

Policy Research Corporation



-Summary-

Increase safety on motorway service areas

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This study will provide a set of recommendations to increase safety on service areas.

INTRODUCTION

A covenant was set up to reduce crime in road transportation. It was signed by the Dutch ministry of Transport, Public Works and Water Management and ministry of Economic Affairs and several other ministries. It was also signed by several Dutch stakeholder and branch organisations. This covenant has led to several agreements of which one of them is to increase safety in relation to crime prevention on (motorway) service areas. The ministry of Transport, Public Works and Water Management has asked *Policy Research Corporation* and XTNT to make recommendations to increase safety in relation to crime prevention on motorway service areas.

DEFINITIONS AND SCOPE

What is considered to be a service area?

Service areas can be categorised as simple-, regular or extensive service areas. The distinction is made by the amount of services that are provided. Service areas can also be distinguished by its location:

- Motorway service areas: the State is the owner and Public Works and Water Management is responsible for the maintenance of the area.
- Service areas along regional roads: mainly managed by private entrepreneurs.

A distinction between 'objective' and 'subjective' safety can be made.

What is safety?

The term 'safety' can be distinguished by 'objective' and 'subjective' safety:

- Objective safety involves actual safety and depends on the extent to which people can act free of threat or confrontation with violence. It is closely related to the term crime and can be measured by the amount of crime reports.
- Subjective safety is characterised by the perception of safety: the extent to which people *feel* they can act free of threat or confrontation with violence.

Regardless of the extent of crime on service areas, recommendations to improve safety on these locations will be made.

Scope

This study is related to the safety on service areas along all roads that are essential for road transport. In general these are service areas along or close to motorways. In the supply chain there are many locations for criminal behaviour and a service area is one of them. Regardless of its location within the chain, crime can be divided into three categories:

- Organised crime;
- Crime of opportunity;
- Sense of safety.

On a service area safety and crime is related to the driver, the truck and the cargo. Objective safety is related to the truck and its cargo whereas subjective safety is related to the driver.

Analysis of the extent and location of crime in road transport will be studied in the first agreement of the covenant. In this report a set of recommendations to increase safety on (motorway) service areas will be made, regardless of the extent of criminal activity on these places.

Stakeholders

The most important stakeholders with regard to service areas are the service stations/restaurants (market parties), the police/justice departments and Public Works and Water Management. They are all responsible for the security on service areas. The department of Treasury has no direct relation to the safety on service areas as it receives the cash flows of long leases from the market parties.

CURRENT SITUATION ON SERVICE AREAS

Safety

The results of various enquiries show a serious problem in the 'sense of safety' of drivers on service areas. Especially at night drivers tend to feel unsafe.

Design

The present guidelines for the design of motorway service areas have not been sufficiently set up from a safety perspective. Nevertheless, many relevant aspects and criteria are known and appear to improve safety. However, a blueprint of a 'safe' service area does not exist.

The present guidelines for the design of motorway service areas do not meet current safety demands.

Governance and Financial structure

The current governance structure for motorway service areas is organised in such a way that Public Works and Water Management and the market parties are responsible for the maintenance of the terrain. Public Works and Water Management is responsible for the public parking area. The service stations and restaurants pay their long leases to the department of Treasury.

Policy

Policy regarding motorway service areas is inadequate for current safety requirements. Although there is a strong will for all parties to increase safety on service areas, there is insufficient coordination and means to come to solutions to attain this. That is to say, the approach of current policy regarding service areas has not been done sufficiently through the perspective of safety.

RECOMMENDATIONS

The recommendations to create more safe service areas can be divided into the categories Design, Governance structure and Policy.

Design

There is a great desire for clear and defined recommendations regarding the design of service areas, which can be implemented on the short term. It is therefore necessary to set up one integral version of the guidelines of the design of service areas from a safety perspective, which can be used by all parties. However, as the design of each service area is different, it is not possible to make a general and integral cost calculation. Moreover, there needs to be room for interpretation in the guidelines to improve safety on each service area effectively. It is also impossible to guarantee 100% safety on these areas.

Lighting

To improve the safety on service areas the light intensity has to increase to 40 lux (target value street-lighting). The height of the lampposts and the chosen armatures have to prevent the blinding of drivers. The size of the service area, the height and the chosen armatures also determine the required amount of lampposts. These

It is recommended to increase the light intensity on service areas to 40 lux.

recommendations might be in conflict with other (environmental) rules and regulations that limit the light intensity.

It is also recommended to use white lighting as this improves camera registration. Moreover, this colour is similar to the colour of daylight, which is commonly experienced as safe.

Sight

The service area needs to be in clear view from all facilities. Trees and greenery cannot limit the sightlines over the service area.

In general a service area needs to be designed in such a way that there is a clear view over the parking area. More specifically this means that:

- The interior of a restaurant needs to be designed in such a way that the tables are placed near the windows, so the parking area is in permanent view from inside the restaurant.
- The backside of the service station is, due to internal safety reasons, often without windows and doors (prevents entry of the facility on this side), which could be solved with camera surveillance (including follow-up).
- The service area needs to be visible from the motorway increasing the sense of safety of the users of the service area.

Trees and greenery cannot limit the sightlines on the service area. Therefore, it is recommended that the use of flora on the service area is limited as much as possible:

- The foliage of the trees has to start at least 2 metres from ground-level;
- Trunks should not be wider than 30 centimetres;
- Hedges should not be higher than 40 centimetres from ground-level.

Miscellaneous

On the medium to long term, the possibility to leave or gain access on the service area from surrounding roads (other than the main entry and exit road) has to be stopped. This means a physical barrier in the form of a ditch or high fence has to be placed on the borders of the terrain. Moreover, the parking area has to be designed in such a way that trucks can park the backside of their truck in the direction of the motorway. In this way the vulnerable backside of the truck is in view of the motorway. However, this recommendation is due to lack of parking capacity and available space not possible on all service areas.

Communication between the parties that are active on service areas needs to be focused on the division of responsibilities of maintenance tasks.

Governance structure

It is recommended to improve communication between Public Works and Water Management and the market parties with regard to the division of responsibilities concerning the maintenance of the service area. The solution to increase the efficiency and effectiveness of the maintenance activities and thereby increase safety is twofold:

- Public Works and Water Management can take responsibility for the entire service area. This means that clear agreements between Public Works and Water Management and the market parties about the quality of maintenance on the one hand and about the financial compensation of the market parties to Public Works and Water Management on the other hand have to be made.
- Public Works and Water Management has the possibility to delegate the responsibilities concerning maintenance to the market parties. The advantage is that market parties are concerned with safety issues on a daily basis and have the knowledge to handle these issues efficiently and effectively.

It is recommended to maintain the current relationship between the department of Treasury and the market parties, as Treasury's main objective is to deal with the financial aspects of State property.

Policy

Objective safety and crime rates on service areas need to be analysed and the restructuring of services areas needs to be done in a sensible way.

Policy concerning safety on service areas needs further development on a number of issues such as the pace in which to adjust and increase safety on the service areas:

- Objective safety and crime rates on service areas need to be analysed.
- Lighting and sight improvements are feasible on the short term.
- The restructuring of service areas is expensive and needs to be done in a sensible way.
- The necessary (financial) means to increase safety on service areas needs to be established on the short term.
- Policy with regard to the division of responsibilities of maintenance between the parties needs to be developed.
- The chosen policy needs to be communicated to all parties concerned.

The proceedings of police and other governmental departments is information-driven. Therefore, an increase in the reporting of crimes (that occurred on service areas) is needed and national information and communication systems have to be developed in order for the police to optimise its performance.

Policy needs to encourage private initiatives that aim to create safe service areas.

Encouragement of private service areas

Private initiatives that aim to create safe service areas along the essential roads for road transport need to be supported:

- Private entrepreneurs have knowledge of the safety demands of their clients.
- Possibility to secure terrain (with the use of camera-surveillance, controlled access and exit, etc.).
- Private service areas have the potential to close off the parking area with a bar.
- Private entrepreneurs can charge for 'safe' parking.
- Encouraging private initiatives will increase parking capacity along motorways.

Policy support can be in the form of start-up subsidies, signposting and the facilitation of communication between private entrepreneurs and regional governments by the ministry of Transport, Waterworks and Water Management and CROW.

CONCLUSION

The most important aspects that need to be dealt with to increase safety on service areas on the short term and that are relatively inexpensive are:

- Objective safety and crime rates on service areas need to be analysed.
- Guidelines on the design of service areas need to be revised from a safety perspective.
- Lighting and sight improvements need to be implemented.

Several aspects will have to be dealt with on the medium to long term and in a sensible way:

- Communication between parties active on service areas needs to be improved and focused on the division of responsibilities of maintenance tasks.
- The restructuring of service areas needs to be done in a sensible way.
- Private initiatives that aim to create safe service areas need to be encouraged.

There is a broad responsibility for all parties concerned to prevent the occurrence of unsafe situations on service areas.