



Sustainable Development

Class EE375

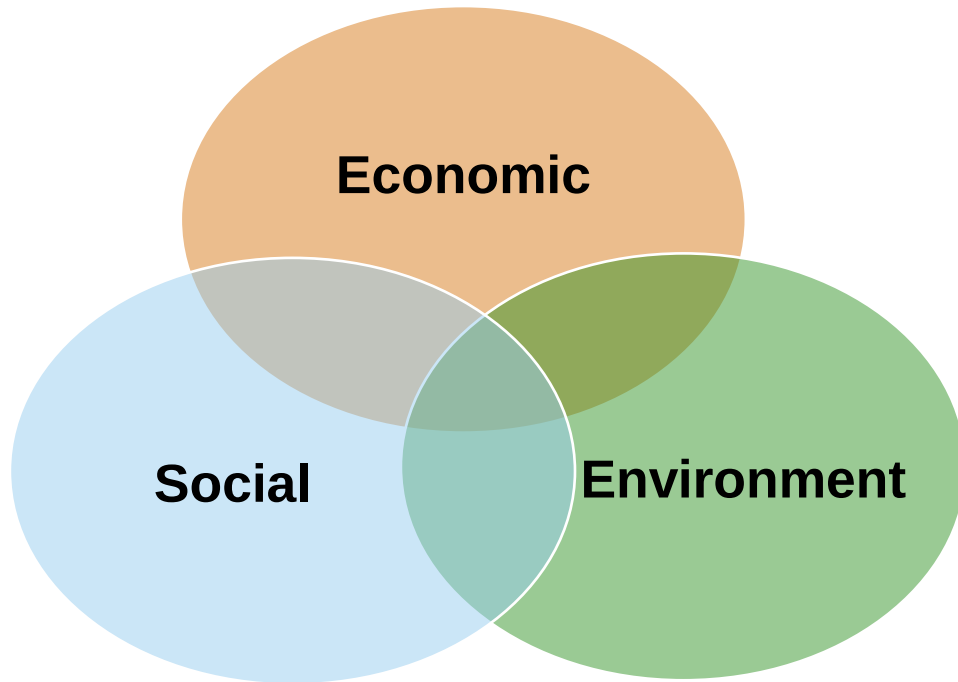
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Reference: [TL] – Tietenberg, T. and Lewis, L. Environmental Natural Resource Economics, 2015 (10th edition), Pearson, Chapter 20.

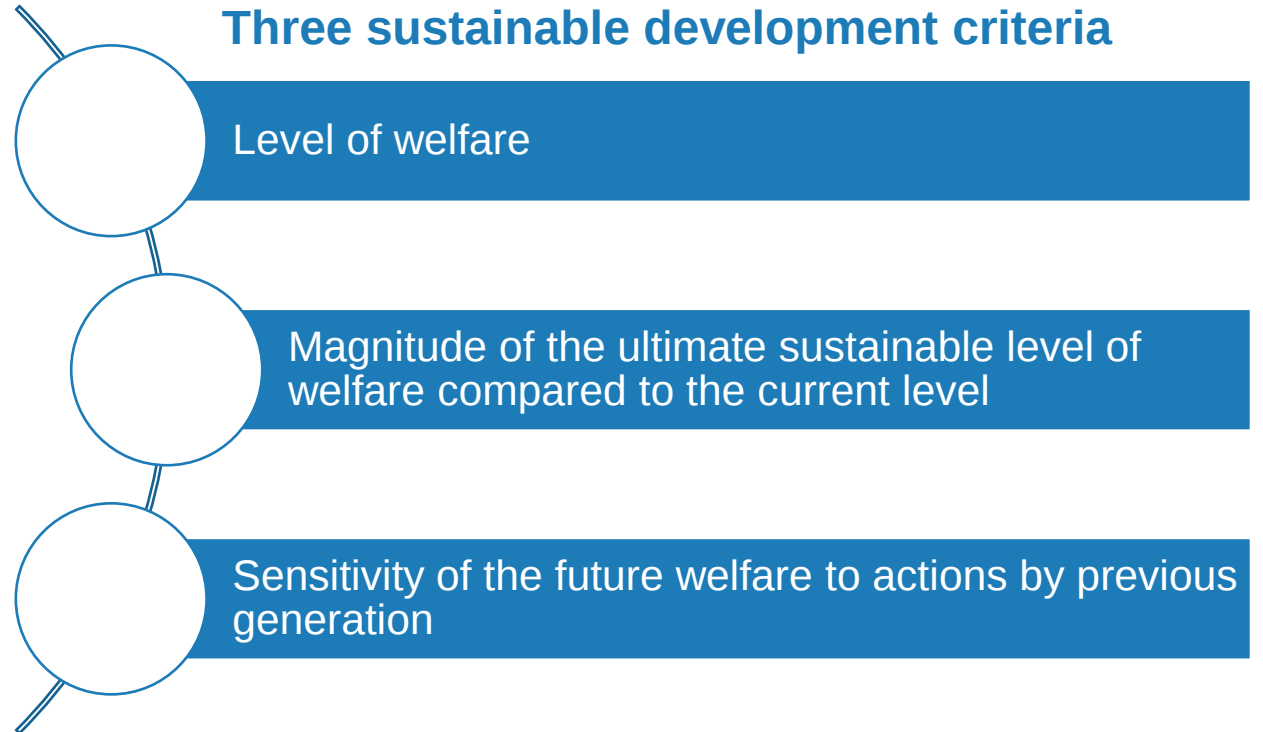
What is sustainable development?

“Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs”

(World Commission on Environment and Development, 1987)

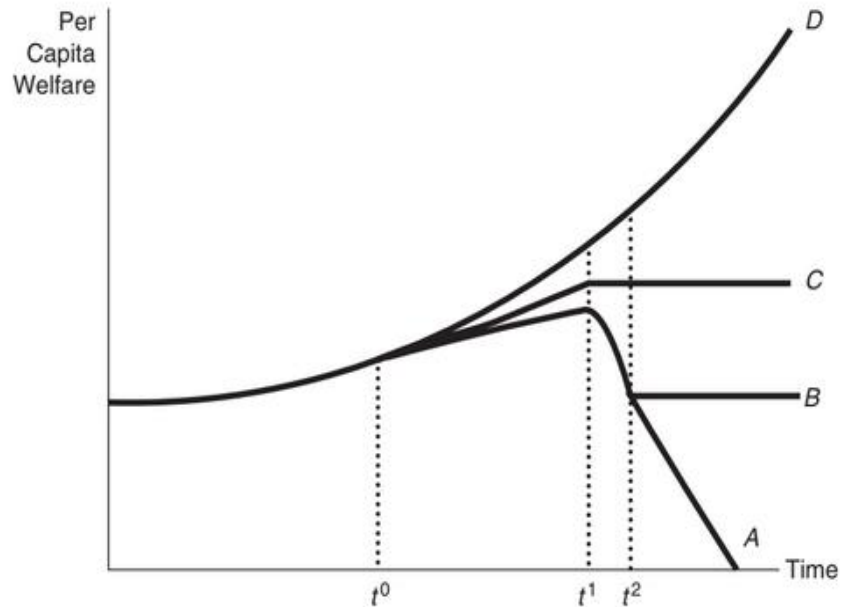


Three sustainable development criteria



Are we pursuing the path that benefits current generations at the expense of future generation?

Possible alternative future scenarios



Current generations can affect the sustainable welfare levels of future generations both positively and negatively

Scenario D - Sustainable growth path

Scenario C – Sustainable welfare levels

Scenario B – Unsustainable level of welfares

Scenario A – Zero sustainable level

Can market imperfections interfere sustainable development?

- Efficient markets do not necessarily guarantee development that can be sustained.
- Economic incentive policies can facilitate the transition from unsustainable to sustainable activities.

Market failure

Open access to resource

Allowing open access to resources can promote unsustainable allocations

Intertemporal externalities

Undermining the ability of the market to produce sustainable outcome.

Market power

Exacerbate the problem of sustainability such as cartelized natural resource markets.

How to measure development?

- Conventional measure using **GDP** (gross domestic product) – limitations to represent welfare.
- Alternative measures such as
 - **Ecological footprint:** Measure the amount of renewable and nonrenewable ecologically productive land area that is required either to support the resource demands or to absorb the wastes of a given population.
 - **Human development Index:** Indicate that relationship between income growth and the well-being of the poorest citizens of the world is far from a sure thing, depending on if the growth increases sustainable investment in education, health care and social programs accessible to the poor.
 - **Gross national happiness:** Guide development in Bhutan, considering dimensions such as psychological well-being, time use, culture, health, education, environmental diversity, living standard, governance, etc.

Sustainable Development Goals (SDGs)



Understanding the Dimensions of Sustainable Development: <https://www.youtube.com/watch?v=pgNLonYOc9s>

The UN's sustainable development goals: <https://www.un.org/sustainabledevelopment/sustainable-development-goals/>