



## **Impact of Transit-Oriented Development on High-Speed Rail Project: Case Studies of Land Use Change in Thailand and Lao PDR.**

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### **Abstract**

The Lao People's Democratic Republic (Lao PDR) is not only a least developed country and many high mountains, but it is also surrounded by many countries. The geographical characteristics of the country, therefore, the Lao government has given importance to the construction of the national infrastructure to reduce geographic restrictions that are an obstacle to the economic and social development of the Lao PDR. A landlocked country has become a land-linked country. It is also in line with the Belt and Road Initiative of China. Finally, the high-speed rail (HSR) project of the Lao PDR began construction in early 2016 with a length of 426 kilometers from a US \$ 6.8 billion loan. However, there have been concerns about the impact of the project in several areas of the HSR station such as the station located in a suburban area, Vientiane. The previously disrupted urbanization was due to population mobility and a lack of adequate public transport. There are also impacts on Thailand because it has a border and closes to this station, especially the economic and social changes in Nong Khai that is Special Economic Zone and also has the most border trade with Laotians. Besides, it has still some unanswered questions about the social and environmental impact of the project. Because the survey of the data before approval is not clear and detailed such as project zoning problems, different compensation or not suitable from the loss of lands or houses, including adaptation to the way of life of local communities whether it is a new settlement, career, etc. These conditions cause new vulnerabilities in local communities and national development between urban and rural areas in dimensions whether it threatens the areas and way of life of the communities which may weaken, unable to adapt, disparity, and not receive the benefits as it should be especially the communities around the HSR station. Hence, it needs to research the spatial integration approach to land use in the area around the HSR station and communities affected by the project. The researcher will analyze the link between Transit-Oriented Development (TOD) and economy, society, and environment to point out adapting to the survival of the communities and to find suitable suggestions together (TOD and communities) in real benefits and sustainability.

**Keywords:** Transit-Oriented, High-Speed Rail, Land Use Change