

Application of LCA to local and regional studies

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Abstract

Recently, the importance of local and regional activities for finding a solution for global environmental problems, in addition to local and regional environmental problems, has been recognized. Life cycle assessment (LCA), a tool used to evaluate environmental impacts, has been especially gaining attention as a method to evaluate local and regional activities for policy and planning. The existing LCA has been generally used to evaluate products and the approach is based on a global scale rather than local and regional scales. Therefore, there is a need for LCA to be developed further for its application in local and regional studies.

This presentation suggests the direction of the progress in LCA focusing on inventory and impact analysis. In inventory and impact analysis, it is important to consider the region-specifics (see figure 1), including structural features (regional production and consumption; interregional trade; and the structure of energy consumption) and environment features (geographical location; climate; natural conditions; and population density). Especially, the findings from material flow analysis of regions can be hoped to contribute to considering region-specifics in inventory analysis. In addition, it is essential to communicate with local and regional governments, companies and residents in the application of LCA to local and regional studies.

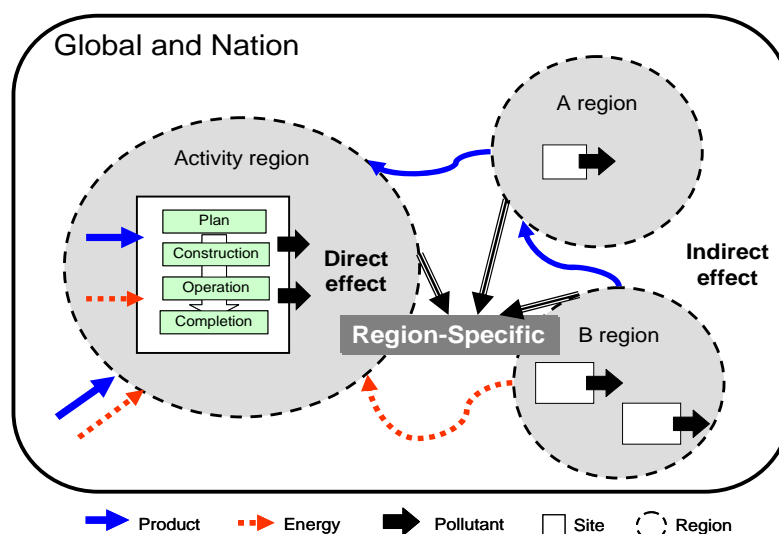


Figure 1: Approach of Region-specific LCA method for a regional Activity