

Strategic Themes and Technical Committees for 2008-2011

Strategic Theme A: Sustainability of the Road Transport System

TC A.1	Preserving the Environment
TC A.2	Financing, Managing and Contracting of Road System Investment
TC A.3	Road System Economics and Social Development
TC A.4	Rural Road Systems and Accessibility to Rural Areas

Strategic Theme B: Improving Provision of Services

TC B.1	Good Governance of Road Administrations
TC B.2	Road Network Operations
TC B.3	Improved Mobility in Urban Areas
TC B.4	Freight Transport and Inter Modality
TC B.5	Winter Service

Strategic Theme C: Safety of the Road System

TC C.1	Safer Road Infrastructure
TC C.2	Safer Road Operations
TC C.3	Managing Operational Risk in Road Operations
TC C.4	Road Tunnel Operations

Strategic Theme D: Quality of Road Infrastructure

TC D.1	Management of Road Infrastructure Assets
TC D.2	Road Pavements Sub-committees <i>D.2.a. Road surface characteristics</i> <i>D.2.b Flexible and semi-rigid pavements</i> <i>D.2.c Concrete pavements</i>
TC D.3	Road Bridges
TC D.4	Geotechnics and Unpaved Roads

Committee on Terminology

TC A.1 –Preserving the Environment

Issue A.1.1 National policies and strategies for reducing the impacts of the road transport system on climate change and policies and strategies for the adaptation of transport systems to climate change	
<i>Strategies</i>	<i>Outputs</i>
<p>Examine different countries' plans, policies and initiatives for</p> <ul style="list-style-type: none"> - mitigating against the impact of roads and road transport on the climate. - adapting road transport system to climate change. <p>Consider national policies for reduction in energy consumption when constructing, maintaining and operating the road transport system.</p>	<p>Report on policies and initiatives.</p> <p>Review case studies.</p>
Issue A.1.2 Monitoring of environmental impacts	
<i>Strategies</i>	<i>Outputs</i>
<p>Review how the environmental impact of the road transport system is measured, what indicators are currently used in relation to the mitigation actions.</p> <p>Assess how the environmental impacts of road construction projects are measured, before, during and after completion. Assess how useful the results of these measurements are and what if anything, is done as a consequence.</p>	<p>Identify best practice.</p> <p>Report new developments with information in case studies.</p>
Issue A.1.3 Monitoring alternative solutions for fossil fuels for the road system	
<i>Strategies</i>	<i>Outputs</i>
<p>Consider the impacts of new approaches, technologies and initiatives on energy consumption and gas emission in relation to the powering of the road transport system.</p>	<p>A review of trials and research.</p>

TC A.2 – Financing, Managing and Contracting of Road System Investment

Issue A.2.1 Review of public and private sector roles in sustainable road systems	
<i>Strategies</i>	<i>Outputs</i>
Review of the evolving roles of the public and private sectors in the provision of sustainable road systems and the levels of private sector participations in management, maintenance, operations, funding and financing	Report identifying the different combinations of public and private sector involvements in the provision of sustainable road systems, and the perceived advantages and disadvantages
Issue A.2.2 Explore funding and financing strategies for sustainable road systems	
<i>Strategies</i>	<i>Outputs</i>
Examine the different approaches employed for funding and financing strategies for sustainable road systems	Report on the approaches with case studies, where appropriate, adopted by countries at different development stages, illustrating their evolutions and achievements
Issue A.2.3 Investigation of new forms of procurement of private sector participations in sustainable road maintenance and operations	
<i>Strategies</i>	<i>Outputs</i>
Explore the different approaches to the procurement of services relating to maintenance and operations as well as design and construction of projects to provide levels of service consistent with user expectations and road hierarchies	Report with case studies illustrating the various forms of procuring private sector involvement and comparing the benefits and dis-benefits of novel against more traditional forms of maintenance and operations

TC A.3 – Road System Economics and Social Development

Issue A.3.1 Economic aspects of mobility pricing	
<i>Strategies</i>	<i>Outputs</i>
Investigate approaches to the economic evaluation of mobility pricings effects including managing demand, internalisation of external costs, modal shift and social acceptance.	A comparison of approaches and assessment of the maturity of knowledge of road pricing.
Issue A.3.2 New approaches to appraisal of social impacts	
<i>Strategies</i>	<i>Outputs</i>
Study the changes in approaches to methods of appraisal of social impacts resulting from road development and usage.	Study of new developments, identifying added benefits and/or wider scope. Evaluation of implemented approaches.

TC A.4 – Rural Road Systems and Accessibility to Rural Areas

Issue A.4.1 Accessibility and planning of the development of the rural roads system	
<i>Strategies</i>	<i>Outputs</i>
Investigate how the needs for accessibility and mobility in rural areas are being assessed and taken into consideration in planning the development of the rural roads system at national and /or regional levels.	Case studies, leading to a best practice guide.
Issue A.4.2 Sustainability of maintenance	
<i>Strategies</i>	<i>Outputs</i>
Review of planning, financing and management of sustainable maintenance methods and approaches.	Best practice for sustainable maintenance of rural roads.
Issue A.4.3 Involvement of local communities	
<i>Strategies</i>	<i>Outputs</i>
Consider how local communities should be involved in education, planning, financing, managing and implementation of development and maintenance schemes.	Case studies, leading to best practice guides.

TC B.1 – Good Governance of Road Administrations

Issue B.1.1 Best practices for good governance	
<i>Strategies</i>	<i>Outputs</i>
<p>Review recent changes in successful governance structures, practices and auditing such as the introduction of performance measurement.</p> <p>Examine different plans, policies and initiatives for successfully ensuring institutional integrity in the road sector.</p>	<p>Report identifying the key aspects and success factors that contribute to good governance.</p> <p>Best practice advisory guide for the road sector.</p>
Issue B.1.2 Improved services to customers	
<i>Strategies</i>	<i>Outputs</i>
<p>Undertake a comparison of services targeted at customers and how customer's feedback is collected.</p> <p>Evaluate how a customer-oriented approach has improved services.</p>	<p>Benchmarking exercise comparing case studies and identifying common success factors.</p>
Issue B.1.3 Human resources for the future	
<i>Strategies</i>	<i>Outputs</i>
<p>Review countries plans, policies and strategies regarding skill shortages and human resource challenges for the future.</p> <p>Review what is being done within the road sector to make the sector appealing and what skills would be beneficial to bring into this sector.</p> <p>Consider solutions to needs expressed by developing countries relating to deficiencies in training and education systems which are resulting in a lack of appropriately qualified road industry professionals.</p>	<p>Report on the skills gap within the road sector now and those skills that will be required in ten years' time.</p> <p>Identification of best approaches to improve the supply of skills.</p> <p>Training for those in the sector and those entering the sector.</p>

TC B.2 – Road Network Operations

Issue B.2.1 Management of congested areas	
<i>Strategies</i>	<i>Outputs</i>
Examine the understanding of and successful approaches to managing traffic flow on major urban and interurban roads in congested areas.	A study of the factors affecting the efficient use of road space on major urban and interurban roads, with proposals for how network operators can successfully manage congested areas.
Issue B.2.2 Appropriate use of ITS for an integrated transport system	
<i>Strategies</i>	<i>Outputs</i>
Investigate how ITS investments for road network operations are evaluated and identify policy related performance indicators in order to evaluate the success of ITS strategies of different countries.	<p>Identification of success factors for ITS strategies and precautions to take against failure.</p> <p>Recommendations on how road authorities should assess and evaluate ITS schemes.</p> <p>Revision of the World Road Association ITS handbook to strengthen coverage of ITS in developing countries, ITS for road safety and the evaluation of ITS schemes.</p>
Issue B.2.3 Management of road corridors	
<i>Strategies</i>	<i>Outputs</i>
<p>Identify the factors affecting corridor usage, and how to influence users.</p> <p>[Cross-border issues : integration of services across country borders]</p>	<p>A study of the most important issues for operators of road corridors and advice for influencing users to make optimum travel choices.</p> <p>[Identification of issues, examples of best practice]</p>

TC B.3 – Improved Mobility in Urban Areas

Issue B.3.1 Integration of the different modes of transport	
<i>Strategies</i>	<i>Outputs</i>
Study strategies for balancing the share of urban transport modes to reduce congestion and improve mobility.	Case studies leading to guidance for road administrations.
Issue B.3.2 Land use planning and road transport	
<i>Strategies</i>	<i>Outputs</i>
Investigation of transport requirements and policies associated with planning of new developments in large cities.	Case studies, leading to guidance for road administrations, for countries in a range of stages of development.
Issue B.3.3 Non-motorized mobility	
<i>Strategies</i>	<i>Outputs</i>
Investigate how non-motorized mobility is being assessed and encouraged in planning transport schemes in urban areas.	Sample survey to arrive at realistic data for future transport planning.

TC B.4-Freight Transport and Inter-Modality

Issue B.4.1 Management of strategic freight corridors	
<i>Strategies</i>	<i>Outputs</i>
On the basis of case studies (including cross-border issues) selected in both developed and developing countries, analyse the favourable or non-favourable conditions required for the seamless transit of freight. Identify the possible remedial measures.	Report presenting an analysis of these case studies, including recommendations for improving the management and operation of freight corridors.
Issue B.4.2 Interfaces of freight transport on roads with other modes	
<i>Strategies</i>	<i>Outputs</i>
From case studies involving different kinds of transport modes, review the aspects in the design and operation of interfaces which assist or are detrimental to the efficient and sustainable intermodal transport of freight.	Analysis of the case studies and recommendations for improving the efficiency of intermodal interfaces of freight transport.
Issue B.4.3 Urban Freight Management	
<i>Strategies</i>	<i>Outputs</i>
On the basis of case studies selected in both developed and developing countries, analyze the management of incoming freight and distribution of goods in congested urban areas. Focus on outcomes and evaluations of urban freight management schemes.	Report presenting an analysis of these case studies, including recommendations for how to implement sustainable and efficient freight management schemes in congested urban areas to reach the required effects.

TC B.5 – Winter Service

Issue B.5.1 Improve winter maintenance and operation information systems	
<i>Strategies</i>	<i>Outputs</i>
Investigate information systems, including two-way information with road users. Study of Winter Service Management Systems (WSMS)	Case studies of best practice in design and implementation of information/management systems.
Issue B.5.2 Provide sustainable winter maintenance	
<i>Strategies</i>	<i>Outputs</i>
Study of the full slate of social (safety), environmental and economic (cost-benefit) aspects required to achieve 'sustainability' in winter maintenance. Identify impacts of climate change (changes in winter severity) on winter maintenance and on road infrastructure.	Identification of what optimum sustainability means in terms of winter maintenance and strategies to achieve it. Report on the impact of climate change on winter maintenance and propose actions as preventative measures.
Issue B.5.3 Share knowledge via the Winter Road Congress	
<i>Strategies</i>	<i>Outputs</i>
Identify which priority issues and knowledge World Road Association members would find useful to share, and in what format they would like to receive it.	Definition of the technical programme of the XIIIth World Road Association International Winter Road Congress in 2010 and production of the proceedings.
Issue B.5.4 Communication with road users	
<i>Strategies</i>	<i>Outputs</i>
Identify innovative approaches to inform and influence road users about winter operations and safe winter driving.	Case studies illustrating best communication practice.

TC C.1 – Safer Road Infrastructure

Issue C.1.1 Incorporating human factors in road design for influencing driver behaviour	
<i>Strategies</i>	<i>Outputs</i>
<p>Examine how key human factors that affect road user behaviour can be translated into engineering characteristics and road safety design policies.</p> <p>Undertake review of other guidance on human factors especially on vulnerable road users behaviour in road design standards.</p>	<p>Upgraded World Road Association Catalogue of Design Safety Problems and Countermeasures.</p>
Issue C.1.2 Safe design for roads in urban areas	
<i>Strategies</i>	<i>Outputs</i>
<p>Consider recent changes to design guides for urban roads that promote improved road safety.</p> <p>Review safe road design in urban areas using segregated road space for the needs of vulnerable road users and public transport.</p> <p>Compare and evaluate design provision for low speed roads in residential areas</p>	<p>Upgraded World Road Association Catalogue of Design Safety Problems and Countermeasures.</p>
Issue C.1.3 Design improvements for vulnerable road users	
<i>Strategies</i>	<i>Outputs</i>
<p>Assess design guidance on safe design for vulnerable users.</p> <p>Select design examples of good practice for the needs of vulnerable road users along those interurban roads to improve the situation in so called linear settlements.</p>	<p>Upgraded World Road Association Catalogue of Design Safety Problems and Countermeasures.</p> <p>Report on case studies.</p>

Issue C.1.4
Improvements in safe working on roads

<i>Strategies</i>	<i>Outputs</i>
Assess approaches aimed at improving the safety of road workers.	Report on the studies and recommend best practice approaches. Upgraded World Road Association Road Safety Manual.

Issue C.1.5
Upgrading and Updating of the PIARC Road Safety Manual

<i>Strategies</i>	<i>Outputs</i>
Review and upgrade chapters 3 to 8 and the technical sheets of the Manual, incorporating the outputs from the previous cycle in order to create a comprehensive road safety knowledge base.	Upgraded PIARC Road Safety Manual chapter by chapter until 2010.

TC C.2 – Safer Road Operations

Issue C.2.1 Comparison of national road safety policies and plans	
<i>Strategies</i>	<i>Outputs</i>
Review national road safety policies and plans across a range of countries.	Report on key aspects of road safety policies and plans, identifying case studies. Upgraded World Road Association Road Safety Manual.
Issue C.2.2 Best practices in safety campaigns by public administrations	
<i>Strategies</i>	<i>Outputs</i>
Identify different approaches to road safety campaigns undertaken by public administrations. Review the different media that are used for promoting road safety.	Report on the different types of campaigns and the target audiences. Case studies of the different media for campaigns. Upgraded World Road Association Road Safety Manual.
Issue C.2.3 Cost effectiveness of safety measures and allocation of resources	
<i>Strategies</i>	<i>Outputs</i>
Study and compare the cost benefit analysis used by different road authorities for investment in safety schemes.	Report on the comparison of methods and case studies to illustrate choice of safety options.
Issue C.2.4 Institutional regulation aspects	
<i>Strategies</i>	<i>Outputs</i>
Consider the different approaches taken by road administrations based upon legislation and regulations in relation to the safe operation of roads.	Report on legislative and regulatory approaches aimed at achieving safer operation and preventing road side disturbances (control of access and of activities on road side, etc).

TC C.3 – Managing Operational Risk in Road Operations

Issue C.3.1 Introduce risk management techniques in the road sector	
<i>Strategies</i>	<i>Outputs</i>
<p>Analyse the use of risk management techniques by road authorities and identify best practice.</p> <p>Identify case studies that exemplify the benefits of using risk management in different aspects of the road sector.</p>	<p>A guide to assist road authorities in the use of risk management.</p> <p>Case studies that demonstrate the value of using risk management.</p>
Issue C.3.2 Risks Associated with Natural Disasters, Climate Change, Man Made Disasters and Security Threats	
<i>Strategies</i>	<i>Outputs</i>
<p>Identify approaches being used to assess the risks associated with natural disasters, climate changes, man made disasters and security threats.</p> <p>Identify strategies that are being applied to reduce or mitigate the risks associated with these circumstances.</p>	<p>Share methodologies that have been used to evaluate the risks associated with natural disasters, climate changes, man made disasters and security threats.</p> <p>Case studies documenting strategies that have been effective in avoiding or mitigating these risks.</p>
Issue C.3.3 Social acceptance of risks and their perception	
<i>Strategies</i>	<i>Outputs</i>
<p>Identify and evaluate studies of the public's perception to risks in the road system and the factors that effect those social reactions.</p> <p>Study methods that are used to measure people's acceptance of risks.</p>	<p>Report on factors affecting social reaction to risks in road related activities.</p> <p>Produce guidelines that road authorities can use to measure the public's perception of risks.</p>

TC C.4 – Road Tunnel Operations

Issue C.4.1 Improve tunnel operation and maintenance	
<i>Strategies</i>	<i>Outputs</i>
<p>Finalize the study of responsibilities in tunnel safety management, including organisation of tasks and necessary skills.</p> <p>Develop procedures to improve tunnel operation based on training, exercises, and analysis of incidents, traffic and maintenance.</p> <p>Benchmark experience on tunnel safety inspection and maintenance organisation. Draw lessons on reliability, availability and maintainability of systems.</p>	<p>Recommendations on organisation and procedures for tunnel safety management, including role and skills of players.</p> <p>Guidelines on tunnel staff and emergency teams training, exercises and feedback from operation and incidents.</p> <p>Recommendations on management of maintenance and safety inspections, as well as operational aspects to be considered during the design and installation of technical systems.</p>
Issue C.4.2 Manage and improve tunnel safety	
<i>Strategies</i>	<i>Outputs</i>
<p>Identify priorities and methods for improving safety in existing tunnels, including infrastructure, prevention and operation.</p> <p>Develop recommendations for risk analysis and investigate strategies for risk evaluation.</p>	<p>Report summarising the priority areas on the basis of cost-effectiveness and describing the practicalities of delivering improvements.</p> <p>Guidelines for risk analysis and state-of-the-art of risk acceptability.</p>
Issue C.4.3 Influence users' behaviour in tunnels	
<i>Strategies</i>	<i>Outputs</i>
<p>Investigate harmonised means to influence users' behaviour in tunnels, including disabled persons.</p>	<p>Guidelines on drivers' education and real-time communication with tunnel users.</p>

Issue C.4.4
Optimise tunnel ventilation and mitigate fires

<i>Strategies</i>	<i>Outputs</i>
<p>Update the air demands for ventilation in order to take into account recent reductions in vehicle emissions and the pollutants now considered critical, including specific situations in developing countries.</p> <p>Investigate fire test data and new regulations in order to finalise the update of design fires.</p> <p>Follow up new developments of fixed fire fighting systems and their application.</p>	<p>New data on vehicle pollutant emissions, including new critical pollutants and recommendations on ventilation capacity.</p> <p>Updated recommendations on design fires for road tunnel ventilation.</p> <p>Guidelines on applicability, cost-effectiveness and operation of fixed fire fighting systems.</p>

Issue C.4.5
Evaluate, organise and communicate knowledge on tunnel operation and safety

<i>Strategies</i>	<i>Outputs</i>
<p>Identify needed information and scrutinize contents of existing World Road Association reports and other reports.</p> <p>Organise the document(s) produced by the Committee (e.g. tunnel manual for practitioners or guide for non-specialists).</p>	<p>Produce a general table of contents, links to relevant documents, and needs for future work.</p> <p>Develop a document presenting in a systematic way e.g. available knowledge for specialists or practical information for non-specialists.</p>

TC D.1 – Management of Road Infrastructure Assets

Issue D.1.1 Benchmarking of asset management methods	
<i>Strategies</i>	<i>Outputs</i>
<p>Identify best practice in asset management systems with key aspects for road authorities at different stages of development to consider when choosing a system.</p> <p>Review costs associated with asset systems and recommend where costs are best focused.</p>	<p>Illustrate through case studies the best practice for road authorities to adopt.</p> <p>Produce benchmark of costs for typical systems, relative to investment in assets.</p>
Issue D.1.2 Data collection for road infrastructure management	
<i>Strategies</i>	<i>Outputs</i>
<p>Identify the options for cost effective data collection of the different elements of the road infrastructure.</p> <p>Identify the best practice approach for use of data in supporting a strategy for better road infrastructure management.</p>	<p>Report on the findings of the study for each major element of the road infrastructure.</p> <p>Using the experience of different countries produce a summary of how data is best used to develop an infrastructure management strategy.</p>
Issue D.1.3 Allocation of resources across asset classes	
<i>Strategies</i>	<i>Outputs</i>
<p>Review the different approaches taken by countries in allocating resources based upon asset management.</p> <p>Consider the prioritisation process used in a range of countries for investing in maintaining the different assets (pavements, bridges, geotechnical structures, etc).</p>	<p>Produce evidence based upon the case studies to illustrate the different approaches and report on the key conclusions of the studies.</p> <p>Identify the benefits and dis-benefits of the prioritisation processes used to allocate resources, noting the differences across asset classes.</p>

TC D.2 – Road Pavements –

TC D.2 is organised into three sub-committees

D.2.a Sub-committee on Road Surface characteristics

D.2.b Sub-committee on Flexible and Semi-Rigid Pavements

D.2.c Sub-committee on Concrete Pavements

These committees will all address the following issues:

Issue D.2.1 Reducing construction time and cost	
<i>Strategies</i>	<i>Outputs</i>
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.	Produce case studies to illustrate the methods of construction and the cost/ benefit analysis of the different cases.
Issue D.2.2 Improved maintenance methods	
<i>Strategies</i>	<i>Outputs</i>
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.	Report on the characteristics of the improvements and their performance over time. Produce a report outlining the changes and likely impacts.
Issue D.2.3 Road noise mitigation	
<i>Strategies</i>	<i>Outputs</i>
Identify the different legal requirements for reducing the impacts of road noise. Identify new techniques for reducing road noise and their effectiveness over time.	Report on the variety of legal requirements and the technical basis for the legislation. Provide a review of the new techniques and how these have helped reduce the impact of road noise.

Issue D.2.4
Monitoring of innovations

<i>Strategies</i>	<i>Outputs</i>
<p>Review the recent changes in construction and maintenance of road pavements, identifying where innovations have been introduced towards improving durability and addressing environmental challenges.</p> <p>Undertake an assessment of the developments taking place in key road administrations for future innovations on road pavements.</p>	<p>Report on the key innovations that have been introduced in the construction and maintenance of road pavements and the success of the measures.</p> <p>A seminar to report on and share the knowledge about the future innovations that are being studied.</p>

Issue D.2.5
Adaptation to climate change

<i>Strategies</i>	<i>Outputs</i>
<p>Identify aspects of road pavements subject to the impacts of climate change.</p> <p>Study evolving adaptation strategies.</p>	<p>A review outlining potential impacts to road pavements.</p> <p>Identification of adaptation strategies that are currently being developed.</p>

TC D.3 – Road Bridges

Issue D.3.1 Inspections and non-destructive condition surveys	
<i>Strategies</i>	<i>Outputs</i>
<p>Review the current information available on inspection regimes for assessing the conditions of structures.</p> <p>Analyse the latest techniques for non destructive testing for surveying the condition of structures.</p>	<p>Assessment of the most effective methods for structural inspections, identifying the key elements of the inspection process.</p> <p>Report on the most effective techniques for non destructive testing of different structural elements, taking account of costs and complexity.</p>
Issue D.3.2 Assessment of the condition of road bridges	
<i>Strategies</i>	<i>Outputs</i>
<p>Consider the different approaches to assessing the conditions of structures taking into account safety, environmental restraints and accessibility.</p> <p>Review methodologies for assessing large scale structures including cable stayed and suspension bridges.</p>	<p>Report on the key aspects that influence the assessment of structures and how these have been handled by road authorities.</p> <p>Analysis of the assessment techniques for these structures with a review of the key problems.</p>
Issue D.3.3 Innovative maintenance techniques	
<i>Strategies</i>	<i>Outputs</i>
<p>Undertake a review of new maintenance and rehabilitation techniques that have been used recently including costs and complexity.</p>	<p>Case studies with a summary of the benefits of the innovative approaches.</p>

Issue D.3.4
Management of the bridge stock

<i>Strategies</i>	<i>Outputs</i>
Assess the different approaches used to prioritise management action of bridges for a range of road administrations.	Report on the management of bridges put in place by road authorities, including small and large scale structures, with comments on costs and skills required for management.

Issue D.3.5
Adaptation to climate change

<i>Strategies</i>	<i>Outputs</i>
Identify aspects of road bridges subject to the impacts of climate change. Study evolving adaptation strategies.	A review outlining potential impacts to road bridges. Identification of adaptation strategies that are currently being developed.

TC D.4 – Geotechnics and Unpaved Roads

Issue D.4.1 Innovations regarding treatment and use of local materials	
<i>Strategies</i>	<i>Outputs</i>
<p>Evaluate the application of the End Use Performance specifications.</p> <p>Analyse the type and the reliability of the performance targets which can be applied to earthwork performance evaluation.</p> <p>Describe the innovative approaches regarding the use of local materials.</p> <p>Promote common approaches used in member countries.</p>	<p>Advise on the innovative approaches which can be employed to promote the use of local materials in earthworks and unsealed roads by maximising their performance according to the envisaged use.</p> <p>Report summarising examples of good practice.</p>
Issue D.4.2 Innovations in construction and maintenance of unpaved roads for developing countries	
<i>Strategies</i>	<i>Outputs</i>
<p>Review the innovation in construction of unpaved roads.</p> <p>Review the type and reliability of the monitoring and assessment approaches for unpaved roads e.g. in earthwork control and in the prioritisation of maintenance activities.</p>	<p>An international seminar and two workshops on the methods and approaches of existing evaluation techniques illustrated with examples.</p>
Issue D.4.3 Adaptation to climate change	
<i>Strategies</i>	<i>Outputs</i>
<p>Identify aspects of geotechnics and unpaved roads subject to the impacts of climate change.</p> <p>Study evolving adaptation strategies.</p>	<p>Report on current approaches.</p>

4.3.5 Committee on Terminology

Issue Updating the World Road Association Dictionaries	
Strategies	Outputs
<p>Update the existing version of the dictionary in each of the current languages, including ongoing upgrading of the French and English dictionaries.</p> <p>Increase the number of languages of translation of the dictionary in liaison with World Road Association member countries.</p>	<p>Upgraded terminology section of the World Road Association website.</p>