Regional Territorial Impact Assessment East Brandenburg - West Poland using the example of cross-border rail connections

Pilot Project Eastern Railway - Line 203

Project summary

Erich Dallhammer, Roland Gaugitsch, Bernd Schuh · ÖIR GmbH
Michael Göbel · Regionomica GmbH
Peter Ulrich · University of Potsdam, Institute of Municipal Sciences

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Client: Joint State Planning Department Berlin-Brandenburg

Funding: "Model Project for Spatial Planning (MORO)", Federal Ministry of Housing, Urban Development and Building, Federal Institute for Research on Building, Urban Affairs and Spatial Planning

Institute for Territorial Development (Instytut Rozwoju Terytorialnego)

Facts and figures

Occasion: Territorial Agenda of the EU (TAEU) 12/2020

Project: Pilot action "Region-focused Territorial Impact Assessment - TIA" Better understanding how sectoral policies influence spatial developments - contribution to the implementation of the EU Territorial Agenda 2030.

Lead management: Ministry of Funds and Regional Policy of the Republic of Poland

Pilot action: Eastern Railway/Route 203 - Berlin-Brandenburg - Lubusz Voivodeship

Term: 1 March 2022 until 31 March 2023

Funding: Model Project for Spatial Planning (MORO)

Control: Joint State Planning Department Berlin-Brandenburg

Execution: Austrian Institute for Spatial Planning, Regionomica, Peter Ulrich

Project goals

- Development of a methodology and its testing
- Investigation of the spatial effects of transport policy in the German-Polish integration area
- Development of conclusions and recommendations for action
- Dissemination of the results in the catchment area of the Eastern Railway and Route 203 and in supra-regional bodies

Dates

- Kick-off event on 3.6.2022
- Regional workshop 1 on 5.7.2022
- Regional workshop 2 on 6.9.2022
- Conference on 24.11.2022

Brief description

In the German-Polish region of East Brandenburg - West Poland, a significant improvement in the performance of the cross-border rail infrastructure is necessary, especially between Berlin and the Gorzów Wielkopolski area. The foreseen upgraded railway connection including expansion to continuous two-tracks and electrification of the link not only has transport effects, but also influences the spatial development of the entire region. In order to assess possible impacts, the Joint Berlin-Brandenburg Regional Planning Department initiated the implementation of a region-specific Territorial Impact Assessment (TIA).
In the TIA, spatial effects of a specific project are determined and presented in a targeted and systematic manner. This is done as part of a pilot action for the implementation of the Territorial Agenda 2030 of the EU under the leadership of the Republic of Poland (Ministry of Funds and Regional Policy).

A TIA determines the type and intensity of effects a sectoral policy has on a region depending on its characteristics and sensitivity. Effects on the questions of accessibility, economy, environment, society and cooperation can thus be assessed in a coherent manner.

The potential effects of rail expansion on the different thematic fields are determined via means of spatial analysis. The result provides coherent arguments for the upgrade of the cross-border rail infrastructure. It is as such a contribution to the implementation of the "Joint Future Concept for the German-Polish Interlinked Area - Vision 2030". The impact assessment was carried out and reflected upon with regional stakeholders and technical experts who contributed their knowledge in several regional events.

Project overview

Under the title "Region-focused Territorial Impact Assessment (TIA)", a pilot action in the context of the renewed Territorial Agenda 2030 (TAEU) is being implemented. The pilot is led by Poland and implemented with the participation of the Member States Germany, the Czech Republic, Slovenia and the Netherlands. The action will test methods for analysing the impact of sectoral policies on the territory. On the one hand, the aim is to improve the concrete understanding of such effects so that local needs can be better taken into account in policy-making. On the other hand, the different projects will also illustrate the concrete specificities of different spatial typologies as well as sectoral issues and identify the corresponding implications for Territorial Impact Assessments (TIA).

Territorial impact assessments of plans and projects are carried out as forward-looking ex-ante analyses in order to assess the possible effects of a measure or policy at an early stage. In this way, technically sound contributions can be made to the development of options for action and implementation.

How and to what extent a policy can affect a region depends, among other aspects, on the characteristics of a region and its sensitivity towards a policy. Thus, different regions within a study area will be affected to different degrees, both positively and negatively, by higher-level policies. The results of the TIA give the regions concerned an idea of the potential impact of a plan or project and the consequences they may face. The TIA provides feedback to the implementing institution on the potential impacts of its planned interventions and thus contributes to better policy-making. In the spirit of the Territorial Agenda 2030, territorial impact assessment can thus contribute to a fairer Europe that offers prospects for all places and people, as well as a green Europe that protects common livelihoods and shapes social change.

The project at hand focuses, as an example, on the territorial impact assessment of the effects of a concrete sectoral policy (the interventions in cross-border infrastructure networks using the example of the railway network) in a concrete region, namely the German-Polish border area. The Ostbahn/Line 203 as a link between Berlin on the German side and Gorzów Wielkopolski and beyond on the Polish side has regained importance in recent years. It faces particular challenges, such as the largely single-track nature of the eastern section of the line and the lack of electrification along the entire route. Railway engineering studies have been carried out on the potential for upgrading the line, but no decision has yet been taken. The project examined the possible regional impacts of a hypothetical "full upgrade" of the Ostbahn/line 203, i.e. a continuous double-track, electrified line with (at least) hourly trains between Berlin and the Gorzów Wielkopolski area.

The project primarily provides added value for regional and sectoral actors. At the same time, the project provides a methodological contribution to the further development of territorial impact assessment of sectoral policies on the development of a region.

The processing of the project thus comprised two essential dimensions:

- Dimension 1: The development of a methodology for territorial impact assessment of cross-border infrastructures - suitable for the application example on the basis of existing approaches and their further development. This includes a review of the various approaches that have already been developed for territorial impact assessment, the technical preparation of the essential elements and the derivation of a methodology for the application example. Subsequently the methodology was revised taking into account the practical experience gained during the implementation phase.
- Dimension 2: Implementation of the territorial impact assessment for the German-Polish integration area - based on the developed methodology. This spatial-analytical study applied the developed methodology and lead to the derivation of potential regional consequences as well as recommendations for action for the different organisational levels.

The results achieved are thus a contribution to the implementation of the "Joint Future Concept for the German-Polish Interlinked Area - Vision 2030" as well as to the further development of the methodology of the Territorial Impact Assessment itself.

Methodology and outcomes

The vulnerability concept forms the theoretical and methodological basis of the territorial impact assessment in this project. According to the concept, regional impacts are described as the product of a region's exposure to an external stimulus (i.e. the effects triggered by the "impulse" hitting the region) and a region's sensitivity to that stimulus.

Regional effects and their location result from the interlinkage of sensitivity and exposure and can vary in strength. The estimation of the strength and location in the region was carried out in a semi-quantitative approach in the form of qualitative expert judgements based on quantitative GIS-based input (e.g. in the form of geographically processed regional statistics or regionalised "heat maps" for tourism uses).
Four main steps structured the process, starting with the delineation of the object of study, through the development of impact chains and mapping, to conclusions and recommendations. These steps were implemented as an alternating series of data preparation by the project team and subsequent analysis and validation by regional stakeholders in regional workshops.

Step 1: Delineation and context

The basis of the analyses is a delineation of the study area and an outline of the regional characteristics relevant to the analyses. In addition, the scenario to be studied (in this case, the described extension of the railway line) was defined, for which the impact assessment was then carried out.

Step 2: Impact chains and indicators

In order to identify the main interdependencies between rail infrastructure development and regional impacts, a systemic picture was developed with regional stakeholders. Based on this, the project team was able to prepare data that provided a quantitative input for the initial analysis of the main spatial and thematic impacts. The data was visualised in thematic maps.

Step 3: Regionalisation and mapping

Spatial effects in the border region were located by linking exposure and sensitivity from the previous steps. The main points of impact and diffuse effects were presented as a geographical analysis in the form of maps and explained verbally.

Step 4: Conclusions and options for action

On the basis of the main thematic and spatial impacts, conclusions were drawn for the different actors at regional and supra-regional level. Recommendations for action to avoid negative impacts and (primarily) to strengthen positive impacts were formulated by the project team and validated with stakeholders.
As a final step, the results were prepared in the form of an expert report for the planning institutions and regional stakeholders.

The assessment carried out for the application case was able to identify potential impacts on spatial structure and settlement development, demography and social structure and their support systems, economic development, tourism, environment and governance. The potential induced developments could be localised within the region and differentiated impacts between countries and in particular between urban and rural regions were outlined. The assessment also underlined that the potential positive impacts could be improved or even depend to a large extent on supporting measures, e.g. investing in additional transport nodes and transport options, improving conditions for settlement development or implementing cooperation in marketing and management of tourism aspects.

Details on the assessment are outlined in the report in section A, while details on the methodology are provided in section B. These sections include visualisation examples as well as the TIA map as a final outcome of the project.

Contact & Information

Joint State Planning Department Berlin-Brandenburg,
Unit GL2 European Spatial Development

Juergen.Neumueller@gl.berlin-brandenburg.de
Detlef.Herz@gl.berlin-brandenburg.de
Iwona.Pasieka-Goepfert@gl.berlin-brandenburg.de