

## **1. Traffic Strategy & International Law**

Strategy is defined as 'a long term plan'. Any strategy or plan has to have the long term aim of reducing road traffic casualties.

Any strategy must have an intended method of approach to solve a particular problem. Reducing road casualties is, and has been a difficult matter to solve. It has been the source of perplexity ever since the first motor vehicles took to the world's roads in the late 1800's.

Some countries have taken great steps through nationally agreed strategies to reduce casualties through a mixture of education, enforcement and engineering solutions. However, what is a good strategy in one country may not transfer to other due to differences in culture and law. That said, the formation of a global road safety strategy should only deal in generic issues such as percentage drops in casualty figures over a period of time and not be concerned with policy issues such as drink drive limits etc.

The purpose here is to understand what strategies work and why and to develop an internationally agreed global road safety strategy which goes beyond the bounds of culture and local law and only gives a method of approach to assist and suggest to, where necessary, countries that have the greatest problem to overcome.

Such a strategy should take account of road safety as the underlying principle with policing (enforcement), education and engineering as the main strategic aims. All strategies should also be constantly evaluated for success or failure and changed when necessary.

The UN General Assembly stated that it now has an invaluable opportunity to examine national and international standards for road traffic safety, with a view to reinforcing and improving these standards through national action and international co-operation. Formulating effective strategies to address the global road safety crisis requires partnerships - between governments, the United Nations system, non-governmental organizations, civil society and the private sector, lawmakers and all road users - motorists and pedestrians alike. This is our opportunity to continue to build them.

### **International law**

Generally, every country has its own laws and practices. The aim here is not to change the underlying nature of law but to add to, where necessary and practicable, good practice in laws from other areas that, when integrated into local law will assist to reduce road traffic casualties.

That said, regional law does work in certain circumstances as demonstrated by the EU especially in the case of drivers hours and the carriage of goods by road. The assumption that this system may work elsewhere has to be thought through so as to avoid denigrating local customs and cultures.

## **2. International Cooperation and Networking**

Many countries, non-governmental organisations, road safety organisations, consultancies and pressure groups will claim that they are the best at reducing road traffic casualties. In some cases this assumption may be true but in many cases it is not. What the international community lacks is cohesion and cooperation at a global level. Good practice is rarely shared openly and when it is little explanation of the theories and tactics employed are offered free of charge.

There has to be an open exchange of information from strategies, policies and tactics to good practice from a central repository controlled by experts who are in the position to provide guidance and advice impartially. Furthermore, all interested road safety practitioners should be encouraged to exchange ideas through good networking opportunities and forums whether face to face or through an electronic medium.

## **3. Traffic and Road Safety Policy**

A policy is a course of action to make a strategy work. Policies should take into account local needs and requirements. For example, a drink drive policy is needed where road traffic casualties are linked to drink driving. Conversely, if a country, for cultural reasons does not have drink problem then a drink drive policy may be seen as interfering with religious beliefs and customs and as a consequence not enforced or even looked for. However, unless all aspects of collision causation are looked at what may seem a departure in terms of culture may actually be an underlying problem waiting to be acknowledged and dealt with through good policy directives and education.

### **Traffic Enforcement Policy & Operational Actions**

Underpinning any good road safety and roads policing strategies should be good enforcement policies and operational actions. Without policy and action any strategy will soon falter. Policies should generally be set at national level to give a consistent approach to all aspects of safety and policing. Operational initiatives and actions should, in the main, be set locally in line with the strategy to address local problems. An example would be, if the national strategy indicates excessive speed as an inherent road safety problem then good data gathering, monitoring and evaluation should lead to speed enforcement only at those parts of the road network that speed has been a contributory factor in the number and/or severity of collisions. Enforcing speed on every part of the road network may be counter-productive and take officers away from those areas most at risk.

## **4. Traffic Enforcement Technology**

The rise in technological enforcement of road traffic offences has had a dramatic effect on the number of persons killed and injured in road traffic collisions. Properly used, it has a deterrent effect and aides the traffic police officer in detecting and prosecuting a number of offences including speed, traffic signal violation and excess vehicle weight. The types of technology now available are numerous. The following list provides some examples:

- Drink drive detection (road-side and evidential breathalysers)
- Speed detection –
  - hand held radar and laser devices
  - static speed detection (road-side cameras)
  - Time over distance (specs)
  - In-car speed detection (pilot, provided)

- Automatic number plate recognition systems (ANPR)
- Red traffic signal detection
- Portable and in road weighing detection pads
- Video recorders for evidential purposes

New devices are coming onto the market frequently but all should be type approved for use and accuracy by a government body to make sure that safeguards are put in place for their proper evidential use. If this is not done then the technology could fall into disrepute by those not trained in their use and using such technology without adhering to set operational guidelines for their proper use and maintenance.

## **5. Engineering & Traffic Management**

Finding the causes of road traffic incidents is not an easy task. Detailed investigations need to be undertaken in order to determine the best course of action for prevention purposes.

In many cases a mixture of enforcement, education and engineering measures need to be done collectively to accomplish a drop in collisions.

Road engineering is one way in which to solve specific site problems. Measures can be as simple as the cutting back of overgrown vegetation and the re-painting of road markings to complicated road redesign.

As with any road safety problem highway maintenance should not be taken lightly. Any person involved in checking for highway defects should be fully trained to look for and report defects found effectively. Good maintenance regimes should be put into place and adhered to.

Road safety audits should also be done at the planning stages of new road schemes and should involve the local highway authorities, the police and planners. Too often, new roads are built without cooperation and a partnership approach only to result in a dangerous new or re-designed road that claims lives needlessly.

## **6. Road Safety Education, Training and Publicity**

Road safety education, training and publicity is a multi-disciplined approach to improving the attitude, behaviour, skills, knowledge and awareness of all road users. Such an approach should be a life-long experience aiming to instil and reinforce a sense of safety in all types of road users that lasts from childhood to old age. Activities will include delivering practical school lessons, providing advice to the community through organised groups and sessions such as ante-natal classes, providing rehabilitation courses, pre-driver training, cyclist and pedestrian training, and implementing advertising campaigns with a specific focus.

Effective education, training and publicity will utilise the resources of public, private and voluntary sector organisations; however, the community at large, particularly parents, play an important role in the reinforcement of road safety principles. The evaluation of road safety activities provide a platform for further improvement, ensuring that all disciplines develop with the needs of an ever changing road user.

Teaching safety skills to children can provide lifelong benefits to society, but should be seen as a long term intervention strategy. Experience in many countries has shown that reliance on individuals or organisations visiting schools to give talks on road safety are not effective on their own. Children may remember the messages in the short term, but effective and sustainable development of positive attitudes

towards road safety are best achieved by inclusion in the core curriculum, either as a compulsory subject in its own right or as a cross-curricular theme.

Public Awareness activities are beneficial in effecting changing road user attitudes and behaviour.

Road Safety Public Awareness activities may be broadly split into:

**Education** (which involves giving people knowledge they previously lacked, at whatever age and in whatever setting, not just through schools).

**Training** (equipping people with skills they previously lacked) and

**Publicity** (which can include both Education, and more usually, Encouragement, which is the practice of encouraging people to utilise the knowledge and skills previously learned to engage in safer road user behaviour).

## 7. Advanced Driver Training Programmes

With road user error contributing to the vast majority of road crashes, the development of safe drivers, skilled in defensive driving techniques, should be the primary objective of any road safety program. Driving examiners in developing countries are rarely given special training and driving tests an inadequate test of ability to drive safely in traffic on real roads

What is advanced driving?

It is a safe, thoughtful and methodical way of driving. Advanced drivers are more observant and better at anticipating changes in the surrounding conditions. Because of this they are able to plan their driving to deal with any circumstances.

Some of the reasons which we think make it worthwhile:

Motoring costs can be noticeably reduced by improved driving techniques.

- Discounts on insurance premiums.
- Enjoyment of driving more, to the benefit of yourself and your family.
- Feeling more relaxed when driving.
- Become a safer driver.
- Driving may one day save someone's life.

What makes a better driver?

- By looking carefully, analysing accurately what they see advanced drivers have learnt to anticipate and plan so as to be able to manage situations safely.
- The best drivers do this by driving systematically.

There are only two things you can change while driving a vehicle by operating the controls: you can change its direction and its speed. It is as simple as that.

In becoming a better driver you learn the overriding importance of safety, both of yourself and others. You learn how to drive more safely by learning more skill in how, why and when to change your direction and your speed. Many drivers drive badly because their errors usually cause no ill effects, thus their errors are reinforced. The average driver does not associate crashes with careless and thoughtless driving. But poor planning promotes poor performance. Advanced drivers aim positively to cut down their risks of being involved in someone else's crash while minimising risks from their own driving. At best a crash is inconvenient but at worst it will result in serious injury or death.

So advanced driving is achieved by driving to a system which is simple, efficient, effective, always applicable and gives those precious gifts of space and time in which to deal with hazards. The advanced driver is never taken by surprise. The word

'suddenly' does not appear in the driving vocabulary. With all this in place the advanced driver will be able to make unobtrusive, planned progress consistent with safety and the law.

## **8. Auditing, Monitoring and Evaluation**

A simple but effective monitoring and evaluation system is required to track progress of road safety activities and to estimate the safety impact. For action plans in developing countries, initial focus is often on institutional strengthening and capacity building rather than just on reducing of casualties in numeric terms. Monitoring and evaluation systems established as part of implementing action plans and safety initiatives must therefore, where appropriate, be able to indicate progress towards achievement of institutional impact and developmental objectives.

Data is the cornerstone of all road safety activity and is essential for the diagnosis of the road crash problem and for monitoring road safety efforts. It is important to identify what categories of road users are involved in crashes, what manoeuvres and behaviour patterns lead to crashes and under what conditions crashes occur, in order to focus on safety activities. Essential components of a crash/casualty data system are a standardised report form and a means of storing and analysing the data.

Road safety audit is the systematic checking of the safety aspects of new highway and traffic management schemes, including modifications to existing layouts. The main aim is to design out safety problems from the beginning and to reduce future problems. Safety audits should be included during the design, construction and maintenance phases of road projects. In many developing countries safety devices are included in the designs, but are simply not constructed on the ground. Frequently, road maintenance is limited to fixing potholes and cleaning drainage facilities, without replacing missing traffic signs, guard-rails, road markings and other safety features essential to create a safe road network.

## **9. Road Traffic Collision Investigation and Reconstruction**

The investigation of road traffic collisions should be seen as a criminal investigation to determine how the collision occurred, if there is any culpability and if any parties to the collision should be prosecuted under the law. An example of how an investigation should run can be found in the UK Road Death Investigation Manual. Collision reconstruction is the application of specialist scientific and vehicle engineering knowledge to assist the overall road death investigation process to understand the causes and consequences of those collisions. The collision investigator should have extensive knowledge of the science and methods used to determine the causes of collisions. The expertise needed should not be understated.

## **10. Incident Management**

The effective management of road traffic incidents is crucial for a number of reasons. Firstly, a timely response from the medical fraternity in order to save life by using up to date medical skills and equipment taking into account the 'Golden Hour' philosophy. Secondly, to preserve evidence that can be used to prosecute those responsible for the collision and to use such evidence in criminal proceedings. The UK's Road Death Investigation Manual is an example of good practice in scene preservation and investigative procedures.

## **11. Emergency Response & Post Collision Procedures**

Timely and proper treatment of road casualties is essential for reducing the severity of injury to crash victims. Driver education on first aid procedures and correct transportation of crash victims is important. A single emergency telephone number (for example, "999" in the UK and "911" used in USA) can facilitate the simultaneous alerting of police, ambulance and other rescue services and help to reduce response times (depending on the availability of road-side telephones).

## **12. Communication & Public Awareness**

Countless organisations are currently involved in road safety activities across the world. Very few actually communicate with each other and exchange ideas and good practice. If the death toll from road collisions is to reduce substantially over the next decade then steps have to be undertaken to not only exchange good practice and research free of charge but also to communicate openly with those who need the most assistance.

It is suggested that a global interactive database of good practice be set up in order to achieve open communication and assistance.

## **13. Project Management**

Project management is the discipline of defining and achieving targets while optimizing the use of resources (time, money, people, space, etc). Thus, it could be classified into several models: time, cost, scope, and intangibles.

Project management is quite often the province and responsibility of an individual project manager. This individual seldom participates directly in the activities that produce the end result, but rather strives to maintain the progress and productive mutual interaction of various parties in such a way that overall risk of failure is reduced.

The project manager is the person who has the overall responsibility for the successful planning and execution of any project.

The project manager must possess a combination of skills including an ability to ask penetrating questions, detect unstated assumptions and resolve interpersonal conflicts as well as more systematic management skills.

Key amongst his/her duties is the recognition that risk directly impacts the likelihood of success and that this risk must be both formally and informally measured throughout the lifetime of the project.

Risk arises primarily from uncertainty and the successful project manager is the one who focuses upon this as the main concern. Most of the issues that impact a project arise in one way or another from risk. A good project manager can reduce risk significantly, often by adhering to a policy of open communication, ensuring that every significant participant has an opportunity to express opinions and concerns.

It follows from the above that a project manager is one who is responsible for making decisions both small and large, in such a way that risk is controlled and uncertainty minimized. Every decision taken by the project manager should be taken in such a way that it directly benefits the project.