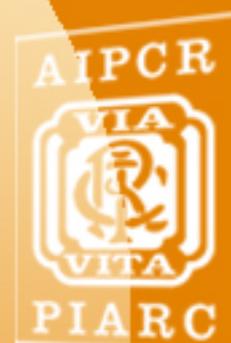


PLAN

ASSOCIATION MONDIALE DE LA ROUTE

STRATÉGIQUE



SEPTEMBRE
2004
SEPTEMBER

STRATEGIC

WORLD ROAD ASSOCIATION

PLAN

CONTENTS

1. FOREWORD	3
2. INTRODUCTION TO PIARC	5
2.1. PIARC AND ITS MEMBERSHIP	5
2.2. HOW PIARC IS GOVERNED AND MANAGED.....	7
2.3. PIARC'S ACTIVITIES.....	9
2.4. PIARC'S ROLE	10
3. PIARC'S VISION, MISSION AND VALUES	11
3.1. VISION.....	11
3.2. MISSION.....	11
3.3. VALUES	11
4. ROAD AND ROAD TRANSPORT GOALS	12
4.1. INTRODUCTION	12
4.2. GOALS, ISSUES, STRATEGIES AND OUTCOMES FOR STRATEGIC THEMES AND TECHNICAL COMMITTEES	13
4.2.1. <i>Strategic Theme 1: Governance and Management of the Road System</i>	13
4.2.2. <i>Strategic Theme 2: Sustainable Mobility</i>	19
4.2.3. <i>Strategic Theme 3: Safety and Road Operations</i>	25
4.2.4. <i>Strategic Theme 4: Quality of Road Infrastructure</i>	32
4.2.5. <i>Committee on Terminology and translation assistance</i>	38
5. PIARC'S ORGANIZATIONAL GOALS	39
5.1. INTRODUCTION	39
5.2. ROLES, RESPONSIBILITIES AND TERMS OF REFERENCE OF THE COMMISSIONS	40
5.2.1. <i>Strategic Planning Commission</i>	40
5.2.2. <i>Finance Commission</i>	41
5.2.3. <i>Communications Commission</i>	42
5.2.4. <i>Technological Exchanges and Development Commission</i>	43
5.3. ISSUES, STRATEGIES AND OUTCOMES FOR PIARC'S ORGANISATIONAL GOALS.....	44
<i>Goal A: International networks and forums</i>	44
<i>Goal B: Personal contact networks</i>	44
<i>Goal C: Technology transfer</i>	45
<i>Goal D: World Congresses management</i>	48
<i>Goal E: Publications</i>	49
<i>Goal F: Increase the number of members</i>	50
<i>Goal G: Management of PIARC</i>	51
<i>Goal H: Cooperation with international and regional organisations</i>	52
<i>Goal I: Financial management</i>	53
<i>Goal J: Strategic planning</i>	54
APPENDIX	55
1. MEMBER GOVERNMENTS: 108 AS OF OCTOBER 2004	52
2. NATIONAL COMMITTEES (30 COUNTRIES) AS OF OCTOBER 2004	56

1. FOREWORD

The World Road Association (PIARC), which was founded in 1909, took the lead throughout the 20th Century as a unique international forum in the roads and transport sector. Through its activities, PIARC has greatly contributed to the enhancement of a better global road community, in turn promoting economic growth and social welfare.

Road administrations are facing ever more complex problems in a rapidly changing environment. In order to respond to emerging issues, PIARC introduced its Strategic Plan at the 1995 Montreal World Road Congress. This was intended as a future guideline for the Association, and the 1999 Kuala Lumpur World Road Congress was organised, for the first time, within the framework of the Strategic Plan. Cross-linking Sessions, which addressed emerging issues in an interdisciplinary manner, were introduced at this Congress. This new venture proved to be effective. Taking into account the results attained through this Congress, and the analysis of a First Delegates Issues Survey, the Strategic Planning Commission undertook the significant task of revising the Strategic Plan for 2000-2003 through extensive discussions.

The 2000-2003 Strategic Plan recognised PIARC's Technical Committees as the key mechanism for delivering its technical program. To facilitate planning, direction, monitoring and coordination of the work program of the Technical Committees, they were grouped in five Strategic Themes, with each Strategic Theme coordinated by a member of the PIARC Executive Committee. This has worked well, and will be continued with some modifications and improvements in 2004-2007 through clearer definition of terms of reference of Technical Committees.

An extensive process of consultation with Strategic Theme Coordinators, Technical Committee Chairs and First Delegates took place throughout 2002 and 2003. The 2003 Durban World Road Congress was again organised within the framework of the Strategic Plan. Strategic Direction Sessions again addressed emerging issues in an interdisciplinary manner.

The outputs from both the consultation process and the Durban Congress have enabled the members of the Strategic Planning Commission to prepare a new Strategic Plan for 2004-2007.

As a result of the strategic planning process, the work program of the Technical Committees in the 2004-2007 four year cycle will be grouped in four Strategic Themes that focus on governance and management, outputs (sustainable mobility), operations (including and emphasising safety) and inputs (infrastructure).

PIARC has established a new Commission on Technological Exchanges and Development with a clear emphasis on issues concerning developing countries and countries in transition. All Technical Committees are now required to give consideration to the needs of developing countries and countries in transition in their work programs.

.../...

The new Commission will complement the other Commissions on Strategic Planning, Finance and Communications. In addition, for the first time, a set of Operating Rules has been prepared for the Commissions, including a section on the roles, responsibilities and terms of reference of each Commission, and these are reflected in the Strategic Plan within the Organisational Goals of PIARC.

With this Plan, PIARC is continuing to reorient its activities, whilst retaining international cooperation and technology transfer as key elements, in order to give special emphasis to the needs of its varying and ever-expanding membership. I am certain that by implementing the Strategic Plan, and ensuring follow-up over the four years leading up to the next World Road Congress in 2007 in Paris, PIARC will build upon the legacy of ten decades of progress and innovation, and will continue to enrich its activities in this new century, thereby effectively meeting the challenges of the future.

I am particularly grateful to all those who have contributed their opinions, and all the members of the Strategic Planning Commission, the General Secretariat, as well as the Council and Executive Committee.

October 2004

Olivier Michaud
President of PIARC
(2001 - 2004)

2. INTRODUCTION TO PIARC

2.1 PIARC AND ITS MEMBERSHIP

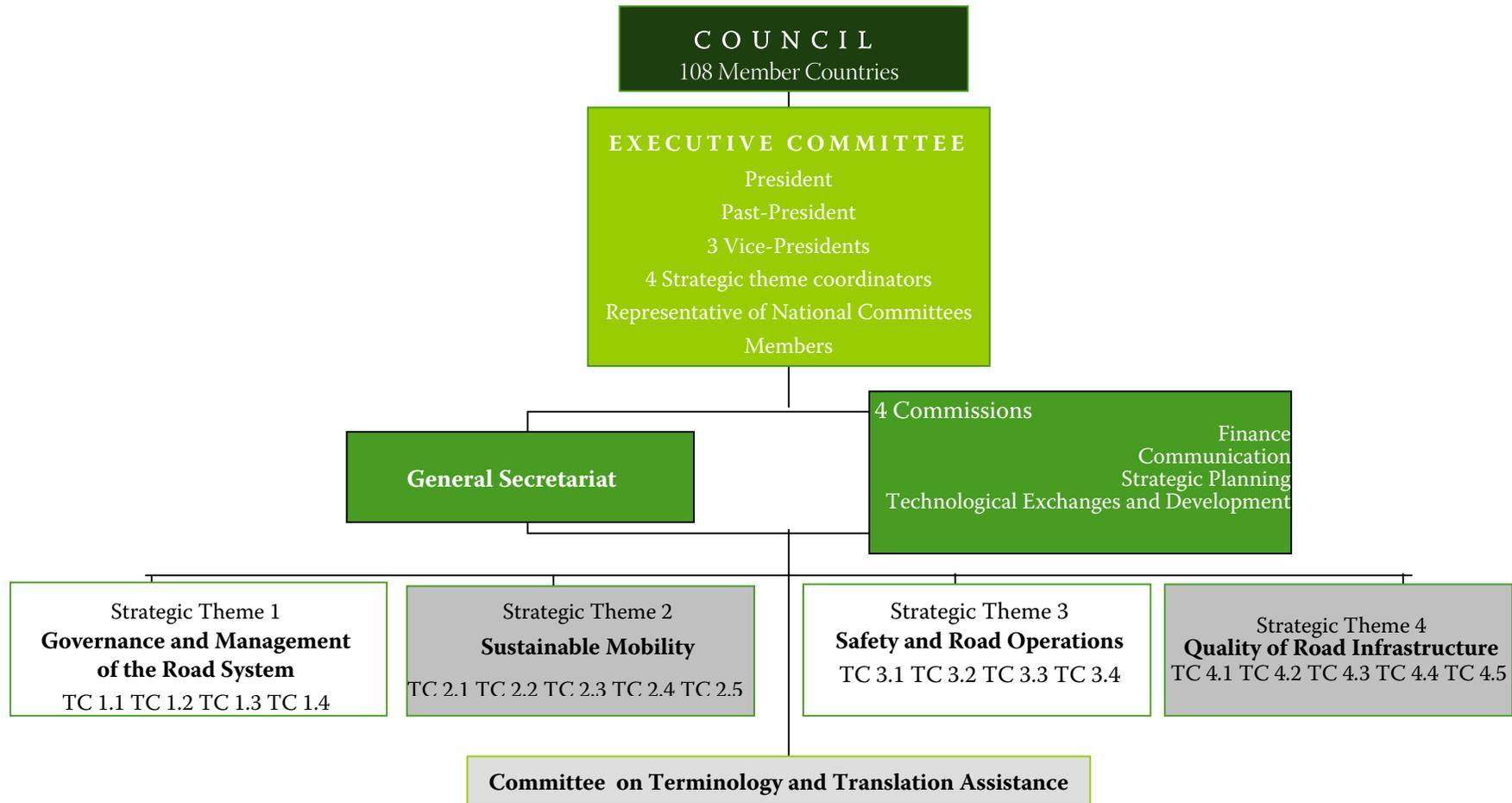
2.1.1. The World Road Association (PIARC) was established in 1909 as a non-profit association. Its broad aim has been to promote international cooperation on issues related to roads and road transport.

2.1.2. PIARC recognises the following classes of member:

- **National governments;**
- **Regional authorities** (representatives of the first administrative tier below the national government);
- **Collective members** (such as associations, international organizations, companies and research institutes);
- **Individual members;**
- **Honorary members.**

2.1.3. As of October 2004, PIARC has 109 national member governments from all over the world. Two thirds of these members are developing countries (DC) and countries in transition (CIT). There are over 2000 other members, about half of which are individual members.

P I A R C S T R U C T U R E



2.2 HOW PIARC IS GOVERNED AND MANAGED

- 2.2.1.** **The Council** has the ultimate responsibility for the governance of PIARC. It is composed of delegations from member countries, each led by a First Delegate. The Council elects the officers, the Secretary General and the members of the Executive Committee. The Council meets once each year.
- 2.2.2.** **The Executive Committee** is responsible for overseeing the management of the Association in accordance with policies approved by the Council. It is supported by the Commissions (Finance, Communications, Strategic Planning, Technological Exchanges and Development) and the General Secretariat.
- 2.2.3.** **The PIARC General Secretariat** is located in Paris. It is composed of salaried support staff and staff seconded by various member countries. It provides a secretarial service for the Council, the Executive Committee and the Commissions and services to the Technical Committees. The General Secretariat is responsible for the PIARC web-site, and for editing of the Routes/Roads magazine and PIARC's various publications. It provides assistance in the planning and preparation of the World Road Congress and International Winter Road Congresses.
- 2.2.4.** **There are** PIARC National Committees in 31 member countries as of October 2004. National Committees contribute to the dissemination of PIARC outputs, organize local activities such as meetings, conferences and seminars, and undertake some membership services and administration duties in their own countries.
- 2.2.5.** **The technical work of PIARC** has been divided into four Strategic Themes. Under these Strategic Themes are 18 Technical Committees that work on various subjects in the road and road transport field, as shown in the table below.

In addition, the Committee on Terminology and Translation Assistance works directly under the Commission on Communications.

Strategic Themes and Technical Committees for 2004-2007

Strategic Theme 1: Governance and Management of the Road System

- 1.1 Road System Economics
- 1.2 Financing Road System Investment
- 1.3 Performance of Road Administrations
- 1.4 Management of Network Operations

Strategic Theme 2: Sustainable Mobility

- 2.1 Sustainable Development and Road Transport
- 2.2 Interurban Roads and Integrated Interurban Transport
- 2.3 Urban Areas and Integrated Urban Transport
- 2.4 Freight Transport and Intermodality
- 2.5 Rural Roads and Accessibility

Strategic Theme 3: Safety and Road Operations

- 3.1 Road Safety
- 3.2 Road Tunnel Operations
- 3.3 Risk Management for Roads
- 3.4 Winter Maintenance

Strategic Theme 4: Quality of Road Infrastructure

- 4.1 Management of Road Infrastructure Assets
- 4.2 Road/Vehicle Interaction
- 4.3 Road Pavements
- 4.4 Bridges and Related Structures
- 4.5 Earthworks, Drainage and Subgrade

2.3. PIARC'S ACTIVITIES

F r a m e w o r k f o r P I A R C a c t i v i t i e s

Scope of PIARC	→ Road and road transport service
Goal of PIARC	→ Better road and road transport service
Tool for this goal	→ PIARC Strategic Plan
Strategic Plan	→ Appropriate working method implementation and structure
Outputs	→ Publications, CD-Roms, Seminars, Congresses, etc.
Outcomes	→ Improved road and road transport services in member countries

2.3.1 **PIARC's most important activity** is operating Technical Committees that undertake studies and prepare reports and papers on various topics related to roads and road transport issues. In addition, the Technical Committees arrange seminars in order to promote one of PIARC's main aims, i.e. technology transfer among member countries.

2.3.2 **PIARC organises** a World Road Congress every four years. The most recent one was in Durban, South Africa in 2003, and the next one will be in Paris, France in 2007. PIARC also organises once every four years an International International Winter Road Congress in the interval between World Road Congresses. The next International International Winter Road Congress will be held in Turin-Sestriere, Italy in March 2006.

2.3.3 **PIARC produces** a wide range of publications and software products, including a quarterly magazine *Routes/Roads*, reports of Technical Committees, Congress proceedings and dictionaries of technical terms.

2.3.4 **PIARC also undertakes** special projects such as creating Technology Transfer Centres in developing countries and countries in transition.

2.4. PIARC'S ROLE

- 2.4.1. **The road system** plays a vital role in the performance of economies, in the social functioning of communities, and in achieving effective land use and regional development.
- 2.4.2. **As an international open forum** for information exchange, PIARC is in a unique position to address the full range of road transport and road infrastructure issues. Participants in PIARC have found that they have much to learn from each other. They can develop more effective policies and technical approaches by learning from successes and failures elsewhere.
- 2.4.3. **The benefit** of PIARC's activity will be reflected in more efficient road administrations, an improved contribution of road transport to the wider economy in an integrated transport system, safer transport, and a more harmonious relationship among road transport, transport users, the environment, and society.

3. PIARC'S VISION, MISSION AND VALUES ---

3.3. VISION

PIARC will be the world leader in the exchange of knowledge on roads and road transport policy and practices within an integrated sustainable transport context.

3.4. MISSION

PIARC exists to serve all its members by:

- being a leading international forum for analysis and discussion of the full spectrum of transport issues relating to roads and road transport,
- identifying, developing and disseminating best practices and giving better access to international information,
- fully considering within its activities the needs of developing countries and countries in transition,
- developing and promoting efficient tools for decision making on matters related to roads and road transport.

3.5. VALUES

PIARC's values are:

- to provide universal quality service to its members,
- to be open, objective and impartial,
- to promote sustainable and sound economic solutions,
- to recognise road transport in an integrated transport and land use context,
- to be customer driven,
- to respect the differing international road transport needs.

4. ROAD AND ROAD TRANSPORT GOALS ---

4.1 INTRODUCTION

- 4.1.1. One of the key roles** of the Council and the Executive Committee is to consider the emerging issues that PIARC will address from proposals made by the Council, the Executive Committee, Technical Committees or members. In order to address these issues, PIARC has defined clear strategies to be adopted and outputs to be achieved. The issues, strategies and outputs are summarised in the tables in Section 4.2 below.
- 4.1.2. One member** of the Executive Committee will take responsibility as Coordinator for each of the four defined Strategic Themes. Each Strategic Theme oversees the work of those Technical Committees whose issues are most closely related.
- 4.1.3. On behalf of** the Executive Committee, the Strategic Theme Coordinators are responsible for coordinating and making sure that all the activities of each Technical Committee are implemented according to the strategies approved in the Strategic Plan.
- 4.1.4. All Technical Committees** are required, when they elaborate their work plans within the broad issues defined in their terms of reference detailed in Section 4.2 below, to select strategies and outputs specific to developing countries and countries in transition in accordance with guidance prepared by the Technological Exchanges and Development Commission.

4.2 GOALS, ISSUES, STRATEGIES AND OUTCOMES FOR STRATEGIC THEMES AND TECHNICAL COMMITTEES

4.2.1 Strategic Theme 1: Governance and Management of the Road System

Goal

Improve the governance and management of road administration in the provision of road systems in accordance with international best practice.

Overview

Roads are essential to promote socio-economic development. Roads play an integral role as the foundation linking all transport modes. Road administrations have historically been primarily engaged with issues relating to road development and maintenance. However, in recent years, they are facing new challenges that require changes in their structure and the scope of their activities in order to provide services that meet the diversified social and economic needs of road users and road-side residents amidst financial constraints and increasing concerns over the protection of the environment.

In order to achieve the goal outlined above, the Technical Committees within Strategic Theme 1 will investigate:

- road system economics within an integrated transport system, effects of road pricing on the socio-economy and project evaluation framework,
- effective management measures in both developed and developing countries that support sustainable development, such as financial procurement strategies, cost management for long-term investments and the role played by road administrations in public private partnership,
- measures to achieve more efficient management through the investigation of the governance and structure of road administration, development of human resources skills, and development and application of performance indicators of road administrations,
- new ideas for network-wide management and operations, with an emphasis on customers in the provision of services, information management and the public interest, and appropriate use of ITS for an integrated transport system.

The above issues will be dealt with taking into consideration the studies and results conducted by other international organisations such as OECD/ECMT joint transport research centre, UN-Economic Commission for Europe (ECE) and multi-lateral agencies.

Technical Committees

TC1.1	Road System Economics
TC1.2	Financing Road System Investment
TC1.3	Performance of Road Administrations
TC1.4	Management of Network Operations

TC1.1 - Road System Economics

Issue 1.1.1 Road system economics within an integrated transport system	
<i>Strategies</i>	<i>Outputs</i>
<ul style="list-style-type: none"> ➤ Study the economic evaluation methods for road projects within an integrated transport system, including the improvement of modal connections ➤ Identify and study common economic evaluation methods that can be applied to all transport modes 	<ul style="list-style-type: none"> ➤ Consolidation of economic evaluation methods for road projects within an integrated transport system ➤ Consolidation of common economic evaluation methods that can be applied to all transport modes
Issue 1.1.2 Effects of road pricing on the socio-economy	
<i>Strategies</i>	<i>Outputs</i>
<ul style="list-style-type: none"> ➤ Investigate the objectives and charging methods in introducing road pricing ➤ Investigate quantitative evaluation methods on the effects of road pricing (such as congestion mitigation, reduction of CO₂ emissions and other pollutants). 	<ul style="list-style-type: none"> ➤ Consolidation of knowledge on road pricing measures on subjective basis and relative charging methods ➤ Guidelines for quantitative evaluation methods of the effects of road pricing
Issue 1.1.3 Road project evaluation framework	
<i>Strategies</i>	<i>Outputs</i>
<ul style="list-style-type: none"> ➤ Define quantification methods for social and external costs for the purpose of project evaluation ➤ Identify best practices for road project evaluation methods : <ul style="list-style-type: none"> - that cover the various aspects of the project process, and - fully capture the diversity of road benefits and take into account regional characteristics and social development needs 	<ul style="list-style-type: none"> ➤ Road project evaluation methods that fully capture the diversity of road benefits and take into account regional characteristics and social development needs

Issue 1.2.1 Exploration of financial strategies	
<i>Strategies</i>	<i>Outputs</i>
<ul style="list-style-type: none"> ➤ Investigate the evolutions in the various financial strategies (innovative solutions, difficulties met, efficiency, allocation of earmarked funds, etc) ➤ Investigate the forms of user charges (including road tolls) and how they are used as a means of financial strategy 	<ul style="list-style-type: none"> ➤ Consolidation of financial strategy knowledge through earmarked funds and other methods taking into account benefits and burdens ➤ Best practices for user charges as a means of financial procurement
Issue 1.2.2 Cost management for long-term investment	
<i>Strategies</i>	<i>Outputs</i>
<ul style="list-style-type: none"> ➤ Investigate methodologies applicable at project level for cost estimates concerning long-term road infrastructure investment including cost management methods ➤ Investigate cost management methods which make a proper appraisal of road assets ➤ Investigate strategies for the effective allocation of funding for new development and maintenance projects 	<ul style="list-style-type: none"> ➤ Best practices for cost management concerning long-term road infrastructure investment ➤ Best practices
Issue 1.2.3 Public private partnerships for roads and road transport administration	
<i>Strategies</i>	<i>Outputs</i>
<ul style="list-style-type: none"> ➤ Explore the protection of public sector oversight and the necessary expertise for road administrations for the management of PPP contracts ➤ Investigate the effective use of PPP as a fund procurement measure ➤ Analyse the experience gained from past PPPs : <ul style="list-style-type: none"> - failures - best practices, - trends for the future 	<ul style="list-style-type: none"> ➤ Consolidation of best practices of Public Private Partnerships for roads and road transport administration

TC1.3 - Performance of Road Administrations

Issue 1.3.1 Governance and Structure of Road Administrations	
<i>Strategies</i>	<i>Outputs</i>
<ul style="list-style-type: none"> ➤ Analyse the evolution of the modes of organization of road administrations and of their resources ➤ Identify, for the different levels and bodies of road administrations, best practices to meet the diversified needs of road users and stakeholders in accordance with a country's socioeconomic development level ➤ Investigate policies for eliminating corruption 	<ul style="list-style-type: none"> ➤ Recommendations according to the various stages of development of the road systems ➤ Best practices to meet the diversified needs of road users and stake holders ➤ Recommendations
Issue 1.3.2 Development of Human Resources Skills	
<i>Strategies</i>	<i>Outputs</i>
<ul style="list-style-type: none"> ➤ Investigate what are the competences necessary to face the future challenges, identify what should be changed and/or introduced in education curriculum ➤ Identify new ideas, innovative methods introduced in the field of education and training in road and road transport (within the different contexts of developed and developing countries) 	<ul style="list-style-type: none"> ➤ Recommendations ➤ Best practices
Issue 1.3.3 Application of performance indicators of the road system	
<i>Strategies</i>	<i>Outputs</i>
<ul style="list-style-type: none"> ➤ Investigate the performance indicators which are actually implemented by road administrations and how these indicators are obtained and used ➤ Investigate policy evaluation based on performance indicators in accordance with a country's socioeconomic development level: <ul style="list-style-type: none"> - how indicators match daily needs - means for data management - assess the level of achievement 	<ul style="list-style-type: none"> ➤ Best practices to improve the transparency and efficiency of administration through the application of performance indicators ➤ Best practices for policy evaluation and the application of the results for integration into new projects

TC1.4 - Management of Network Operations

Issue 1.4.1 New ideas for Network Operations

<i>Strategies</i>	<i>Outputs</i>
<ul style="list-style-type: none"> ➤ Collect new ideas on methodology for network operation: <ul style="list-style-type: none"> - determination of the service standards - actors in charge of implementation - coordination with stakeholders ➤ Identify strategies for setting road network development goals suited to the network's stage of development and changes in social dynamics ➤ Investigate the contribution of Traffic Demand Management (TDM) to network operation 	<ul style="list-style-type: none"> ➤ Consolidation of new ideas for network operation ➤ Better understanding of setting road network development goals suited to the network's stage of development and changes in social dynamics ➤ Best practices of Traffic Demand Management (TDM) and its contribution to network operation

Issue 1.4.2 Information Management and the Public Interest

<i>Strategies</i>	<i>Outputs</i>
<ul style="list-style-type: none"> ➤ Investigate measures to assess user needs (when, where and what), to provide services ➤ Identify and analyze information gathering and cost sharing methods among various transport operators ➤ Investigate the property rights of gathered information from the viewpoint of the public interest 	<ul style="list-style-type: none"> ➤ Best practices ➤ Requirements of information gathering, best practices for integrated information architectures and cost sharing and directions of ITS standards for interoperation ➤ Recommandations to road administrations

Issue 1.4.3

Appropriate Use of ITS for an Integrated Transport System

<i>Strategies</i>	<i>Outputs</i>
<ul style="list-style-type: none">➤ Study procedures and methods to evaluate the appropriateness and suitability for selecting specific ITS services at the project proposal stage including maintenance issues➤ Study economic evaluation methods and performance indicators for ITS services in mid-and post-term of the projects➤ Identify and analyse ITS road network management strategies suitable for integrated transport systems	<ul style="list-style-type: none">➤ Recommendations for selection of study methods➤ Best practices for ITS road network management strategies suitable for integrated transport systems

4.2.2 Strategic Theme 2: Sustainable Mobility

Goal

Encourage the development of road transport policies and programmes that result in beneficial community outcomes for sustainable and safe mobility in economic, environmental and social terms, and take full account of the need for integration with other transport modes.

Overview

The scope of the work for Strategic Theme 2 brings together the themes of sustainability and integration of different transport modes across the scale of roads in rural and urban areas in developed and developing countries and those in transition. Particular attention is paid to extreme situations of mega cities and rural isolated communities.

Balancing the demands of environmental management and development pressures to achieve sustainable and beneficial community outcomes, taking account of the needs of people for mobility and the economic imperative of moving goods efficiently and effectively, is a growing concern that is addressed in the strategies and work programs of the Technical Committees in Strategic Theme 2.

The work will be carried out in cooperation with international funding institutions, the joint OECD/ECMT transport research centre and pan country groups and organizations dealing with sustainable development for transport issues.

Technical Committees

TC 2.1	Sustainable Development and Road Transport
TC 2.2	Interurban Roads and Integrated Interurban Transport
TC 2.3	Urban Areas and Integrated Urban Transport
TC 2.4	Freight Transport and Inter Modality
TC 2.5	Rural Roads and Accessibility

TC 2.1 – Sustainable Development and Road Transport

Issue 2.1.1 Concrete application of policies to road transport	
<i>Strategies</i>	<i>Outputs</i>
<ul style="list-style-type: none"> ➤ Investigate what has been in different countries the application of the concepts of sustainable development to road transport policies 	<ul style="list-style-type: none"> ➤ Review of present policies
Issue 2.1.2 Funding levels to ensure environmental mitigation	
<i>Strategies</i>	<i>Outputs</i>
<ul style="list-style-type: none"> ➤ Investigate examples in a range of countries where a comparison can be made about the different levels of funding for mitigation ➤ Consider the impact of the requirement for environmental quality management systems on the level of mitigation and the funding for projects 	<ul style="list-style-type: none"> ➤ Report that identifies the types of mitigation adopted and the costs compared to the funding of the project as a whole ➤ Report on the impact, illustrating the mitigation and funding consequences by use of case studies in different countries
Issue 2.1.3 Mitigation of environmental impacts of road transport	
<i>Strategies</i>	<i>Outputs</i>
<ul style="list-style-type: none"> ➤ Investigate where we are, what is being done, what we can expect from air quality management resulting from road transport <i>(note: noise issues are dealt with within ST4)</i> ➤ Investigate what is known on the effects of road transport pollution on the soil and ground water and how this is integrated into policies and management systems for road networks 	<ul style="list-style-type: none"> ➤ Guidance on the changes to air quality policies and the solutions road administrations are adopting ➤ Review of existing policies for soil and water pollution and identification of current solutions adopted by different road administrations

TC 2.2 – Interurban Roads and Integrated Interurban Transport

Issue 2.2.1 Sustainable Road Transport as a factor in economic and social development	
<i>Strategies</i>	<i>Outputs</i>
<ul style="list-style-type: none"> ➤ Investigate how in the XXI century inter-urban roads should be designed to better achieve sustainable mobility 	<ul style="list-style-type: none"> ➤ Guidance on the wider aspects of design for road administrations to consider
Issue 2.2.2 Interaction between the development of road and integrated transport and regional and land use planning	
<i>Strategies</i>	<i>Outputs</i>
<ul style="list-style-type: none"> ➤ Consider recent changes in road and integrated transport as a result of land use planning 	<ul style="list-style-type: none"> ➤ Report on the changes that have occurred and how this can guide the future development of road transport in an integrated system
Issue 2.2.3 Integration and interoperability of different transport modes in the inter-urban network to support sustainable mobility	
<i>Strategies</i>	<i>Outputs</i>
<ul style="list-style-type: none"> ➤ Identify the issues that are key to delivering integration and will produce sustainable mobility by seeking the views of operators, governments and customers ➤ Evaluate the success of multi-modal interchanges to support greater integration of roads into the transport system 	<ul style="list-style-type: none"> ➤ An explanation of the key issues and how these are being addressed by different countries ➤ A series of case studies to illustrate the results of these evaluations

TC 2.3 – Urban Areas and Integrated Urban Transport

Issue 2.3.1 Urban congestion	
<i>Strategies</i>	<i>Outputs</i>
<ul style="list-style-type: none"> ➤ Investigate how planning and development is changing the role of the urban road in delivering integrated transport ➤ Consider how the use of road space could be shared in congested urban areas taking account of the needs of all road users, particularly those of pedestrians and cyclists 	<ul style="list-style-type: none"> ➤ Report on key aspects, taking account of OECD work in this area ➤ A series of case studies and recommendations
Issue 2.3.2 Mega cities and transport systems	
<i>Strategies</i>	<i>Outputs</i>
<ul style="list-style-type: none"> ➤ Assess those aspects of sustainability and mobility that are not found in typical urban situations by agreeing a definition of a large (mega) city and then comparing examples of large cities in countries at different stages of development ➤ Consider the aspects of road development in large urban areas that need to be in place to minimise adverse effects of future growth ➤ Investigate key road-based transport issues relating to transition from mega cities into surrounding areas 	<ul style="list-style-type: none"> ➤ A report on the findings of the study that highlights the aspects particular to these types of urban areas ➤ Report on how future growth in mobility can be achieved in large urban areas ➤ Report on the issues that need to be addressed for road transport to ensure an effective transport system into and out of large cities
Issue 2.3.3 Non-motorised mobility	
<i>Strategies</i>	<i>Outputs</i>
<ul style="list-style-type: none"> ➤ Review the economic and safety issues for providing for the needs of non-motorised users in an urban area ➤ Consider how urban road design should reflect cases where non-motorised modes are dominant 	<ul style="list-style-type: none"> ➤ Report on case studies and provision of guidance on good practice that addresses safety and economy ➤ Revised guidance for use by operators and designers

TC 2.4 – Freight Transport and Inter Modality

Issue 2.4.1

The response of road administrations to the development of freight logistics over time and the increase in road freight transport within countries and across countries

<i>Strategies</i>	<i>Outputs</i>
<ul style="list-style-type: none"> ➤ Review how countries at different stages of development have dealt with increased freight traffic ➤ Consider examples of how freight logistics have changed and developed and what the key aspects are for the future for countries at different stages of development 	<ul style="list-style-type: none"> ➤ Guidance on key factors to take into account using examples to illustrate different approaches ➤ Guidance using examples highlighting the key aspects of how road administrations have responded to the developments in freight logistics

Issue 2.4.2

Accommodation of the increase in freight movements on road networks and the wider transport infrastructure

<i>Strategies</i>	<i>Outputs</i>
<ul style="list-style-type: none"> ➤ Review the solutions envisaged as alternatives to freight movement by road ➤ Analyse how inter modal terminals have facilitated improvements in freight capacity 	<ul style="list-style-type: none"> ➤ Report on the range of alternative modes, opportunities for integration between modes ➤ Report on the key aspects of importance for effective inter modal movement of freight

Issue 2.4.3

Mitigation of negative impacts of increased movement of freight

<i>Strategies</i>	<i>Outputs</i>
<ul style="list-style-type: none"> ➤ Investigate the present and possible innovations in freight vehicles within 20 – 30 years and their potential impacts ➤ Review the social and environmental effects of cases where modal shift and better integration of modes with regard to the movement of freight have been applied 	<ul style="list-style-type: none"> ➤ Report on key aspects ➤ Guidance on successful examples of modal shift for freight highlighting how these can provide benefits for road administrations

Issue 2.5.1 Low volume rural roads have particular issues that affect their contribution to accessibility and mobility in rural areas	
<i>Strategies</i>	<i>Outputs</i>
<ul style="list-style-type: none"> ➤ Review how the social and economic functions of low volume roads for rural communities are being appraised and what indicators are used to assess the transport needs 	<ul style="list-style-type: none"> ➤ Report on the present methodologies and indicators
Issue 2.5.2 The design and management of low volume rural roads must reflect specific local needs to ensure that provision for mobility is appropriate and fit for purpose	
<i>Strategies</i>	<i>Outputs</i>
<ul style="list-style-type: none"> ➤ Assess special requirements for the design of rural roads, considering issues such as safety and non-motorized modes by reviewing specific guidance and developing new ideas ➤ Consider how the long-term management of rural roads should be undertaken to safeguard access, taking account of funding and maintenance plans 	<ul style="list-style-type: none"> ➤ Guidance on design issues that deliver cost effective solutions that are fit for purpose ➤ Guidance on long-term management plans, using examples from countries at different stages of development
Issue 2.5.3 Reduction of the difficulties in funding or delivering transport projects in rural areas, particularly in developing countries or countries in transition	
<i>Strategies</i>	<i>Outputs</i>
<ul style="list-style-type: none"> ➤ Consider the key issues affecting the funding of transport projects in remote/rural areas, from both internal resources and external funding agencies ➤ Consider the specific skills required for the effective delivery of transport solutions in rural areas ➤ Consider the wider governance issues related to the provision and maintenance of transport in rural areas 	<ul style="list-style-type: none"> ➤ Report on key issues affecting the provision of funding for all aspects of rural transport projects ➤ Develop guidance on the appropriate project management skills, utilising local resources wherever possible. (e.g. use of seminars and teaching support) ➤ Guidance on effective governance, including measures to identify appropriate use of resources

4.2.3 Strategic Theme 3: Safety and Road Operations

Goal

Improve the safe and efficient use of the road system, including the movement of people and goods on the road network, while effectively managing the risks associated with road transport operations and the natural environment.

Overview

The emphasis across all areas of Strategic Theme 3 is on improvements to safety assessments, mechanisms, design and procedures consistent with efficient and effective operations that meet customer and user expectations, with particular emphasis on information systems and information sharing.

Strategic Theme 3 is based on four main areas: road safety, risk management for roads, road tunnel operations and winter maintenance. The Committee on Road Safety will mainly focus on process, design and technological improvements. The Committee on Risk Management for Roads will concentrate on integrated risk management with expanded research into risk assessment and decision making processes and security issues. The Committee on Road Tunnel Operations will concentrate on safety equipment, training and maintenance operations and on user behaviour in tunnels. Finally, the Committee on Winter Maintenance will concentrate on road weather observation, research and promotion of winter maintenance practices.

The work will be carried out in cooperation with the World Health Organisation, the European Commission, international funding institutions, the joint OECD/ECMT transport research centre, the International Tunnelling Association, and various international organisations dealing with road safety and the other fields of this Strategic Theme.

Technical Committees:

TC 3.1	Road Safety
TC 3.2	Risk Management for Roads
TC 3.3	Road Tunnel Operations
TC 3.4	Winter Maintenance

TC 3.1 - Road Safety

Issue 3.1.1 Make cost-effective road-safety investments	
<i>Strategies</i>	<i>Outputs</i>
<ul style="list-style-type: none"> ➤ Compare the methods for diagnosing the nature of safety problems and selecting countermeasures ➤ Analyse the methodologies used in priority ranking sites and proposed improvement projects ➤ Evaluate the methods of implemented safety improvement projects 	<ul style="list-style-type: none"> ➤ Presentation of the methods and recommendations ➤ Presentation of the methods and recommendations ➤ Presentation of the methods and recommendations
Issue 3.1.2 Improve road design concepts in relation to road safety	
<i>Strategies</i>	<i>Outputs</i>
<ul style="list-style-type: none"> ➤ Investigate improvements to geometric road design policies ➤ Identify road system wide safety improvements ➤ Review the practice of road safety investigations on existing roads 	<ul style="list-style-type: none"> ➤ Up-grade of PIARC Road Safety manual ➤ Presentation of success stories and recommendations for implementation ➤ State-of-the-practice (road safety audits/safety reviews...) and recommendations for improving the methodologies and their implementation
Issue 3.1.3 Take advantage of intelligent vehicles and infrastructure technologies to improve road safety	
<i>Strategies</i>	<i>Outputs</i>
<ul style="list-style-type: none"> ➤ Identify concepts and assess their appropriateness ➤ Analyse status and plans for implementation of intelligent technology systems on roads and in cars 	<ul style="list-style-type: none"> ➤ Guidelines for recommended concepts and countermeasures ➤ Analysis of cost effectiveness and recommendations for implementation

Issue 3.1.4

Take into consideration human behaviour

<i>Strategies</i>	<i>Outputs</i>
<ul style="list-style-type: none">➤ Determine status of worldwide activities regarding human factors and user behaviour analysis➤ Investigate relationship to roadway design and operations	<ul style="list-style-type: none">➤ Identification of gaps and research needs➤ Guidelines for design and operations

TC 3.2 - Risk Management for Roads

Issue 3.2.1 Introduce risk management techniques in the road sector	
<i>Strategies</i>	<i>Outputs</i>
<ul style="list-style-type: none"> ➤ Collect and analyze information about Integrated Risk Management from a strategic organizational standpoint ➤ Collect information about the use of quantitative risk assessment/management tools and develop best practices/lessons learned on risk based decision making ➤ Study how security risks/vulnerability can be used to assess major transportation alternatives and impact the decision making process 	<ul style="list-style-type: none"> ➤ Recommendations on how risk management can be used in an organization to guide programs/projects ➤ Report on existing practices ➤ Model Integrated Risk Management Framework that can be used as a Guide ➤ Quantitative risk assessment toolbox of techniques and methodologies which can be applied to the transportation community
Issue 3.2.2 Introduce risk management for mega-projects	
<i>Strategies</i>	<i>Outputs</i>
<ul style="list-style-type: none"> ➤ Study the use of risk assessment tools on mega projects and assess their success 	<ul style="list-style-type: none"> ➤ Guidance on better use of risk management on mega projects to maintain public trust and confidence
Issue 3.2.3 Improve security	
<i>Strategies</i>	<i>Outputs</i>
<ul style="list-style-type: none"> ➤ Investigate the application of risk management principles to the reduction of risk for the highway system 	<ul style="list-style-type: none"> ➤ Vulnerability assessment model for critical transportation infrastructures

TC 3.3 - Road Tunnel Operation

Issue 3.3.1 Provide safer tunnels	
<i>Strategies</i>	<i>Outputs</i>
<ul style="list-style-type: none"> ➤ Investigate an integrated approach to road tunnel safety ➤ Study the application of risk analysis ➤ Study international harmonization of safety facilities and signage ➤ Review improved means to detect incidents, alert and guide users 	<ul style="list-style-type: none"> ➤ Guidance on principles and organization of tunnel safety ➤ Recommendations for use of risk analyses ➤ Proposals for harmonized national practices ➤ Recommendations on measures and equipment
Issue 3.3.2 Improve tunnel operation and maintenance	
<i>Strategies</i>	<i>Outputs</i>
<ul style="list-style-type: none"> ➤ Review tunnel management systems ➤ Analyse operation of urban tunnels with high traffic ➤ Promote and follow-up policy on dangerous goods in tunnels 	<ul style="list-style-type: none"> ➤ Guidance to help operators to implement a management system and the corresponding tools ➤ Recommendations to operators including maintenance works and selection of equipment ➤ Better use of the Quantitative Risk Assessment and Decision Support Model softwares
Issue 3.3.3 Ventilation and fire suppression	
<i>Strategies</i>	<i>Outputs</i>
<ul style="list-style-type: none"> ➤ Investigate pollution inside tunnels and at portals ➤ Study operation strategy for tunnel ventilation ➤ Assess fixed fire extinguishing systems 	<ul style="list-style-type: none"> ➤ Guidance on management of tunnel pollution ➤ Recommendations on ventilation control during normal operation and during fires ➤ Recommendations

Issue 3.3.4

Take in consideration human factors for tunnel safety

<i>Strategies</i>	<i>Outputs</i>
<ul style="list-style-type: none">➤ Better understanding of user behaviour in tunnels➤ Improving user behaviour➤ Improving operators and emergency teams behaviour	<ul style="list-style-type: none">➤ Lessons for tunnel design and operation➤ Teaching guide for driving schools➤ Guide for training operators and information document for intervention teams

Issue 3.4.1 Improve winter maintenance and operation information systems	
<i>Strategies</i>	<i>Outputs</i>
<ul style="list-style-type: none"> ➤ Develop siting and calibration standards and guidelines for road weather information systems in partnership with the meteorological community ➤ Investigate possibilities of sharing observation data across countries and communities (i.e., between transportation and meteorological agencies) 	<ul style="list-style-type: none"> ➤ Recommendations for improved road weather information and more accurate road weather forecasts ➤ Recommendations
Issue 3.4.2 Provide sustainable winter maintenance	
<i>Strategies</i>	<i>Outputs</i>
<ul style="list-style-type: none"> ➤ Analyze the organization of winter maintenance between public and private sectors in order to produce good winter service to communities ➤ Make a comparative study of methods used to define the levels of service and analyze their relevance ➤ Investigate the various criteria to manage the decision making of intervention 	<ul style="list-style-type: none"> ➤ Recommendations on share of tasks and responsibilities, on forms of contracting ➤ Guidance report ➤ Guidance report
Issue 3.4.3 Share knowledge	
<i>Strategies</i>	<i>Outputs</i>
<ul style="list-style-type: none"> ➤ Prepare the scientific program of the 2006 PIARC International Winter Road Congress according to the following themes: <ul style="list-style-type: none"> - User services, standards and strategies - Performance and financing - Safety and mobility in winter, including social implications - Environment - Winter maintenance management systems - Snow and ice control technology 	<ul style="list-style-type: none"> ➤ Proceedings of the Congress ➤ Up-date of Snow & Ice Data book

Strategic Theme 4: Quality of Road Infrastructure

Goal

Improve the quality of road infrastructure through effective management of road infrastructure assets in accordance with user expectations and managers' requests.

Overview

Providing efficient management of road assets requires management systems capable of integrating all components of infrastructure, based on indicators reflecting functionalities and taking into account the users and residents expectations. This Theme will focus on this topic both from the point of view of methodology and the description of the condition of pavements, bridges and geotechnical structures.

Approaches in terms of works design and techniques to increase the durability of the elements of infrastructure will be reviewed. Moreover, emphasis will be laid on the review of progress made in maintenance techniques able to reduce the nuisance to users and residents, and the impact on the environment.

The impact of climate changes will also be considered.

A prospective study in liaison with car and tyre manufacturers will be carried out on the development of vehicles over the next 20 to 30 years, and the consequences to be drawn for pavements. Particular attention will focus on road noise reduction.

The work will be carried out in cooperation with international funding institutions, the automotive industry and various technical international organisations dealing with the construction of road infrastructures.

Technical Committees:

TC 4.1	Management of Road Infrastructure Assets
TC 4.2	Road/Vehicle Interaction
TC 4.3	Road Pavements
TC 4.4	Road Bridges and Related Structures
TC 4.5	Earthworks, Drainage and Subgrade

Issue 4.1.1 Promoting asset management methods	
<i>Strategies</i>	<i>Outputs</i>
<ul style="list-style-type: none"> ➤ Identify and review methods aiming at a coordinated management of all road assets ➤ In management systems, review how the performance of infrastructure is taken into account in terms of functionality (expected service vs. service provided; consideration of users perception, etc.) ➤ Review the various operating structures for road asset management systems; review how the management concept per road corridor is implemented 	<ul style="list-style-type: none"> ➤ State of knowledge in the field of asset management ➤ Recommendations ➤ Description of structures and recommendations
Issue 4.1.2 Providing integration of condition indicators for road assets as a whole	
<i>Strategies</i>	<i>Outputs</i>
<ul style="list-style-type: none"> ➤ Identify progress in obtaining and developing indicators reflecting the condition and functionality of road infrastructure, which can be integrated into an overall management system 	<ul style="list-style-type: none"> ➤ List of good practice and recommendations according to the context
Issue 4.1.3 Taking into account expectations of users and residents	
<i>Strategies</i>	<i>Outputs</i>
<ul style="list-style-type: none"> ➤ Review the management methods linking the various levels of road administration so as to bring decision making closer to users 	<ul style="list-style-type: none"> ➤ Examples of good practice and recommendations

Issue 4.2.1 Having a 20 to 30-year vision of developments in vehicle and road pavement characteristics	
<i>Strategies</i>	<i>Outputs</i>
<ul style="list-style-type: none"> ➤ Review the possible evolutions in private cars and trucks and impact of these changes on desirable characteristics for pavements 	<ul style="list-style-type: none"> ➤ Prospective evaluation of the impact of these evolutions and recommendations on research needs to guarantee progress
Issue 4.2.2 Reducing road noise	
<i>Strategies</i>	<i>Outputs</i>
<ul style="list-style-type: none"> ➤ Review new developments in vehicles, tyres, pavements and their interaction allowing to envisage a significant reduction in road noise ➤ Harmonise methods to characterise road noise 	<ul style="list-style-type: none"> ➤ Evaluate potential progress and identify research needs to achieve it ➤ Report on the current situation and recommendations on actions to take
Issue 4.2.3 Improving the description of pavement surface characteristics	
<i>Strategies</i>	<i>Outputs</i>
<ul style="list-style-type: none"> ➤ Continue the work on texture and skid resistance ➤ Continue the work on automated cracking survey devices ➤ Review recent practices in the use of surface condition measurement for acceptance of road works 	<ul style="list-style-type: none"> ➤ Recommendation : characterisation and selection of test tyres in cooperation with tyre manufacturers ➤ Recommendation on indices ➤ State of knowledge on techniques to measure skid resistance by winter conditions ➤ Identification protocol for pavement deterioration ➤ Evaluation method for equipment reliability ➤ Recommendations

TC 4.3 – Road Pavements

Issue 4.3.1 Selecting adequate pavement types and road techniques	
<i>Strategies</i>	<i>Outputs</i>
<ul style="list-style-type: none"> ➤ Review of how to design long life cycle pavements to reduce traffic disruptions ➤ Review practices to evaluate the pavement residual value ➤ Study how to take into account the needs specific to local networks and urban roadway in the design of pavements relevant to these contexts 	<ul style="list-style-type: none"> ➤ Recommendations on design methods ➤ Recommendation on the evaluation method ➤ Review practices and recommendations on multifunctional and/or multimodal pavements
Issue 4.3.2 Maintaining pavements	
<i>Strategies</i>	<i>Outputs</i>
<ul style="list-style-type: none"> ➤ Identify practical cases that have led to the emergence and use of techniques for pavement material recycling ➤ Identify new techniques for pavement rehabilitation works and review their contribution 	<ul style="list-style-type: none"> ➤ Recommendations in order to create and sustain conditions favourable to the development of recycling ➤ Good practice guide on maintenance and rehabilitation techniques
Issue 4.3.3 Minimising the impact of road works on the areas traversed	
<i>Strategies</i>	<i>Outputs</i>
<ul style="list-style-type: none"> ➤ Identify best techniques and means to reduce pollution, noise and nuisance to users and residents, while optimising safety and traffic flow. 	<ul style="list-style-type: none"> ➤ Catalogue of construction and maintenance processes, and pavement techniques and products that minimise nuisance ➤ Inventory of recent innovations.

TC 4.4 – Road Bridges and Related Structures

Issue 4.4.1 Increasing the durability and safety of structures	
<i>Strategies</i>	<i>Outputs</i>
<ul style="list-style-type: none"> ➤ Inventory of approaches and methods to reduce nuisance during works, while not affecting the durability of structures ➤ Review design methods that postpone the need for maintenance ➤ Inventory of approaches and methods facilitating the addition of further functionalities ➤ Review methods to ensure the safety of structures while avoiding unforeseen risky situations 	<ul style="list-style-type: none"> ➤ Recommendations ➤ Guide towards “zero” maintenance ➤ List of design methods ➤ Guidebook
Issue 4.4.2 Evaluating the condition of structures in connection with asset management methods	
<i>Strategies</i>	<i>Outputs</i>
<ul style="list-style-type: none"> ➤ Review risk management methods ➤ Inventory of non destructive investigation methods to determine the condition of structures ➤ Review methods to evaluate the asset value of bridges ➤ Continue the work on management systems of structures particularly in the field of strategic planning 	<ul style="list-style-type: none"> ➤ Recommendations on methods, indicators and definition of performance thresholds ➤ List of non destructive investigation methods ➤ List of evaluation methods ➤ Guidebook on strategic planning
Issue 4.4.3 Taking into account environmental and cultural aspects	
<i>Strategies</i>	<i>Outputs</i>
<ul style="list-style-type: none"> ➤ Inventory of maintenance and construction practices that have a limited effect on the environment compared with traditional practice ➤ Review management methods applicable to historical bridges 	<ul style="list-style-type: none"> ➤ Good practice guide on maintenance and rehabilitation ➤ Recommendations

TC 4.5 – Earthworks, Drainage and Subgrade

Issue 4.5.1 Promoting optimal use of local materials	
<i>Strategies</i>	<i>Outputs</i>
<ul style="list-style-type: none"> ➤ Identify new developments in soil treatment and rock materials for road applications ➤ Identify new developments in the use of local materials and by-products ➤ How to ensure the good integration of road infrastructures within the landscape 	<ul style="list-style-type: none"> ➤ Guide of improvement techniques with a description of the application scope for each technique and use difficulties ➤ List of materials and uses ➤ Good practice examples and mistakes to be avoided
Issue 4.5.2 Having indicators representative of the condition of geotechnical structures for road asset management	
<i>Strategies</i>	<i>Outputs</i>
<ul style="list-style-type: none"> ➤ Review indicators used to describe the condition of geotechnical structures 	<ul style="list-style-type: none"> ➤ State of practice
Issue 4.5.3 Anticipating the impact of climate changes	
<i>Strategies</i>	<i>Outputs</i>
<ul style="list-style-type: none"> ➤ Identify the impact of climate changes predicted for the XXIst century and consequences to be drawn for the design of geotechnical structures or their rehabilitation 	<ul style="list-style-type: none"> ➤ Report and recommendations

4.2.4 Committee on Terminology and translation assistance

Issue T.1 Updating PIARC Dictionaries	
<i>Strategies</i>	<i>Outputs</i>
<ul style="list-style-type: none"> ➤ Ensure active support from the network of correspondents from other PIARC Committees ➤ Develop and test a software of multilingual dictionaries on the internet ➤ Promote the inclusion of specialized glossaries in PIARC publications 	<ul style="list-style-type: none"> ➤ Improve the PIARC Dictionary and Lexicon, including photographs ➤ On-going updating on the internet of all PIARC multilingual dictionaries, with decentralised administration and access control ➤ Collection of glossaries designed to feed the updating of dictionaries
Issue T.2 Encouraging the creation of translation memory bases	
<i>Strategies</i>	<i>Outputs</i>
<ul style="list-style-type: none"> ➤ Ensure the electronic backup, by (and for) PIARC, of bilingual documents aligned following the CD-ROUTE operating mode or any other alignment tool ➤ Investigate the text alignment softwares available on the market 	<ul style="list-style-type: none"> ➤ Series of validated translations made available to translators and feeding of dictionaries ➤ Recommendations to PIARC and its National Committees concerning the creation of translation memory bases
Issue T.3 Adjusting translation softwares to the road field	
<i>Strategies</i>	<i>Outputs</i>
<ul style="list-style-type: none"> ➤ Investigate the upgrading of one or several translation softwares through the integration of PIARC dictionaries 	<ul style="list-style-type: none"> ➤ Good practice guide on one or several translation software

5 PIARC'S ORGANIZATIONAL GOALS ---

5.1 INTRODUCTION

PIARC has established a set of organizational goals, which will assist in fulfilling its mission. These goals have been translated into issues and strategies that will lead to a number of expected outcomes, as shown in Section 5.3, and allow the goals to be achieved.

Roles, responsibilities and terms of reference have been developed for each Commission, and these are shown in Section 5.2.

Lead responsibility for each organisational goal has been assigned to one of PIARC's four Commissions, the General Secretariat or the Executive Committee and Council. These assignments are shown under each goal statement in Section 5.3.

5.2 ROLES, RESPONSIBILITIES AND TERMS OF REFERENCE OF THE COMMISSIONS

5.2.1 Strategic Planning Commission

The Commission is responsible for PIARC's formal strategic planning process, through which it shall oversee the development and implementation of PIARC's work program in accordance with its Vision, Mission and Values.

In order to maintain an effective strategic planning process, the Commission shall draw up a four-year plan of action to be implemented through its Strategic Themes, Technical Committees, other partners and particularly the Secretary General.

The plan of action shall include the following aspects:

- Maintenance of PIARC's formal strategic planning process through the development of a strategic planning calendar for the four-year cycle, paying particular attention to issues of continuity between consecutive cycles;
- Overseeing development of the work program for the four-year cycle from the Strategic Plan;
- Monitoring implementation of PIARC's Strategic Plan and work program on a regular basis throughout the four years;
- Overseeing revisions to the work program during the four-year cycle;
- Revision of PIARC's Strategic Plan for the next four year cycle, in accordance with the calendar, and involving an extensive consultation process;
- Review of PIARC's structure – Commissions, Strategic Themes and Technical Committees – needed to deliver the Strategic Plan;
- Overseeing the planning and development of strategic direction sessions for the World Road Congress and the International Winter Road Congress;
- Such other projects and tasks as the Executive Committee assigns to the Commission from time to time.

5.2.2. Finance Commission

The Commission is responsible for developing and overseeing the implementation of a financial management strategy for PIARC. The Commission is also responsible for supervising the accounting system of the Association, the allocation of funds to its various activities and making recommendations on any such matters.

In order to establish appropriate accounting documents, namely: income statement, compared balance sheet, stock portfolios and business plan, the European minimum normalised accounting plan will be followed by the General Secretariat.

In order to carry out its role and fulfil its responsibilities, the Commission shall draw up a four-year plan of action to be implemented by the Secretary General.

The plan of action shall include the following aspects:

- Identification of the cost of the projects run by the Association as clearly as possible;
- Development of an active policy of revenues and expenses in order to meet the operational requirements of the Association and to complete the projects it develops, including:
 - Proposals on membership fees,
 - Rules on financial assistance for the Committees and Working Groups,
 - Rules on financial assistance for official representations;
- Ensuring a balanced geographical representation on the Finance Commission;
- Safeguarding the rules concerning the Finance Commission, in particular the role of the internal auditors;
- Managing the funds of the Association with care;
- Preparation of a multi-annual cash flow plan, taking into account the possible financial help from government and other organizations;
- Gathering, when financial terms are favourable, all the funds of the Association in the General Secretariat in Paris and, in the meantime, controlling the profitability of PIARC assets in different countries;
- Receiving World Road Congress and International Winter Road Congress budget proposals and proposals for Congress fees from the relevant local organising committee for consideration and, after acceptance, recommendation to the Executive Committee for submission to Council, including proposals for the repartition of net Congress receipts between the local Organising Committee and PIARC;
- Such other projects and tasks as the Executive Committee assigns to the Commission from time to time.

5.2.3. Communications Commission

The Commission is responsible for development of the communication policy and a communication strategy for PIARC in accordance with its Vision, Mission and Values, and for oversight of their implementation. The Commission also has direct responsibility for the Editorial Committee of the magazine "Routes / Roads" and the Committee on Terminology and Translation Assistance.

In order to establish an effective communication strategy, the Commission shall study and draw up a four-year plan of action to be implemented through First Delegates, National Committees, Technical Committees, other bodies of the Association and partners and particularly the Secretary General.

The plan of action shall be coordinated with that of the Technological Exchanges and Development Commission to avoid overlap and shall cover the communication elements of the following:

- PIARC's role as a world forum for the exchange of information and technologies (but avoiding overlap with the specific activities of the Technological Exchanges and Development Commission in respect to the transfer of technologies to developing and transitional countries);
- Mission as a leader in the field of roads and road transport;
- Results from the works of the Technical Committees and other competent bodies;
- Implementation of decisions and resolutions taken by the management bodies of the Association;
- Products intended for use by the road professionals community as a whole;
- Proposals intended to strengthen the action and image of the Association or its partners;
- Other projects and tasks as the Executive Committee assigns to the Commission from time to time.

The Commission shall oversee any action taken in the domain of communication by another body of the Association.

5.2.4. Technological Exchanges and Development Commission

The Commission is responsible for the development of the technological exchanges and development policy and a technological exchanges and development strategy for PIARC in accordance with its Vision, Mission and Values. In order to establish an effective technological exchanges and development strategy, the Commission shall study and draw up a four-year plan of action to be implemented through the various partners and particularly the General Secretariat.

The plan of action shall be coordinated with that of the Communications Commission to avoid overlap and shall cover the technological exchanges and development elements, specifically the transfer of technologies to developing and transitional countries, of the following aspects. **The Commission shall:**

- Oversee the management of PIARC Seminar programmes. The Commission will provide guidance on the nature, characteristics and structure of each seminar, and draw conclusions, including the possibility of publications by PIARC;
- Formulate policies for, and manage the establishment of Technology Transfer Centres (TTCs). The Commission shall evaluate requests from eligible countries for establishment of TTCs. It will assist TTCs with the organisation of annual conferences and evaluate yearly activities of the TTCs;
- Formulate policies for WIN aimed at the sustainable development of WIN projects and shall evaluate WIN's activities;
- Be responsible for the use of PIARC Special Funds by representatives from developing countries;
- Encourage the development and use of products and tools for road planning and management;
- Work with all Technical Committees to identify projects within their work programs relevant to developing countries and countries in transition. The Commission will provide Technical Committees with information regarding preparation of documents or products to be used in less developed countries;
- Consider strategies for evaluating the non-economic needs and benefits of road infrastructure in developing countries and countries in transition, and will also consider other issues such as:
 - Training,
 - Institutional capacity building,
 - Sustainable road infrastructure financing capacity,
 - Governance and corruption issues,
 - Non-motorised road transport,
- Investigate the benefits of collaboration with other international bodies in relation to Technological Exchanges;
- Undertake such other projects and tasks as the Executive Committee assigns to it from time to time.

The Commission shall nominate individuals to act as representatives of PIARC developing country members to other organisations working in the field of transport sector knowledge management for developing countries if so requested.

5.3. ISSUES, STRATEGIES AND OUTCOMES FOR PIARC'S ORGANISATIONAL GOALS

Goal A: *To provide and enhance international networks and forums to help members exchange information and world best practice.*
(Assigned to the Communications Commission)

Issue A.1 Improve the diffusion of information to a wider audience	
<i>Strategies</i>	<i>Outcomes</i>
<p>Establish more National Committees or correspondent organisations and strengthen them</p> <p>Clearly define PIARC's different target groups</p> <p>Encourage all member countries to nominate TC members</p> <p>Encourage member countries to nominate also young professionals as TC members</p> <p>Launch the PIARC essay competition 2007, after possible redefinition of the competition</p>	<p>More professionals linked to PIARC's activities worldwide</p> <p>Wider, targeted audience for PIARC publications and products</p> <p>More developing country representatives participating in PIARC activities</p> <p>More young professionals participating in PIARC activities</p>

Goal B: *To develop and encourage professionally worthwhile and effective personal contact networks.*
(Assigned to the General Secretariat)

Issue B.1 Improve personal contact networks for road directors and other senior officers	
<i>Strategies</i>	<i>Outcomes</i>
<p>Maintain direct links between the General Secretariat and regional organisations such as:</p> <ul style="list-style-type: none"> - Conference of European Directors of Roads, - Council of Ibero-American Road Directors 	<p>Better coordination between PIARC and activities at regional level</p> <p>Better understanding of PIARC actions</p>

Goal C: *To develop practical means for efficient and effective technology transfer among countries.*

(Assigned to the Technological Exchanges and Development Commission)

Issue C.1 Management of the PIARC seminar program	
<i>Strategies</i>	<i>Outcomes</i>
<p>Prepare guidelines on seminar characteristics, expected outcomes, relevance to developing countries and on economic assistance for organising seminars</p> <p>Prepare seminar program for 2004-2007 in consultation with Technical Committees</p> <p>Assist Technical Committees and National and Regional Committees, etc. with the organisation of seminars</p>	<p>At least two seminars per Technical Committee in developing and transition countries during 2004-2007</p> <p>Material suitable for publication and distribution through PIARC, and suitable as inputs for Technical Committee work from each seminar</p>
Issue C.2 Establishment of Technology Transfer Centres (TTCs)	
<i>Strategies</i>	<i>Outcomes</i>
<p>Prepare policies and terms of reference for the selection, evaluation, approval and provision of assistance to TTCs</p> <p>Organise an annual TTC conference in conjunction with a follow-up of the WIN activity</p> <p>Maintain economic support for TTCs and develop guidelines to help them generate their own revenues</p>	<p>10 new TTCs established in developing and transitional countries during 2004-2007</p> <p>Activities of existing TTCs consolidated and strengthened</p> <p>Road technologies effectively transferred to developing and transitional countries, contributing to capacity building and training in their road sectors</p>
Issue C.3 Development and consolidation of WIN as a tool to assist road professionals with problems find solutions	
<i>Strategies</i>	<i>Outcomes</i>
<p>Prepare and define policies for the sustained effective use of WIN</p> <p>Promote the designation of WIN relays among PIARC member countries</p> <p>Monitor the use and significance of WIN</p> <p>Organise regular exchanges between relays about WIN activity</p>	<p>70% of PIARC member countries have WIN relays by 2007</p> <p>90% of questions formulated through WIN are satisfactorily answered</p> <p>Increased recourse to WIN by road professionals to seek answers to problems</p>

Issue C.4 Responsible and effective use of the PIARC Special Fund	
<i>Strategies</i>	<i>Outcomes</i>
<p>Review and update policies and application procedures for the use of the Special Fund and disseminate them to eligible countries</p>	<p>Increased participation and presence of road professionals from developing countries in PIARC activities</p>
Issue C.5 Development and use of products and tools for road planning and management	
<i>Strategies</i>	<i>Outcomes</i>
<p>Contribute to the promotion of the use of HDM-4 in developing and transitional countries</p> <p>Request Technical Committees to identify and propose products and tools to assist road planning and management, especially in developing and transitional countries</p> <p>Propose to multilateral and donor agencies to develop models, toolkits and data banks that support best practices in road related fields</p>	<p>Widespread effective adoption of HDM-4, especially in developing and transitional countries</p> <p>Identification and successful development of products, tools, models and data banks that help to build road related capabilities, especially in developing and transitional countries</p>
Issue C.6 Projects relevant to developing and transitional countries	
<i>Strategies</i>	<i>Outcomes</i>
<p>Work with Technical Committees to identify and define topics of relevance to developing and transitional countries to be included in the Technical Committees' work programs</p> <p>Facilitate the involvement of developing and transitional countries in work on these topics and the distribution and dissemination of documents, products and technology to them</p>	<p>At least two topics of relevance to developing and transitional countries included in the 2004-2007 work program of each Technical Committee</p> <p>At least two products of use to developing and transitional countries per Technical Committee by 2007</p>

Issue C.7
Non-economic needs and benefits of road infrastructure in developing and transitional countries

<i>Strategies</i>	<i>Outcomes</i>
<p>Arrange with the Technical Committees for the preparation and distribution of position papers on topic such as:</p> <ul style="list-style-type: none"> • Training for road professionals • Institutional capacity building • Sustainable road infrastructure financing capacity • Governance and corruption • Non-motorised road transport <p>Obtain feedback, develop seminars and organise activities to develop the topics further for inclusion in future Technical Committee work plans</p>	<p>A series of documents outlining best practice in each of the fields studied</p> <p>Non-economic topics, especially those of concern to developing and transitional countries, included in future Technical Committee work programs</p>

Issue C.8
Cooperation with international organisations

<i>Strategies</i>	<i>Outcomes</i>
<p>Identify agencies and organisations with common goals and objectives in technology exchange</p>	<p>Beneficial cooperation with agencies and organisations with similar goals</p>

Goal D: *To run Congresses that are major and valuable events for information exchange among members of the road transport community, and to run them so that they are viable from PIARC's point of view.*
(Assigned to the General Secretariat)

Issue D.1 Improve the effectiveness of Congresses for information exchange	
<i>Strategies</i>	<i>Outcomes</i>
<p>Encourage sessions which give scope for participation and discussion</p> <p>Encourage contributions from other international organisations</p>	<p>More effective Congresses – oriented towards the future activities of PIARC</p> <p>Stimulate growth in membership</p> <p>Better mutual recognition</p>
Issue D.2 Enlarge geographical distribution of conference activity	
<i>Strategies</i>	<i>Outcomes</i>
<p>Identify opportunities to cooperate with other organizations to participate in regional and technical conferences</p>	<p>More interaction between different regions</p> <p>Activity in more regions</p>

Goal E: *To produce and disseminate authoritative, impartial and interesting publications that address current road and road transport issues.*
(Assigned to the Communications Commission)

Issue E.1 Improve the diffusion of information from Technical Committees	
<i>Strategies</i>	<i>Outcomes</i>
<p>Further improve the PIARC web site; follow-up on the use of the web site</p> <p>Clearly define target groups for different publications and products</p> <p>Assist Technical Committees to include proposals to communicate results in their work plans</p> <p>Renew “Reference shelf” project: A targeted marketing plan for PIARC publications</p> <p>Oversee the work of the Committee on Terminology and Translation Assistance</p>	<p>Worldwide road community better informed about international experience on road and road transport issues and best practice</p> <p>Wider, targeted audience for PIARC publications and products</p>
Issue E.2 Improve the quality of PIARC publications and products	
<i>Strategies</i>	<i>Outcomes</i>
<p>Refresh Routes/Roads (define target groups, editorial policy, layout)</p> <p>Refresh the layout of PIARC reports</p> <p>Consider publishing on the internet</p> <p>Develop new communication tools (e.g. different uses of internet; reports published together with other organisations; press releases; newsletters and e-mail lists; leaflets and handbooks)</p>	<p>Appreciation of PIARC publications and products and interest in buying them</p> <p>Increased readership</p>

Goal F: *To improve participation of member governments, and to increase the number of members of the road community benefiting, whether through National Committees or by direct participation in PIARC Technical Committees.*
 (Assigned to the General Secretariat)

Issue F.1	
Increase the value provided by PIARC, and thus its attraction to members	
<i>Strategies</i>	<i>Outcomes</i>
<p>Improve the diffusion of information to a wider membership by the Internet, improving publications and by strengthening the role of National Committees</p> <p>Administer the PIARC Prizes Competition</p> <p>Investigate conditions for the creation of a "Young Professionals Group"</p>	<p>Interest in PIARC stimulated and membership encouraged, especially among young professionals</p>

Goal G: *To improve continuously the management and operation of PIARC in order to provide members with a service that represents good value for money.*
(Assigned to the Executive Committee and the General Secretariat)

Issue G.1 Improve the effectiveness of the Council and the Executive Committee	
<i>Strategies</i>	<i>Outcomes</i>
<p>Arrange seminars or workshops in connection with the meetings in developing countries</p> <p>Provide Council with better information on which to base policy decisions</p> <p>Arrange more Executive Committee meetings in developing and transitional countries</p>	<p>More actively participated Council meetings</p> <p>Clear decision making and more rapid management response</p>
Issue G.2 Improve communications between the Technical Committees and the Executive Committee and the Council	
<i>Strategies</i>	<i>Outcomes</i>
<p>Allocate responsibility for liaison and strategic initiatives to designated members of the Executive Committee</p> <p>Provide more direction to Technical Committees on the priorities for study by meetings of the Strategic Theme Coordinators with the Chairs and Secretaries of the Technical Committees and by using telematics and Internet communications</p>	<p>Improved focus on subjects of interest to decision makers</p> <p>Better management of the outputs of the Technical Committees and feedback to the Executive Committee of expert views</p>
Issue G.3 Improve the effectiveness of Technical Committees	
<i>Strategies</i>	<i>Outcomes</i>
<p>Adopt a project oriented approach for the definition of the outputs and the management of Technical Committees</p>	<p>Outputs better fit needs</p>

Goal H: *To promote cooperation with other international and regional groupings with related goals.*
 (Assigned to the Executive Committee and Council)

Issue H.1 Improve cooperation with international and regional organizations with related goals	
<i>Strategies</i>	<i>Outcomes</i>
<p>Invite representatives of regional associations and other professional organizations to attend the Council as observers</p> <p>Involve other organizations in Technical Committees</p> <p>Seek cooperation in special purpose conferences – joint sessions</p>	<p>Better studies of issues that cut across professional boundaries</p> <p>Avoidance of duplication of effort</p> <p>Improved participation by regional associations</p> <p>Improved information exchange</p>

Goal I: *To put transparent financial management of the Association in the service of its purpose and to optimise investment performance for the funds managed by the Association*
(Assigned to the Finance Commission)

Issue I.1	
Put the financial management of the Association in the service of its purpose	
<i>Strategies</i>	<i>Outcomes</i>
<p>Identify the cost of the projects run by the Association as clearly as possible</p> <p>Develop an active policy of revenues and expenses in order to meet the operational requirements of the Association and to complete the projects it develops</p>	<p>The members can find out more about what is done with their membership fees.</p> <p>Ensure complete coverage of the running costs and of the promotion of the projects</p>
Issue I.2	
Ensure transparency of financial management	
<i>Strategies</i>	<i>Outcomes</i>
<p>Ensure balanced geographical representation of the Finance Commission (despite the travel difficulties)</p> <p>Safeguard fully the rules concerning the Finance Commission, in particular the role of the management auditors</p>	<p>Involve all the regions of the world in the financial management of the Association</p> <p>Maintain an independent monitoring of the General Secretariat via management auditors</p>
Issue I.3	
Optimise investment performance for the funds managed by the Association	
<i>Strategies</i>	<i>Outcomes</i>
<p>Manage the funds of the Association with care (on the « prudent-man » principle)</p> <p>Draw up a multiannual cash plan</p> <p>Gather, when financial terms will be favourable, all the funds of the Association in the General Secretariat</p>	<p>Avoid stock market depreciations which could jeopardize the funds of the Association</p> <p>Maximise the management of the assets</p> <p>Have a clear and precise overview of the funds belonging to the Association and harmonise the management methods</p>

Goal J: *To identify, develop and promulgate policy and practices that contribute to safer and more effective management and use of road and road transport systems within an integrated sustainable transport context.* (Assigned to the Strategic Planning Commission)

Issue		
Meet the needs of members for improved road and road transport policy and practices through a systematically developed and monitored technical and supporting work program		
<i>Strategies</i>		<i>Outcomes</i>
J.1	Maintain a formal strategic planning process through the development of a strategic planning calendar for the four-year cycle.	Timely delivery of the Strategic Plan and the work program.
J.2	Oversee development of a four-year work program from the Strategic Plan.	A well directed and transparent work program that meets members' needs.
J.3	Monitor implementation of the work program on a regular basis.	A work program that remains focused and on target to achieve its goals.
J.4	Oversee revisions to the work program.	A flexible work program that is responsive to members' changing needs and emerging issues.
J.5	Revise the Strategic Plan for the next four year cycle through an extensive consultation process.	A Strategic Plan to direct the work program that is up to date, relevant and addresses priority issues for members.
J.6	In conjunction with the four-yearly revision of the Strategic Plan, review the PIARC structure – Commissions, Strategic Themes and Technical Committees.	A structure best suited to efficient and effective delivery of the work program and achievement of PIARC's strategic goals.
J.7	Oversee the planning and direction of the Strategic Direction sessions at the World Road Congress and the International Winter Road Congress.	Shared understanding of emerging and priority issues both for road administrations and to be addressed in PIARC's forward work program.
J.8	Undertake specific projects requested by the Executive Committee.	Timely and useful outcomes from specific issues that lie outside PIARC's Strategic Plan.

APPENDIX

1. MEMBER GOVERNMENTS/ 109 AS OF OCTOBER 2004

Algeria	Germany	Paraguay
Andorra	Ghana	Peru
Argentina	Greece	Philippines
Australia	Guatemala	Poland
Austria	Guinea	Portugal
Azerbaijan	Honduras	Romania
Bangladesh	Hungary	Russia
Belgium	Iceland	Salvador
Benin	India	Saudi Arabia
Bhutan	Indonesia	Senegal
Bolivia	Iran	Slovak Republic
Brazil	Ireland	Slovenia
Bulgaria	Israel	South Africa
Burkina Faso	Italy	Spain
Cambodia	Japan	Sri Lanka
Cameroon	Kenya	Swaziland
Canada	Korea (Rep.)	Sweden
Canada-Quebec	Kuwait	Switzerland
Cape Verde	Latvia	Syria
Chad	Lithuania	Tanzania
Chile	Luxembourg	Thailand
China (Peop. Rep.)	Madagascar	Togo
Colombia	Malaysia	Tonga
Congo (Rep.)	Mali	Tunisia
Congo (Dem. Rep.)	Mauritius	Turkey
Costa Rica	Mexico	Uganda
Côte d'Ivoire	Mongolia	Ukraine
Croatia	Morocco	United Kingdom
Cuba	Namibia	United States
Czech Republic	Nepal	Uruguay
Denmark	The Netherlands	Uzbekistan
Egypt	New Zealand	Venezuela
Ecuador	Nicaragua	Vietnam
Estonia	Norway	Yemen
Finland	Pakistan	Zimbabwe
France	Panama	
Gabon	Papua New Guinea	

2. NATIONAL COMMITTEES (31 COUNTRIES) AS OF OCTOBER 2004

ALGERIA
ARGENTINA
AUSTRALIA
AUSTRIA
BELGIUM
BURKINA FASO
CAMEROON
CANADA
CANADA-QUEBEC
CZECH REPUBLIC
DENMARK
FINLAND
FRANCE
GERMANY
GREECE
HUNGARY
INDIA
ITALY
JAPAN
MADAGASCAR
MOROCCO
NORWAY
PORTUGAL
ROMANIA
SLOVAK REPUBLIC
SLOVENIA
SPAIN
SWEDEN
SWITZERLAND
THE NETHERLANDS
UNITED KINGDOM