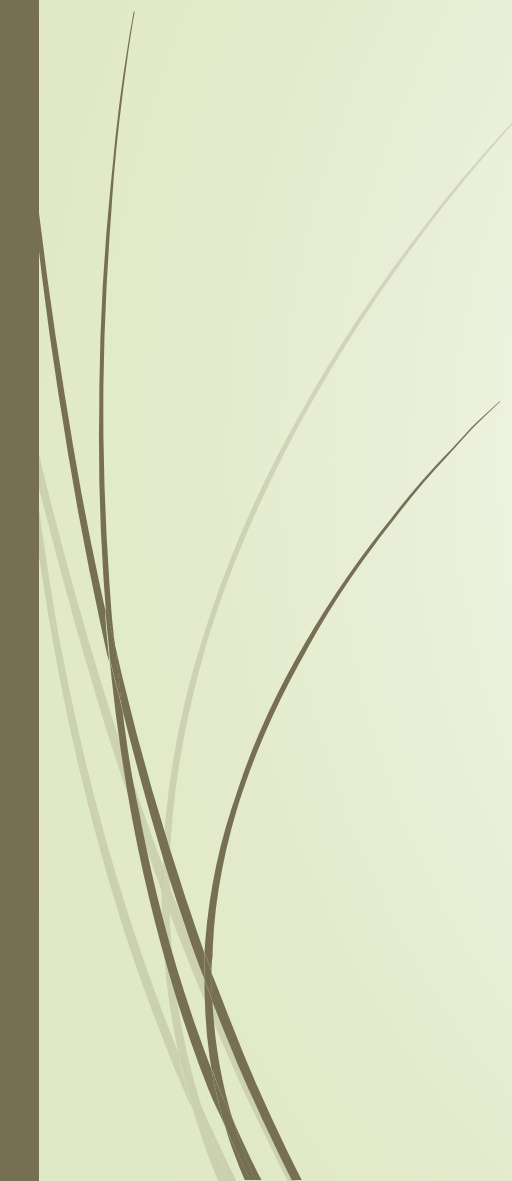


Sustainability....

Defining Sustainable Development

- ▶ “A Sustainable society is one that persists over generations, one that is far-seeing enough, and wise enough not to undermine either its physical or social systems of support”

(Sterling, 2009)





Defining Sustainable Development

- “development that meets the needs of the present without compromising the ability of future generations to meet their own needs”
(Brundtland, 1987)

- <http://www.un-documents.net/our-common-future.pdf>



'Our Common Future' 1987

Defining Sustainable Development

- Contains within it two key concepts:
 - the concept of 'needs',
 - in particular the essential needs of the world's poor,
 - to which overriding priority should be given;
 - the idea of limitations imposed by the state
 - on technology and social organization
 - on the environment's ability
 - to meet present and future needs

(WCED, 1987)



'Our Common Future' 1987

Defining Sustainable Development

- The goals of economic and social development must be defined in terms of

- sustainability in all countries:

- developed
 - or developing;
 - market-oriented
 - or centrally planned

(Brundtland, 1987)

- Interpretations taken by governments will vary but must
 - share certain general features
 - and must flow from a consensus on the basic concept of sustainable development
 - and on a broad strategic framework for achieving it
- (Brundtland, 1987)



'Our Common Future' 1987

Defining Sustainable Development

- Places a duty on the state to hold environmental resources in trust for the benefit of the public
- Where there are threats of serious or reversible damage, lack of scientific certainty should not be used as a reason [...]not acting to prevent environmental degradation
- All people currently alive should have an equal right to benefit from the use of resources...within and between countries
- Decisions should be made at the lowest appropriate level
- Costs of environmental damage should be borne by those who cause it...

(Brundtland, 1987)



A set of guidelines Defining Sustainable Development

- ▶ People must share with each other and care for the Earth
- ▶ Humanity must take no more from nature than nature can replenish
- ▶ This in turn means
 - ▶ adopting lifestyles and development paths that respect and work within nature's limits
- ▶ It can be done without rejecting the many benefits that modern technology has brought provided that technology also works within those limits

IUfCoN (1997) 'Caring for the Earth', *International Union for Conservation of Nature* p.8.



What is Sustainable Development?

Defining Sustainable Development

- Sustainable development is often thought to have three components, namely:
 - The Environment
 - Society
 - The Economy
- The maintenance of these three areas is
 - intertwined,
 - not separate

(McKeown, 2002)



UNESCO

Defining Sustainable Development

- What does UNESCO stand for?
 - Other authors and organisations, however, use other terms
 - For example, UNESCO promotes international resource development that is;
 - socially desirable and culturally appropriate
 - economically viable
 - and ecologically sustainable
- (UNESCO, 2005)



Environment, Society, Economy

- These are known as the
 - three pillars of sustainability
 - Environment
 - Society
 - Economy
- And although they are often given different names these 3 pillars are
- considered vital to sustainable planning

Society

Economy

Sustainable
Development

Environment



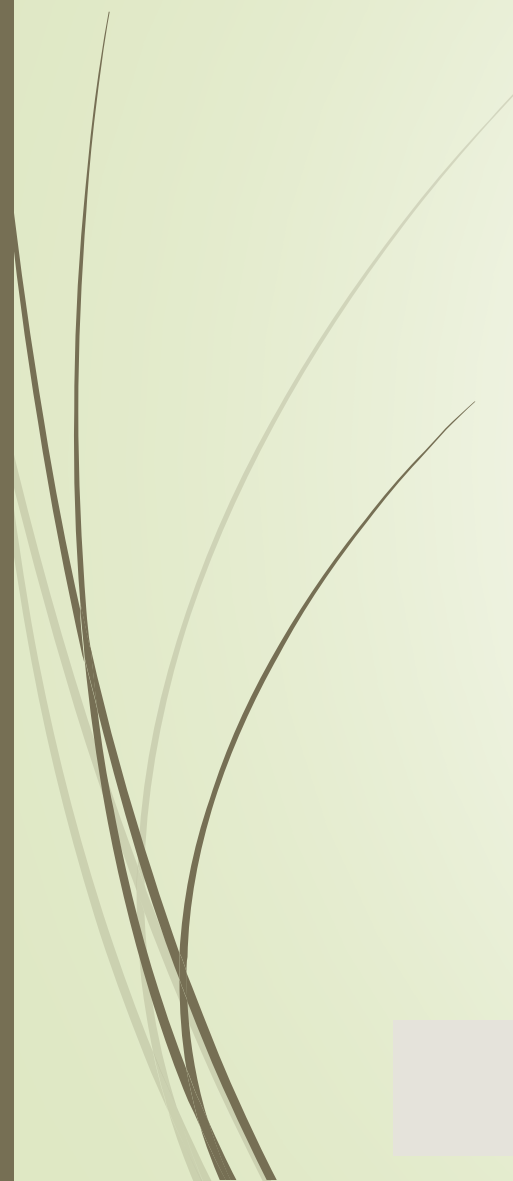
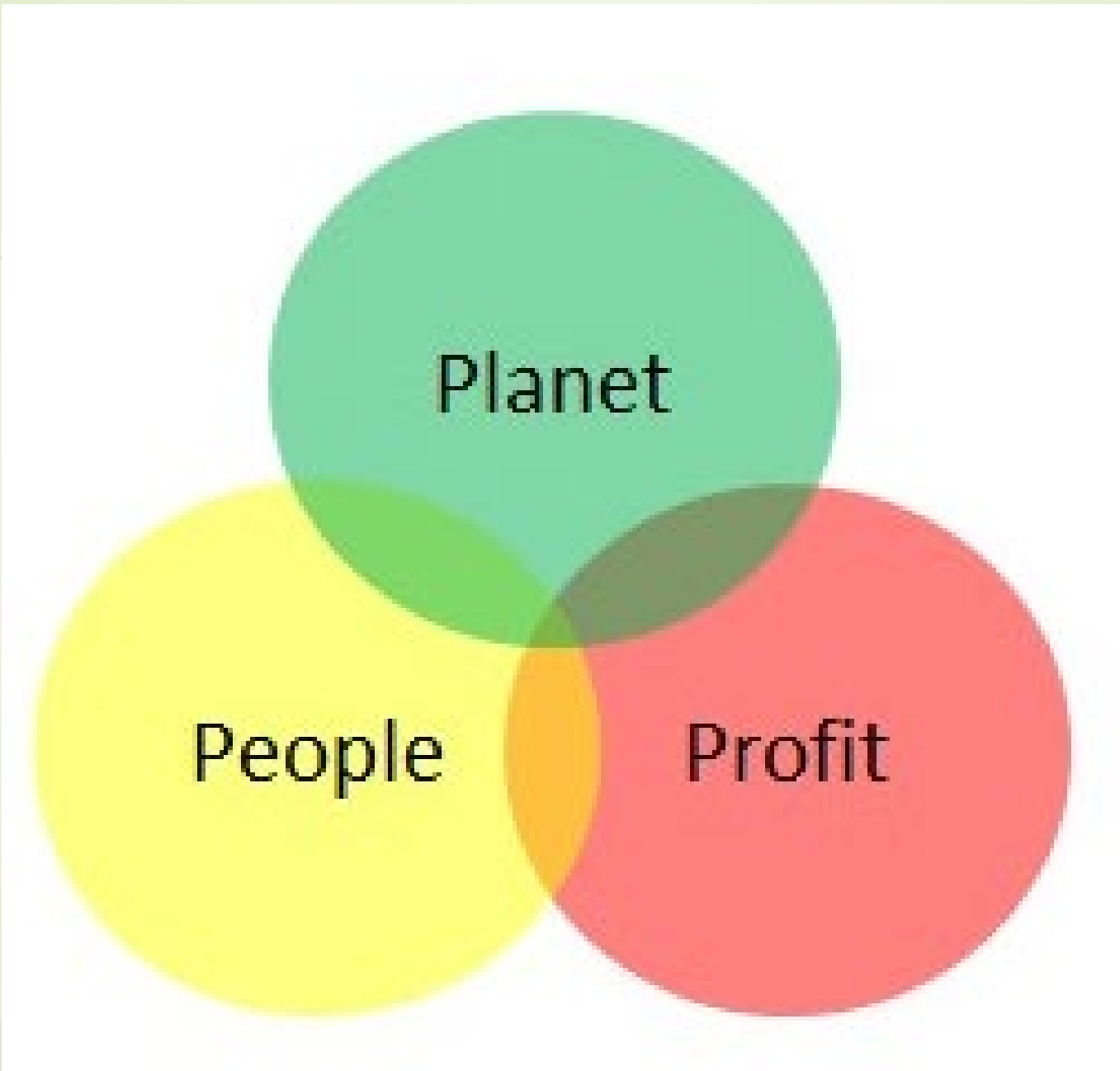


Economic
Security

Sustainable
Development

Environmental
Quality

Social
Justice





The Triple Bottom Line

- These three aspects;
 - environment/planet,
 - society/people
 - and economy/profit
- have been labelled the
 - Triple Bottom Line
 - by economists and business analysts such as John Elkington as far back as 1998

(Elkington, 1998)

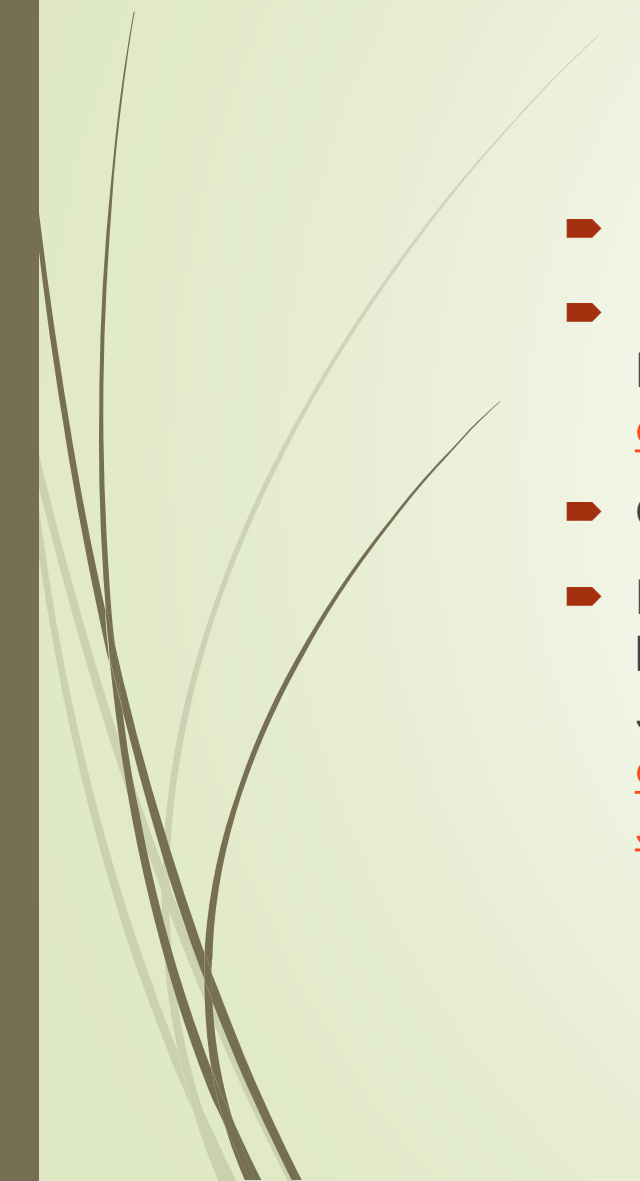
- They have argued that
 - all three aspects
 - need to be balanced
 - in order for sustainable growth to be possible

(Elkington, 1998)

- This concept will be a continuous theme throughout this Module



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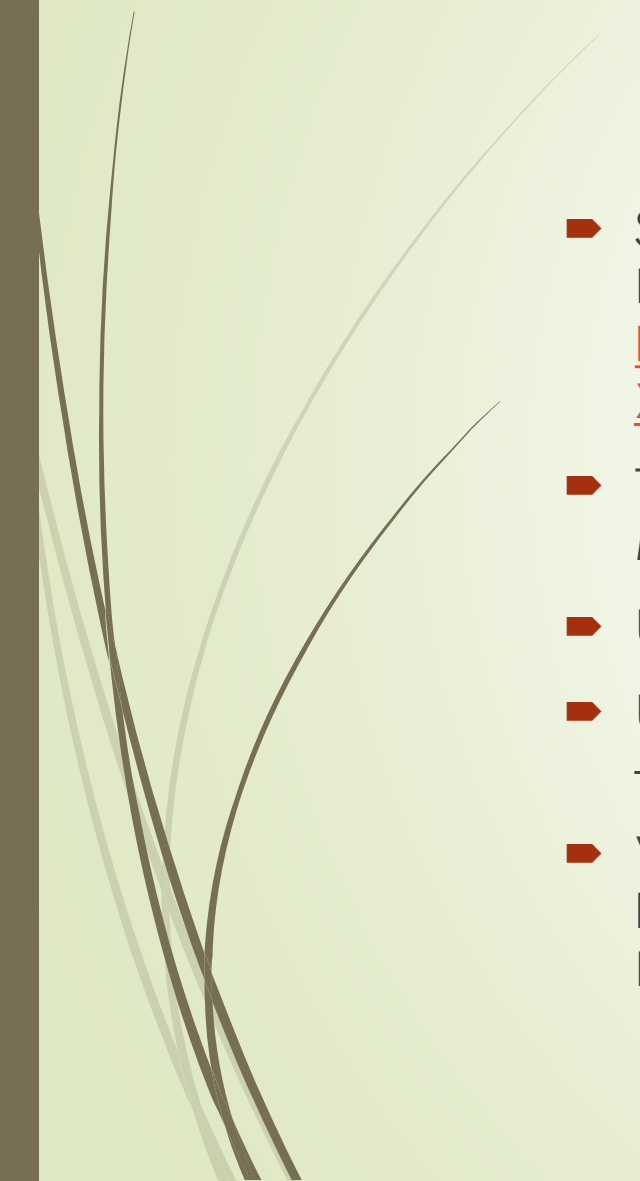
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