Infrastructure Indicators to Assess Progress toward Sustainability

Addressing Two Needs

1. Deepen rationale for sustainable development
2. Identify indicators for evaluating projects and project portfolios to meet sustainability goals.

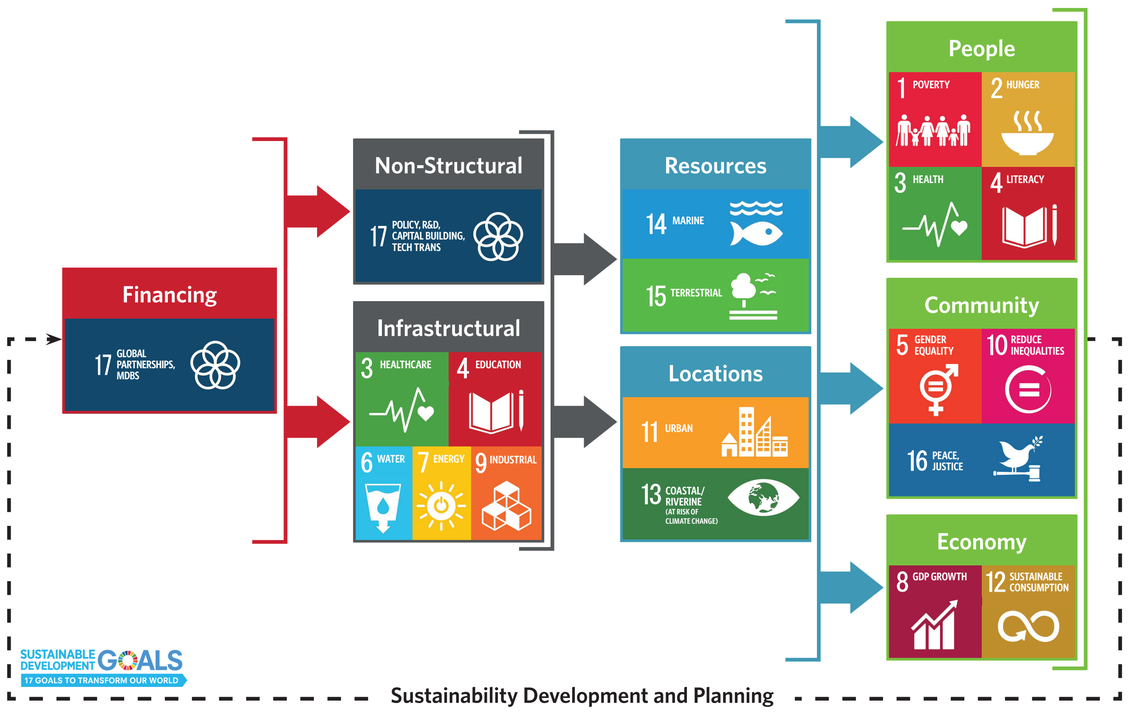
Sustainable Infrastructure

Infrastructure that is designed to enable a community or country to achieve a more sustainable form of economic development.

Sustainable Development Goals (SDGs) Focus on Infrastructure Investment and Development

SDGs clearly indicate a framework for evaluating outcomes of investments

But, SDGs provide little guidance on weighing trade-offs and conflicting outcomes of infrastructure.



Key Challenge: Micro vs. Macro Dichotomy of Sustainable Infrastructure Planning

- Sustainability: multi-dimensional aspirations that span many generations
- Infrastructure projects: short-term, localized impacts to users, neighborhood

Proposed framework: simplified "triple bottom line" indicators help justify sustainability goals and align with infrastructure outcomes

- Economic: GDP
- Environmental: Natural Capital Accounting
- Social: Gini Coefficient

Planning-level indicators needed to account for in short- and long-run evaluations:

Below is a sample of Short-run (SR) and Long-run (LR) Indicators for different projects

	Economic	Environmental	Social
Freight Transport	SR: Productivity: Travel time LR: Competitiveness: Export v. import	SR: Human Health: Air Pollutants LR: Global Health: GHG Emissions	SR: Income inequality in corridor LR: Change in low-wage jobs
Water	SR: Productivity: Water cost savings LR: Growth potential: Supply risks	SR: Water quantity/quality LR: Habitat / species at risk	SR: Inequality in health risk LR: Unequal change in access
Energy	SR: Productivity: Energy cost savings LR: Growth: Industrial development	SR: Human Health: Air Pollutants LR: Global Health: GHG Emissions	SR: Inequality near production LR: Inequality - energy supply