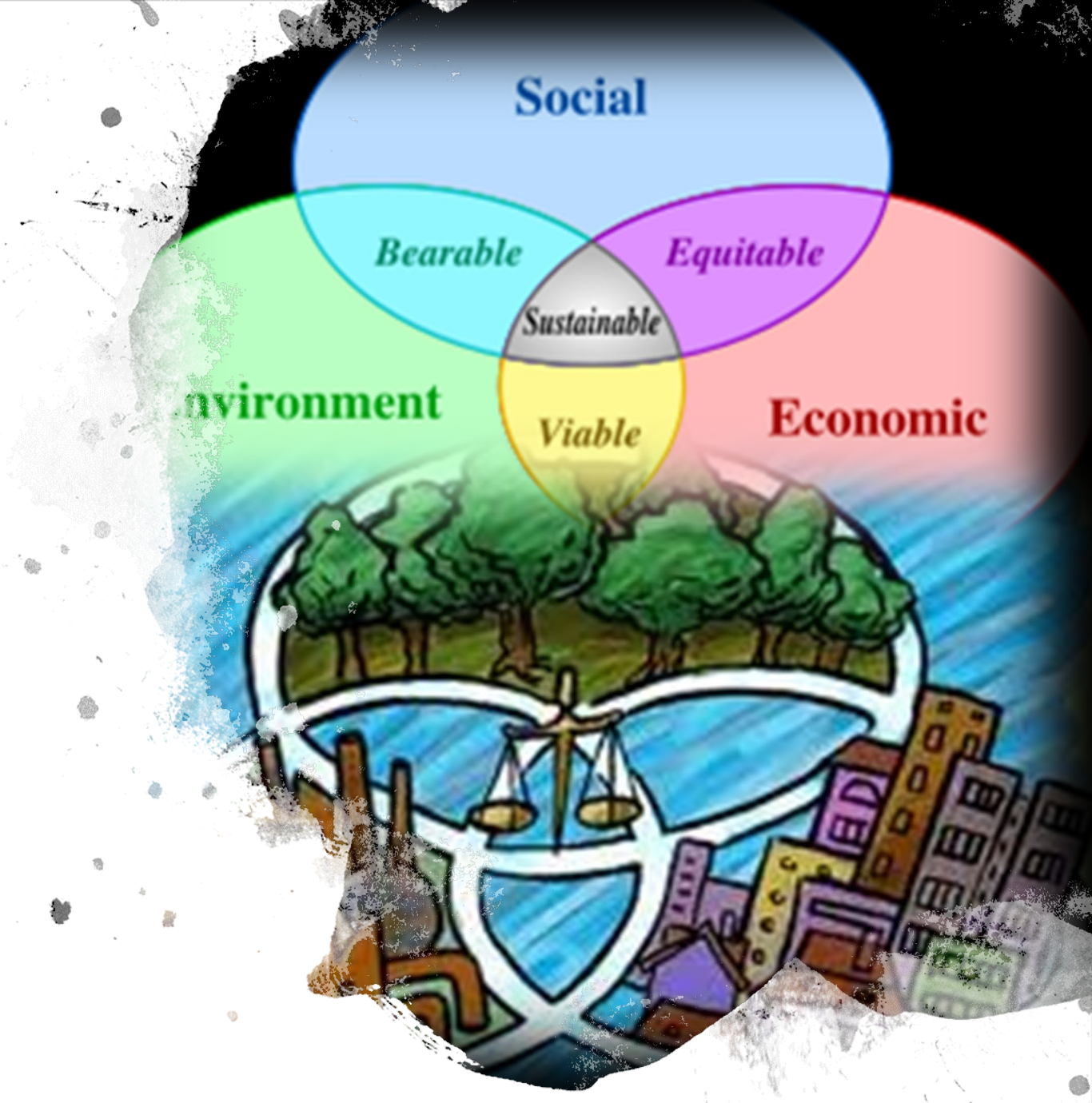
Workshop on Sustainable Urban Development and Climate Change

28 Jan 2019

Asian Institute of technology

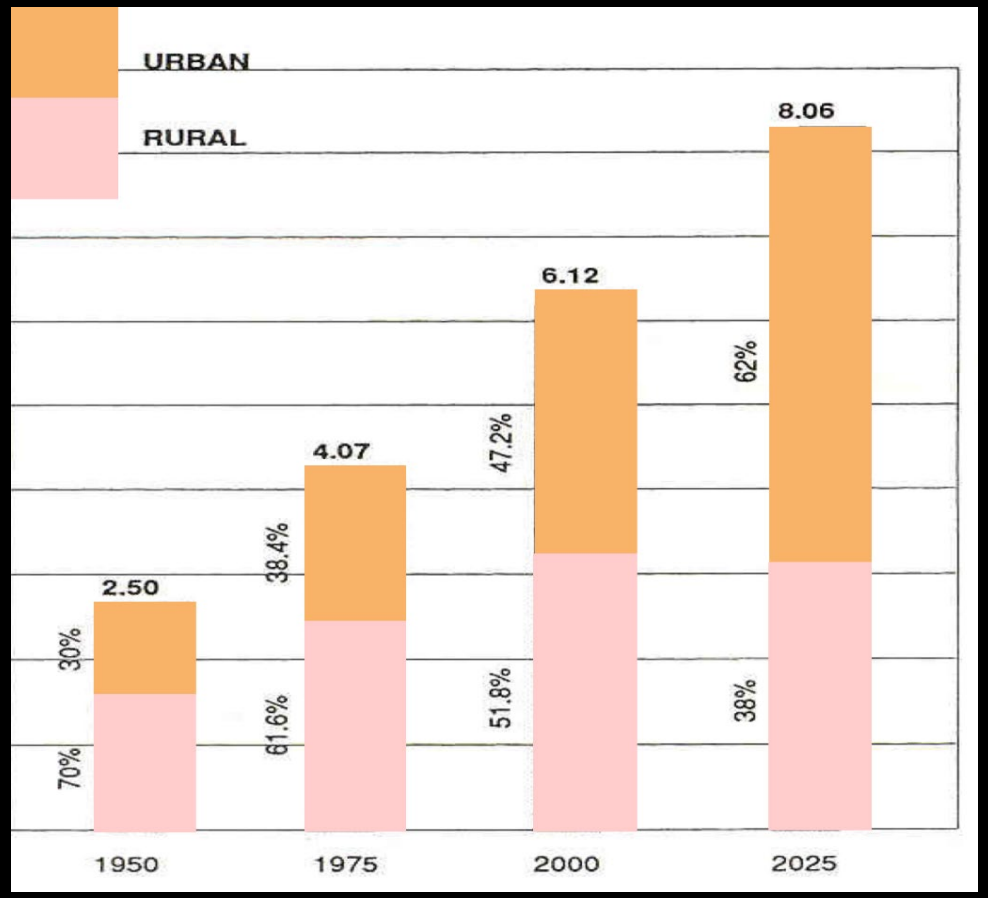
Issue

- We are facing a complex, far reaching challenge
- Balance the benefits of development with its adverse effects
  - Most benefits are immediate, measurable and “attractive”
  - Most adverse effects are in future, difficult to quantify and mitigate
- Resource efficiency and optimization in the broadest sense is needed using common sense and good sense in every decision making at various levels



Need to meet the Urbanization Needs:

Urban Sprawl Or Vertical Cities



Urban Infrastructure

- Transport Systems
  - Roads
  - Bridges
  - Tunnels
- Buildings
  - Low rise
  - Mid rise
  - High rise

Transit Oriented Development (TOD)

- Plan and develop Transportation Infrastructure and Tall Buildings as an integrated components of Urban Development

Construct Sustainable Tall Building!

A sustainable building is one in which the design team has struck a balance between environmental, economic and social issues at all stages – design, construction, operation and change of use/end of life.

greater emphasis on different aspects at different stages in the building's life, for example, energy for building services and transport of building users and occupants and associated CO_2 emissions are key to sustainable operation.

A purist's definition of a sustainable tall building is one which emits no pollution to air, land and water, and can be economically occupied throughout its design life, whilst contributing positively to the local community.

Sustainable Construction

The development process cannot be stopped as it is linked with population increase, and assets or infrastructure generation in the third world countries.

The solution is to find out the way and means to reduce the damage caused by the development.

The sustainable development should cater for the following seven areas:

Sustainable Construction

Minimum disturbance to the local population

Minimal redundancy of manpower due to mobilization, and new technologies

Minimum damage to the environment, and pollution.

Quick and proper rehabilitation of the project affected people.

Consumption of natural resources within generation limits.

Restrictions on the consumption of the fossil fuel deposits, and changeover to the renewable sources of energy.

Active participation of local population.


Thank You!