

Factors Influence of Rural Road Maintenances and Environmental Development in Pattani Watershed: Yala Province, South Thailand

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Abstract. The purposes of this research were to study factors that influence of rural road maintenance and environmental development in the community nearby the rural road in Pattani watershed, to study the relationship between the rural road maintenance and environmental development in the community nearby the rural road in Pattani watershed: Yala province. The samples were 250 inhabitants in the community nearby the rural road in Pattani watershed. The study yielded the following results: 1(perception of the public rural road maintenance about damage road and budget for maintenance aspects was in a high level. 2(the test of formulated hypothesis results: independent variables were related to rural road maintenance and environmental development in the community nearby the rural road at the 0.01 level of statistical significance. 3(factors of damage road and budget for maintenance aspects were influence and related to rural road maintenance and environmental development in the community nearby the rural road in Pattani watershed: Yala province at the 0.01 level of statistical significance. 4(This research suggests the avoidance of trucks carrying overload weight on the rural road in Pattani watershed: Yala province and maintenance budget should be located to all rural road in Pattani watershed networks in Pattani watershed: Yala province.

1. Introduction

Rural highway infrastructure was a system of transportation and transportation for most rural populations that had agricultural occupations and live in local communities of various regions in the country. Rural roads were important because of the transportation heels for farmers and agricultural products from farm to agricultural market in villages, sub-districts, districts and provinces. It was conducive to the development of agriculture from the source to the market, which was the distribution of agricultural products to consumers in society. Rural roads were routes that cross the geographic area, which was the boundary of the environment or natural ecosystems such as forests and mountains in the watershed area. To the coastal plain the second side of the rural highway was also a community. It was the habitat of most such rural people [1]. Rural roads, environment and communities on both sides, therefore was related with each other of environmental systems or local social systems. That was any part of

the change will have an effect on the local social system, such as the damage of rural roads. In addition to causing people had inconvenience in traveling by vehicles, cars and transporting agricultural products to various markets and also causing the environment and communities to deteriorate and undermine economic and social development as well. Rural road maintenance was necessary to be carried out by relevant government agencies that maintain and develop rural transportation routes. It was considered an important infrastructure of people in rural communities. In the occupation and traveling, interacting within the community and nearby communities, as well as traveling for religious ceremonies and traditions in communities where people in the community perceive the importance of maintaining rural roads. It was beneficial to themselves and the community. Therefore, there was collaboration between the government and the people in the development. And it was maintenance of routes such as development of two areas of rural roads by mowing and planting trees on both sides of the rural highway and responsible for taking care of the area on both sides of the front of their own homes as well as participating in the notification of damage to the route to the unit. State work in repairing and maintaining routes resulting in the environmental and social and economic conditions of the people in the communities on both sides of the rural highway had also developed. Therefore, it was needed to study the maintenance of rural roads and environmental development in neighbouring communities, rural roads, Pattani watershed: Yala province and the relationship between rural highway maintenance and environmental development in the community, including factors influencing the maintenance of rural roads in the development of the environment. To bring information and recommendations from the study had improved the policy and plan for maintenance of rural roads rural highway network in Pattani watershed: Yala province to be more efficient and useful for further development.

2. Methods

How to created tools, tools used in this study created with the following steps: Study from research related to rural highway maintenance and environmental development in the community. Analyse the data that was studied, create a questionnaire, provide questions that were relevant to the content and cover the problems that need to be studied. Questionnaires created for advisors and 5 experts examined and gave suggestions for clarity and accuracy of the language. There was content match)Content Validity(and then used to improve before applying the tool to test perform questionnaire tests by taking it to test for confidence)Reliability(in the area of Pattani watershed: Yala province rural highway network, a total of 40 sets were analysed to find confidence. Part 1 requires the use of the KR 20 confidence value. For the rest, used the alpha coefficient formula)Cronbach). Gained confidence in each episode bring the questionnaire that has been tested and then proceed to check and correct the defect again to get more complete research tools before actually applying to the sample in further research. Data collection for this study the researcher collected data by himself by requesting cooperation from relevant agencies and requesting cooperation in answering questionnaires from a population of 250 people in order to obtain clear information and discussed additional quantitative data. The researcher analysed the data according to the research objectives and hypotheses using statistical software. By separating the analysis as follows Information about personal factors of respondents analysed by finding frequencies, percentages and average values presented as tables. Information about the maintenance factor of rural roads was damage of routes and budget for maintenance of roads. Question characteristics was rating scale)Rating Scale(, each item had 2 options, namely, the development of the environment at a good and bad level. Statistics used in this research data analysis The researcher uses statistics to analyse data. As follows: Statistics used to check the quality of research tools Find content accuracy)Content Validity(using Rovinelli and Hambleton's formula]2[Finding the confidence value)Reliability(of the questionnaire using Cronbach's alpha coefficient formula]3[. Statistics used in data analysis. The collected data will be

analysed by using a computer program for descriptive statistics such as frequency distribution. Percentage in general data was analysed of samples find the mean and standard deviation in the analysis of knowledge, highway maintenance and environmental development. Test the relationship was using statistics, stepwise multiple regression analysis.

3. Results and Discussion

Perception of the maintenance of rural roads on the damage found that most of the sample groups. There was a high level of perception about the maintenance factor of rural roads in the path of damage at 98.00 percent. Because the samples were those who lived in the area for a long time and had an understanding of the damage of routes such as road surface damaged as cracks and potholes caused by overweight trucks, rain and flooding, etc. Which corresponds to [4]. It was especially in the central region of Thailand, including overloading Rain and soft soil layers formed under the surface of the soil. Perception of the maintenance of rural roads on the budget found that most of the sample groups. There was 95.20% of the perception of the maintenance of rural roads in the budget because the sample group understood and knew about the budget allocation for maintenance in each year. There was not enough budget for maintenance of the roads can be comprehensive and thorough every route. Which corresponds to the [5]. said that the highway was an important factor in national development. Especially in developing countries for Thailand, the highway helped spread prosperity to various parts. Throughout the country by bringing products from the production to the market were rely on the highway as a transportation route. The road that has been in use for a long time must have deteriorated. Making the ability to receive traffic comfortable driving and reduced traffic safety. Therefore, it was necessary to maintain the road so that the road can continue to work well. The purpose of the maintenance of the way and the classification of maintenance were 1(in order to maintain the original condition 2(for the convenience and safety of the users 3(to serve the people for the value of the investment 4(to reduce the maintenance fee keeping the 5(to reduce the cost of vehicles 6(To make the road to walk every season7(To make the restoration of the way in the future cheaper. The level of physical environment development found that most samples had a level of environmental development physical aspect, good level, 94.80%, can be observed from changes that occur in the community. It was due to a lot of maintenance, such as the construction of residential areas on the two sides more. The rapid increased in the amount of vehicles used to travel in the community, etc. There was in line with [6]. studying the environmental management of the community. According to the Chiang Mai city liveable project the objective was to study the livelihood of the city according to the opinions of community's environment and environmental problems of the community. And participation and factors that promote participation in environmental management can be concluded that some communities still had basic infrastructure or safety in life and property. Therefore, developed requires cooperation between the people in the community and external organizations, both the public sector, the private sector, to support development on the base of the community in order to move towards having a good social network. The level of biological environmental development found that most samples had a level of environmental development. The biological level was good at 89.20 percent because the people pay more attention to the development of the environment. Biological aspects were already well observed by cooperation in community forestry, setting up community cooperatives in animal husbandry and agriculture etc. It was corresponding to Pranas Baltrana and the faculty [7]. Who was conducted a study on examining the effects of toxic substances from highway maintenance on grass plants in Lithuania. Environmental development level social and cultural aspects found that most of the sample groups had level of environmental development social and cultural aspects, at a good level, 99.40 percent, due to the maintenance of good routes, causing people to travel more interactions between communities. Such as traveling to perform religious ceremonies in nearby communities traveling to participate in various traditions can be more convenient. This result in the development of social and cultural relations in communities and between communities was consistent with [8].

4. Conclusion

The study yielded the following results: perception of the public rural road maintenance about damage road and budget for maintenance aspects was in a high level. The test of formulated hypothesis results: independent variables were related to rural road maintenance and environmental development in the community nearby the rural road at the 0.01 level of statistical significance. Factors of damage road and budget for maintenance aspects were influence and related to rural road maintenance and environmental development in the community nearby the rural road in Pattani watershed: Yala province at the 0.01 level of statistical significance. The suggestion was the avoidance of trucks carrying overload weight on the rural road in Pattani watershed: Yala province and maintenance budget should be located to all rural road in Pattani watershed: Yala province networks.

5. References

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