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### RESEARCH ARTICLE

#### THE GOVERNABILITY OF ROAD RISK IN MOROCCO

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#### Abstract

The problem of road safety today concerns all countries on the planet. The consequences for public health and economies are enormous. Despite the technical improvements of the car, favored by the socio-economic organization, an integral part of society. It is always a factor that increases road risks and threatens the safety of people and property on the roads. The governability of road safety is a key issue to reduce road risk. In this context, the State must have a control capacity that proves a level of competence. More than that, it will need to have a mechanism for disengaging and reverting to alternative approaches or triggering automated retraining when skill level is not reached. The control and police services have an obligation to adapt and adapt their actions to meet these challenges related to road insecurity for territorial development in Morocco.

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#### Introduction:-

What can we do about the road risk in Morocco?

The World Health Organization (WHO) believes that traffic accidents are responsible for a lot of road risk and one of the main causes of death and production losses in the world. With each year nearly 1.3 million people die and millions more are injured or disabled costing 3% of gross domestic product (GDP). Furthermore, 93% of road deaths occur in low- and middle-income countries, which have about 54% of the world's car fleet.

In a territorial socio-economic context marked by many uncertainties, ensuring Morocco's resilience in the face of major shocks is an essential issue. Road risks constitute major public health and socio-economic shocks. A major shock could affect such a trajectory with implications for well-being and stability, as well as repercussions for trust in institutions.

In Morocco, the assessment of road risks costs more than 3,500 deaths and 12,000 injuries per year, with an average of 10 killed per day and a loss of 1.7% of the Gross Domestic Product. Indeed Moroccan roads are among the deadliest in the world, a vehicle kills 18.2 times more than in Sweden and 13.5 times more than in France. Trucks, buses and light vehicles used as taxis are respectively involved in 7.3%, 2.2% and 11.2% of road accidents and

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responsible for more than 50% of deaths. Similarly, there are a number of deficiencies that increase road risk in Morocco, namely the poor condition of a number of roads, the lack of pedestrian crossings and cycle paths for vulnerable users, the lack of public lighting and road signs (stop signs, signs indicating the presence of bends or animals, traffic lights, etc.).

The traffic accidents is really a problem in Morocco, The government is disappointed with this attitude, because road risk is increasing every year. The government wants to ban road risk in all cities and all countries in Morocco.

The governability of road safety aims to reduce road accidents, the number of deaths and injuries on the road. It concerns many actors within the State, local authorities, mainly departments, municipalities and agglomerations, as well as private actors such as insurers, car manufacturers and associations for road prevention or defense of road users and public transport in large cities.

#### **A- The concepts of road risk and road safety governability**

Faced with demographic pressure, the dynamic evolution of urbanization and the development of roads experienced by Morocco and the rise of motorization and road accidents endanger human lives on Moroccan territory.

The road is still the leading cause of death in Morocco, with approximately 3,500 deaths per year. It is also the cause of serious accidents, with sometimes significant human and material consequences, which cost more than 12,000 injuries per year and a loss of 1.7% of the Gross Domestic Product.

A heavy social toll, shattered lives, people in physical pain or suffering the consequences of a traffic accident, permanent disability or the loss of a loved one.

#### **1. Road risk**

Risk is defined as the product of the probability of an event occurring and the damage to be expected. We call risk the product of a hazard of an event likely to harm people, property: the territory and the environment and of an issue of people, property and territories and environments in general likely to suffer damage. and damages. A serious event observed in a deserted place is therefore not a significant risk. But a moderately serious event occurring in an area with a high human presence represents a significant risk.

A risk is considered major when the hazards and stakes are high, when it is likely to exceed the means of reaction of the emergency services and/or when its consequences on the socio-economic fabric are likely to affect the affected area in the long term.

The major risk is characterized by very important consequences even if its probability is low. It is often expressed as follows: **Risk = probability of occurrence x extent of bodily harm**

Probability of occurrence refers to the frequency with which an event occurs within a given time frame, while magnitude of damage describes the damage to be expected with regard to people and different types of property to be protected. (Territory, economy, etc.).

The bodily injuries caused by road insecurity constitute very heavy and very costly burdens which are generally borne by the whole of society. On the other hand, a very large part of these costs fall above all on the public health sector in terms of the cost of using medical emergency means, on the active populations in terms of loss of disability or premature loss of employees active in the fabric economy of the country, and to the families of the victims with the loss of their main sources of income.

We can therefore present a series of categories that directly bear the costs of death and injury caused by road accidents as follows:

#### **a- The public health system:**

The significant bodily injuries caused by road insecurity on a national and international scale represent an enormously heavy cost for the medical systems of emergency interventions. In Morocco, patients admitted to national hospitals for road accident injuries account for 19 to 45% of cases recorded in emergencies annually, including 11 to 31% of hospital admissions and 58 to 68% of these people are hospitalized for traumatic brain injury. Despite all the progress in the treatment of the injured and innovations in the automobile industry today road accidents remain a main cause of hospitalization and death of the victims of this war on our national and

international roads, and truly constitute a significant constraint on the emergency medical system and rapid interventions at the scene of accidents.

#### **b- The active population:**

The actual costs of road accidents for companies are much higher than the amount of claims resulting from them. By these negative costs of road accidents we can include the loss of working time by qualified people, the losses of orders that are being processed as well as the losses of quality production, the costs of medical emergency services, the costs of repairs and maintenance of damaged vehicles, damage affecting the reputation of the employer, especially when these accidents occur with vehicles bearing the identification of the company, besides all these costs for the employees and employers add environmental costs due to the spillage of products which can be very dangerous for nature.

#### **c- Road risk effects on households:**

It is clear that road risk constitute nowadays one of the dangerous phenomena that households can confront. Also, these dimensions of danger can have impact on social and human existence. Social effects of road risks are not to demonstrate, since resources lost are huge. The State cannot be the warranty of security and safety, the human being should change attitudes and adapted a culture of attention and rules respect for safety. These impacts have to be measured and valued to be covered and estimated for geography and per period. All research in this field shows that road traffic accidents have higher costs for very low income households, due to the loss of the family's main source of income resulting from a road accident. Which can push an entire family into poverty, and therefore reduce the ability of direct and indirect victims to bear the consequences?

### **2. The concept of road safety governability**

The responsibility of the State in the governability of security is immense. First and foremost, human security is now a major issue for national and international political agendas to fight against this scourge. Road prevention is a system put in place by the government and relayed by many structures and institutions, to make the population aware of the risks of the road, how to avoid them but also how to deal with them. This concerns drivers, passengers, but also pedestrians because everyone can be the victim or responsible for a road risk. It is not a question of making people feel guilty, but of informing and empowering, that is to say that we can be aware of each situation. This is why many interventions are carried out in schools: the whole point is to prevent rather than cure. Compliance with driving rules is essential for the safety of all road users and helps to avoid many accidents, whether minor or serious. Road safety is everyone's business! It is important to adopt good behavior and to respect each other among users. It is now appropriate to reflect on public service through new approaches based on territorial governability.

The governability of road safety is a key issue to reduce the number of fatalities. To do this, the State must have a control capacity that proves a level of competence. More than that, it will need to have a mechanism for disengaging and reverting to alternative approaches or triggering automated retraining when skill level is not reached.

The State has mainly three options for the choice of the instruments of its intervention policy: controls, legal regulations and police measures form a first group of measures ranging from surveillance to the prohibition of economic activities. Considered harmful to the environment and territorial security. Control and police services have an obligation to adapt and adapt their actions to meet these challenges related to road safety.

In this context, security (from the Latin *Securitas*) designates that which is beyond danger, damage or risk. The concept of road safety therefore concerns the prevention of accidents on the road with the aim of protecting the lives of people.

Road safety can be divided into primary (or active) safety, secondary (or passive) primary safety and tertiary primary safety. Primary safety is the assistance given to the driver to avoid potential accidents (for example, brake/stop lights and turn signals). Secondary road safety seeks to minimize the consequences of an accident at the time it takes place (airbag, seat belt). Then, so-called tertiary road safety aims to reduce the consequences occurring following an accident (stopping the fuel supply, for example, to avoid any fire). However, insecurity does not only refer to mafia or illicit phenomena, but also concerns environment and civilization facts capable of harming the life, physical integrity or property of citizens.

**B- The territorial governability of road safety in the world (international benchmark)**

In almost all states, regardless of their degree of development, decision-making power with regard to public services is exercised at the central level or at the level of local communities (Regions, Prefectures, Provinces, Municipalities), for local utilities. On the other hand, the importance of local public service varies from country to country. Thus, some States have opted for a high degree of centralization, while others leave greater autonomy to the territorial communities of decentralization. Along the same lines, the provision of public services should integrate a certain number of principles of territorial governability to improve the effectiveness of public action, and to produce infinite services and wealth beneficial to all.

The development of public services that meet the needs and aspirations of populations is both an imperative for public authorities. If the importance of public services is obvious for all the countries of the world, it is even more so in the States where development represents the first national imperative, insofar as we note that, practically, only the public power seems capable of to build the bases, to provide the means and to guarantee the conformity of its orientation with the general interest. Thus agreements are voluntary concluded between the various economic actors and the State which is thus assigned the dual role of arbitrator and intermediary:

1. The role of the arbiter is exercised by the fact that it is generally the State which sets a standard to be achieved.
2. The role of the intermediary is ensured by the State which offers its assistance in the negotiation between different actors who undertake together to respect an objective of environmental protection and territorial security.

In this context, the partnership contract is often used as a means of managing cooperation and coordination policies or a means of supplementing the delegation of powers provided for by law.

**1 - The French model of the delegation of public services in favor of road safety**

The delegated management of public services in favor of road safety, such as urban public transport and infrastructure projects, would fully succeed in achieving the governability of road risks in large agglomerations. In France, the delegation of public service has taken off in recent years in local public services "paid" by the user, in local public services of a non-commercial nature (lighting, equipment) and/or those where the contribution of the user is limited (urban transport).

In the context of accelerating the development of agglomerations, sets of mechanisms and actions are mandatory, namely:

1. A favorable contractual framework based on a logic of objectives (of quality, coverage, etc.), to the detriment of the financial logic would be necessary, from which the Delegatee particularly benefits
2. Support and monitoring of municipalities by the central authority would be essential so that the clauses of the delegated management contract are implemented, in particular those relating to monitoring and control.
3. A development of coordination between the delegate and the delegating authority would be preferable due to increased transparency and reliability,
4. An improvement in the human and logistical resources of the delegating authority would be mandatory in terms of quality and staff.
5. And finally, a distribution of roles and responsibilities would be appropriate on a permanent dialogue and transparency in the management of the technical, financial and economic data of the contracts between the delegate and the delegating authority.

In this context, France clearly demonstrates its desire to fight against road insecurity through a transformation in the management of the road system and the involvement of multiple stakeholders led by delegation of public services. The public delegation contract for road safety was created by order of the French government in 2004. It is carried out between: the State (or local authorities) and a consortium for the performance of public services. Its purpose is to establish and implement a road safety policy in order to reduce the number of road accidents. The road safety delegation is at the center of the road safety policy within the framework of a public-private partnership, all contributing within their scope of responsibility. Community law does not govern public-private partnerships as such, nor define them, but nevertheless applies to them as public contracts or concessions. The responsibility of the State for road safety would constitute an adequate solution to the problems caused by population growth and the increase in road risks, due to think of other models which improved the public service.

## 2 - The English model of public policy in road safety projects

Currently, partnership and cooperation are gaining more ground and continue to assert themselves by gradually expanding to all areas. In this context, the more flexible partnership contract with remuneration by the public party based on performance. Governability would consist of a transfer of responsibilities taking place between the State, civil society and the market with the direct involvement of participation, negotiation and coordination between these three levels.

Public policy increasingly meets the needs of public services in favor of the road safety of populations and communities. The main challenges of road safety project strategies are to adapt to the needs and resources of each community or group of people. It is a combination of well-defined, time-scheduled resources (costs) expected to improve social well-being (benefits) in order to facilitate certain decisions throughout the project cycle. Territorial security.

International examples of the success of local development companies are numerous and are almost always based on integrated strategies favoring the leadership of the mayor, multi-sector partnerships, the participation of the population and local actors, but above all on the institutionalization of the policy prevention (decentralization of decision-making powers).

We can develop the use of very safe means of transport (buses, trams). Currently, this transfer exists, but its contribution to safety in built-up areas is slowly increasing. Traveling by bicycle has obvious advantages, but its safety requires specific quality arrangements. The big cities that develop these investments are rare (Strasbourg, Nantes, Toulouse, La Rochelle). In this perspective, an evaluation of these territorial security projects is mandatory for risk reduction.

### a- The Public Private Partnership Project Company

Road infrastructure projects have been the subject of PPPs in many countries. The volume of investments required made it convenient to mobilize private financing, while the visibility of this type of project appealed to the public authorities. The project company is a type of legal entity created by another entity dedicated to the sponsor or the initiator who transfers one or more of its assets into a common debt fund, called in English "Special Purpose Vehicle" (SPV). Its objectives are:

1. Subcontracting to managers and operators the implementation of the project for the financing of social infrastructure (hospitals, universities, waste management, water and electricity, and transport ;
2. The decentralization of tax resources, and the creation of permanent bodies responsible for the implementation of this policy;
3. Protection of lenders against the risk of default through contracts with all parties of the contracting authorities: central government, local authorities, public agencies, hospitals and universities;
4. And execution of long-term contracts (20-35 years) involving private capital (80-90% of projects financed by the banking sector).

The public-private partnership is a unique structure in terms of risk distribution:

1. A monthly unit payment to the private party includes construction costs and available services provided;
2. A guarantee of the issue of demand risk sometimes called "market risk".

The PPP is the best able to manage the risks which represents one of the main challenges of a PPP project insofar as the transfer to the private partner of a certain number of risks constitutes one of the main levers for creating value.

### b- Road risk assessment

The assessment of risks in a territory constitutes for us an angle of analysis which should emphasize the links between risk and territory. It calls into question the territorial governability of risks. With this in mind, the study of road safety wants the causes of road traffic accidents to be more closely linked to the safety behavior of users and road infrastructures. With this in mind, road risk analyzes differentiate between three main sets of factors concerning the vehicle, the infrastructure and the behavior of users.

Risk assessment plays a decisive role in the preparation of the project, both on the public side and on the part of the private partner, who must take into account the value of the risk that he accepts in the calculation of his offer. It

designates a systematic and as objective as possible process by which the value and scope of a projected, ongoing or completed development action is determined.

The risk analysis makes it possible to define an order of investment priorities for the safety against risks when financial and human resources are limited. The number of road risk assessment observatories around the world reflects this development, as they make it possible to collect information from a variety of sources and to analyze and contextualize it.

We emphasize the importance of the road safety project evaluation stage, which must be carried out as close as possible to the field, rather than simply compiling police and justice statistics. The information collected during the road risk assessment phase should be listed in a compendium (risk matrix), which will allow the analysis of the added value. Beyond their results, these risks also have security, economic and social impacts. Proper risk allocation between the public and private partner would make it possible to:

1. Minimize expenses and optimize costs.
2. Guarantee transparency and equal access and treatment.
3. Take into account the interests of users and the imperatives of public service.
4. Institute arbitration in the event of a dispute.
5. Recognition of subcontracting.

In general, the road risk assessment determines the design of road safety governability on Moroccan territory with a strong preventive approach. We need ambitious and urgent action to reduce the most serious accidents. These accidents are mainly due to driver inadvertence, speeding, failure to respect the right of way, inadvertent pedestrians, change of direction without using a signal, failure to respect the distance safety, lack of control of vehicles, non-respect of the stop sign, unauthorized change of direction, driving while intoxicated, non-respect of a red light, faulty overtaking, driving on the left lane and to traffic in the wrong direction.

### **Conclusion:-**

The governability of road risk is at the heart of the concerns of States and societies. It returns the collective concern and fear of leaders and legitimate populations. It would constitute the appropriate solution to the problems caused by road insecurity and risky behavior of road users.

The road risk is not linked to a particular form, but to the rapid, uncontrolled, sometimes normative change but against the current of living conditions in cities, of the social and political cohesion of the local authority.

It is impossible to prevent all disasters. Prevention and preparedness measures can nevertheless reduce the effects, while intervention, rehabilitation and reconstruction must make it possible to manage an event. As a basis for planning measures in all these areas, risk and hazard analyzes play a central role.

The realization of the project in favor of road safety must provide an economic and financial advantage compared to the traditional mode. It must represent an added value for the public body compared to the traditional method of awarding financial and economic contracts over the entire period covered by the partnership contract. The State must bear in mind the risks of resorting to offers from the private partner:

1. Increased risk of bad governability;
2. Poor prioritization of projects, the preferences of the private sector rather than the needs of society dictating the pace of project implementation (infrastructure, public transport, public health, hospitals, etc.);
3. Contracts structurally biased in favor of private interests, with in particular a distribution of risks detrimental to the public entity;
4. And Risk of opportunistic behaviors of the private sector rather than the needs of the States which must face the important financings of the investments in infrastructures, because the international practice shows that the proposals of weak quality are not rare.

The choice to develop PPPs in Morocco is a relevant lever for increasing the supply of quality public services and attracting national and foreign private investors by:

1. Alignment of projects with a PPP strategic plan;
2. A coherent national development strategic plan;

3. A PPP entity endowed with the means (human and financial resources, appropriate skills and the possibility of calling on high-level experts to be up to par with the private sector;
4. An ability to preserve the interests of the state in a win-win negotiation);
5. A PPP entity attached if possible to the Prime Minister with regard to the cross-functionality of the projects it is required to manage;
6. And an exchange with the other Ministries and the Regions or Local Authorities as far as they are concerned.

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