Contents

Foreword v								
Abstract vi	LIOTECA							
Abbreviations vii								
Acknowledgments viii								
Overview 1								
Part I. Background 5								
1. Introduction 7								
2. The State of the Road Sector 9 The Importance of Roads and Road Transport 9 The Impact of Poor Road Maintenance 11 Past Efforts at Reform 14 Regional Programs 15 Part II. The Basic Issues 17								
3. A Diagnosis 19 The Institutional Framework 19 Human Resource Constraints 19 Inadequate Financing Arrangements 22 Lack of Clear Responsibilities 24 Ineffective Management Structures 27 Weak Management Systems 28 Inefficient Work Methods 29								
 4. Commercializing Roads: The Four Basic Building B Assigning Responsibility 32 Creating Ownership 32 Ensuring Secure and Stable Financing 33 Introducing Sound Business Practices 33 	locks 32							

Part III. An Agenda for Reform 35

5.	As	ssig	ning	Man	agement	Responsibility	37
	_		_				

Basic Principles 37

Managing the Road Network

Managing Road Traffic

Key Conclusions and Recommendations 51

6. Creating Ownership 53

The Concept of Ownership 53

Organizations Representing Road Users 54

Ways of Involving Road Users 55

Setting Up a Road Board 57

Key Recommendations and Conclusions 62

7. Ensuring an Adequate and Stable Flow of Funds 65

Setting Clear Market Signals 65

Pricing and Cost Recovery Policies 72

Key Recommendations and Conclusions 77

8. Managing the Revenues 80

Linking Revenues and Expenditures 80

ilaitaics o

38

Types of Road Funds 80

Characteristics of Existing Road Funds 83

Problems with Conventional Road Funds 86

Setting Up a Commercially Managed Road Fund 88

Key Recommendations and Conclusions 101

9. Introducing Sound Business Practices 103

Defining the Corporate Mission 10

Separating Planning and Management from Implementation of Road Works 104

Identifying Effective Ways to Contract Out 106

Staffing Requirements 108

Management Structure 111

Management Information Systems 112

Financial Accounting Systems 114

Controlling the Quality of Road Works 118

Managerial Autonomy and Accountability 122

Key Conclusions and Recommendations 123

Part IV. Annexes 127

Annex 1. Length of Road and Estimated Asset Values in Selected Countries 129

Annex 2. The Inverse Elasticity Rule 130

Annex 3. Estimating Road-User Charges: A Worked Example 132

Annex 4. Review of Selected Road Funds 139

Annex 5. Draft Road Fund Administration Bill 145

Annex 6. Standard Format for Setting Up a Road Fund Under Existing Legislation 153

References 157