### Sustainable development definition

Sustainable development has many definitions, but perhaps the most widely used one is:

Development that meets the needs of current generations without compromising the ability of future generations to meet their needs and aspirations. (WCED,1987)

This definition arose out of the world commission on environment and development (WCED), with Gro Harlem Brundtland as the Prime Minister of Norway at that time. Its report, *Our Common Future*, (WCED, 1987) contains the above definition<sup>1</sup>.

# **Definitions of Transport Sustainability**

Christy Mihyeon Jeon and Adjo Amekudzi (2005) have reviewed 16 practitioner and research initiatives on transportation sustainability to determine the definitions, indicators and metrics being used to address transportation system sustainability<sup>2</sup>.

As the table 1 shows, there is no standard definition for transportation system sustainability, but there seems to be a consensus that Sustainable Development is the interface between environmental, economic and social sustainability (Goodland and Daly,1996). In, figure 1.1, the form visually presents these three dimensions and the relationship with sustainability: there are three interlocking circles, with SD representing the point where all three overlap.

### Frameworks for Indicators of Sustainability

#### **Linkages-Based Frameworks**

PSR (Pressure-State-Response model) Impact of human activities changes the environment **PRESSURE** STATE Why is it Pressures What is Happening? Happening? Human Resources State or Activities that Condition of the Influence the Environment Environment Societal Information Responses Societal Information Responses What is being Information on Done about it? Institutional environmental changes response affects prompts institutional Policies and human activities Actions to response Prevent/Reduce Negative Impact RESPONSE

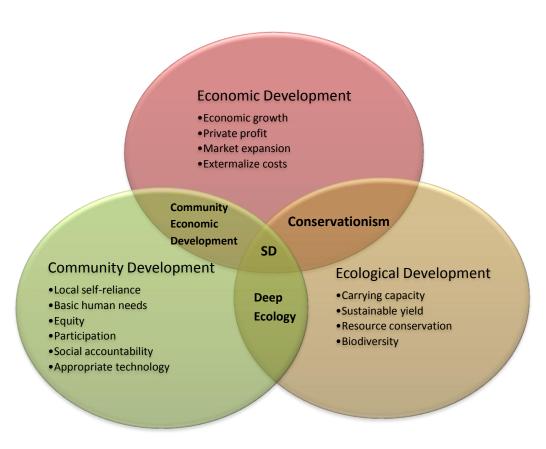
<sup>&</sup>lt;sup>1</sup> http://www.un-documents.net/wced-ocf.htm

<sup>&</sup>lt;sup>2</sup> Addressing Sustainability in transportation systems: Definitions, Indicators, and Metrics; Christy Mihyeon Jeon and Adjo Amekudzi

# **Impacts Based Frameworks**

Xxxxxxxxx

Intergration of sustainable delevopment indicators



**Figure 1.1** The interactions between ecological, economic and social (community) development