

POLITECNICO DI TORINO
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Honors theses

Scenarios assessment of Genoa port transformation through the Community Impact Evaluation (CIE)

by Beatrice Beccuti

Tutor: Isabella Lami

The work focuses on the assessment of territorial processing projects scenarios emphasizing the importance of assessment itself as a tool to support decision making. In particular, the thesis describes the assessment of a radical transformation project of the port of Genoa for which an enhanced capacity and management of the Ligurian port in a competitive international level has been expected (increase of about fivefold its traffic volume). The project developed by SiTI (National Institute on territorial Systems), in collaboration with a group of Genoa shipping operators, provides an innovative system of transport of iron TEU on special shuttles and through the establishment of a dry port located in the lower Piedmont (about 40 km from the sea port), the transformation of the sea port and a link between the two ports through a tunnel in the Appennino dedicated to good transport only. The project, developed by Sites, was developed according the feasibility study and has now been examined by the governments involved. It stands to reason that the proposal to transform what is currently the largest Italian port hub has not transportation aspects, nor environmental, logistical, financial, socio-economical, urban, ones, etc..

This work therefore seeks to assess the different transformation scenarios of the port of Genoa through sites developed by the *Community Impact Evaluation* (CIE, Lichfield 1996, 1988) with two specific goals. The first is to identify the effects and impacts on the various community sectors that the processing involved. The second objective is planning to establish an alternative design that best meets the goals of the sectors themselves.

The thesis works by following the steps provided by the CIE methodology, which identifies the effects and impacts on five areas considered essential for the evaluation of three different design solutions provided for the Ligurian port. In particular we analyze the urban areas, environmental aspects, the socio-economic aspects of employment and the development cost of each project assumption. In order to identify the second goal, however, the thesis provides to compare two different approaches: on the one hand, the approach developed by Lichfield for CIE, on the other hand a variation to test the CIE here defined "weighted Evaluation approach". Behind the first approach there is an argument according which the sector determines the sectoral preference only to the extent to which the impact occurs and in which the sector is directly involved.

The second approach takes into consideration all the impacts that are generated by the project and according to the importance (attributed with a weight expressed as a percentage) that each industry attaches to each impact on its own interests. The results of the assessment allow to draw conclusions and comprehensive answers to the questions set at departure point. In particular, it recognizes the importance of the project for conversion since the assessment stresses, for these areas, the prevalence of benefits compared with costs, even for Community sectors that apparently could be opposers and support the idea of non-intervention. Finally the two approaches, albeit with different reasoning, come both to establish the preference for the same design solution which creates benefits as regards the socio-economic issues keeping an eye on the environmental point of view.

For further information, e-mail:

Beatrice Beccuti: trix1983@libero.it