Thesis Title Socio-economic and Environmental Impacts of Rehabilitation

of the National Road 13N: A Case Study from Xai District to

Namo District, Oudomxai Province, Lao PDR

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## **ABSTRACT**

This study aims to: (1) To determine and quantify the impacts of rehabilitation of the National Road 13 N on socioeconomic and environmental components in Xai and Namo Districts, Oudomxai Province; (2) To develop options for mitigation measures and compensation packages to offset the impacts; (3) To involve the communities in selecting acceptable mitigation measures; (4) To calculate the costs of the social compensation and environmental mitigation package selected and acceptable by the communities to offset project externalities and (5) To calculate the real costs of the rehabilitation road project to the Lao people by internalizing the social and environmental costs of the project. Hence, this paper identifies the positive and negative impacts on the physical environment and socio-economic aspects of project-affectedpersons (PAPs) from rehabilitation of the National Road 13 N. This study thus satisfies all the goals of the EIA Regulation, No. 1770/STEA, October 2000. The term "Environment" is expanded to integrate human wellbeing and livelihood together with physical natural resources; thus the current EIA evaluates the project's effects in terms of land use, environmental changes, method uses data management and data mapping by interviewing from questionnaires and reviewing secondary data and primary data between the EIA feasibility studies of rehabilitation of the National Road Projects from relevant jurisdictions and the developed EIA "best practice" guidelines from other countries. It is validated by experts from these jurisdictions. A complete

and quality of life. Public participation is a part of the EIA process according to the Lao EIA regulations for articulating project information to affected residents (PAPs) and to receive their feedback, concerns and opinions on valued environmental components. Guideline development EIA is recommended for further study and as a capacity building tool for government staff from the Provincial Department of Roads and to verify actual impacts and evaluate details of the socioeconomic and environmental impact costs of rehabilitation road projects. The analysis of impacts of rehabilitating the National Road 13N through the Xai and Namo Districts found that approximately US\$ 1,700,000 of socio-economic and environmental costs were imposed upon these districts by the construction works. This is equivalent to about \$88 per person for the 19,195 persons living along the 78 kms stretch of road (or about 13.5% of their GDP). The costs of mitigation and compensating all project-affected-persons amounted to only 4 percent of total road construction costs...... not a large amount of additional monies to have included in the road contract for the costs of social equity and environmental protection and preservation. The total imposed costs of 4% of total road costs is on the low side of the range referenced in the technical literature (1-7 percent of total costs). However, no amount of funds was estimated for environmental supervision or management by the contractor and/or the project proponent and no estimate was included also for monitoring costs to verify that implemented mitigation measures were adequate and satisfactory.

**Keywords:** Lao PDR / Socio-economic / Environmental Impacts / National Road Project / Compensation and Mitigation Measures.