



Workshop Report

Inaugural REAAA Mino Roadshow: Workshop Report

by *ARRB Group Ltd*

for Global Transport Knowledge Partnership and Road Engineering Association of Asia and Australasia



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for Global Transport Knowledge Partnership
and Road Engineering Association of Asia
and Australasia

Reviewed	
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Quality Manager	Kieran Sharp

Summary

The report documents the organisation and outcomes of the inaugural Mino Roadshow, with a theme of 'Managing road assets for community outcomes' which was held between 25-27 August 2008 at the Legend Hotel in Kuala Lumpur, Malaysia.

The event, named in honour of former REAAA President Dr Sadamu Mino of Japan, forms part of REAAA's technology transfer program to help members and road sector personnel to update their skills and keep abreast of changes and improvements in technology.

Fifty invited delegates, all senior officers from highways and public works departments from selected countries in the Asia / Pacific region were in attendance. Countries represented included Samoa, Solomon Islands, Fiji, Papua New Guinea, Indonesia, Malaysia, Philippines, Cambodia, Laos, Vietnam, Bangladesh, Pakistan and Sri Lanka.

The event was sponsored by gTKP and organised and delivered by ARRB Group in association with the REAAA Secretariat, Malaysia, with support from AusAID, and additional sponsorship from the participating countries, private industry and donor agencies. Contributors included the Global Road Safety Partnership (GRSP), the International Road Assessment Program (iRAP), Kumpulan IKRAM and the Malaysian Institute of Road Safety and Research (MIROS), and road authorities from Bangladesh, Indonesia, Malaysia and Samoa.

The subject matter combining asset management and road safety issues in a single forum was a unique experience for many delegates exposing them to areas which would normally be considered beyond their operational responsibility. Participants benefited by exposure to these topics and the ensuing discussion. The information and tools provided will be readily applicable to future work in managing road assets for community outcomes.

Time was also set aside for workshops and networking between delegates and it was very encouraging to see the degree of networking and rapport between delegates from a range of countries. This has set the scene for ongoing future cooperation through groupings such as those provided by REAAA.

Workshop activities, covered individual participant and group evaluation (by country and region) of:

- Strengths and weaknesses in integrated asset management
- Feedback on the most positive aspects of the event and on general aspects

The outcomes of the workshop were as follows:

- i. Asset preservation and safety outcomes seen as greatest weaknesses
- ii. Opportunity for knowledge sharing, and exposure to 'Safe road systems' concepts and quantifying investment benefits seen as most positive contribution
- iii. Maintenance delivery an issue in most countries
- iv. Additional needs include social and environmental impacts of roads, climate change and basic rural access
- v. Support for greater involvement of policy officials, treasury and funding agencies

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- vi. In country actions to include broader dissemination and training of practitioners

The possibility of wider dissemination, e.g. to elsewhere in the Asia-pacific, and further afield was encouraged following feedback from the REAAA Governing Council and sponsor organisations.

It is intended that future REAAA Mino Roadshows will be conducted on a regular basis at selected locations throughout the region, covering a range of selected topics.

The capacity for significant participant contribution was clearly demonstrated and future events will aim to consolidate and build on this capacity. Significant interest was shown in participant presentations, these being highly relevant and instrumental to the success of the event.

The availability of a substantial set of resource materials for distribution to REAAA member organisations and sponsors provides a good foundation for future events.

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1 INTRODUCTION

REAAA is an acronym for the Road Engineering Association of Asia and Australasia which totals about 1600 members from about 35 countries. In some countries membership forms a local chapter such as in Australia, New Zealand, Korea and Malaysia, whereas in other countries local road associations exist and in turn are members of REAAA.

Under its strategic plan one of REAAA's objectives is to assist member's professional development through technology transfer. A journal is produced regularly, a web site is maintained and from time to time workshops and seminars are conducted. The Secretariat is currently located in Malaysia.

In 2001 a successful 3 day seminar was conducted in Bangkok which explored emerging issues and challenges for managers of the regions' road networks. This seminar was funded in large part by the ADB but with support from the World Bank and a small number REAAA institutional members such as ARRB and Transit New Zealand.

At the 2nd Heads of Road Authorities (HORA) Meeting, held in Cairns, Queensland, in May 2003, there was considerable support for REAAA to develop an active technology transfer program to update skills and keep abreast of changes and improvements in technology. Subsequently the NZ and Australian Chapter respectively have identified training needs of countries in the Pacific region and existing training providers, documenting the courses provided. This information has informed the development of the REAAA MINO ROADSHOW.

At the REAAA Council meeting held in Hanoi in October 2003, agreement was reached to fully develop a proposal for a ROADSHOW to be initially implemented in the Pacific Island nations, such as Samoa, Fiji, and Tonga. The meeting also decided to adopt the name REAAA MINO ROADSHOW in memory of former President and long serving member of the Governing Council, Dr Sadamu Mino. A further aim was to investigate the possibility of delivering training in Vietnam as a subsequent venue to target audiences in the Greater Mekong Region.

With financial support for the project confirmed by UK's Department for International Development, as part of its contribution to the Global Transport Knowledge Partnership (gTKP), and a substantial contribution to participant attendance by the Australian Agency for International Development (AusAID), the venue for this first Mino Roadshow was finally chosen as Kuala Lumpur. This provided an appropriate location for a single event with a wider focus aimed at countries within the whole of south, east and south east Asia and the Pacific to be covered.

This report describes the organisation and outcomes of the inaugural 3 day REAAA Mino Roadshow held in Kuala Lumpur in August 2008 on the theme 'Managing road assets for community outcomes', with a focus on network level road asset management, investment planning and road safety strategies. The report is accompanied by a set of resource materials prepared specifically for the event and made accessible on REAAA member websites.

The event drew on best practice asset management and investment planning in Australasia and south east Asia, using examples from throughout the region. In road safety, best practice approaches to network level road safety assessment and management were presented, including examples drawn from the International Road Assessment Programme (iRAP).

It is anticipated that the event is the first in a series of regular events, with the themes of the following events varied to reflect user needs.

2 OBJECTIVES AND SCOPE

2.1 Theme

The theme of the event was: 'Managing road assets for community outcomes'

2.2 Objectives

The objectives comprised:

1. updating road practitioners on current best practice principles
2. providing a conduit of information transfer in mainstream transport knowledge to connect local and international practitioners
3. providing an appreciation of the relevant operational principles applicable to practice
4. facilitating the adoption of appropriate planning and engineering practices to meet the unique needs of countries in the region using evidence-based sustainable techniques.

2.3 Scope

This first event focused on the management of national and provincial level road infrastructure from an asset management and road safety perspective. The topics which were addressed embraced the following:

- Asset management
 - regional perspective and issues
 - strategic objectives and performance indicators
 - levels of service, managing risks and standards
 - needs analysis, program development, costs and benefits
 - data strategies and decision support tools
 - delivery/contracting arrangements
 - monitoring and evaluation
 - case studies.
- Road safety
 - the road safety problem
 - road safety improvement strategies, and the role of infrastructure management
 - network level road safety risk assessment
 - road safety engineering countermeasures
 - needs analysis, program development, costs and benefits
 - case studies.

2.4 Contributions to Sustainability

These are expected to be achieved through:

5. A stronger network of committed professionals with greater awareness of best practice principles and solutions thus providing participants with essential knowledge and increased confidence in adopting appropriate solutions.

6. Specific information exchange involving regionally based centres of excellence and specialisation aimed at increasing accessibility to best practice on an ongoing basis.

Whilst the event targeted senior staff and lead specialists, the needs of junior professional and other technical staff are considered highly important. It is expected that these will be addressed through existing or enhanced in-country programmes, the intention being that benefits will flow on from the participation of senior attendees in this inaugural program.

Heads of road authorities have also been made aware of developments through awareness raising sessions at REAAA HORA meetings, and through other organised events, including a presentation on the outcomes of the event to the 86th REAAA Council Meeting held in Perth, Western Australia in October 2008.

3 INAUGURAL MINO ROADSHOW IN KUALA LUMPUR

3.1 Country Participation and Trainee Identification

Two specific groups drawn from road authorities, private industry and universities were identified as the immediate target of the event, namely:

1. Senior managers and decision makers at a directorate or sub-directorate level.
2. Senior professionals and lead technical specialists.

3.2 Invited Countries and International Organisations

Invitations specifically targeted countries in south east Asia, the Pacific Islands, the Greater Mekong Region, the Indian sub-continent and China. In the event, the countries listed in Table 1 were represented. Of the Pacific Islands, Tonga was not represented, and neither were India and the People's Republic of China, although contacts were established with the latter countries for possible future events.

Table 1: Country representation

<ul style="list-style-type: none">• Bangladesh• Cambodia• Laos• India• Indonesia• Malaysia• Nepal	<ul style="list-style-type: none">• Pacific nations of Fiji, Samoa and the Solomon Islands• Pakistan• Papua New Guinea• Philippines• Sri Lanka• Thailand• Vietnam
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Invitations were also extended to international organisations, with representatives present on behalf of the Global Transport Knowledge Partnership and the Australian Agency for International Development.

3.3 Event Organisation and Delivery

The event was organised by ARRB Group Ltd on behalf of the REAAA Technical Secretariat, with local logistical support provided by the Road Engineering Association of Malaysia, the current REAAA Secretariat.

The technical team responsible for the preparation and delivery included experienced professionals from the following organisations:

- ARRB Group, playing the role of project manager and specialist contributions in asset management, transport economics and road safety
- Global Road Safety Partnership (GRSP) who contributed the introductory speaker on road safety
- International Road Assessment Programme (iRAP), as specialist contributors in road safety

- Malaysian Institute of Road Safety (MIROS), as specialist contributors in road safety
- Kumpulan IKRAM Malaysia, as specialist contributors in road asset management.

In addition, presentations were also made by participating road authorities and consultants, including:

- Road Asset Management Branch, Malaysian Department of Public Works
- Roads and Highways Department, Bangladesh
- Directorate of Planning, Directorate General of Highways, Indonesia
- Public Work Department/IPA Ltd, Samoa.

3.4 Event Program

The event program is presented in Appendix A, and comprised:

- Official opening by Deputy Minister of Works Malaysia, Datuk Yong Khoo Seng on behalf of the Minister of Works Malaysia, Dato' Ir Mohd Zin bin Mohamed
- Introductory presentations on the overall program and the role of GTKP by Mr Charles Melhuish, gTKP Technical Themes Manager
- Lead presentations in each of the two main subject areas, asset management and road safety
- Topic based presentations in each subject area
- Case study and country example presentations
- Country/Regional action plans
- Course assessment and feedback, including:
 - Rapid assessment
 - Most positive contributions
 - Areas for development
 - Follow on actions (by countries and trainers)
- Social events including evening reception and official dinner.

3.5 Training Resource Materials

Training resource materials, as MS Office PowerPoint presentations employed during the event are listed in Table 2 and are available in electronic format.

Table 2: Training presentations

Directory	Contents
Session 0 - Introduction	<ul style="list-style-type: none"> ▪ Program introduction by Tyrone Toole (ARRB) ▪ GTKP introduction by Charles Melhuish (GTKP)
Session 1 – Road sector challenges	<ul style="list-style-type: none"> ▪ Overview by Paul Robinson (ARRB)
Session 2 – Road safety in Asia – Pacific	<ul style="list-style-type: none"> ▪ Overview by Rob Klein (GRSP)
Session 3 – AM framework	<ul style="list-style-type: none"> ▪ Overview by Tyrone Toole (ARRB)
Session 4 – Quantifying benefits	<ul style="list-style-type: none"> ▪ Overview by Nigel Rockliffe (ARRB)
Session 5 – Decision support systems	<ul style="list-style-type: none"> ▪ Overview by Mhd Zamri Hassan (IKRAM) ▪ PWD RAMS by Sufyian Zakaria (PWD Malaysia)
Session 6 – Road safety engineering and risk assessment	<ul style="list-style-type: none"> ▪ Overview by Blair Turner (ARRB)
Session 7 – Network safety and priorities (iRAP)	<ul style="list-style-type: none"> ▪ Overview by Rob McInerney (iRAP) ▪ iRAP Case Study Malaysia by Mrs Jamilah Marjan (MIROS) ▪ Malaysian PWD initiatives in road safety by Zulakmal Sufian (PWD Malaysia)
Session 8 – Network planning and design	<ul style="list-style-type: none"> ▪ Overview by Paul Robinson (ARRB) ▪ Road network planning and design in Indonesia by Palgunadi (DGH, Indonesia) ▪ Case study – Eastern Indonesia National Road Improvement Project by Tyrone Toole (ARRB) ▪ Road and bridge asset management system in Bangladesh by Md Aftab Uddin (RHD, Bangladesh)
Session 9 – Network maintenance management and delivery	<ul style="list-style-type: none"> ▪ Overview by Paul Robinson (ARRB) ▪ Road management plans by Tyrone Toole (ARRB) ▪ TANC initiative in NT by Paul Robinson (ARRB)
Session 10 – Institutional needs	<ul style="list-style-type: none"> ▪ Overview by Tyrone Toole (ARRB) ▪ PWD reform – Samoa experience by Mr Isikuki Punivalu (IPA Ltd) ▪ Development of Road Agencies in the North Eastern States, India by Paul Robinson (ARRB)
Session 11 – Country and regional action plans	<ul style="list-style-type: none"> ▪ Overview by Key Presenters
Session 12 – Evaluation and feedback	<ul style="list-style-type: none"> ▪ Task description ▪ Outcomes

3.6 Workshop Activities

The final afternoon was devoted to workshop activities, covering individual participant and group (by country/region) evaluation of:

- strengths and weaknesses in asset management, covering different phases from objectives to audit, outcome areas and institutional resources (see Figure 1), where:
 - safety relates to road accidents

- efficiency relates to transport efficiency and capacity to achieve efficient investments
 - retained value relates to preserving assets through effective and timely routine and periodic maintenance
 - systems/tools relate to the availability of effective information systems and decision support tools
 - HR (human resources) relates to overall capability (quality) and adequate capacity (numbers)
 - finance relates to availability of sufficient funding resources
 - relationships relates to internal and external relationships between different divisions and stakeholders
- feedback on the most positive aspects of the event, areas for development and proposed further actions, and general feedback on organisation, presentation and delivery.

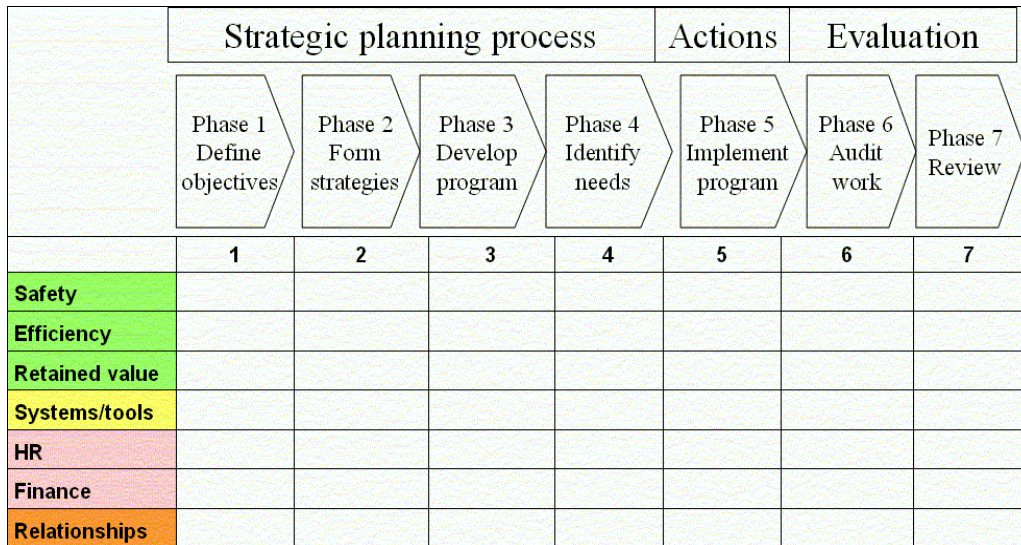


Figure 1: Process for evaluating asset management

3.7 Outcomes

3.7.1 Overall

Analysis of the participant feedback provided the following results:

- asset preservation and safety outcomes were seen as the greatest weaknesses amongst participating authorities
- the opportunity for knowledge sharing, and exposure to ‘safe road system’ concepts and quantifying investment benefits was seen as the most positive contribution
- maintenance delivery, leading to asset risks affecting retained value and safety outcomes, was identified as an issue in most countries

- additional needs included the social and environmental impacts of roads, climate change and basic rural access
- substantial support for greater involvement of policy officials, treasury and funding agencies
- follow on in-country actions were recommended and should include broader dissemination and training of practitioners.

3.7.2 Sub-regional Needs

Whilst the overall sample was relatively small, sufficient responses were available to provide an insight to the needs of specific sub-regions. These were determined from the results of questionnaires issued to each individual and discussed in groups, including:

- Ranking of self assessed institutional strengths and weaknesses in key results area of safety, efficiency and retained value (see Table 3 below), where 1 = weakest.

The ability to preserve assets, or retain asset value, was identified as the most common weakness overall, with Indonesia, the Greater Mekong and Philippines listing it as their biggest issue. Efficiency was the second most common weakness (Indian sub-continent and Malaysia), with safety quoted third, but first ranked for the Pacific.

- Ranking of self assessed institutional strengths and weaknesses in human resources, financial resources and systems (see Table 4 below).

Weaknesses in human resource capacity were noted for Indonesia, the Indian sub-continent, Pacific and Malaysia, whereas the Greater Mekong and Philippines rated financial resources as being weak. Systems were ranked the strongest overall.

Table 3: Ranking by self-assessed weaknesses of key results areas

Country	Safety	Efficiency	Retained Value
Indonesia	2	3	1
Indian Subcontinent	3	1	2
Greater Mekong	2	3	1
Pacific	1	3	2
Philippines	3	2	1
Malaysia	2=	1	2=
Overall	2=	2=	1

Table 4: Ranking by self-assessed weaknesses in resources and systems

Country	Human Resources	Systems/Tools	Finance	Relationships
Indonesia	1	4	2	3
Indian Subcontinent	1	4	2	3
Greater Mekong	2	4	1	3
Pacific	1	4	3	2
Philippines	3	2	1	4
Malaysia	1	3=	2	3=
Overall	1	4	2	3

3.7.3 Session and Workshop Feedback

Feedback on the organisation of the event and value of the different sessions was obtained from participants, as follows:

- Workshop assessment. The results of the workshop assessment are shown in Table 5.
- Feedback. This was based on answers to the following three questions, and involved classifying the feedback and assessing the most quoted topic areas (see Table 6):
 - Most positive
 - Areas for clarification
 - Next steps.

Table 5: Workshop responses (% responses)

	Course organisation	Accommodation and meals	Course presentation	Training Materials	Achieved results	How did I perform?
Very Good	60	55	50	30	30	15
Good	35	45	50	60	60	60
Average	5			10	10	25
Poor						
Very Poor						

Ranking of the top three most quoted topic areas based on participant feedback is presented in Table 6 below, where 1 = most quoted.

Table 6: Ranking of most quoted topic areas

Country	Policy & Institutional	AM Business Framework & tools	Benefits, Impacts & Outcomes	Safer roads	Network management & delivery
Indonesia		1 =	1 =	1 =	
Indian subcontinent		2	3	1	
Greater Mekong		1		2 =	2 =
Pacific	2 =	1		2 =	
Malaysia	2 =	2 =		1	
Overall ranking		2	3	1	

4 FUTURE DIRECTION

Possible future directions have been informed based on feedback from roadshow participants, donor organisations and the REAAA Council, and include:

1. extending and consolidating the knowledge base to better meet user needs, including the following additional topics:
 - Rural transport and road infrastructure needs of local communities
 - Roads in the urban environment
 - Network management and outcome based delivery mechanisms
2. repeating the exercise at periodic intervals, say repeat at 3 – 5 year intervals, for updating and introducing new participants
3. undertaking events with a specific sub-regional or country focus and with more specific adaptation, and local case studies
4. introducing the event to other countries and regions, including China and India, and beyond Asia
5. seeking to engage wider attendance by treasury officials and funding agencies possibly in association with other events.

5 CONCLUDING REMARKS

The roadshow proved to be a considerable success, this being noted by the GTKP Champion, and in the participant feedback at the event and subsequently from member feedback.

Its success was based largely on the collective group of participants, support from participating governments and road authorities and international agencies. and the organisation and delivery team.

The capacity for significant participant contribution was clearly demonstrated and future events will aim to consolidate and build on this capacity. Significant interest was shown in participant presentations, these being highly relevant and instrumental to the success of the event.

The availability of a substantial set of resource materials for distribution to REAAA member organisations and sponsors provides a good foundation for future events.

Organisations wishing to participate in future events are invited to contact the main sponsor and organisers.

The Road Engineering Association of Malaysia (on behalf of REAAA) ream@po.jaring.my	ARRB Group Ltd training@arrb.com.au	Global Transport Knowledge Partnership www.gtkp.com
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6 ACKNOWLEDGEMENTS

The contributions of the following organisations are gratefully acknowledged:

- Global Transport Knowledge Partnership
- Australian Agency for International Development
- Secretariat of Road Engineering Association of Asia and Australasia
- Participating road authorities and government bodies
- Delivery team, comprising GRSP, Kumpulan IKRAM, iRAP, MIROS and ARRB Group Ltd.

APPENDIX A TRAINING PROGRAM

	<p>Mino Roadshow: 'Managing road assets for community outcomes' 25th – 27th August, 2008 Kuala Lumpur, Malaysia Program</p>	
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Time	Sunday 24 Aug 2008	Monday 25 Aug 2008	Tuesday 26 Aug 2008	Wednesday 27 Aug 2008	Thursday 28 Aug 2008
08.00	Arrival	Arrival of Guests	Feedback/Objectives	Feedback/Objectives	Depart
08.30		Opening Ceremony	6. Road safety engineering & risk assessment	9. Network maintenance management & delivery	
09.00		Break	Discussion/Key issues	Discussion/Key issues	
09.30		Introduction-gTKP	Break	Break	
10.00		1. Road Sector Challenges	7a. Network safety & priorities, and the iRAP	10. Institutional needs: (Case study 6 – Samoa)	
10.30		2. Road Safety in Asia-Pacific	Discussion/Key issues	Discussion/Key issues	
11.00		3. A framework for managing assets	Lunch	Lunch	
11.30		Discussion/Key issues	Lunch	Lunch	
12.00		4. Quantifying benefits (Case study 1)	7b. Case Study 3 – iRAP Malaysia	11. Country/Regional Actions	
12.30		Discussion/Key issues	8. Network planning & design	Discussion/Summary	
13.00		Break	Break	Break	
13.30		5. Decision support systems (Case Study 2 - Malaysia)	Case Study 4 - Indonesia	Roadshow assessment	
14.00		Discussion/Key issues	Open Space: Case Study 5	Concluding remarks & Close	
14.30		Day 1 concludes	Day 2 concludes	Depart	
15.00		Registration			
15.30					
16.00	Welcome Dinner (Legend Hotel)	Dinner (MinConsult)	Official Dinner (Saloma Theatre Restaurant)		
16.30					
17.00					
17.30					
18.00					
19.00					
20.00					
21.00					
22.00					

APPENDIX B LIST OF PARTICIPANTS

Country	Attendees	Organisation	Position
Bangladesh	Md. Niher Miah	RHD, Sarak Bhaban, Ramna, Dhaka	Chief Engineer
	Md. Hasan Imam	MoC, Bangladesh Secretariat, Dhaka	Joint Secretary (Admin)
	Md. Aftab Uddin	RHD, Sarak Bhaban, Ramna, Dhaka	PC, CPLI & ACE
	A.K.M. Mosharraf Hussain	RHD, Sarak Bhaban, Ramna, Dhaka	ACE, Technical Services Wing.
Cambodia	Thong KRY	Ministry of Public Works & Transport	Chief of Intervention Unit
	Samnang THOU	Ministry of Public Works & Transport	Deputy Chief of Technical office
Fiji	Paula BALEILEVUKA	Public Works Department	Director of National Roads
	Apisai KENTENLAGI	Public Works Department	Senior Engineer Road Asset Mgt
	Raphael Smith	Public Works Department	
Indonesia	Palgunadi	Directorate General of Highways	Chief of Subdirector System Development and Performance Evaluation
	Mrs. Kipli Subaiha, MT	Directorate General of Highways	Chief of Section Environmental Engineering Eastern Region
	Christian Kornel Marisi Tua Sihaloho	Directorate General of Highways	Chief of Section West Kalimantan
	Dwi Sapto Haryanto	Directorate General of Highways	Chief of Administration Division
	Mrs. Rien Marlia Suwito, ST. MT	Directorate General of Highways	Secretary, Project Preparation Unit, EINRIP
Lao	Mrs. Lydwina Marchiela Wardhani	Indonesia Road Development Association	Int. Investment Officer, Private Industry Sector
	Pothong GNONPHACHANAN	Department of Roads, Ministry of Communication, Transport	Deputy Director of Roads Department
	Litta KATTIYA	Department of Roads, Ministry of Communication, Transport	Civil Engineer, Roads Department
Malaysia	Dato' Ir. Annies b. Md Ariff	Public Works Department Headquarters	Senior Director
	Ir. Nadzrol Fadzillah bt Ahmad	Malaysian Highway Authority	Director
	Ir. Mahdan bin Ahmad	Malaysian Highway Authority	Director of Planning
	Ms. Chong Choo Ling	Opus Group Berhad	Deputy Project General Manager
	Ir. Hajjah Norbayati Hj Manap	PLUS Expressways Berhad	Senior Manager
	Ir. Aik Siaw Kong	PJP Sdn. Bhd.	Director
	Ir. Zulakmal b. Hj Sufian	Road Facilities Maintenance Branch	Head Assistant Director (Pavement Mgt)
	Ir. Jamilah bt. Mohd Marjan	Malaysian Institute of Road Safety Research	Director
	Ir. Hajah Siti Saffur binti Mansor	Kuala Lumpur City Hall	Director
Malaysia	Ir. Mohd Hizam bin Harun	Road Facilities Maintenance Branch	Head Assistant Director (Policy Mgt)
	Ahmed Ismail	iRAP/AAM	
	Alvin Poi Wai Hoong	Malaysian Institute Of Road Safety Research (MIROS)	Research Officer
Pakistan	Ghulam Haider	National Highway Authority	GM. Design
	Sami ur Rehman	National Highway Authority	PCO, ADB Projects
Philippines	Rafael C Yabut	Dept Public Works & Housing	DPWH Undersecretary
	Jaime A. Pacanan	Dept Public Works & Housing	DPWH Assistant Secretary
	Philip F. Menez	Dept Public Works & Housing	DPWH Project Director
PNG	Mariano A. Alquiza	Dept Public Works & Housing	DPWH Regional Director
	Roy Mumu	National Road Authority	CEO
Samoa	Joel Luma	Department of Works	Secretary
	Hinauri Petana	Ministry of Finance	CEO
	Isikuki Punivalu	IPA Ltd	Managing Director
Solomon Isl	Ambrose Kirei	Ministry of Infrastructure Development	Director of Transport Policy and Planning Department
Sri Lanka	K.P. Kodituwakku	RDA	
Thailand	Tienchote	Department of Highways	Deputy Director General M + D43 Maintenance
	Sittichai	Department of Highways	
Vietnam	Dr. Tuan Anh MAI	Vietnam Road Administration	Vice Chairman
	Truong Xuan BUI	Vietnam Road Administration	Chief of Science , Technology and International Cooperation Division
Australia	Tyrone Toole	ARRB	Chief Consultant, Sustainable Infrastructure
	Blair Turner	ARRB	Team Leader, Safe Systems
	Paul Robinson	ARRB	Principal Engineer
	Nigel Rockliffe	ARRB	Consultant economist
Others	Robert Klein	GRSP	GRSP Secretariat
	Rob McInerney	iRAP	iRAP director, Asia
	Mark Barrett	PNG-Australia Transport Sector Support Program (TSSP)	Road Maintenance Management Specialist
	Charles Melhuish	GTKP	GTKP Technical Themes Leader
	Mhd H. Zamri Hassan	IKRAM, Malaysia	Head of Pavements