

# Hidden Costs, Misleading Assessments and False Solutions LCA and Useless Big Developments

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The hidden environmental, energy and social costs of high-speed transport modalities as well as of any other development have been clearly pointed out by the scientific community, shedding light on misleading assessments that only account for direct, operational energy costs and disregard all the indirect, upstream and downstream impact categories over the entire life cycle of a given development.

Disregarding or not properly accounting for indirect costs makes any assessment unreliable and actually opens the way to “solutions” that are much worse than the problem to be solved.

Technological products (vehicles, cell phones, TVs), transportation and broadcasting modalities (High Speed Trains, bridges, roads, broadcasting networks), energy conversion and transportation processes (power plants, gas storage sites, radioactive waste depositories, electric lines and gas pipelines) affect the environment and the life of societies in many ways (economic, aesthetic, environmental impacts and risks, resource depletion) at local and global scales. It is mandatory to understand if the environmental, energy and social costs are acceptable compared to the benefits, and also “who enjoys the benefits” compared to “who pays the costs”.

Cement, steel, copper, glass, plastic materials, fuel and electricity used in large amounts to make a vehicle, a building, a bridge, a power plant, a railway or an airport, require a long supply chain, from mine and underground reservoirs to refinery, manufacture, use, final decommissioning and disposal or recycling. Processes in each step (mining, transporting, melting, etc) require input resources and release emissions. As a consequence, the number of impacts is countless and spans from local airborne, waterborne and solid waste release to far away impacts in extraction and conversion sites. It is not just a matter of physical and chemicals aspects: also social, aesthetic and ecological disruptions are generated at all scales when resources are diverted from local populations towards high-purchasing power countries; when landscapes and their pristine beauty are irreversibly altered; when biodiversity decreases due to land-use change and degraded soils and water sources.

Life Cycle Assessment (based on accepted international Environmental Management standards ISO 2006a, ISO 2006b, ILCD 2010) is a powerful tool to assess the environmental and social burden generated by a development, in so allowing an informed cost-benefit analysis not only at the local scale of the process or the company’s business, but also at the larger scales of far away countries and societies. In so doing hidden costs are disclosed and made apparent to those who enjoy the benefits and to those who pay the bills. Local communities who are willing to “check the bill” are not (or not only) defending their backyard (in so being accused of NIMBY syndrome), but they are also defending the rights and the lifestyles of far away populations and species, affected by developments that they will never enjoy, that they will never see or that may finally result completely useless.

It is therefore urgent and mandatory that full LCAs of the high-speed rail modality as well as any other development are performed, by preliminarily inviting panels of well known LCA experts to release detailed and transparent reports in the shortest possible time. Once further and more reliable information is made available, the usual process of top-down decision-making must be converted into a participatory procedure that involves all the stake-holders and the affected communities. In particular, the concept itself of “feasibility” must be converted from “technical and economical feasibility” into

a more complex framework that includes aspects of "post-normal" science, namely the shift from the expert community to an "extended peer community" consisting of all those affected by an issue who are prepared to enter into dialogue on it.

They bring in their "extended facts", that will include local knowledge and materials not generally accounted for in official scientific reports.

## References

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