

Sustainability

"Meeting the needs of the present without compromising the ability of future generations to meet their own needs".

United Nations, 1987

Mitigation

- Sustainability concept
- The action of reducing the severity of something
- Primarily achieved by the reduction of greenhouse gases
- ♦Future focused

Resilience

The ability of a piece of infrastructure, system, environment, or community to sustain or recover its essential functions when presented with a disruption.

Adaptation

- ♦ Resilience concept
- The action of adjusting ecological, social, or economic systems in response to actual or expected climatic stimuli and their effects or impacts
- Present time and future focused

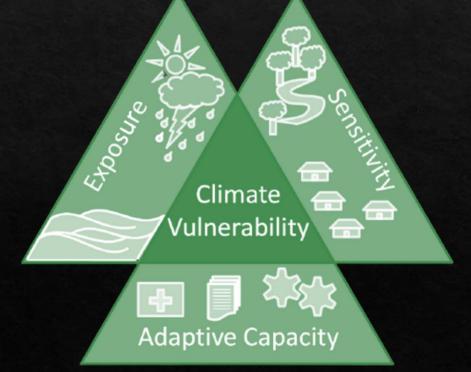
<u>Vulnerability</u>

"The degree to which a system is susceptible to, and unable to cope with, adverse effects of climate change, including climate variability, and extremes".

International Panel on Climate Change

<u>Vulnerability</u> =

(sensitivity X exposure) - adaptive capacity



Renewable

- ♦ A resource that can be continuously used without risk of depletion
- Renewable Energy Examples:
 - ♦ Wind
 - ♦ Solar
 - Hydro
 - ♦ Tidal
 - ♦ Geothermal
 - ♦ Biomass

Carbon Sequestration

- The process by which atmospheric carbon dioxide is captured and stored
- Naturally occurs: through trees, grasses, other plants, and phytoplankton through photosynthesis and stored as carbon in biomass (trunks, branches, foliage, and roots) and soils
- * Artificially occurs: through carbon capture systems installed on industrial processes, which capture carbon and then places it into a reservoir (such as a building, injecting it deep underground, etc.)

Energy Efficiency

♦ The method of reducing energy consumption by using less energy to perform the same task

Achieved by:

- ♦ Improved building design
- ♦ Innovations in technology
- ♦ Altering human behavior

Green Construction

♦ Construction that follows sustainable practices laid out in a national certification, such as the Leadership in Energy and Environmental Design (LEED) certification or Florida Green Building Coalition (FGBC)

<u>Greenspace</u>

An area within an urban environment that is mostly vegetation (such as grass, trees, wildflowers, shrubs, etc.) and is set apart for ecological, recreational, or aesthetic purposes

Multiple concepts of greenspace exist, and many times the <u>public definition</u> is different then <u>environmental definition</u> which is different then the <u>municipal</u> <u>definition</u>

Biodegradable

Capable of being broken down into harmless products by the action of living things (such as microorganisms) over time

♦Timelines vary

Not highly regulated

<u>Compostable</u>

Capable of being broken down into harmless products by the action of living organisms in a composting environment within 90 days

Backyard vs. Commercial Operation

More regulated - BPI Compostable Certification

