



This Symposium was so delivered as the second cooperative activity of NILIM and IRE after the Joint Workshop in last March in Bandung, both of which are working under the Memorandum of Research Cooperation signed in Tsukuba, in November, 2009. In order to deploy our leadership to the Asia and Pacific Regions broadly in the technological research area, we invited researchers of the third countries to the Symposium, which was actually attended by researchers of seven countries, Malaysia, Singapore, Thailand, Vietnam, Germany, Indonesia and Japan with over 200 researchers and high ranked officials.



As the conclusion, we have made the Declaration on the Policy and Strategy to be applied to the Climate Change issue and how harmonized road and transport systems are with the environment of the respective countries in the Asia and Pacific, as well as cooperative research projects identified concretely.



Photo 2. Bridged by former director of RDCRB (Mr. Agus / Center), his successor (Dr. Jawalli / Left) and DG of NILIM (Mr. Nishikawa / Right)

The key points of the Declaration are as below;

1) Policy Structure

Best combination of countermeasures in line with respective stage of socio-economic development of each country.

2) Strategy for Prioritization

Considering roles of new powers for the world economy, we should put our priority on the infrastructure improvement as bases of all countermeasures including smart using of road and transport services.

3) Countermeasures and Methods in the main fields

a) Road Environment

- /Improvement measures for air pollution and noise including setting out the targets
- /Climate Change strategy including mitigation and adaptation
- /Best practices for the integrated transport system in Asian mega cities
- /Road transport system taking account of electric/hybrid vehicles
- /Economic measures including fuel and vehicle taxation and road pricing

b) Road Pavement for mitigating the negative impacts of Climate Change

- /Technology of new materials for innovative pavements
- /Promotion of drainage/porous pavement and related standards of local materials (ex. Asbuton asphalt in Indonesia)
- /Public works efficiency in recycle reuse and reduce

c) Bridge and Tunnel in efficiency of construction and maintenance

- /Innovation in structural management of Bridge and Tunnel maintenance
- /Sensor technology for monitoring the deteriorations of Bridge and Tunnel and their elements
- /Technical control in construction of tunnel by NATM and TBM
- /Chemical painting and other related measures for reducing the life cycle costs of structures, especially for corrosions of steel bridges
- /Countermeasures against the overload issues including making Acts and Regulations with related technological systems

- d) Traffic survey and Planning through technological innovation of ITS
 - /Traffic survey measures using the latest technologies including ITS
 - /Exchange of road traffic data for cooperation and mutual understanding (length of vehicle lane, ratio of paved roads, traffic volume including dominant mode of 2-wheel vehicles in most of Asia countries and the available information of research projects, etc.)
 - /Countermeasures to the disasters, especially of landslide and flood in road networks to keep the traffic service in continuity and restore it in a shorter period.

And under these thinking, 6 research projects were set out.

4) Collaborative Research in Action

Under the thoughts above, six research projects were set out as below:

4-1) Guideline Development for Environmentally Friendly Roads

- a. Research members and contents
 - IRE: Review and adoption of Japan guidelines and standards
 - NILIM: Providing Japan standards and guidelines, advice and training advisors
- b. Research period
 - Four years from 2011 to 2014

4-2) Guideline Development for Tunnel and Underground Structures

- a. Research members and contents
 - IRE: Adoption of Japan guideline, evaluation of experiment results by study and trial tunnel and dispatching experts
 - PWRI: Providing Japan standards and guidelines, dispatching experts and training advisors
 - NILIM: Inter-agency facilitation in Japan
- b. Research period
 - Four years from 2011 to 2014

4-3) Guideline for 1) Bridge Foundation Scouring Monitoring; 2) Technical Control in Construction; 3) Corrosion Detection and Prevention Technology; 4) Fatigue Detection and Prevention Technology

- a. Research Members and contents
 - IRE: Adoption of Japan guideline, evaluation of experiment results by study and trial tunnel, dispatching experts
 - PWRI: Providing Japan standards and guidelines, dispatching experts and training advisors
 - NILIM: Inter-agency facilitation in Japan
- b. Research period
 - Three years from 2011 to 2013

4-4) Traffic Data Collection Technology

a. Research Members and contents

IRE: Integration of traffic data collection technologies

NILIM and other members: Providing information of traffic data collection technologies

b. Research period

Three years from 2010 to 2012

4-5) Data base development of 2-wheel vehicles

a. Research Members and contents

IRE: Total integration of the data of respective countries

NILIM: Surveillance of the data in Japan and its prediction

b. Research period

Three years from 2010 to 2012

4-6) Asbuton (Indonesian Natural Rock Asphalt) Research Project for Environmental Mitigation

a. Research Members and contents

IRE: Test pavements on actual roads, evaluation of experiment results, analysis of the efficiency

PWRI: Advice to make up the standards, support for technological matters

NILIM: Evaluation of positive and negative impacts on the Environment

JMAA (Japan Modified Asphalt Association): Special support in modified asphalt technology

b. Research period

Three years from 2010 to 2012



Photo 3. Appearance of social experiment "Stop space of motorcycle limitation in intersection"

5) Collaborative Research Manner

To work together in collaborative research will be open to any interested institutions and be managed under positive partnership.

(International Research and Promotion Division)