

Material Life Cycle Assessment (LCA) & Environmental Impact Assessment (EIA)

Both **Life Cycle Assessment (LCA)** and **Environmental Impact Assessment (EIA)** are key tools for evaluating environmental impacts, but they serve different purposes and scopes.

Material Life Cycle Assessment (LCA)

LCA is a **scientific and systematic method** for evaluating the environmental impact of a product, material, or process **from cradle to grave**. It considers all stages of the material life cycle:

1. **Raw Material Extraction** – Mining, harvesting, or extracting raw materials.
2. **Processing & Manufacturing** – Energy and resources used to produce materials and products.
3. **Transportation & Distribution** – Emissions from logistics and supply chains.
4. **Usage Phase** – Energy and resource consumption during product use