



# D.1 Management of Road Infrastructure Assets

## MEMBERS

Total membership: 109 (46 countries)

Members: 55

Corresponding members: 40

Associate members: 14

## ISSUES AND STRATEGIES

### D.1.1 - Benchmarking of asset management methods

- Identify best practice in asset management systems with key aspects for road authorities to consider when choosing a system.
- Review costs associated with asset systems and recommend where costs are best focused.

### D.1.2 - Data collection for road infrastructure management

- Identify the options for cost effective data collection of the different elements of the road infrastructure.
- Identify the best practice approach for use of data in supporting a strategy for better road infrastructure management.

### D.1.3 - Allocation of resources across asset classes

- Review the different approaches taken by countries in allocating resources based upon asset management.
- Consider the prioritization process used in a range of countries for investing in maintaining the different assets (pavements, bridges, geotechnical structures, etc).

## OUTPUTS

### INTERNATIONAL SEMINAR

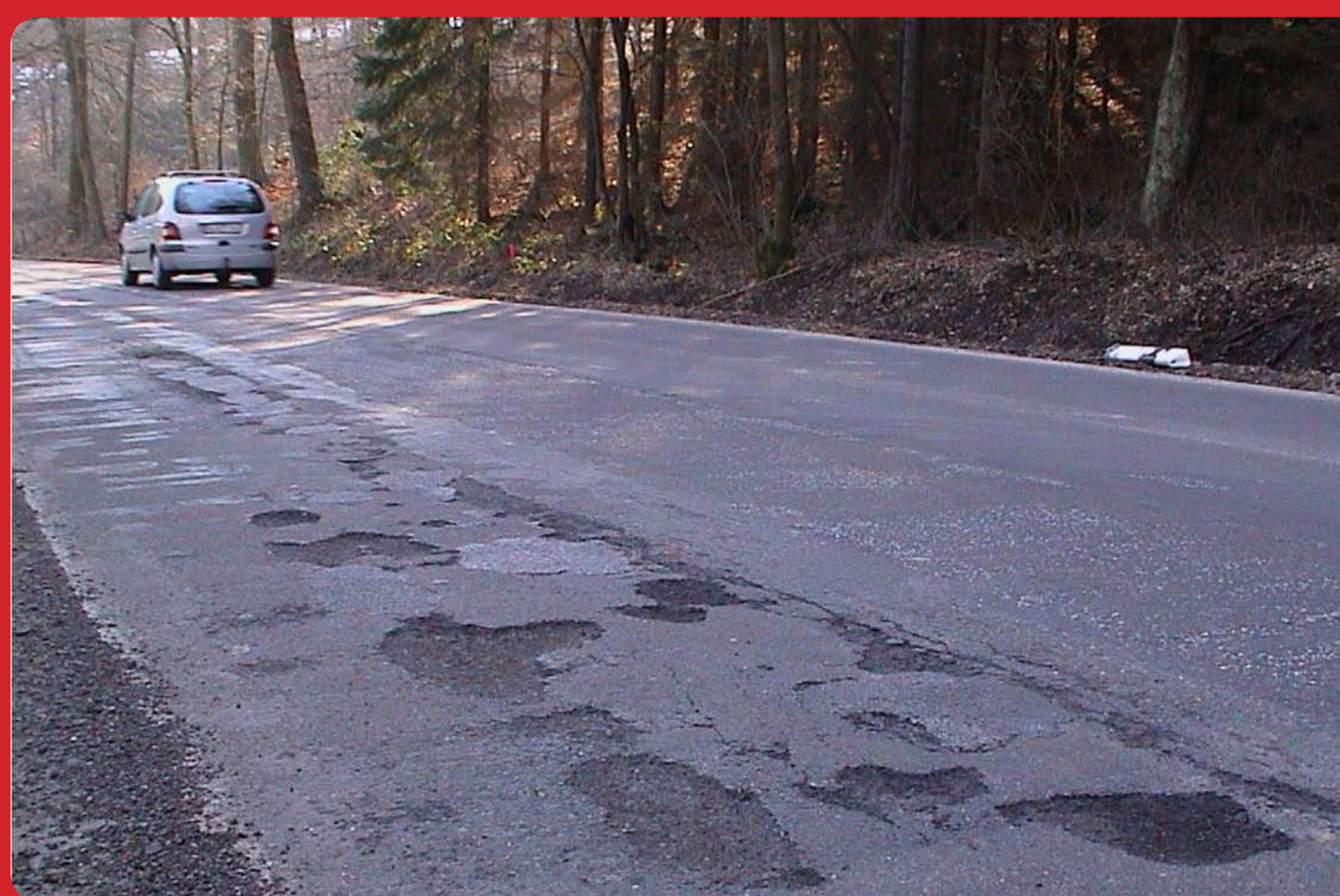
- Road Asset Management (Swakopmund, Namibia, 4-6 April 2011)

### PAPERS IN ROUTES/ROADS

- "Benchmarking of Asset Management Methods" (to be published in 2012)
- "Allocation of Resources Across Asset Classes" (to be published in 2012)

### TECHNICAL REPORTS

- "Benchmarking of Asset Management Methods"
- "High Level Management Indicators"
- "Allocation of Resources Across Assets"







## XXIV<sup>th</sup> World Road Congress Mexico 2011



# D.2 Road Pavements

The Technical Committee D2 is sub-divided in 3 Sub-Committees:

- D2a Road Surface Characteristics
- D2b Flexible and Semi-Rigid Pavements
- D2c Concrete Pavements

#### MEMBERS

Total membership: 124 from 38 countries (D2a: 54, D2b: 31, D2c: 36)

Members: 94 (D2a: 41, D2b: 26, D2c: 24)

Corresponding members: 24 (D2a: 10, D2b: 4, D2c: 10)

Associate members: 6 (D2a: 3, D2b: 1, D2c: 2)

#### ISSUES AND STRATEGIES

##### D.2.1 - Reducing construction time and cost

- Identify the methods for reducing the time and costs of construction for different types of road pavements without affecting the performance objectives of the road structure.

##### D.2.2 - Improved maintenance methods

- Undertake an analysis of the performance of improved maintenance methods including surface maintenance and structural rehabilitation for different types of pavements.

- Consider the changes to maintenance strategies that have been adopted by road administrations and how these will change future maintenance of road pavements.

##### D.2.3 - Road noise mitigation

- Identify the different legal requirements for reducing the impacts of road noise.
- Identify new techniques for reducing road noise and their effectiveness over time.

##### D.2.4 - Monitoring of innovations

- Review the recent changes in construction and maintenance of road pavements, identifying where innovations have been introduced towards improving durability and addressing environmental challenges.

- Undertake an assessment of the developments taking place in key road administrations for future innovations on road pavements.

##### D.2.5 - Adaptation to climate change

- Identify aspects of road pavements subject to the impacts of climate change.
- Study evolving adaptation strategies.

#### PRODUCTIONS

##### PIARC INTERNATIONAL SEMINARS

- Maintenance Techniques to improve Pavement Performance (Cancun, Mexico, 24-26 August 2009)
- Seminar on the Latest Advancements in Concrete Pavement Design and Construction (Buenos Aires, Argentina, 9-11 May 2011)

##### PAPERS IN ROUTES/ROADS;

- No. 342: "Pavement preservation in Canada: recent developments". D. Hein
- No. 347: "Maintenance techniques to improve pavement performance". R. Téllez

##### TECHNICAL COMMITTEE REPORTS

- Reducing the Delay and Cost of Construction
- Improved Maintenance Methods
- Road Noise Mitigation
- Monitoring of Innovation
- Adaptation to Climate Change

##### OTHERS;

- 6th Symposium on Road Surface Characteristics SURF 2008: Portoroz, Slovenia (October 2008).
- Participation in EUPAVE Symposium on concrete pavement: Seville, Spain (September 2009)
- Workshop on Concrete Pavements in Seoul, Korea (7 October 2009)







# D.3 Road Bridges

## MEMBERS

Total membership: 69 (38 countries)  
Members: 48  
Corresponding members: 19  
Associate members: 2



## ISSUES AND STRATEGIES

### D.3.1 - Inspections and non-destructive condition surveys

- Review the current information available on inspection regimes for assessing the conditions of structures.
- Analyse the latest techniques for non-destructive testing for surveying the condition of structures.

### D.3.2 - Assessment of the condition of road bridges

- Consider the different approaches to assessing the conditions of structures taking into account safety, environmental restraints and accessibility.
- Review methodologies for assessing large scale structures including cable stayed and suspension bridges.

### D.3.3 - Innovative maintenance techniques

- Undertake a review of new maintenance and rehabilitation techniques that have been used recently including costs and complexity.

### D.3.4 - Management of the bridge stock

- Assess the different approaches used to prioritise management action of bridges for a range of road administrations.

### D.3.5 - Adaptation to climate change

- Identify aspects of road bridges subject to the impacts of climate change.
- Study evolving adaptation strategies.

## PRODUCTIONS

### INTERNATIONAL SEMINARS

- International Seminar on Concrete Bridges (Nanjing, Jiangsu Province, China, 22-24 October 2009)

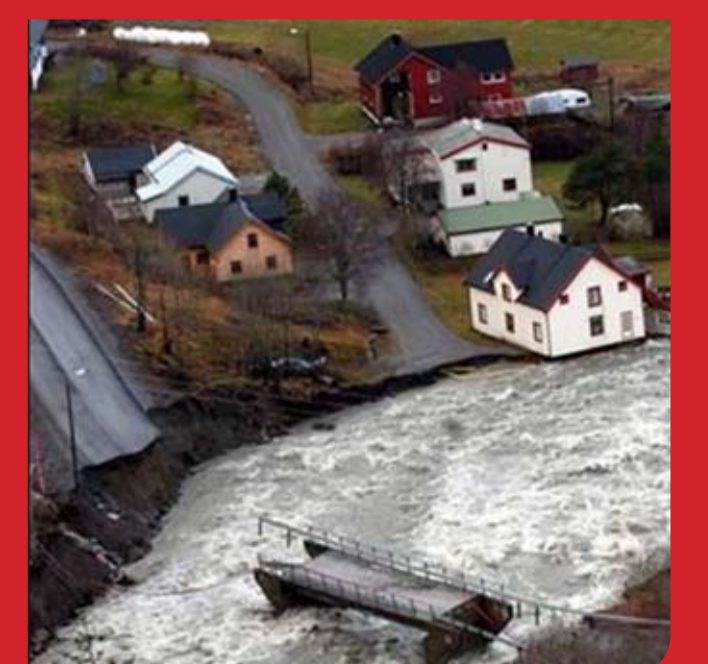
### PAPERS IN ROUTES/ROADS

- No. 350: "Large road bridges – Risk analysis and monitoring".  
T. Kretz



### TECHNICAL REPORTS

- "Inspector Accreditation, Non-destructive Testing and Condition Assessment for Bridges"
- "Large road bridges: management, assessment, inspection, innovative maintenance techniques"
- "Management of bridge stock"
- "Adaptation to climate change"



### OTHERS

- Presentation of TC D.3 works at the Symposium on the Advancement of Structure Research in Québec (Québec City, 10 May 2010)







# D.4 Geotechnics and Unpaved Roads

## MEMBERS

Total membership: 48 (30 countries)  
Members: 29 (23 countries)  
Corresponding members: 19  
Associate members: 0

## ISSUES AND STRATEGIES

### D4.1 – Innovations in the treatment and use of local materials

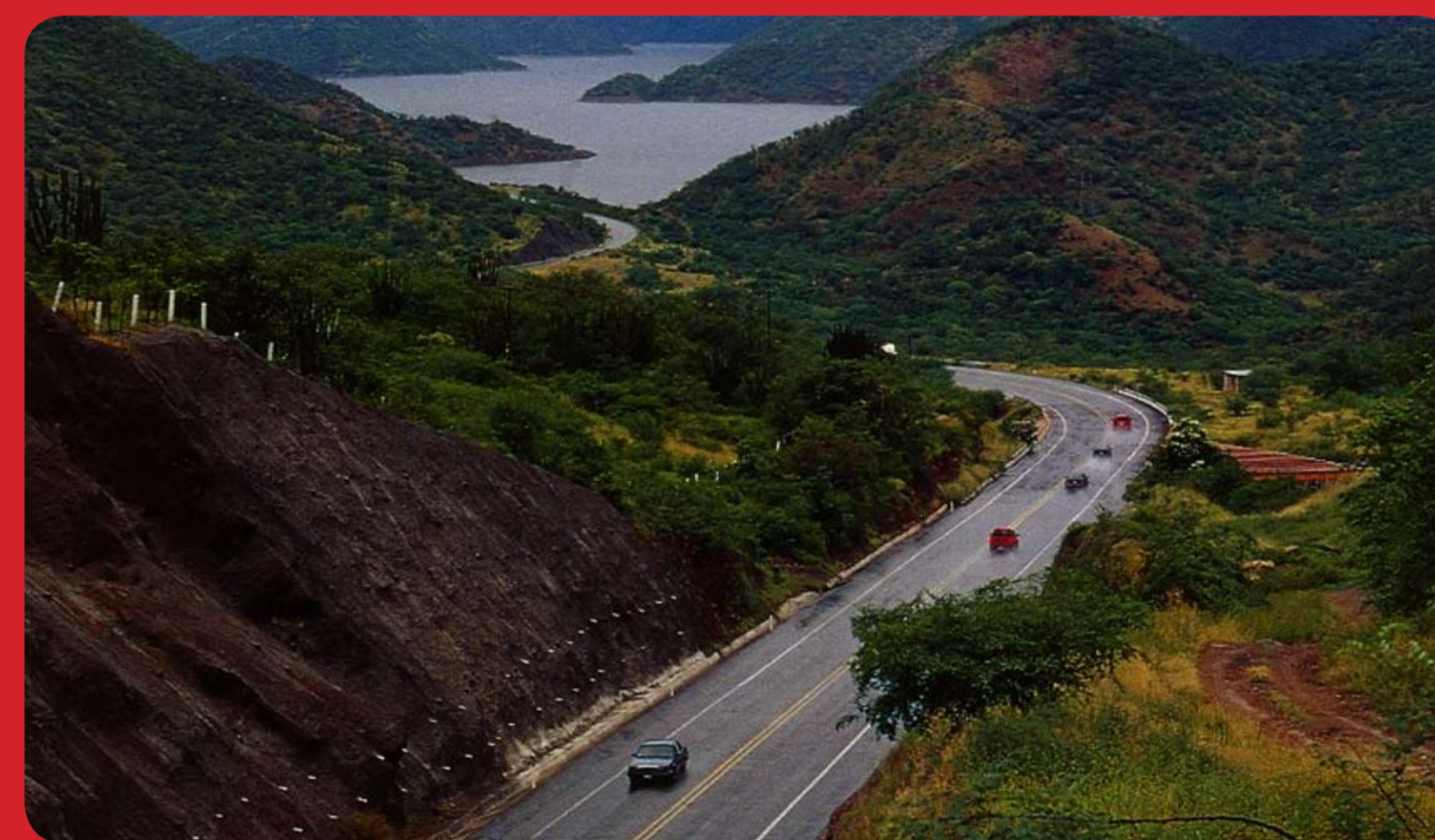
- Evaluate the application of the End Use Performance specifications.
- Analyze the type and the reliability of the performance targets, which can be applied to earthwork performance evaluation.
- Describe the innovative approaches regarding the use of local materials.

### D.4.2 - Innovations in construction and maintenance of unpaved roads for developing countries

- Review the innovation in construction of unpaved roads.
- Review the type and reliability of the monitoring and assessment approaches for unpaved roads, e.g. in earthwork control and in the prioritization of maintenance activities.

### D.4.3 - Adaptation to climate change

- Identify the vulnerability of geotechnical structures to climate change
- Describe the geographical and geomorphological elements of the problem
- Study evolving adaptation strategies.



## OUTPUTS

### INTERNATIONAL SEMINARS

- Geotechnics and unpaved roads (Cotonou, Benin, 29-30 October 2009);
- Second European Earthworks Seminar (London, UK, 3-4 June 2009)

### TECHNICAL REPORTS

- “Innovative approaches to the use of locally available marginal natural materials”
- “Adaptation of geotechnical infrastructure to climate change”