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LESSONS LEARNED DURING THE PREPARATION, IMPLEMENTATION AND FOLLOW-UP OF ROAD SAFETY STRATEGIES AND ACTION PLANS

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Abstract: This paper summarizes and presents lessons learned during the preparation, implementation, and follow-up of road safety strategies and action plans. The study is based on the authors' practical experience with strategic road safety documents in low- and middle-income countries (LMICs), mostly in the Western Balkans and Asian countries. The authors identify and analyze problems that arise within the preparation, implementation, and follow-up phases to share lessons learned and guidelines for the future development and execution of such documents. Knowing that the preparation and implementation of strategic documents is a complex, multisectoral, and multidisciplinary activity, understanding potential problems and their prevention or mitigation can increase the chances of systematically improving a country's road safety performance and achieving the globally accepted "Vision Zero" targets.

Keywords: Rad Safety Strategy, Road Safety Action Plan, Lessons learned

1. INTRODUCTION

Preparation of strategic road safety documents (Road Safety Strategy - RSS and Road Safety Action Plan - RSAP) is one of key recommendations for successful Road Safety Management (WHO, 2024). The recommendation states that each country should prepare an RSS that is multisectoral (involves different government sectors, agencies and other interested parties/groups as a key stakeholders) and multidisciplinary (involving road safety scientists, engineers, urban and regional planners, health professionals and others) (Bliss & Breen, 2009). The RSS should take the needs of all road users into account, particularly of vulnerable road users and should be linked to strategies of other sectors (OECD, 2008; OECD 2016). It should also involve the private sector, nongovernmental organizations, the mass media and the general public.

An RSS needs to set ambitious but realistic targets for at least five or ten years. It should have measurable outcomes and sufficient funding to develop, implement, manage, monitor and evaluate actions. Once the road safety strategy is prepared, it should be followed with an AP that shall schedule specific actions and allocate needed resources (World Bank, 2013).

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2. LIFETIME PHASES OF STRATEGIC ROAD SAFETY DOCUMENTS

In practice, the three typical project-oriented phases can be identified during the RSS and RSAP lifetime, such as:

- Preparation phase,
- Implementation phase and
- Follow-up phase.

Therefore, identified deficiencies will be presented in such way

3. LESSONS LEARNED DURING THE PROCESS OF PREPARATION, IMPLEMENTATION AND FOLLOW-UP OF STRATEGIC ROAD SAFETY DOCUMENTS

The most usual identified deficiencies and lessons learned within three phases are listed in next sub-chapters.

3.1. Preparation Phase

- Missing or un-propriate legal background for preparation of RSS/AP
  Without a proper legal framework or a national transport master plan that includes the (RSS), it is unlikely that the relevant institutions will initiate the procedure for preparing strategic road safety documents. Therefore, it is highly recommended to stipulate the legal obligation for the preparation and implementation of the RSS and AP within the relevant law.

- Missing or weak methodological consensus on the approach that will be used for the preparation of RSS/AP
  Before the start of the preparation of the RSS/AP, the methodological approach shall be decided (World Bank, 2013). This can be done in accordance with best international practice (based on existing guiding documents) or prescribed within the country's guidance for the preparation of strategic documents. In any case, it is important to define the approach that will be used for RSS and AP preparation even before the process starts. There are a number of RSSs based on implementer assessments without a data-led approach (quantified indicators). This can mislead or, in some cases, leave some of the road safety problems untouched.

- Weak or missing of political commitment and institution/champion behind the RSS/AP
  In some cases, even if prescribed in the legislation, there is no interest in the development of strategic documents, or there is no one to initiate the process. This is why there is a need to identify a lead institution or a national road safety champion who will initiate the process or motivate the government to start it. In some cases, that can be an external push, like from the UN, EU, or IFIs (World Bank, 2020). An interesting role can be achieved by donors who can associate the preparation of strategic documents, and especially parts of the AP, with big national transport investment projects.

3.2. Implementation Phase

- Missing of review of previous RSS/AP, lessons learned and what works and what doesn't work
  In some cases, the analysis of the results of previous strategies and action plans may be missed. That can lead to missing lessons learned and not knowing what works and what doesn't work in road safety (Turner et al., 2020). Such experience can be reflected in the preparation of a new RSS or AP. Therefore, it is strongly recommended to review previous road safety strategic documents, if such exist.

- Low quality of crash data analysis
  A full spectrum of problems related to crash data analysis may occur. Some of the typical problems are the non-existence of an accurate and reliable crash database; the existence of a limited crash database that possesses methodological mistakes; wrong data collection; technical database limitations; hidden or partially available crash data; only final outcomes; the missing of Key Performance Indicators; crash data differences from different sources; underreporting, etc. It shall be stressed that the preparation of an RSS without a quality and reliable crash database may bring some serious deficiencies and is highly not recommended by the authors

- Missing of focus on high-risk road user groups, dangerous behaviors and high-risk corridors within the analysis
  Due to the problems with crash databases, risk mapping based on crashes can be compromised. Therefore, alternative and more subjective approaches can be used (e.g. iRAP).

- Skipping to prepare comprehensive Road Safety Capacity Review
  One of the very useful steps in the preparation of road safety strategic documents is a well-prepared road safety capacity review (World Bank, 2009). Such an analysis will enable a full understanding of the country's road safety situation and enable a GAP analysis. A well-done capacity review will make the process of preparation and monitoring of the RSS and AP much easier and faster.

- Misunderstanding or easy acceptance of long-term vision
  This is a very sensitive area. Bearing in mind road safety best practice and guiding documents, some countries too easily accept visions without thinking of how many improvements and changes shall be done in the country's system of road safety. The acceptance of Vision Zero and the Safe System Approach (OECD, 2016; World Bank, 2020) is a fundamental change of thinking about road safety that needs a real and significant mindset change. If it stays only on paper, there will be no real improvements. Therefore, it is the authors' strong suggestion to governments to be careful with accepting such demanding approaches.

- Skipping of measurable targets
  An unclear or qualitative set of road safety targets can be a problem after the implementation of the activities/measures, because it is hard to evaluate and prove if they are achieved or not. Using too ambitious targets (e.g., to reduce fatalities by 50% by 2030) might look unrealistic and unachievable. This can significantly discourage responsible institutions in their work. So, targets shall be well selected, bearing in mind that each new generation of RSS will hardly achieve the same percentage reduction as the previous one (easy results are already achieved).

- Non usage of existing Road Safety frameworks
  he usage of a well-known and proven framework (e.g., UN Decade of Action (UNRSC, 2011; WHO, 2020), EU policy orientation, etc.) can make the decision on vision, goals, and targets easier, because there are a lot of positive examples and lessons learned.

- Missing of concept of shared responsibility
  The key element within the preparation of road safety strategy documents is the full engagement of key road safety stakeholders. It is a well-known fact that road safety is a shared responsibility and there is no excuse not to involve a wide range of interested parties. This is a typical mistake in some countries where only a few ministers are involved in the preparation of the RSS/AP.

- Weak cross sector ownership and political support
  Another important momentum is a clear understanding of the RASCI matrix, or who is responsible, accountable, supportive, consulted, and informed for each measure/activity implementation. This step is usually missed and this causes the failure of implementation. Therefore, the authors strongly suggest the preparation of a RASCI matrix.

- Missing of focus on priority areas
  The RSS and RSAP should follow some of the well-known and proven frameworks such as the UN Decade of Action, EU policy orientation, or any other. The usage of proven frameworks ensures that strategic documents are well structured and that they cover key areas. At the same time, implementation and follow-up are easier and can be benchmarked with similar countries.

- Missing of RSS concrete measures, timelines and responsibilities.
  One of the typical deficiencies identified during the preparation of an AP is proposing measures without a known and proven impact (knowing what works and what does not work). Also, proposing a huge number of activities may be counterproductive and confusing. It is better to have a limited number of highly effective targeted measures. Missing clear responsibilities for measure implementation can degrade the quality of a strategic document. In some cases, unrealistic timeframes can be the problem.

- Missing or un-appropriate lead agencies/institutions and define coordination mechanisms.
  Sometimes, activity implementation coordination is not well specified. This can cause the huge problems in practice, such as misunderstanding, delays, etc.

- Weak (un-secure) funding sources
  This is one of the most frequent problems in the preparation/implementation of strategic documents. The authors strongly suggest the deep involvement of the Ministry of Finance in this stage of the preparation/approval of the document and securing the needed budget. Even more, it is suggested that the Ministry of Finance ask for written confirmation from all key road safety stakeholders that they will introduce the foreseen costs into their annual budgets. In some cases, EU IPA, or IFIs/Donors can support the funding of the implementation of costly measures (crash database, corridor improvements, enforcement equipment, MAIS3+, etc.).

- Slow official approval of strategic documents
  In some cases, state/procedural bureaucracy may take more time than the development of the RSS/AP. This is a more frequent case in LMICs and shall be prevented from the top level.

- Missing of monitoring bodies
  In some cases (countries), an officially dedicated institution/body for the monitoring of RSS/AP implementation and reporting was missing. This can significantly lower the impact of strategic documents because, without monitoring bodies, the performance of individual stakeholders can decrease.

- Lack of train professionals (engineers, police, medical staff).
  For the successful implementation of measures/activities, it is necessary to have well-trained and knowledgeable staff, because it is hard to implement different types of measures/activities, among which some are new. Therefore, it is a suggestion to plan specialized training courses for the key staff of all relevant stakeholders before the implementation begins.

- Low quality awareness campaigns and enforcement programs.
  Different awareness campaigns can be used during the implementation of road safety strategic documents, such as Information, Agenda Setting, Behavior, and Inter-Organizational Campaigns. Some of the typical mistakes are that only behavior change campaigns are implemented and others are considered unnecessary. Such an approach lowers the awareness and potential of the RSS/AP.

3.3. Follow-up Phase

- Set indicators (final and intermediate indicators, KPIs, etc.
  Some of the frequent deficiencies of strategic documents are related to the missing of quantitative final and intermediate indicators for each measure/activity. This means that some measures/activities are proposed without expected clear indicators, and someone responsible for monitoring and reporting. There are a number of guidelines and books that can provide the expected effects of proposed measures, and they shall be used.

- Regular reporting and mid-term reviews
  Missing or partial reporting and mid-term reviews of strategic documents are also frequent deficiencies within the implementation of strategic documents. Without proper reporting and periodic reviews, it is hard to believe that the RSS and AP will achieve significant results. In some cases, even if it is requested within the legislation, due to bad performance, this obligation is skipped.

- Adjust measures based on evidence and feedback
  There are a number of cases where some AP measures/activities do not provide the desired reduction of crashes and their consequences, but they are still in force and not adjusted/changed with some measures/activities that provide an impact. The reasons for this lie in low knowledge related to the expected measure/activity reductions.

4. CONCLUSION

The paper presents the most common deficiencies that may occur during the preparation, implementation, and follow-up of strategic road safety documents, such as the Road Safety Strategy and the accompanying Road Safety Action Plan. The lessons learned or suggestions that can improve the chances of the RSS and AP being successful are presented in a pragmatic and

easy-to-understand way, without a detailed background or elaboration. Each of the document phases is disaggregated into the main sub-steps/activities within the typical identified problems.

This paper can serve as a roadmap for the preparation and implementation of strategic road safety documents, as well as a risk mitigation checklist for the authorities in charge of their development. The lessons learned and shared herein can prevent similar mistakes in the future, ensuring that strategic documents are of high quality and have a greater chance of delivering the expected impacts.

5. REFERENCES

[1]. Bliss, T., & Breen, J. (2009). Country guidelines for the conduct of road safety management capacity reviews and the specification of lead agency reforms, investment strategies and safe system projects. Washington DC: World Bank Global Road Safety Facility.
[2]. OECD (2008). Achieving Ambitious Road Safety Targets through a Safe System Approach. Paris
[3]. OECD (2016), ITF (International Transport Forum), Zero Road Deaths and Serious Injuries: Leading a Paradigm Shift to a Safe System. Paris
[4]. Turner, B, S Job, and S Mitra (2020). Guide for Road Safety Interventions: Evidence of What Works and What Does Not Work. Washington, DC., USA: World Bank.
[5]. United Nations Road Safety Collaboration (2011). Global Plan for the Decade of Action 2011 – 2020, World Health Organization, Geneva
[6]. World Bank (2009), Country Guidelines for the Conduct of Road Safety Management Capacity Reviews and the Specification of Lead Agency Reforms, Investment Strategies and Safe System Projects. Washington D.C.
[7]. World Bank (2013), Global Road Safety Facility Guidelines on Road Safety Management Capacity review and Safe System Projects - Updated Edition. Washington D.C.
[8]. World Bank (2020). Guide for Road Safety Opportunities and Challenges: Low- and Middle-Income Country Profiles. Washington D.C.
[9]. World Health Organization (2004), World report on road traffic injury prevention
[10]. World Health Organization (2020), Global Plan Decade of Actions for Road Safety 2021-2030