

# Fundamental Principles for Good Road Management

## Introduction

This paper summarises a number of basic concepts that are relevant to the management of roads, regardless of the type, hierarchy (classification), network size or the cultural, social or environmental situation in which they are being managed. These principles have been developed over more than 30 years of experience of institutional reforms throughout the world, and have proved helpful in identifying more clearly, why particularly persistent problems may exist and how they might be overcome.

In reviewing these principles, the reader may feel that they are merely stating what should be obvious, and in many cases this is so. This is why they are referred to as being 'fundamental'! Despite their evident logic in many cases however, it is all too common for many of them not to be present or applied appropriately in how a country manages its road assets. Nevertheless, making these principles explicit can often help to identify the underlying conflicts present in many situations in the roads sub-sector in a country.

The need to make these principles explicit arises because there is often a basic misunderstanding or disagreement about their validity, as they pertain to managing roads. This leads to confusion and misunderstanding in why certain institutional arrangements are being applied, which can make the support for such reforms flaky and liable to ill-informed revisions, undermining many of the benefits that such reforms should bring. It is therefore important that these principles are clear and as widely understood as possible, as they form the foundations upon which the challenges that reforms bring can be successfully overcome.

Given that decisions about institutional reforms are usually required from the most senior policy makers in society, and that their continuing support is necessary for any such reforms to succeed, it is therefore particularly important that these senior individuals understand and support these principles.

Such understanding requires adequate time to consider these principles and their implications on how roads should be managed. This can be achieved effectively in a workshop and two-way consultancy environment, where those present are able to question and discuss any contentious items. This process helps to cement the important foundations upon which a broad and stable consensus can be built. This process can take some time (depending upon the level of understanding and the numbers attending). If at all possible, it should not be truncated prematurely, as this is likely to result in continuing misunderstandings, fundamental disagreements and wavering, shallow support for any solutions which are built upon these concepts. This stores up major problems in the future for senior managers, policy makers and funders.

## The Process

Following an introduction to some of the concepts surrounding road management, the principles are presented as statements. For each principle stated, delegates are invited to indicate how strongly they agree or disagree with the principle, by ticking one of the boxes shown in Table 1, (which also shows the scores given).

**Table 1: Scoring Table**

Category:	Disagree Strongly	Disagree	Neutral	Agree	Agree Strongly
Score:	-2	-1	0	1	2

By totalling each principle in this way, a summary of the overall level of support for each one can be ascertained. This highlighting any areas that may potentially cause problems or a lack of support later on, after decisions and commitments have been made. These areas of doubt can then be discussed in more detail, to identify and resolve any misunderstandings and disagreements.

Most of the principles described are not specific to road management, but could be equally applied to any business or human activity. Others may appear not to have a direct impact on road management. Many may appear to be so self-evident that asking them can seem pointless. However, at times some these apparently obvious and self-evident principles are not applied in how the roads sub-sector is organised in some countries. Realising this can often go to the root of the problems they experience.

## The Fundamental Principles for Good Road Management

Table 2 below lists the fundamental principles identified for achieving effective and efficient road management, regardless of country, culture or network. These principles are not exhaustive, but cover all of the major aspects of road management. Others may be added if they are considered important for particular circumstances. Where accepted, these principles reflect the values and beliefs of those administering the road network on behalf of the wider community. They can therefore help to reflect and form the cultural 'norms' of the relevant organisations. Ideally, they should also be shared by those supplying goods and services to these organisations, and by those using the services provided (i.e. road/transport users).

Inevitably there are overlaps between some of these principles. This reflects the nature of the issues under consideration, making organising them into distinct categories subjective. Some may also be considered to duplicate others. There is no harm in this (other than making the list longer): many issues can be viewed from different perspectives and it is better to achieve a consensus from all perspectives, than to omit a principle that turns out to be important but contentious.

**Table 2: The Fundamental Principles for Good Road Management**

<b>Ref. No.</b>	<b>Principle</b>
1	There should be a clear mandate and definition of functions for all public and private sector organisations throughout the road transport sub-sector, including Ministries, Departments, Agencies & Private Sector companies.
2	A good road transport network is an important national asset and represents a significant investment by Governments.
3	Road assets need to be protected through adequate, ongoing maintenance.
4	A well planned and integrated road transport network makes an important contribution to the country's overall economic competitiveness.
5	Bad roads incur huge social and economic costs.
6	Resources expended on the road network should be allocated to maximise net benefits to the community as a whole.
7	Road infrastructure activities have long term impacts and decisions should therefore be based on long-term ('whole-life') costs and benefits, rather than shorter-term considerations.
8	The 'most important' roads (i.e. those which have the highest social and economic benefits) which get constructed first. Therefore their maintenance should generally take priority over the construction of new roads.
9	Consideration should be given to minimising total road transport costs, and not just those costs incurred by the relevant public sector Ministry or Agency.
10	Stakeholders are entitled to participate in decision making for financing roads, their management, the service delivery and monitoring.
11	The decision making processes should be as objective as possible. Decisions should be defensible, based on pre-defined (and agreed) criteria.
12	Areas of responsibility should be clearly understood and defined for people and organisations. They should be as unambiguous as possible.
13	Accountability follows responsibility: people and organisations should only be made accountable for activities and results for which they have responsibility.
14	Effective accountability encourages improved decision making.
15	Managers should have the authority to apply the necessary resources to achieve their objectives.
16	Any accounting or financial management systems used should be able to reflect as accurately as possible, the true financial status of the road organisation to its managers, (i.e. it should be able to reflect the true cost of resources used, show the present cash position and requirements (cash flow) and the levels of commitments, liabilities and creditors).
17	As far as is practical, decisions should be based on the relevant data or information available.
18	Decisions should be taken at the 'lowest' level possible (subsidiarity or decentralisation). This widens the sharing of the workload, encourages

	motivation within the organisation and can increase flexibility, innovation and faster decision making.
19	Technical auditing (which measures effectiveness) and financial auditing (which measures efficiency) serve a useful purpose in identifying existing weaknesses and promoting improvements in performance.
20	Effective auditing requires that the auditor is independent of those being audited.
21	Effective auditing requires that the auditor's recommendations are acted upon.
22	Roads are a huge business, because someone (taxpayers and/or road users) pay others (road management institutions/organisations) for providing and maintaining the road infrastructure for their use.
23	The "service" provided in the roads business is the provision of road infrastructure.
24	In such a business, the road users are the customers, because they enjoy (i.e. use) the road infrastructure services provided.
25	Road agencies, Ministries, private sector suppliers (e.g. contractors) and other organisations are the service providers, collectively providing the road infrastructure to the customers.
26	Clients and/or customers should be independent (separated) from the Service Providers.
27	Management Information Systems in any organisation should be designed to provide the information required by the decision makers.
28	Economics in decision making can help by quantifying objectively the relative benefits and costs of alternative options. As such, it can support decisions made.
29	When resources are limited, the range of activities to be carried out need to be prioritised. The criteria used in such prioritisation should be based on the policies relevant to the roads sub-sector.
30	Road management operations should be commercialised as much as possible, meaning that the full, actual costs and benefits of these operations are clear to decision makers.
31	Achieving the best results means ensuring that all parts of the system involved in the delivery of road services are working well in an integrated environment (adopting a Holistic Approach).
32	The overall effectiveness of delivering road services is only as good as the weakest part in the whole system / process.
33	The provision of road services (institutional and funding arrangements) should reflect local cultural and political realities.
34	Road maintenance is an "indigenous activity" that must be sustainable in the long term, without continuous outside support.
35	It is critical to develop a 'maintenance culture' in any road management organisation.
36	All road management activities (e.g. planning, design, construction and maintenance) should be carried out as efficiently as possible.

37	Competition in the provision of services to a client, is a good thing as it promotes innovation and efficiency, thereby improving “value for money”.
38	Wherever feasible, competition for the provision of services should be used, based on ‘level playing field’ competition.
39	Road managers should have sufficient flexibility and capability to respond adequately to unforeseen requirements.
40	There is a need to motivate staff, if they are to perform to their best.
41	Staff should be rewarded for achieving good results based on clearly defined performance targets.
42	Consistently poor performance should be discouraged.
43	Good financial accountability leads to effective use of resources.
44	There should be an acceptable and transparent structure for the management of funds and establishing adequate financial controls.
45	Funds for road maintenance and construction should be stable over time, predictable and timely. This improves road maintenance management.
46	Conversely, unpredictable funding hinders effective road planning and increases the ‘whole life’ costs of maintaining the roads.
47	Funds for road maintenance should be adequate to meet the needs of the network, based on the standards and policies defined for it.
48	The level of spending (on road infrastructure) should be at a level that is ‘affordable’ to the wider economy.
49	The more someone uses the road infrastructure, the more they should contribute towards its upkeep.
50	The more costs (damage) a user imposes on the road infrastructure and the environment, the more they should contribute towards these costs.
51	There should be transparency in how funds are allocated.
52	The use of funds should be clearly identified, justified and monitored.
53	Corruption results in higher costs and inefficiencies and should therefore be eliminated from all areas of road management.
54	Decision making should be based on the best interests of the organisation and its customers, rather than on the personal interests of the individual decision maker(s).
55	Government Policies should reflect the views and priorities of the population whom it represents.
56	Ministries (and their Agencies, etc.), are the executive arm of government, responsible for ensuring that the government’s policies & services are implemented.
57	Provided that the public’s interests are protected and the road users’ interests are not abused (through for example, adequate regulation and monitoring), it is not necessary for the public sector (government Ministries) to actually provide the road management services to road users.
58	The more clearly defined are an organisation’s customers, the easier it is to identify their specific needs.
59	The more clearly identified and focussed are its customers’ needs, the easier it is for an organisation to focus on and meet these needs (“specificity”).

60	The more focussed is an organisation's objectives and functions, the more efficiently it can achieve these objectives and deliver its services (specialisation).
61	The only thing that doesn't change, is change itself! We must all, as individuals, organisations and nations, continually adapt to the changing needs of our environment.
62	The longer we resist change, the greater and more challenging is the eventual change likely to be: continual incremental (evolutionary) change is preferable to dramatic, unpredictable (revolutionary) change.
63	Change can appear to be challenging and threatening to those involved.
64	People are more likely to accept change if they understand why the changes are necessary.
65	People are more likely to accept changes if their concerns and needs are addressed.
66	In any organisation, those being paid by that organisation should work towards the interests of that organisation (or go elsewhere).
67	The public sector exists to serve the needs of its population, who fund it.