



# **RUBBER FROM RUBBER TREE (*HEVEA BRASILIENSIS*) AS A STRENGTHENING AGENT FOR ROAD RECONSTRUCTION IN BANGSAMORO**

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# Rubber from Rubber Tree (*Hevea brasiliensis*) as a Strengthening Agent for Road Reconstruction in Bangsamoro

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## ABSTRACT

*The research is about rubber from Rubber Tree (*Hevea brasiliensis*) as a strengthening agent for road reconstruction in Bangsamoro. The study aims 1) To provide a strengthening agent for road reconstruction using rubber tree from rubber tree (*Hevea brasiliensis*). 2) To assess potential livelihood from rubber industry for economic growth in terms of: a. National Identity and Festivity b. Business and Marketing of Rubber – based products c. Tourism. The study is a descriptive type of research wherein the researchers used a bibliographic approach in the assessment of the rubber industry's economic effect. In addition, data about the Bangsamoro were gathered through the Open Bangsamoro Data files which contributed to the understanding of the current situation of Bangsamoro. This led to the introduction of National Identity for Bangsamoro. The researchers came up with a technique in rebuilding Bangsamoro, industrially and economically, and the main subject of the research is rubber. Since Bangsamoro came from a state of war and abundant in the area, rubbles of debris and waste material can be used as a strengthening agent for pavements. The results of the study come up with a solution to strengthen the qualities of asphalt, and by the mixing of natural rubber, which came from rubber trees. Due to the elasticity and shear resistance of rubber, the flow of roads during high temperature can be prevented and deformation is highly unlikely, thus, allowing it to be prolonged and maintained (Azahar, 2016). Furthermore, traffic noise can also be reduced as the experts reckon that it is because of the acquired thickness and springiness from the rubber. Also, this mixture can improve a water drainage property which is of course beneficial to places prone to flooding (Cimons, 2014).*

**Key Words:** *Bangsamoro, Rubber tree, National Identity, Economic growth, Business and Marketing, Tourism*



# Introduction

- ❖ Bangsamoro Organic Law (Republic Act No. 11054), also known as Bangsamoro Basic Law.
- ❖ Reorganization of the region, the reconstruction of its economic, security, social, political, and infrastructures.
- ❖ Conflicts still exist.
- ❖ Rubber from Rubber Trees as a Strengthening Agent for Reconstruction of Road.
- ❖ The South East Asia and Pacific Department, JICA, states that ARMM has a high potential of development but is affected by the long-time conflict and poverty rate.

# DATA

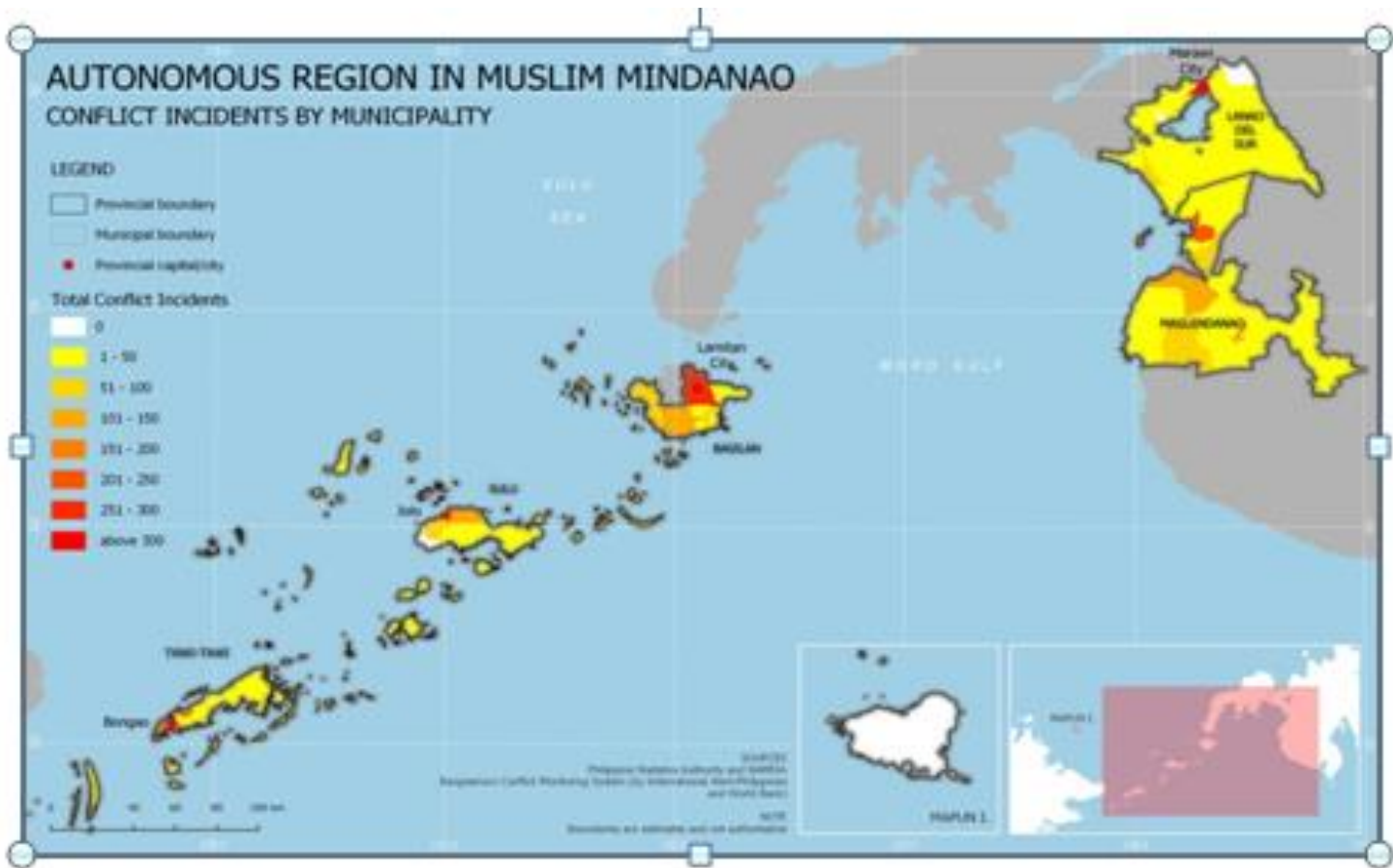


Figure1. Conflicts Incidents in ARMM

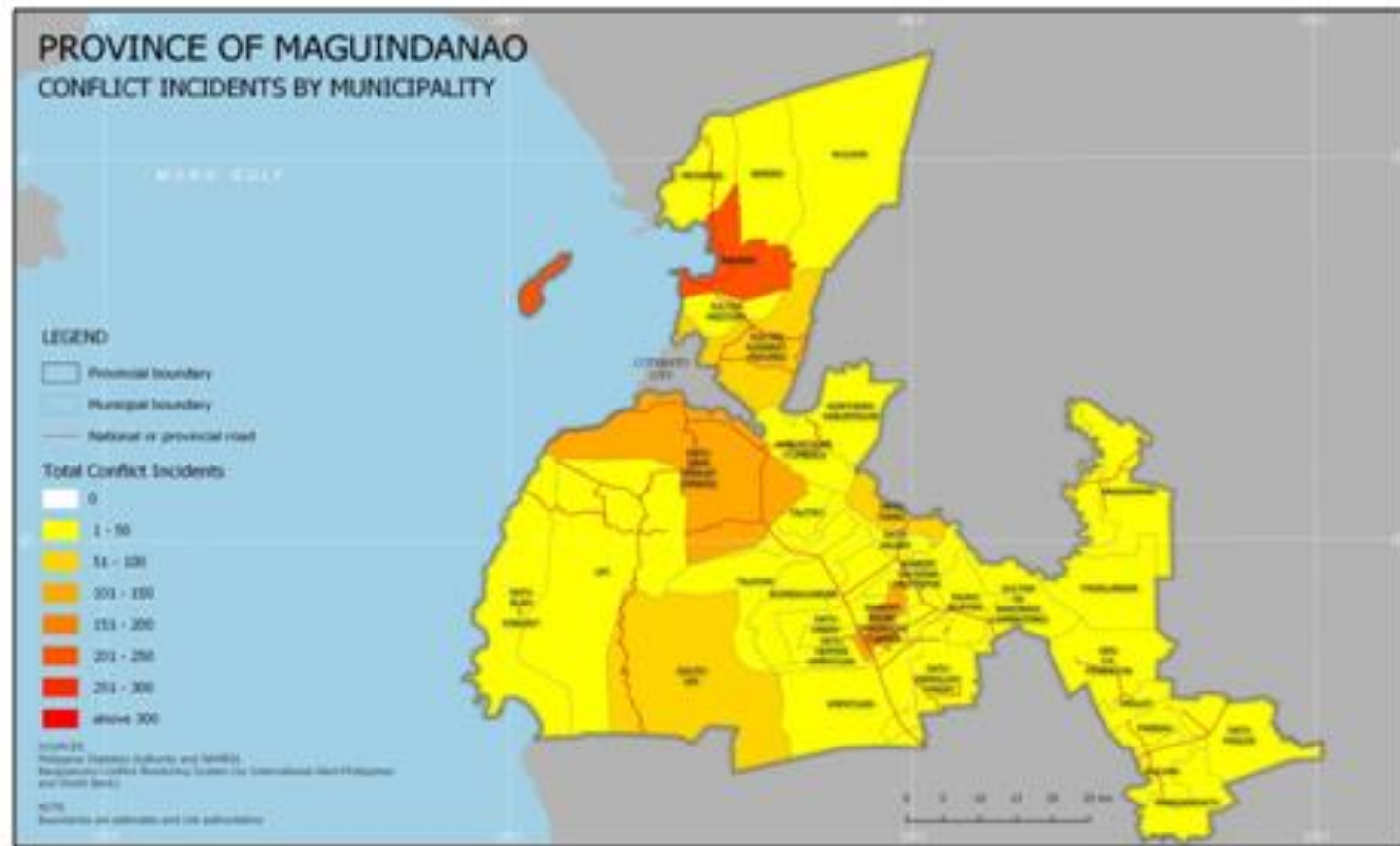




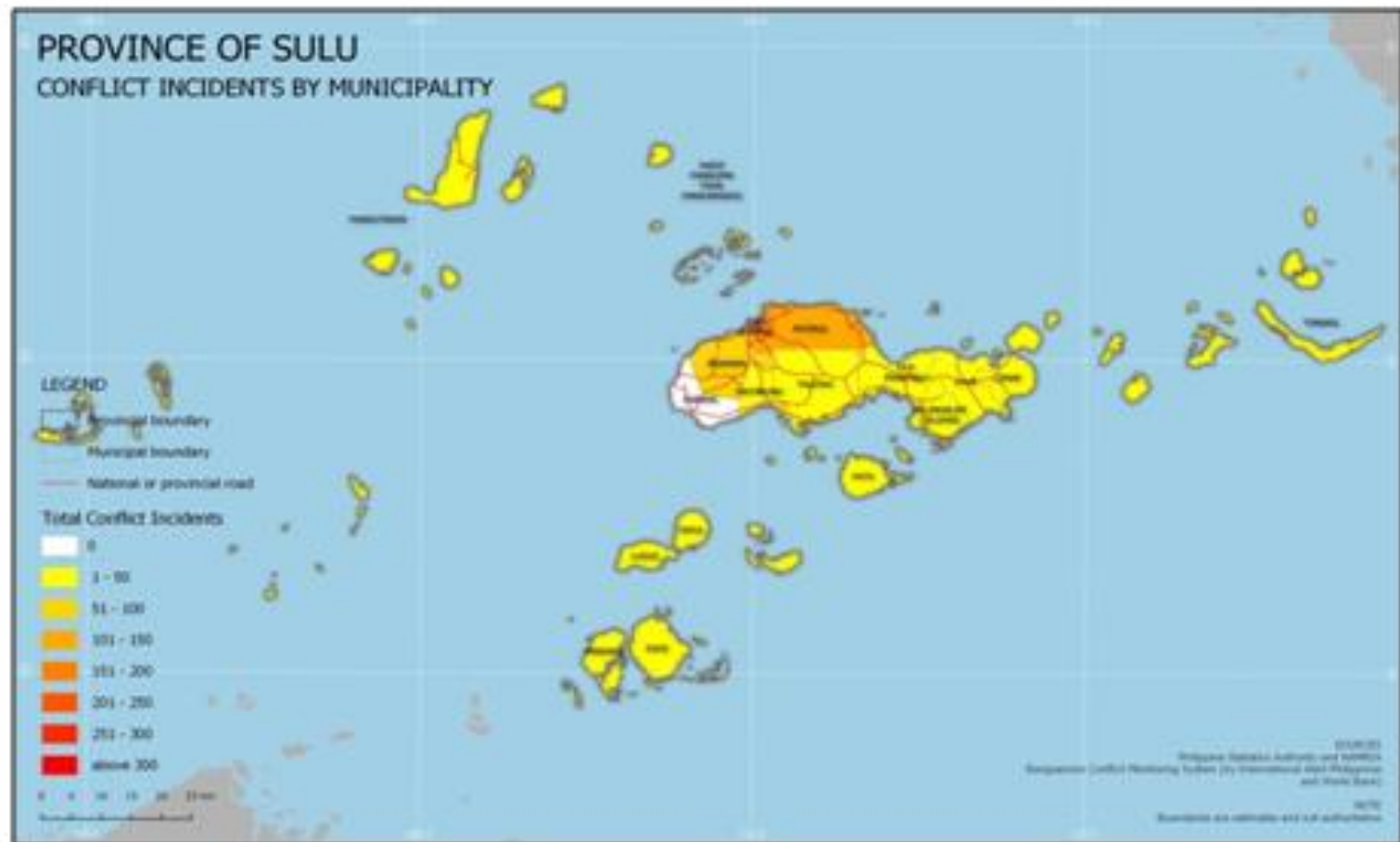
*Figure 2. Conflicts Incidents in Basilan*



*Figure3. Conflicts Incidents in Lanao Del Sur*



*Figure 4. Conflicts Incidents in Maguindanao*



*Figure 5. Conflicts Incidents in Sulu*





# Objectives

- ✓ To provide a strengthening agent for road reconstruction using rubber from rubber tree (*Hevea brasiliensis*).
- ✓ To assess potential livelihood from rubber industry for economic growth in terms of:
  1. National Identity and Festivity
  2. Business and Marketing of Rubber – based products
  3. Tourism



# Methods

- This study used a descriptive method of research.
- The researchers used a bibliographic approach in the assessment of the rubber industry's economic effect.
- Data about the Bangsamoro were gathered through the Open Bangsamoro Data files.



# THE PROS AND CONS OF RUBBERIZED ROAD AND RESULTS

- Elasticity and shear resistance of rubber prevents deformation of roads.
- Experts reckon that traffic noise can be reduced due to the thickness and springiness of rubber.
- Improves water drainage properties that is beneficial to places prone to flooding.



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Photos from Open Bangsamoro

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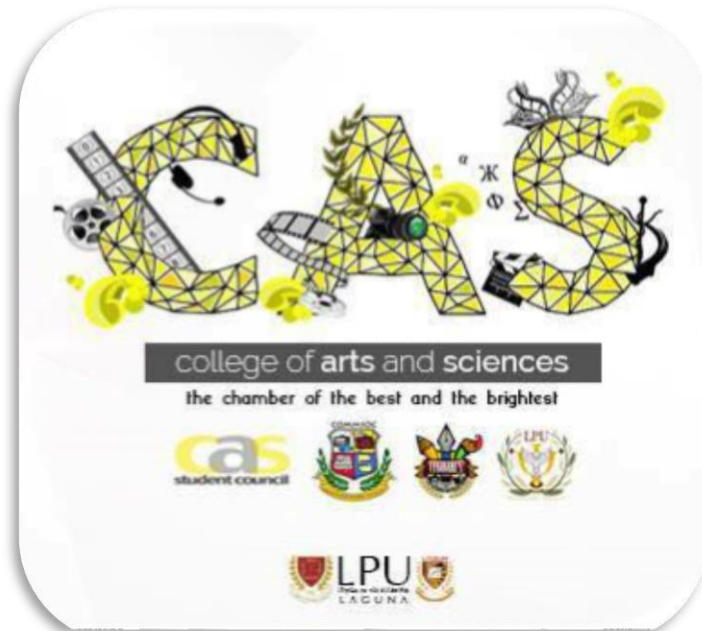
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# Thank you!