

Road Safety Management

Information Note 2: The Role and Effectiveness of Road Safety Plans

Background

In July 2000, the UK Department for International Development (DFID) commissioned the Transport Research Laboratory (TRL) and Ross Silcock to undertake a review of road safety management focusing on four key aspects, namely:

- how road safety activities are organized and coordinated;
- the role and effectiveness of road safety strategic/ action plans;
- how road safety is funded; and
- the extent to which the business sector participates in and promotes road safety.

Thirteen case studies (Bangladesh, Bangalore (India), Chile, Ethiopia, Fiji, Ghana, Indonesia, New Zealand, South Africa, Sweden, UK, Victoria (Australia), Zambia) were used to identify and examine good practice. The case studies sought to include different regions, levels of motorization and structures of road safety management in both Low Income Countries (LIC) and High Income Countries (HIC).

Four information notes have been produced by GRSP based on the original report presented to DFID. Each note focuses on one of these aspects of road safety management. There are, however, several overarching principles which apply in all LICs and set a context for the reviews:

- awareness of the road safety problem must be raised in the public, the political and the professional arenas before actions can take place on a serious scale;
- there is a general lack of institutional capacity and of adequately trained staff; and
- road safety is as much a social, economic and public health issue as it is a transport issue. Partnerships between government departments, business and civil society recognize this, and offer a constructive way forward.

This review of road safety plans focused on how road safety plans are prepared and organized, what they contain (costs, time deadlines, responsibilities, etc.) and the extent to which they have been implemented.

Introduction

Over the past decade, road safety plans have been increasingly used to coordinate the various road safety efforts of different organizations. The title 'strategic' or 'action' will depend upon the scope and detail of the plan. A UK review of local road safety plans (Oscar Faber TPA, 1993) recommended that the first task

should be to determine the plan's specific purpose and target audience. Also, to be practical, plans need to relate to the local context.

Twelve of the thirteen case study countries had developed plans to guide and coordinate road safety interventions. The exception, Ethiopia, had a donor funded draft national plan that is under discussion. The UK has a 10-year national road safety strategy supported by detailed annual local plans. Two-tier planning systems have been a feature in most HICs, with many countries now developing their third or fourth national program. In LICs, the emphasis has generally been limited to national strategies and for many reviewed, it was their first. Larger countries and federal systems will clearly need to develop provincial or local plans. Project or scheme plans are also a crucial component and they represent the third element of the planning process.

Plan content

Road safety strategies in HICs tend to have longer time frames, typically 10 years. Conversely, LICs have shorter planning horizons that are often preferable where technical and financial resources are limited or uncertain, and where government commitment to road safety is being clarified.

The number of themes, areas or actions identified in many road safety plans is often too ambitious to be practical. Plans need to focus on a few proven measures aimed at helping the most vulnerable groups. Fiji's first plan was more focused and concentrated on five topic areas giving priority to the following key issues.

- coordination
- funding
- crash data systems
- traffic law enforcement
- road safety engineering

The Zambian Road Safety Plan followed a similar approach while the proposed two-year plan for Ethiopia focused on three areas. These were establishing a central office and management body, initiating regional road safety committees and local programs, and increasing road safety capacity within the roads sector (including the introduction of traffic safety engineering units, a hazardous location improvement program and road safety audits). Institutional strengthening is vital for the delivery of most LICs' plans and needs to be part of the strategy.

Most road safety plans specify time deadlines. They are also multi-sectoral. LICs tend to follow a fairly standard sector-by-sector approach, whilst HICs often specify a package of measures for each of a few priority problems such as young pedestrians or speeding.

Most plans include targets (see effectiveness below) and performance indicators. Monitoring in many LICs has been inadequate. Casualty levels are a crucial indicator but are often under reported and variations may occur because of factors unrelated to the plan. Many LICs have included improvements in the crash data systems and evaluation. The evaluation needs to be scientific and use good quality data. Ideally independent agencies should monitor effectiveness but the first priority is for a valid impact assessment. Other indicators, such as behavior changes or increased activity, (e.g., number of traffic police trained) can be used, especially for more immediate assessments but they should not replace the use of casualty data. Some interventions will not have an immediate impact on casualty rates, but will lay valuable groundwork. It takes time for the training and experience to yield a return. Performance indicators need to be reviewed and revised on a regular basis.

Plan development

One difference between HICs and LICs is the time taken to develop road safety plans. Plan preparation in HICs may take several years and involve wide consultation. In LICs the process has often been completed in a much shorter period of time with much of the work concentrated into a few months or weeks. Countries such as Chile, South Africa and Fiji with active road safety offices have had longer plan development stages and involved wider consultation. There is a case for the development of a practical plan over a short period of time, particularly when there is no current plan. The shortened period probably reflects the short inputs made by foreign consultants and also the lack of demand for intense local consultation in the decision making process. Implementing agencies and other stakeholders need to be consulted and ownership of the plan and its resource implications need to be established. Identification and stakeholder understanding of the funding mechanisms are crucial for successful implementation. Plans also need to aim for a sustainable cycle of development, implementation, monitoring and review.

Monitoring and implementation issues

HICs usually have an effective monitoring process, often embodied in a system of quarterly reports and annual reviews. LICs with scarce resources tend to struggle with monitoring and accountability is weak. Also, funding

is often not guaranteed even for plans approved by the lead ministry, or NRSC. Consequently in many LICs, little of the planned work gets implemented.

Donor support, both funding and technical, too often stops at the draft plan stage. Plans often include the establishment of new 'traffic engineering' or 'data analysis' units but without the resources to implement them. Then training, management and the development of work programs are left to local staff without the relevant skills and experience. Capacity building, ownership, accountability and the establishment of funding mechanisms are all vital for successful implementation.

A secure and stable source of funds

Following government approval, the actions arising out of the Fiji National Road Safety Plan were incorporated into the plans and work programs of the bodies involved in their implementation. An early priority was the introduction of a mandatory safety levy on motor insurance premiums which established a local sustainable funding source. The probability of the plan being implemented was thereby greatly increased.

Local funding for road safety programs has also been secured in South Africa through a fuel levy. The levy also provides the third party insurance fund and avoids the problem of insurance evasion. Five Southern African countries currently collect third-party injury premiums through a fuel levy.

Effectiveness

LIC plans tend to remain theoretical, whilst HIC plans, on the other hand, get implemented, although the casualty reduction targets are not always met. For example, the UK chose an overall casualty reduction target of 33 percent, which was missed because of the growth in traffic. However the target reduction in fatalities and serious injuries were exceeded. Failure to meet ambitious targets should not be regarded as a failure if the overall road safety record improves.

A problem identified in LICs is the lack of ownership of the recommended work program by the implementing organizations. While local counterparts from each key organization are traditionally appointed to planning teams, this is often an additional responsibility and they are not authorized to act on behalf of the organization. This, combined with shortage of resources to support extra work, leads to low motivation and lack of effectiveness. Plan delivery may be promoted by consultation with staff at all levels of management in the implementing

organizations, but interest at any level will be greatly influenced by the likelihood of funding.

In a number of countries local ownership has been seen as the key to the preparation of a successful plan. Thus in Australia and New Zealand priority has been given to local ownership and community involvement. Local area focus has also been emphasized in the UK and Norway.

New Zealand's target hierarchy

The proposed Strategy 2000 offers four levels of targets. At the top is the reduction in overall social costs of casualty road crashes, including material losses (but not those of damage only crashes) and human costs. Next and more common is the reduction in the number of killed and seriously injured on the road. The third level includes intermediate outcomes involving performance indicators such as average speeds, seatbelt usage and the proportion of drunk drivers. The fourth level concentrates on programme outputs such as the number of hazardous locations treated, or the number of police trained.

The plan is to develop, for the first time, separate social cost and final outcome targets for different road user groups and for different regions. Output targets will be finalized after consultation and the implementing bodies will then develop work programs showing which physical outputs will be delivered and when. Social cost reduction data will allow comparisons between safety expenditure and benefits and provide crucial information for decision makers.

Lessons learned

The plans for several HICs identify a specific and limited number of priority problem areas. LIC road safety plans tend to be over ambitious with multiple recommendations for each of several sectors. LIC plans have tended not to pay sufficient attention to implementation issues, leading to unrealistic plans. There may well be public consultation to develop ownership of the plan, but arrangements for implementing the plan and delivering the required interventions do not get the attention they need. Road safety plans are often prepared in isolation using donor support that stops before implementation starts. Often, the only full-time staff working on road safety are short-term, foreign consultants and the impetus ends when they leave. Road safety then becomes the additional and secondary responsibility of the key agency local staff.

Keep plans simple and appropriate

It is very difficult for LICs to improve all road safety sectors at the same time. South Africa revised its approach when it realized the overall strategy was not being implemented. It focused on what was likely to be achieved. The sharper focus enabled the Arrive Alive program to deliver results. Priorities should be realistic, practical and focus on proven measures.

Few plans in either HICs or LICs focus on funding sources, though some LIC plans raise concerns about the cost of funding interventions (see, *Road Safety Management Information Note 3: Funding*). In countries where resources are scarce, a financial specialist should be involved in the planning process. Such expert advice may help to turn plans into working guidelines rather than 'wish lists'. The funding mechanisms must be established, understood and utilized.

Targets should be appropriate, practical and easily monitored, such as the number of hazardous locations being improved, or the number of organizations adopting a road safety policy. Casualty reduction targets are important but may need to be included at a later stage when data and predictions are improved.

It has taken years in HICs to develop national road safety strategies, while in LICs it is often expected that effective road safety strategies can be put together in months as part of a donor-financed project, prepared by foreign consultants. This approach has led to over-ambitious plans with too much detail for the resources available. Effective technical assistance needs the following:

- a practical budget estimate agreed by key ministries and donors so that likely sectoral funding allocations are known at the start of the plan development stage;
- a financial specialist to assist with identifying and developing sustainable funding sources;
- local counterparts assigned to the project from key public sector ministries, allocated adequate time for the work (training opportunities can help attract better staff);
- project terms of reference, technical assistance inputs and funding which extends beyond the planning stage and addresses implementation issues;
- where practical, sector working groups should be established to allow groups with vested interests to participate;
- full-time and adequately resourced local road safety staff in a central road safety office who are responsible for promoting and coordinating road safety efforts; and
- sustainable training programs through training of trainer schemes.

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Public health response

Road crashes are a leading cause of death and disability amongst young adults. It is a public health problem which requires interventions to prevent crashes, as well as providing appropriate response to treat those who do get injured. Most national plans include recommendations for the medical sector and the treatment of casualties. In preparing its latest plan, New Zealand debated the relative merits of engineering and enforcement strategies but

trauma management was a priority in all the strategies considered. Victoria State (Australia) expresses a similar priority by using savings from insurance to invest in road trauma medical care. In LICs, where casualty reduction may not be achieved in the short term, it is especially relevant to include the health sector to reduce the impact of the crashes that take place.

Key messages — road safety plans

- Plans must be data led i.e., focused on known vulnerable groups and use interventions known to be cost effective.
- The first step when developing a road safety plan should be to agree broad budget requirements including the allocations to specific sectors or organizations.
- A key priority should be to identify and secure sustainable funding sources, including dedicated allocations from road funds and road maintenance budgets.
- The first national road safety plan should focus on a limited number of key organizations, a small number of priority actions and concentrate on short-term, low-cost targets.
- Local staff should play a leading role in the development of the plan with full account being taken of what has worked effectively in their country.
- Local consultation should include implementing organizations and sector working groups where key interest groups can be represented.
- Technical assistance should focus on developing the skills and technical capacity of the local staff through sustainable training programs.
- The majority of the interventions will be aimed at preventing crashes, but improvements in post-crash emergency medical services are also important.
- Monitoring and evaluation needs to be given higher priority, with performance indicators measuring inputs and outputs as well as outcomes.
- Plan recommendations should be incorporated into the work programs and development plans of the implementing organizations to ensure that they are delivered.
- Encouragement should be given to the development of local road safety plans at provincial and city level.
- Annual work programs need to be determined and progress reviewed, preferably on a quarterly basis.
- Donor assistance should include 'seed' money for plans to promote follow-up action, since both foreign and local technical assistance are needed after a plan has been developed.
- Sustainable planning and monitoring capabilities need to be established through improved legislation, accountability and institutional strengthening.

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