## The 14<sup>th</sup> JOINT WORKSHOP HELD IN BALI, FLORES and BUTON, INDONESIA From 17<sup>th</sup> to 22<sup>th</sup> November 2014

The 14<sup>th</sup> Joint Workshop for the technology and policy research of Road and Transport was held in Bali, Flores and Buton by NILIM, PWRI and IRE \* from 17<sup>th</sup> to 22<sup>th</sup> November 2014. \*IRE, Indonesia: Institute of Road Engineering, Indonesia

- 1. The theme for this time WS
  - 1) Environmentally Friendly Road on Reduce CO2 Emission
  - 2) Roadside Service Station in East Nusa Tenggara adopting Michinoeki Concept
  - 3) AsButon Research Project to Environment Mitigation



The 14th Joint Workshop

2. Outline of Technical Session

1) Road Environment

1) Environmentally Friendly Road on Reduce CO2 Emission

Activities of the Workshop:

The following themes were discussed;

(1) The contents of research on the power point that will be presented at the IRF 1st Asia Regional Congress & Exhibition

(2) Future research (Collecting data of CO2 emissions from motorcycle on actual road with actual travel speed and actual geometric condition)

Details of the Workshop:

(1) The contents of research on the power point has already discussed between NILIM and IRE and then ready to publish at the IRF 1st Asia Regional Congress & Exhibition

(2) Future research

If available in Japan, the speed sensor, fuel consumption meter and GPS which are installed on motorcycle will be provided by NILIM next year

The conclusion of this session:

-NILIM will try to provide speed sensor, fuel consumption meter and GPS.

-If NILIM will not able to provide speed sensor, fuel consumption meter and GPS, we will consider the Japanese method for measuring CO2 emissions from motorcycle which has already used by NILIM. This method is done by measuring the full tank manually.

2) Roadside Service Station in East Nusa Tenggara adopting Michinoeki Concept

Activities of the Workshop: The following themes were discussed;

- (1) Presentation form NILM, IER and RCSEE\* Discussion with West Manggarai Regency officers
- (2) Site investigation to Labuan Bajo, Lembor and Ruteng in Flores where proposed as the location for "Michinoeki"

## Details of the Workshop:

(1) IRE and RCSEE\* will make and submit a complete report to local government by adding information collected form this survey. Thus, NILIM and IRE





<ul> <li>NILIM and IRE reconfirmed that the research information related to "Michinoeki" would be closely shared.</li> <li>(2)In order to examine the proper placement of "Michinoeki", information of road condition, road environment and local specialties were collected.</li> <li>*RCSEE: Research Center for Social Economic and Environment</li> </ul>	
<ul> <li>3) AsButon Research Project to Environment Mitigation Activities of the Workshop: The following themes were discussed;</li> <li>(1) Research Program</li> <li>(2) Technical tour to Buton island for AsButon related facilities.</li> <li>Details of the Workshop:</li> <li>(1) Future research</li> <li>For AsButon Guss Asphalt mixture, trial construction in real large scale will be done at PWRI. Through this construction, PWRI will inspect performance, and compile information as a manual</li> <li>(2) Technical tour to Buton island for AsButon related facilities.</li> <li>PWRI side reconfirmed that AsButon has a huge deposit and will be a material for excellent asphalt pavement itself. About AsButon Center, the research project is promoted by public and private sectors</li> <li>The conclusion of this session: About trial construction, there are cooperative opinions on material provided. Application AsButon to Guss asphalt mixture is so expected.</li> <li>For also modified asphalt, Indonesia side has interested in polymer modifying technology, and many questions about the determination process and application were discussed.</li> </ul>	<image/>

## 3. Reference (History of the Cooperation)

The National Institute for Land and Infrastructure Management (NILIM) and the Institute of road Engineering (IRE) signed cooperation arrangement in Indonesia, February 2014.

Under this memorandum, the NILIM and IRE will continually share research information by, for example, jointly holding technical seminars and will actively exchange researchers to strengthen links between NILIM and Asia and to form international human networks, thereby providing technical supports for the growth in Asia.

2009.06	Pre-meeting in Jakarta and Bandung
2009.11	Tsukuba, MoU(C) agreed in general
2010.03	Bandung, (1st Joint Workshop for targeting the themes)
2010.06	Tsukuba, joint meeting for Bali coming symposium.
2010.10	International Symposium in Bali
	(2nd Joint Workshop to declare the strategy for cooperative researches)
2011.01	Jakarta, (3rd Joint Workshop to make the Road maps (1))
2011.06	Sulawesi, (4th Joint Workshop to make the Road maps (2) and site observation)
2011.09	Technological Tour in Japan for modernizing experimental Equipments and Facilities of
	RDCRB (IRE)
2011.10	Lombok, (5th Joint Workshop / Bilateral Seminar)
2012.03	Jakarta and Bandung, (6th Joint Workshop including River and Water Resource issue)
2012.06	Batam, (7th Joint Workshop Road maps (Bridge / Tunnel) and Open Seminar (Long Span
	Bridge and Tunnel Technology))
2012.06	Trilateral Workshop for the Interim Report in Tsukuba
2013.01	Jakarta, (8th Joint Workshop Road maps (Road Environment/ IPT/ Traffic Safety/
	Pavement/ Tunnel))
2013.08	Padalarang-Bandung, (9th Joint Workshop Road maps (IPT/ Traffic Safety/ Pavement/
	Tunnel))
2013.11	Tokyo, (10th Joint WS Road maps (Tunnel/ Pavement))
2014.02	Jakarta, Labuan Bajo and Denpasar, (11th Joint WS Road maps (Michi no Eki /Road
	Environment/IPT/Tunnel/ Pavement))
2014.03	Tsukuba, (12th Joint WS Road maps (Michi no Eki /Pavement))
2014.10	Jakarta, (13th Joint WS Road maps (Tunnel))

(International Research Division)