

The act of using materials such as timber, concrete and asphalt generates a number of direct and indirect consequences, beginning with the way raw content is extracted, through to how that material is prepared and installed. The consequences can be far-reaching including:

- The loss of biodiversity in a tropical rainforest half a world away;
- Consumption of energy required to ship materials to the UAE by boat, plane or truck;
- Substantial energy and water inputs required for the manufacturing process; and
- Impacts as the material ages, degrades and finally must be disposed of or recycled back into useful life.

In a sustainable development, the materials chosen and the process by which associated waste is disposed should be viewed as a complete cycle, not two disconnected constructs. Transportation of waste uses large amounts of fossil fuel and decaying landfill trash generates methane, a major greenhouse gas.

*“The fact that people produce waste cannot change. However, by changing our behaviour and our attitudes to waste, we can tackle this problem in a way that meets the needs of the present without affecting future generations. Optimising recycling and reuse, as well as limiting production, forms a core part of protecting the environment.”*

- Abu Dhabi Water Resources Master Plan, EAD 2009

The Stewarding Materials section of the Public Realm Rating System encourages design and development teams to consider this entire continuum - or ‘whole-of-life’ cycle- when selecting and specifying materials, with an overall objective to improve the social and environmental outcomes associated with their manufacture, transport, installation and disposal.

