

# Development of the Iranian National Road Safety Plan: Study Protocol

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## Abstract

**Introduction:** A national road safety strategic plan (NRSSP) is considered as one of the main road safety management issues in different countries. Such a plan not only determines the vision and relevant strategies but also causes the implementation of appropriate interventions to be coordinated and strengthened to achieve the goals set by partner organizations. The present study mainly aims to report Iran's NRSSP 2021–2031 development protocol. **Methods:** According to a schedule, the study protocol consists of ten sections: (1) Determining a core planning center, (2) Establishment of a steering committee, (3) Stakeholder identification, (4) Identification and development of Goals and Strategies, (5) Vision development, (6) Establishment of committees, (7) Integration of Goals and Strategies, (8) Goals and Strategies assessment, (9) Action plans development, (10) Monitoring and evaluation. An appropriate study method is performed for each of the concerned steps. **Conclusion:** The road safety strategy plan is a critical component to promote the effectiveness of activities and achieve the goals determined for road safety purposes. The Decade of Action for Road Safety is just being closed to its end; hence, reviewing and drawing up a road safety document concerning authentic scientific models and evidence is of paramount importance in Iran. The present study takes over the mission to address this gap.

**Keywords:** Health, plan, protocol, road safety, road traffic crashes, strategy

## INTRODUCTION

Road traffic crashes and their resulting injuries are considered a public health problem worldwide. Unfavorable road safety management in many countries has dramatically increased the number of deaths from road traffic crashes, especially in low- and middle-income countries.<sup>[1]</sup> The epidemic of road traffic crashes has made the World Health Organization (WHO) provide periodic international reports in this regard and ask different countries to pay serious attention and adopt quick measures to ensure road safety management.<sup>[2]</sup>

A national road safety strategic plan (NRSSP) is considered one of the main road safety management issues in different countries. The existence of such a plan not only determines the vision and relevant strategies but also causes the implementation of appropriate interventions to be coordinated and strengthened to achieve the goals set by partner organizations.<sup>[3]</sup> Accordingly, it is necessary to deal with the traffic crashes problem by developing and implementing a road safety strategic plan using an integrated approach. Such a plan provides the grounds for a consensus in society to achieve the goals by making the governments committed to pursuing an integrated policy. Furthermore, road safety strategy plan (RSSP) facilitates the effective coordination of the relevant organizations' activities, effective management of budget allocation and required funding, and observing and evaluating the measures.<sup>[4]</sup>

RSSP is developed based on a general road safety goal. Countries with successful safety experiences have set individual goals for their strategic plans. For example, the UK's RSSP mainly aims to decrease the rate of deaths and severe injuries by 40% and reduce such a rate in children by 50% by 2010 compared to the period 1994–1998. To this end, a 5-year strategy plan was set in the UK.<sup>[5]</sup> In countries with acceptable performance, RSSP is based on a specific approach to road safety. In the late 1990s, Sweden and the Netherlands, with favorable records on road safety, state that a continuous road safety improvement requires comprehensive and

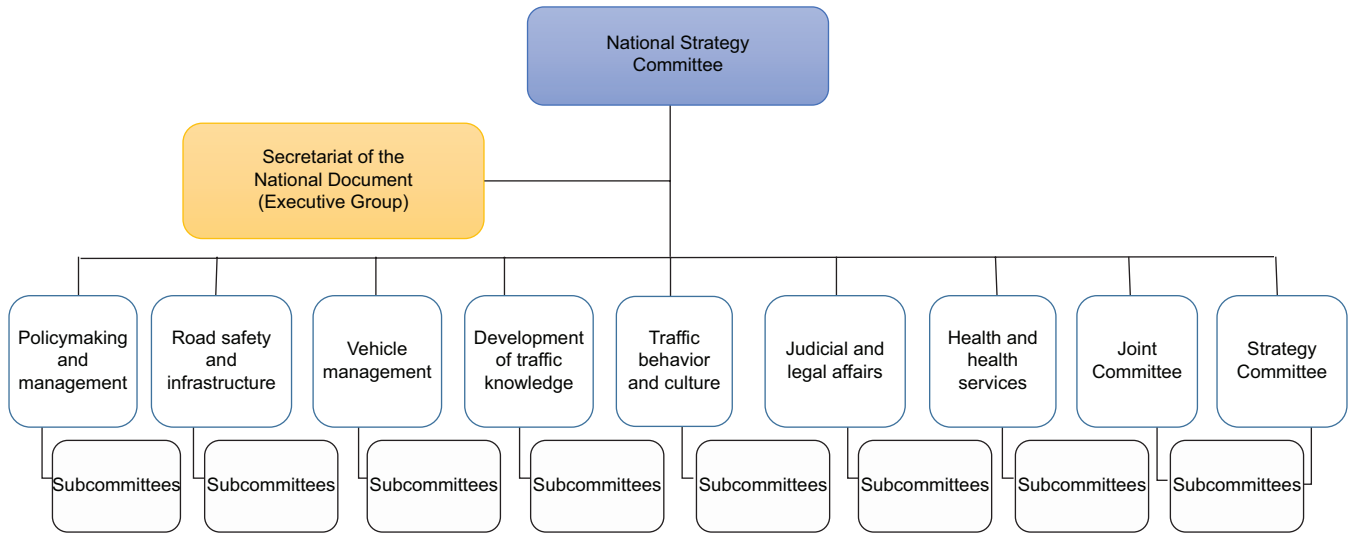
sustainable approaches such as Sustainable safety approaches and Vision Zero,<sup>[6,7]</sup> both of which focus on managing the exchange of kinetic energy in crashes so that the energy does not exceed the human pain threshold.<sup>[8]</sup>

The national road safety strategy (NRSS) was published in Australia in 2011, which provided a road safety strategy by 2020 based on safe system principles.<sup>[9]</sup> The safe system approach not only considers the vehicle safety, road safety, and safe users but also focuses on their relationship. In a safe system, there is a shared responsibility among different sectors. The emphasis is that the engineered elements should be designed to be compatible with humans and bring about the minimum damage to the road users in traffic crashes.<sup>[6,8,10]</sup>

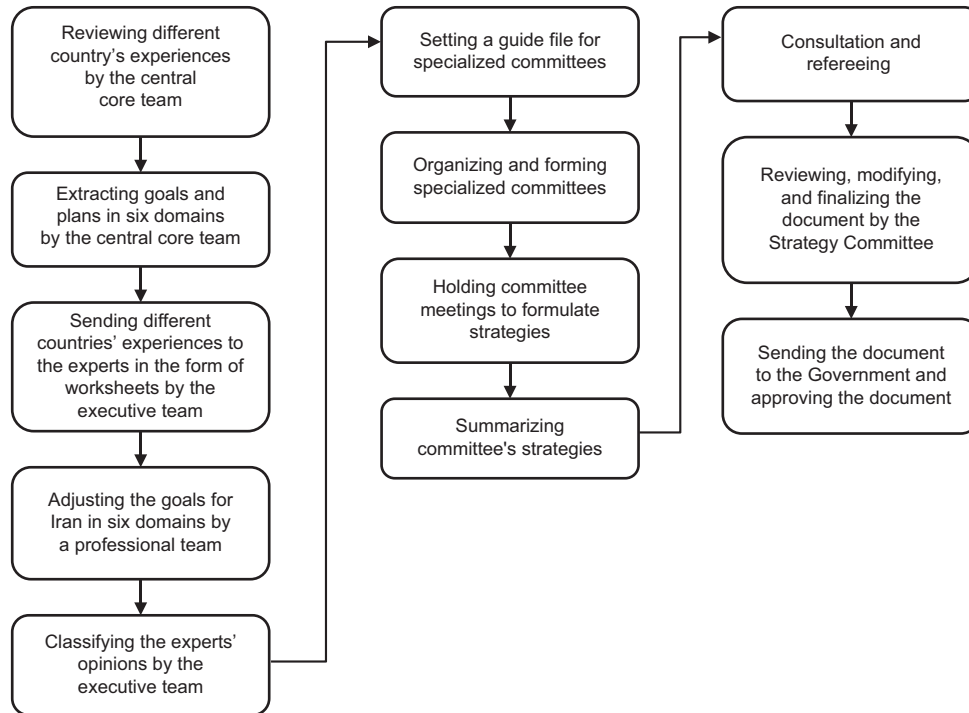
In Iran's health system, road traffic crashes and the resulting injuries are prominent public health issues. Following cardiovascular diseases, they are the second leading cause of death at all ages and the leading cause of years lost by premature death.<sup>[3]</sup> In the past, RSSP developed in Iran had no sufficient effectiveness to reduce road traffic crashes and the resulting deaths due to many reasons, including the nonadoption of a specified scientific approach to road safety, conflict of organizational interests, failure to determine the status of the lead agency for road traffic crashes, noninvolvement of the experts in various relevant fields, nonreferral to scientific evidence and documents, and failure to address all issues related to road traffic crashes. On the other hand, the decade of action for road safety is just being terminated; hence, reviewing and drawing up a road safety document concerning valid scientific models and evidence is of paramount importance in Iran. Accordingly, the present study aims to develop Iran's NRSSP 2021–2031, and the findings of this project would contribute to road safety improvement in Iran.

## METHODS

The purpose of this study is to report Iran's NRSSP 2021–2031 development protocol. The process will be developed in ten main steps as following:



**Figure 1:** National road safety strategic plan development committees



**Figure 2:** Steps in developing road safety strategies

### Determining a core planning center

Coordination of a national level planning process to develop an upstream document is a scientific and accurate task that should be led by a scientific body. In this regard, the Road Traffic Injury Research Center (RTIRC) in Tabriz University of Medical Sciences (TBZMED) is determined by Iran's Planning and Budget Organization as the responsible. RTIRC works as the national road traffic knowledge development trustee since 2017 and is selected as a national road traffic safety research referral center by the Ministry of Health and Medical Education (MOHME). RTIRC is determined as the NRSSP secretariat office.

### Establishment of a steering committee

Steering Committee will be the main decision-maker on the NRSS development. The committee will be consist of Parliament chairman or vice-chair, representatives from MOHME, Ministry of Interior, Ministry of Roads and urban development, Traffic Police, Emergency Medical Services Organization, National Road Safety Commission, and National Planning and Budget Organization. Committee Members would change or add in case of need.

### Stakeholder identification

Identifying stakeholders is an important step in developing

an effective plan, especially in the traffic safety area, an inter-sectoral issue. Road traffic safety stakeholders' identification will be done through panel discussion sessions. Panel members will be individuals from steering committee member organizations. Stakeholders included organizations and individuals who are experts in the traffic safety area.

### **Establishment of committees**

To facilitate developing strategies in various areas related to traffic safety, seven committees will be established considering the global decade of action for road safety plan pillars and national needs, as presented in Figure 1. In case of need, each committee could establish a subcommittee to run some required researches or gather data. A National Core Planning Committee will be established whose members will be chair or vice-chair of each committee.

### **Vision development**

Focus Group Discussion (FGD) sessions will be used to develop NRSSP vision development. FGDs will be held consisting of steering committee and national core planning committee members. After extracting a preliminary list of visions for Islamic Republic of Iran (IRI) NRSSP, an online questionnaire will be developed to assess each suggested vision from experts' viewpoints. The questionnaire will be developed in such a way that experts could assess each vision through three criteria of national and international appropriateness, accessibility, and its challengability and motivational on a 9-point Likert scale. Experts' ratings will be summarized into a median for each item. Items with a median score of <4 will be excluded, scores >4 and <8 will be selected to be assessed in the second round, and items with score of >8 will be discussed in a consensus panel meeting finalize the NRSSP vision.

### **Goals and strategies identification and development**

The following steps will be taken to develop NRSSP goals and strategies by committees:

#### *Reviewing international experiences by Road Traffic Injury Research Center team*

A review study will be conducted by the RTIRC team as the Secretariat of the National Document development to investigate the documents and experiences of different countries concerning national and international road safety plans. The decade of action international and national programs, national road safety programs, the WHO, and World Bank reports and recommendations on road safety improvement were reviewed.

Data were extracted using a data-gathering form including the country name, publish year, program level (national, international), vision, goals, and strategies in 6 domains (five decades of action for road safety program and road traffic knowledge development). Three experts in the area will do data extraction.

#### *Adjustment of experience with country situation*

Extracted data will be provided for experts to investigate

their appropriateness to the IRI situation and characteristics. Experts will be asked to provide their comments on goals and strategies adaptation and modification considering the country's situation.

#### *Classifying the experts' opinions by Road Traffic Injury Research Center team*

Experts' opinions on international experiences will be classified and summarized by the RTIRC team based on six domains to be used by each related committee.

#### *Committee meetings and strategies development*

RTIRC will develop a working flow guideline for each committee, and based on a predetermined time chart, and committee meetings will be held. The guideline will include information on using international experiences, committee meetings rules, etc., and strategy development worksheet. The worksheet consists of data about each strategy including ID, strategy number, strategy title, the significance of strategy approval, relevant sub-strategies, level of approval (parliament, government, or name of the Supreme Council), strategy expected effectiveness in improving road safety, the feasibility of strategy, strategy cost-effectiveness, and strategy-related evidence which will be filled by each committee members. The committee members will be asked to review the international experiences, discuss each strategy using related evidence in the committee meetings, and decide about it. Each committee will be required to prepare a final list of goals and strategies with related scientific evidence (using worksheets) to the national core planning committee.

Committee members will be selected based on their experiences, expertise, and backgrounds related to each of seven committees, including (1) Committee of Health and Health Services, (2) Committee of Policy-Making and Management, (3) Committee of Road Safety and Infrastructure, (4) Committee of Vehicle Management, (5) Committee for the Development and Translation of Traffic Knowledge, (6) Committee of Traffic Behavior and Culture, and (7) Legal and Judicial Affairs Committee.

To develop this document, a large number of experts are involved from key organizations, including the MOHME, Ministry of Interior, Ministry of Roads and urban development, Ministry of Information and Communications Technology, Ministry of Education, Ministry of Science, Research, and Technology, Traffic Police, Emergency Medical Services Organization, National Planning and Budget Organization, Iranian Research Organization for Science and Technology, National Road Safety Commission other related road traffic safety organizations.

The number of committee members will be ranged from five to 15 persons. There will be a chairman and a vice-chairman and an officer to make the necessary arrangements for the concerned committees in each committee.

#### **Strategies integration**

The national core planning committee, which will consist



of each committee chair or vice-chair, is responsible for integrating strategies and goals developed by committees and resolving inter and intra committees overlap and avoiding fragmentation in NRSSP. The steps of the developing the NRSSP are shown in Figure 2.

### Goals and strategies assessment

Assessment by experts (peer-review) will increase the validity of the developed programs. In this regard, the final draft of the goals and strategies will be sent to a group of experts in Iran and also internationally known experts. The questionnaires will be prepared in both Persian and English. Experts will be asked to assess goals and strategies based on the following questions for each item:

- Is the goal/strategy consistent with the vision?
- Is it attainable in the short term (<5 years)?
- Is it a long-term goal/strategy (5–15 years)?
- Are the wording and phrases used to write down the goals and strategies appropriate?

### Developing action plans

Any program needs to be implemented to achieve determined goals. This needs to develop action plans and be committed to them. After finalizing NRSSP goals and strategies, the national core planning committee will invite all related organizations to develop action plans in cooperation with related committees to coordinate the steering committee.

The final NRSSP with action plans will be submitted to the IRI Government for approval, exploitation, and implementation across the country.

Moreover, some other documentation packages such as Safety Performance Indicators and priorities in road traffic researches will be developed.

### Monitoring and evaluation

The steering committee will develop an annual monitoring program based on action plans. Every 3 years, a comprehensive evaluation will be done by coordinating RTIRC and National Planning and Budget Organization to identify challenges and apply required modifications.

### CONCLUSION

The development of a NRSSP is the most important solution for policy-makers to direct resources to achieve the determined goals. This is a scientific effort to develop Iran national program and will provide an upstream document to lead road traffic safety initiatives toward a shared vision.

### Ethics approval and consent to participate

This is a major project of “National Document for Health

and Traffic Safety in the Islamic Republic of Iran”, which is funded by Iran’s Planning and Budget Organization and TBZMED, and has been assigned to the Road Traffic Injury Research Center in TBZMED. The approval ID from research ethics committee of Tabriz University of Medical Sciences is IR.TBZMED.REC.1397.1009.

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### Conflicts of interest

There are no conflicts of interest.

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