5th International Conference on Environmental

case study

The tramway is one of the projects whose routes go beyond the limits of the city center but provide on their passages connecting services with several districts of the city, thus causing modifications in its urban fabrics. Among the projects launched in 2007 in Constantine, the future tramway, given its impact in a city choked by automobile traffic and pollution, is one of the achievements most awaited by the inhabitants of the "Old Rock".

This much-desired tramway, which was put into service in 2010, will help change the perception of urban transport in the capital of eastern Algeria, and will contribute to reconfiguring the image of a congested city, whose residents are finding it increasingly difficult to cope with the archaic means of transport made available to them

methodology 50% in the town centre 50 citizens 50% outside the city Questionnaire **10 Elected representatives** 50 managers open questions 40 executive directors laboratories

Interviews were held with officials from the relevant government departments, field technicians and people carrying out the work: face-to-face interviews were necessary to enrich this research with concrete and accurate information from the field. Three types of questionnaire were completed by the people concerned:

65 researchers/specialists/experts/BETs

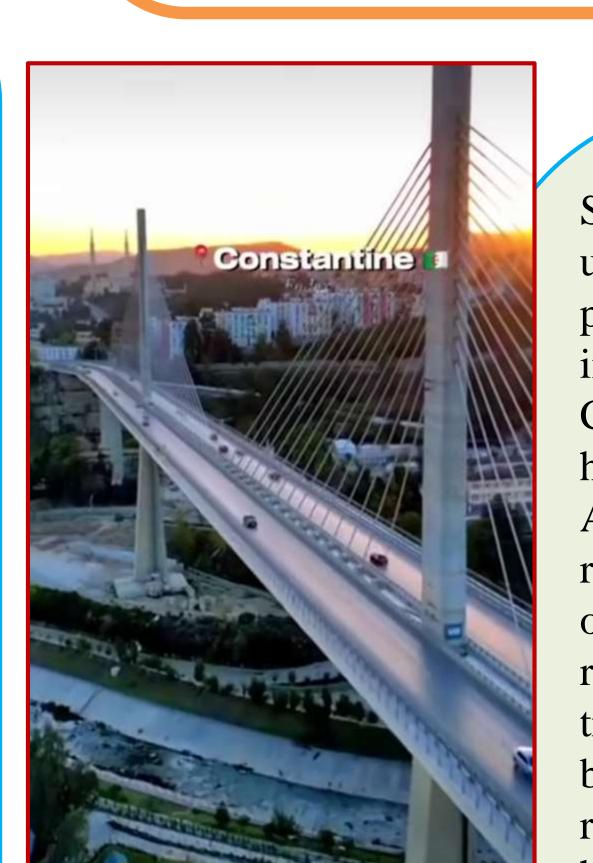
- 1. Managers.
- 2. academics, researchers, experts, etc.
- 3. Citizens.

The questionnaire form contains open-ended questions inviting the respondent to develop their opinion on the issues raised, and to give recommendations and advice based on their point of view and experience. Our interpretation will focus on the views, satisfaction and reactions of the various parties questioned.

INFLUENCE OF THE REVALORIZATION OF TRANSPORT THROUGH THE CREATION OF THE TRAMWAY ON MOBILITY AND URBAN DEVELOPMENT OF THE CITY INTRAMUROS OF CONSTANTINE

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Since 2005, and thanks to the favourable economic context, a new approach to urban planning has gradually been put in place through major structuring projects based essentially on major multimodal infrastructure support and an innovative conception of renewal, with the recomposition of the landscape. Constantine is considered one of the precursors of cities, given its civilisational history. It is the capital of the east of the country and the third largest city in Algeria. Despite this importance, the city suffers from serious problems that require intervention. In order to resolve the current problems affecting the city of Constantine intramuros and in particular its centre, the focus has been on returning to the city and rebuilding the city on itself, going beyond the traditional models of urban renewal. The structural projects launched have been accompanied by other operations on the existing urban fabric: the reclaiming and recovery of sites and urban pockets, the reduction of precarious housing and the urban requalification of neighbourhoods.

PROBLEMATIC

The routes of this project go beyond the limits of the city center but provide on their passages connecting services with several districts of the city, thus causing modifications in its urban fabrics.

The urban travel plan took into account all flows (including pedestrians), reorganized the roads and included the tram infrastructure in the recomposition of the intramural city, its choice was mainly linked to the morphology of the city and its relief. How did he participate in the enhancement of the urban landscape, the diversity of architecture... with the objective of strengthening the identity of Constantine, of asserting its status as a city of art and history for his heritage?



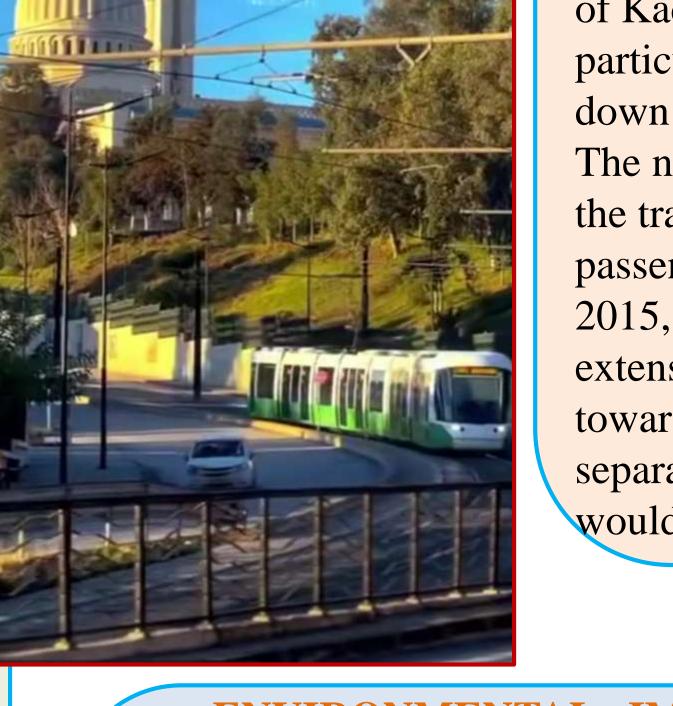




tramway route

The route of the southern line connects the heart of the agglomeration, from Benabdelmalek station to the Zouaghi city in the south, passing through the districts of Kaddour Boumedous and Belle Vue and providing particular service to university facilities. It is broken down into 3 sections.

The number of passengers getting off at the terminus of the tram line in Zouaghi, of the order of 4,000 passengers/hour in 2010 and 6,000 passengers/hour in 2015, demonstrates a very strong demand for the extension of public transport to the South, particularly towards Ali Mendjli. However, the large distance separating Zouaghi from Ali Mendjli (around 10 km) would imply the creation of a peri-urban line.



Constantine .

RESULTS

ENVIRONMENTAL IMPACT

LANDSCAPE IMPACT

Avoiding air pollution, global warming and the Offer a finer and more diversified urban energy crisis, Providing cleaner means of transport., Reducing the consumption of space embellishment, Ensuring better links and energy per person transported., Avoid noise pollution, By limiting the number of stations, reduce the number of parking areas and car parks in the city centre, Encourage the their routes, Providing a good image by development of green spaces, Appropriate landscaping of Oued Rhumel, Improve the urban organisation of the town centre.

fabric, Finalising urban development and between the city's major projects, by ensuring continuity in the modernisation process, Upgrading public spaces along integrating the banks of the Rhumel into the development, Rehabilitating the urban façades along the transport routes, Preserving cultural heritage.

Constantine's tramway is an important means of transport; in addition to relieving road traffic congestion in the inner city, it has provided a good link between the city centre and other districts from Benabdel-Malek station, particularly between the four universities. This is an emblematic operation that proves that a radical change has taken place in the city; mobility, the organisation of travel, the modification of the landscape, the enhancement of places where citizens live together, with the desire to respond to the acceleration of the world around us, are all strongly related to the way we design. In addition to the development work carried out along its route, measures must be taken to protect the natural and architectural heritage. This requires coherent policies to ensure the overall harmonious development of the whole area. The consultation and negotiation of users, especially in the city of Constantine intramuros, is a very important dimension in the success of a sustainable city, because creating a city on a human scale, in a protected environment, is a rich source of solidarity and culture.