

DEVELOPMENT AND DISSEMINATION OF “*PETA JALUR MUDIK*” (HOMECOMING ROUTES MAP) IN INDONESIA

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ABSTRACT: “Mudik” (homecoming) is an important part of Indonesian culture. It’s that busy time, crowds and traffic jams of every year as millions of Indonesians are leaving the big cities to return to their hometowns and villages to celebrate Lebaran in the end of the holy month of Ramadan. In this case needed a material can be in the form of homecoming routes map for planning the route to the hometowns and villages. There are many variations of homecoming routes map that has been published by various institutions but without considering of source of map and cartography rules. The purpose of this study is to develop and disseminate homecoming routes map which can be the homecoming trip to the hometowns and villages can be safe, comfortable, no crowds and no traffic jams. The method including evaluation of data needed that will show on the homecoming route map, collecting of point of interest, development of geodatabase and GIS format, designing of cartography, reporting and dissemination. The result of this study has been created homecoming routes map that was used people in Java and Bali Island.

1. INTRODUCTION

Lebaran homecoming in the end of holy ramadhan has become an annual tradition in Indonesia. The period of 10 days before lebaran is defined as a period in which the actual homecoming occurs, because during 10 days before lebaran, Indonesian people have started to get holidays (Rini et al, 2014). Likewise periode of 10 days after lebaran, when the peoples has to start doing activities again. Therefore, the tradition of lebaran homecoming usually starts on 10 days before lebaran, which is marked by the crowds of national roads, terminals, train stations, ports, and airports. Some of the migrants came from Java and Sumatra who worked in the capital city. One alternative that is often used for lebaran homecoming is by using private cars, bus, or motorbikes, because the costs incurred are cheaper (Rini et al, 2014). Selection of the best route is needed for people on lebaran homecoming (Dian N, 2015). So map is important thing for planning the best route on lebaran homecoming, one of the advantages of map is to communicate information the reality effectively, informative, and communicative for the users (Soendjojo and Riqqi, 2012). Where the map visualizes geospatial that is data relating to location or attributes, so the information contained in the map can be used as consideration in making decisions (Kraak et al., 2017). According to Handoyo (2009), based on empirical observations, until now there are still frequent irregularities of digital cartographic visualization that can have an impact on the ineffectiveness of map usage. It is necessary to present an interesting and easily understood map that contains cartographic rules, especially for ordinary people in getting information contained in the map (Kertanegara et al., 2013).

Until now there are many variations of homecoming routes map that have been published by various institutions. The absence of standard rules in the cartography of homecoming routes map and less literature that discuss the homecoming routes map to make the existing homecoming routes map do not have cartographic designs and rules. The good or bad of a cartographic design that is on the map will affect the results of the map, so that it will have an impact on the quality of communication between the map maker and map users. The purpose of this study is to develop and disseminate homecoming routes map that can be used by people in planning their homecoming activities according to the good cartography.

2. METHODOLOGY

The research methodology that was carried out was as follows: 1.) Preparation, including preparation of tools and materials used for making cartographic designs for homecoming routes map, as well as collecting literature studies as cartographic design criteria for homecoming map. 2.) Identification of the aspects needed in the

homecoming routes map design, including activities to search and examine what aspects need to be considered in developing the homecoming routes map design which is one way to conduct discussions and interviews with related parties in developing homecoming map. 3.) Collection of data, including the collection of spatial and attribute data used for developing homecoming map. 4.) Data processing, including data collection activities, data selection and generalization, data editing, and the classification of homecoming routes. 5.) Cartographic design of homecoming maps, including generalization activities, determination of symbol designs for homecoming maps, use of colors, determination of text and typography terminology, and layout of existing parts on the homecoming map. 6.) Analysis and results of homecoming routes map cartography design, includes the activities of analysis of aspects that need to be considered in making homecoming map, 7.) Dissemination of homecoming routes map.

3. RESULTS AND DISCUSSION

Developing of the homecoming routes map that is applied to " Homecoming routes map 2018 for Java-Bali". The result of the identification of the factors needed in the homecoming routes map and is a visualization of cartographic designs made appropriately to be attractive and easily understood by users. Homecoming routes map 2018 was developed based on some information from user, stakeholder and technical team also in accordance with cartographic rules. Figure 1. is technical meeting with user, stakeholders and technical team for developing homecoming map.



Figure 1. Technical meeting for developing of homecoming routes map

Result of "Homecoming routes map 2018 for Java-Bali" presented in the hardcopy, softcopy and digital format. The hardcopy was printed on a sheet of paper, consists of the front and back pages with paper size of 100 cm x 35 cm in the type of HVS. While the softcopy " Homecoming routes map 2018 for Java-Bali" is available in pdf format, and GIS format which can be opened in Ina-geoportal (<https://portal.ina-sdi.or.id/petamudik>). Homecoming routes map is divided into 3 parts ; face, boundary information, and edge information. Edge information is on the front and back pages. Obtained the face, map scale is 1: 1,250,000. Cartographic design mostly follows Indonesia Standard (SNI) regarding the results has been validated by the BIG (Indonesian of Information Spatial Agency), Institut Teknologi Nasional (Itenas) and the Ministry of Public Works and Public Housing. The homecoming routes map presents of Java and Bali along with information about the homecoming activities which consist of:

- Porvince boundary
- District/subdistrict boundary
- Airport
- Port
- Mountain, hill and topography
- Rail road
- Rest area
- Lake
- Beach
- Ocean
- Oil station
- Toll road (operational)
- Toll road (fungtional)
- Tol road (non operational)
- Main route
- Alternative route
- recreation areas
- Accident areas
- Flooding areas
- Erosion areas
- Police office, hospital and bank

Boundary information displays coordinate data in degrees (°), minutes (′), and seconds (″) with 2 degree intervals. The front edge information displays information which consists of the distance scheme between the route sections of the homecoming dan information of recreations areas. For the back edge information consists of ; Nanggrek Route, Jakarta-Bandung and Jakarta-Tegal toll road, Pejagan-Semarang toll road, alternative route map of West Java-Central Java, Surabaya City toll road, Semarang City toll road, Semarang-Solo-Surabaya toll road, alternative route for Bandung-Banjar via Garut, Itenas and Big address information, web address information and a list of Itenas and BIG social contact media, discounting of toll road rates, functional toll road information, exit toll gate information, brexit toll information, and map history. Results of "Homecoming routes map 2018 for Java-Bali" and its desimination process are presented in Figure 2 and Figure 3.

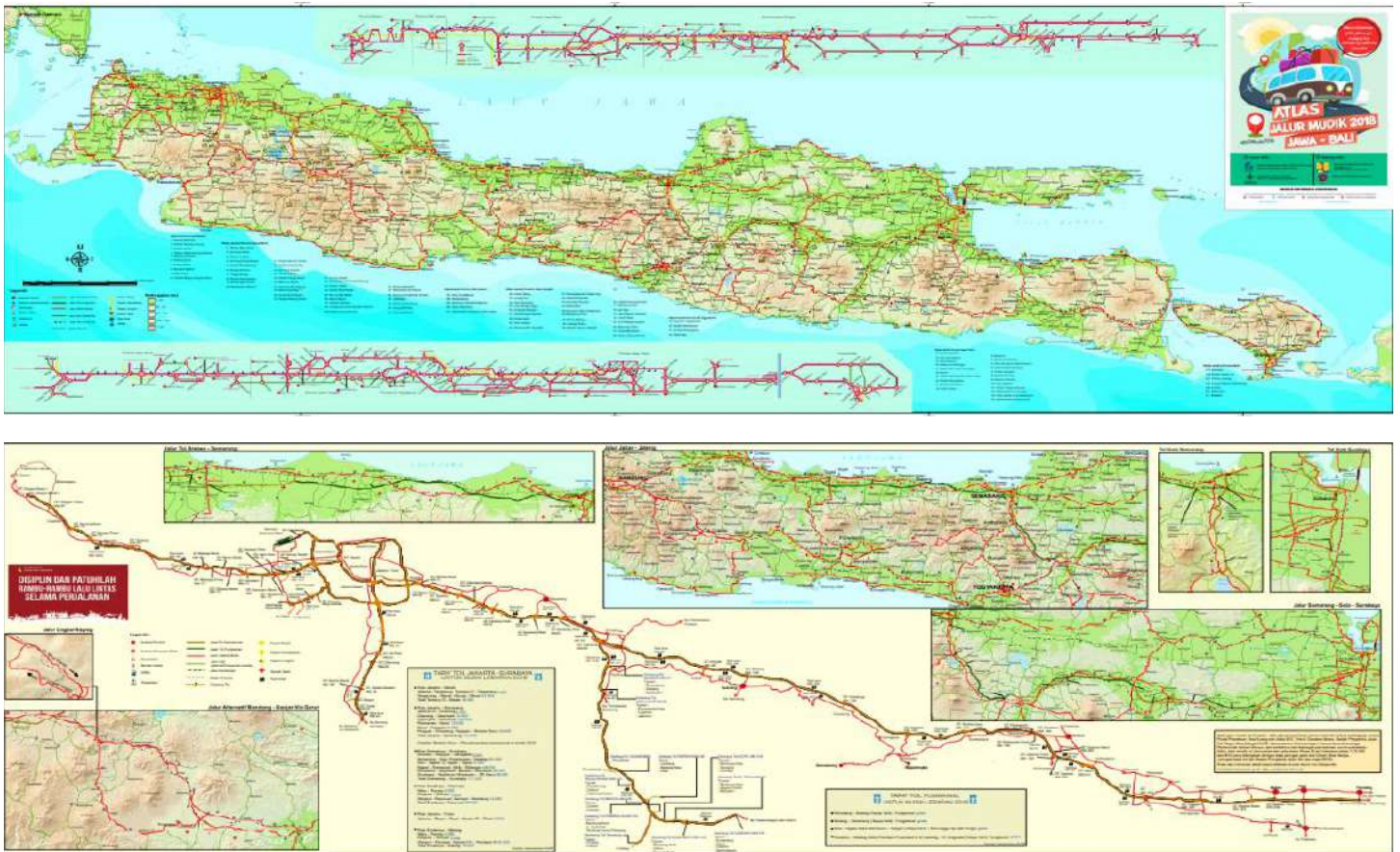


Figure 2. Homecoming routes map for Java and Bali island



Figure 2 Desimination of homecoming route map

4. CONCLUSION

Homecoming routes map 2018 for Java-Bali Island was available on hardcopy format and digital format which can be downloaded in Ina-geoportal (<https://portal.ina-sdi.or.id/petamudik>). Homecoming routes map contain important information about homecoming activities that have been determined based on consideration with the stakeholder, users and technical team, which consists of network of road data, Point of Interest (Oil station, police office, hopsital, bank and rest area), topography, vulnerable area, administrative boundary, and supplementary information. The criteria for developing and determining symbol design, color, and text on the cartographic design of the “Homecoming routes map 2018 for Java-Bali” considering of hierarchy, harmonization, simplicity by adopting the specification of presenting the base map scale of 1: 25,000 and the existing cartographic rules. For the further research will create guidelines or SNI (Indonesian National Standards) of homecoming routes map.

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