POLITECNICO DI TORINO SECOND SCHOOL OF ARCHITECTURE Master of Science in Land, Town and Environment Planning Honors theses

Logistics between Liguria and Piedmont. A chance for development?

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The aim of the thesis is to examine to what extent the establishment of logistics infrastructures can be an opportunity for the development of an area. To answer this question, it was chosen as survey area the macro-region of Liguria and Piedmont; this area is considered a significant case study because, thanks to its strategic geographical position and good infrastructural facilities, it can become one of the major logistics hubs in Europe.

Starting from the design of the Trans-European Transport Networks and from the renewed importance of international trade routes in the Mediterranean Sea, the macro-region is able to intercept large volumes of traffic.

However, the development of Ligurian ports encounters obstacles, represented by the lack of areas of port expansion adjacent to the harbours and by the congestion of the road network connecting with the final destination of goods. Therefore, to sustain the expected and desired growth in traffic and be able to expand their area of influence on the markets, Ligurian ports need the support of structures behind the port, also called dry ports, which should be connected through efficient rail infrastructure. The need for dry ports comes from the need to identify areas, which are no longer available in the proximity of the docks due to the lack of space, where all operations related to the handling and the processing of goods just landed at the port can be carried out.

The province of Alessandria, thanks to its geographical location, morphological characteristics, space availability, infrastructural facilities and logistics expertise, appears to be the most suitable area to host logistics ventures in support of Ligurian ports.

The innovative aspect of the thesis is to present a methodology for analyzing the regional effects of logistics infrastructures, which can be applicable to any territory.

Logistics infrastructures usually produce opportunities and threats in a different way between the different geographical areas involved. In particular, dry ports, as well as leading to more and better supply port, generate only positive effects on urban areas surrounding the seaport. On the contrary, in the area covered by new infrastructures, they are sources of negative externalities in terms of impacts on environment, landscape and quality of life; however, such new infrastructures represent a chance for the development of the socio-economic fabric, which will receive the opportunity to provide services to new incoming goods. Therefore the analysis must take into account this peculiarity, and so requires different considerations between different territorial systems.

Then, two different projects of dry ports were analyzed, and their potential outcomes were evaluated both in the Genoese area and in the province of Alessandria; in particular, potential impacts were analyzed on economic – employment system, on infrastructural – housing system, on environmental - landscape system and on the network of stakeholders.

To summarize, it can be said that the establishment of logistics nodes is a basic burden for the land, because they are sites generating and attracting traffic and therefore they produce strong negative externalities. However, they may also produce benefits for the areas where they are located, especially for their economic and social fabric: as well as determining an employment growth, they produce a strengthening of the productive fabric.

In order to establish a logistics infrastructure resulting in a chance for the development of the territory, it is necessary that the new logistic business is rooted to the specificities of the territory and its projects, especially in terms of developing synergies with the local productive chains.

Logistics infrastructures in any case strongly impact on the land and the environment in which they are located, in terms of land use, noise and air pollution, land fragmentation and alteration of the landscape. Therefore, for an environmentally sustainable logistic development, it is necessary to undertake a series of measures, ranging from simple mitigation of impacts to the use of disused industrial sites or underutilized railway stations as sites for new logistics settlements; thus, establishment of infrastructures can also be an opportunity for urban regeneration.

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