

# Environmental impact assessments and territory -Contributions from the perspective of territorial understanding, intelligence and development

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### ENVIRONMENTAL IMPACT ASSESMENTS AND TERRITORY Contributions from the perspective of territorial understanding, intelligence and development

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Is it possible to incorporate territorial understanding, intelligence and development (TUID) in environmental and urban impact assessments (EIAs)? In this paper we intend to provide some answers to this compelling question. We present some theoretic-methodological criteria that emerged after jointly<sup>1</sup> working on approximately forty EIAs, mainly on urban environments in Argentina.

There already exist treatises and unique works on EIAS<sup>2</sup>, thus our team has researched to enhance them with theoretic perspectives of TUID based, among other authors, in M. Santos, E. Durkheim, M. Weber, the ENTI team and numerous contemporary Latin American authors. We will focus in those subject matters usually defined in the EIA legislation as socio-economic and socio-territorial.

This way, investigating each object of study and intervention (OS/OI) we were able to find some guidelines for the analysis, common to most works and to other more particular central themes. With no intention of creating a thematic classification, we still think it useful to offer an OS/OI typology, because it helps to better direct and systematize the analysis. We established the preliminary classification shown in our research based on three criteria: activity (industrial, commercial, residential, transportation, mining, etc.), scale (small, medium, large), and intensity (degrees of occupation of the territorial environment).

In the second part of the publication we introduce some macro variables: place, territorial organization, identity, mobility, accessibility and connectivity. They refer to real cases<sup>3</sup>.

**The place.** Its understanding through the *Stlocus* Method (Bozzano-Resa; 2009) is a gateway for territorial intelligence and development, as it recognizes synergic and conflictive processes; economic, social and environmental rationalities; valorization, appropriation, occupation and other trends; as well as the logics of specific actors related to processes, rationalities and trends for each place. This is about going beyond classic criteria, such as "use incompatibilities" and "conflicts between zones".

**Territorial organization.** Its understanding from the foundational pact, the marks and imprints most indelible in the history of the territory under study (location subject to the EIA and neighbor places) lets us understand how particular systems of objects and systems of actions from the past are re-signified in the present. This is about going beyond the casuistry and chronology of the place under study to execute the proposal for mitigation or control related to the impact, the rationalities that –having a higher historic weight– are intelligent enough to promote a possible, more lasting, territorial development.

The identity. Surely this macro variable is the most complex to operationalize, but that doesn't mean that we should exclude it from our research. In the publication we state some criteria for the recognition of identities: individual, collective, cultural, social and territorial. It is appropriate to construct this macro variable with combined techniques: surveys, interviews, discourse analysis, videos and other. The recognition of different identities according to types of actors, types of identity and levels of weight or presence allow for a better understanding of the territory and finding the most intelligent alternatives that promote sustainable coexistence of diverse identities. This is about creating and proposing mitigation, control and other strategies that incorporate tools and support instruments to those identities considered as most desirable for the future.

**Mobility.** This is related to investigating the characteristics of pedestrian and vehicle mobility in different days and times at the place where the intervention will be implemented. The recognition of these moments of vehicle and pedestrian concentration is the gateway to conceiving and designing answers that lead to the mitigation of those effects. This is not only about measuring noise, CO2 or other items, but also about theorizing and proposing more comprehensive alternatives to the traditional measurements. We intend to

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<sup>&</sup>lt;sup>[2]</sup> Leopold, L. B., F. E. Clarke, B. B. Hanshaw, and J. E. Balsley (1971); Conesa Fern Indez-V Itora, V.(1993) Fern Indez Garcia, Fern Indez Gonz Ilez and Diaz M Indez (2006)

<sup>&</sup>lt;sup>[3]</sup> Due to confidentiality and ethical considerations those cases have not been published, thus we won $\tilde{\Phi}$  mention any company names or government institutions.

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propose solutions such as: refunctionalization of micro spaces, alternative technical systems for mobility and time rationalization, among others.

Accessibility and connectivity. Accessibility is understood in terms of the material conditions for access – roads, railroads, etc.– in their diverse qualities and states of preservation. Connectivity is expressed in terms of the connection conditions measured in modes of transportation (public, private: car, bus, train, bicycle, etc.) in space, time (isochrones) and cost (isocosts). This is about finding the most pertinent options for their incorporation into each EIA: pedestrians, consumers, workers, government employees, entrepreneurs, etc., as the accessibility and connectivity variants and options will differ.

The publication ends with an attempt to articulate criteria (the first part of the work), macro variables (the second part) and the **impact identification and quantification matrixes**, with their corresponding mitigation and/or adjustment measures that constitute an answer to real cases. There still remains, however, a long road to walk. A way of building possible territories that are better than the current ones is to produce answers from our research that exceed those usually present in our recent environmental and urban legislation in Latin American cities, states and countries. This is about promoting EIAs more committed to everyone, and to avoid assessing too late, many years after the main effects of the works on the environment are already facts.

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