



SUSTAINABLE TRANSPORTATION

Sustainable transportation: A transport system that is sustainable in the social, environmental and climate impact.

- Three components that evaluating the sustainability:

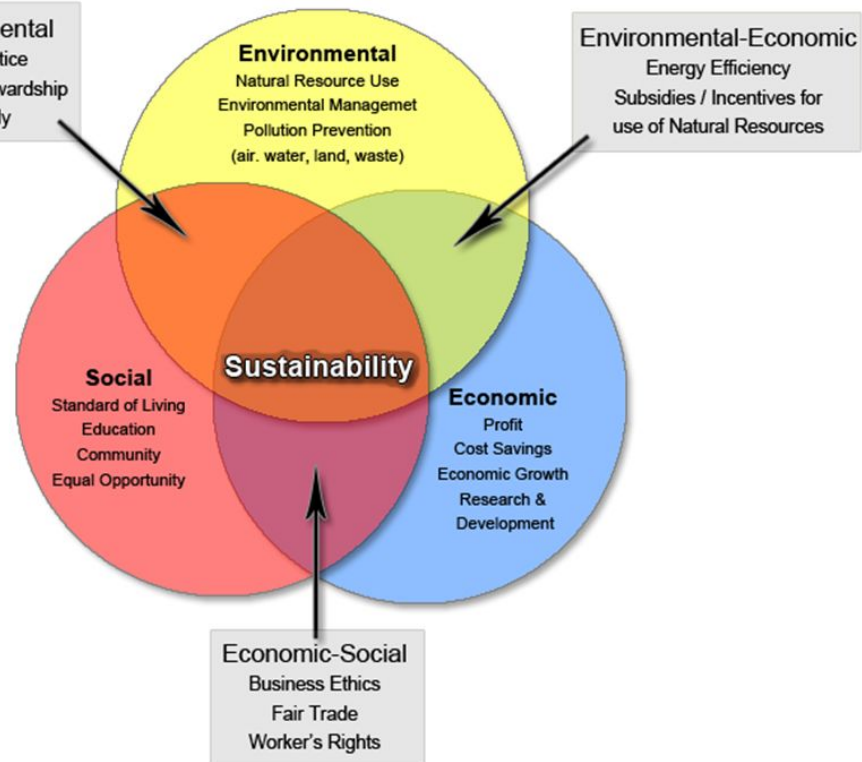
- 1) Vehicles on the road, water or air transport.
- 2) The source of energy.
- 3) The infrastructure used to accommodate the transport.

A sustainable transportation is one that:

- ▶ Allows the basic needs of individual to be met safely and in a manner consistent with human and ecosystem health and with equity within and between generations.
- ▶ Is affordable, operates efficiently, offers choice of transport mode and supports a vibrant economy.
- ▶ Limits emission and waste within the planet's ability to absorb them, minimizes consumption of non-renewable resources, limits consumption of renewable resources to the sustainable yield level, reuses and recycles its components, and minimizes the use of land and the production of noise.



The Three Spheres of Sustainability



*Adopted from the 2002
University of Michigan
Sustainability Assessment*

- ▶ Sustainability emphasizes the integrated nature of human activities and therefore the need for coordinated planning among different sectors, groups and jurisdictions. It expands the objectives, impacts and options considered in a planning process. This helps insure that individual, short-term decisions are consistent with strategic, long-term goals.
- ▶ Sustainable transport planning recognizes that transport decisions affect people in many ways, so a variety objectives and impacts should be considered in the planning process.

Various transport planning objectives support sustainability goals:

- ▶ Transport system diversity. Travelers can choose from various modes, location and pricing options, particularly ones that are affordable, healthy, efficient, and accommodate non-drivers.
- ▶ System integration. The various components of the transport system are well integrated, such as pedestrian and cycling access to transit, and integrated transport and land use planning.
- ▶ Affordability. Transport services provide affordable options so lower-income households spend less than 20% of their budgets to access basic goods, services and activities.
- ▶ Resource (energy and land) efficiency. Policies encourage energy and land efficiency.

- ▶ Land use accessibility (smart growth). Policies support compact, mixed, connected, multimodal land use development in order to improve land use accessibility and transport options.
- ▶ Operational efficiency. Transport agencies, service providers and facilities are managed efficiently to minimize costs and maximize service quality.
- ▶ Comprehensive and inclusive planning. Planning is comprehensive (considers all significant objectives, impacts and options), integrated (decision-making is coordinated among different sectors, jurisdictions and agencies), and inclusive (all affected people are able to participate).

The background features abstract, overlapping geometric shapes in various shades of green, ranging from light lime to dark forest green. These shapes are primarily located on the left and right sides of the frame, leaving a large white central area. The shapes are layered, creating a sense of depth and movement.

Thank you..