



International Road Federation
4th Regional Conference

Accident Prevention: Road Safety Measures

23-24 October 2009
India Habitat Centre, New Delhi

Inaugural Session

Welcome Address by Mr. K. K. Kapila, Chairman 4th IRF Regional Conference



Respected Mr. Brahm Dutt Ji, Secretary, Ministry of Road Transport & Highways, Mr. Nirmal Jit Singh Ji, Director General (Road Development) & Special Secretary, Ministry of Road Transport & Highways, Ms. Nathalie Pareira from International Road Federation, learned speakers, distinguished delegates from abroad and India, all stake holders in the road sector, invitees, representatives of electronic and print media, ladies and gentlemen, on behalf of International Road Federation and on my own behalf, I extend a very warm welcome to all of you.

We are deeply indebted to Mr. Brahm Dutt for becoming a partner with us in our endeavour to enhance road safety on our roads through various measures, and thereby aiming to reduce the fatalities. Road accidents are happening inspite of provisions of road safety measures stipulated in our codes and standards. The accidents are increasing day by day and we need to curb it. And, therefore, the topic of this conference is "Accident Prevention: Road Safety Measures". There are measures other than the standard road safety engineering measures which also need to be implemented. The technical contents of this conference will be discussed by our Chairman, Technical Committee Mr. Nirmal Jit Singh. The road accidents are taking the toll of 1.25 lac persons every year which is equivalent to 342 persons who die on Indian roads every single day. One Jumbo crashes every single day in India. We have the dubious distinction of having the highest road accident in the world and more than half a million people are injured every year for their life. This is huge social problem and a massive economic loss associated with it, which is of the order of 3% of the gross domestic product which works out to a colossal loss of nearly Rupees 75,000 Crores, a mind boggling figure.

In order to curb this menace of accidents, a National Campaign on Reduction of Road Fatalities was launched on 23rd September 2009, as a joint initiative of International Road Federation and Ministry of Road Transport & Highways. It was launched by Hon'ble Union Minister of Road Transport & Highways Shri Kamal Nath Ji. NDTV has joined us in this crusade as Media Partner. I take this opportunity to report the activities after the launch of the campaign till today. At the launch function, four promos depicting road safety concerns and advice for following road safety rules were shown. Further today, we have also prepared another promo of 40 seconds duration and a film of 2 minutes duration covering all aspects as advisory for safe road use behavior. International Road Federation has requested the Union Ministry of Road Transport & Highways to recommend to the Central Government for providing tax exemptions for the expenditure incurred by corporate sector and philanthropist individuals for the cause of road safety. Ministry of Road Transport & Highways has also been requested to obtain duty exemption for the import of vehicle stimulators by private parties for driver training schools. This will go a long way in proper training of drivers and enhancing the skills of driving population. The Ministry has also been requested to arrange for issuance of necessary orders from Information & Broadcasting Ministry for screening films on road safety of about 3 to 4 minutes duration in every cinema hall as a mandatory requirement, prior to screening of normal commercial films. IRF has also requested the Ministry of HRD to include road signage and road safety in the curriculum of education. I am delighted to inform this august gathering that Mr. Brahm Datt has already initiated further action by taking up the above aspects with his counter parts in the concerned ministries. We are indeed indebted to you Sir, and your team for kind continual support.

The saying goes that charity begins at home. I, as CMD of ICT have started the campaign through an insert of road safety message in the Indian Express since 21st October 2009, a copy of which is placed in your conference kit. In association with Mr. S K Dash, Joint Secretary, Ministry of Road Transport & Highways, we have discussed with DAVP and it is proposed to get such a message published in over 100 newspapers, throughout the country everyday. We hope to launch this very shortly. I appeal to all corporate houses to join in this effort which will help in reaching to the masses across the country. From this platform, I stand deeply committed personally, as well as through IRF, and would like to appeal all stakeholders to depict similar commitments and fervor to carry forward the campaign of reducing road fatalities in our country by 50% by 2012.

The deliberations at this conference will provide further knowledge from experts assembled here from the developed world, who have been able to contain the menace by resorting to various engineering, legislative, enforcement and educational measures. It needs to be

appreciated that safety on roads has to be an obsession with all stakeholders, including road users, and only then this mission of saving human lives can be achieved. I appeal both to the Government as well as the corporate sector to extend a helping hand and encourage all aspects of road safety to be incorporated in our road system design, vehicle design and operation, and thereby facilitating safe as well as speedy travel for both passengers and goods. If our roads can become forgiving, India would have done itself proud by saving a large number of human lives and the accompanying trauma.

From this platform, I would like to urge the clients, consultants, concessionaries, and contractors not to compromise on the road safety requirements like over and under passes, appropriate junction designs, road signage's and marking both during construction and operations, lighting etc. The money saved by non-provisioning of these is insignificant compared to the immense benefits which accrue by way of improved road safety for saving human lives and injuries.

I once again welcome Mr. Brahm Dutt, Secretary, Ministry of Road Transport & Highways, Mr Nirmal Jit Singh, Director General (Road Development) & Special Secretary, Miss Nathalie Pareira of IRF. I extend a very warm welcome to all learned speakers and distinguished delegates, invitees, our media partners and the press who have very kindly joined us to cover the event.

Thank you.
Jai Hind.

About the Conference by Mr. Nirmal Jit Singh, DG (RD) and Special Secretary, Ministry of Road Transport & Highways & Chairman Technical Programme Committee



Mr. Brahm Dutt Ji, Secretary, Road Transport & Highways, Miss Pareira from IRF, Mr. Kapila Ji, distinguished road safety experts from all over the world, ladies and gentlemen,

As per the published statistics in India, during the year 2007, there were around 4.8 lacs accidents which killed 1,14,444 people and injured more than 4.8 lacs persons. This translates into one accident per minute and one road death every four and a half minute. The National Highways which constitutes less 2% of the total road network, which is around 70,000 kms account for 28% of the total road accidents and 35% of the road fatalities occurring on Indian roads. Similarly, the state highways which accounts for about 4% of the road network are accounting for 24% of the road accidents and close to 28% of the road fatalities. The severity of the road traffic accidents on National and State Highways is more because of the higher speed as compared to other roads. The road safety situation in India is worsening; accidents, fatalities and casualties have been increasing at a rate more than 5% over the last two decades, partly due to exponential growth of vehicles. Even though the death rate per thousand vehicles in India has declined from about 104 in 1970 to less than 12 in 2006, the death rate per 1000 vehicles is still higher in India as compared to high income countries like Sweden, Norway, Japan, Australia, UK and USA. In fact it is even higher when compare low income countries like Brazil, Mexico and Malaysia. In India more than half of the road accident victims are in the age group of 25 to 65 years, the key wage earning age group. The loss of men, bread winner and head of household due to death and disability, can be catastrophic leading to lower living standard and poverty. As per a study carried out in 1999-2000, it was estimated that the social economic cost of road accidents in India is around 3% of Gross Domestic Product, which is a huge cost. Pedestrians, bicyclist and motorized two wheelers, which are the main venerable road user groups, are constituting almost 60% of the road fatalities in India.

Roads Wing of the Ministry is primarily responsible for engineering aspects of road safety. We have the Indian Road Congress publications and guidelines on design, construction and maintenance of roads. Ministry had also issued number of guidelines and specifications. We have also brought out the manuals on road safety and design in association with the company of Dr. Allan Ross a few years ago. We also now have the manual of design standards for 4 lane and 6 lane highways which clearly defines the standards to which the highways need to be built. You are aware that we have a big highway development programme in the form of National Highway Development Project where our focus is on developing international standard highways with facilities for un-interpreted flow of traffic, with enhanced safety and facilitation features such as divided carriageways, service roads to segregate local traffic, grade separators, over bridges, underpasses for cross movements of the pedestrians, the cattles and the vehicles, provision of lay byes and wayside amenities. Even in our completed 4 lane sections, we are now providing comprehensive O & M contracts apart from maintenance, also to look after asset management and provision of user services such as road patrol, ambulances and tow-away vehicles. For safety of road users during construction stage, provisions are made in the Contract Documents for advance traffic warnings, retro-reflective signs, blinking lights at hazardous locations, red flags on construction machinery, safety barriers etc are commonly used to enhance safety. Road safety is part of the design of roads. It has been observed that in actual practice some of these features though provided in the design did not serve adequately. In view of this, the road safety audit has been introduced all over the world during the last decade or so. We have also adopted in a small measure the road safety concept for some of our national highways and accordingly road safety audit to national highways under the NHDP has been carried out at design stage and during operation. Corrective steps are being taken for any lacuna or deficiencies which are observed during audit. At present, many of our works are being carried out on Built, Operate & Transfer basis in the Public-Private Partnerships, where the concession agreement provide provisions of road safety during the construction and also during operation. The concession agreement also mandates that the concessionaire will provide ambulance service so that the accident victims may be transported to the nearest hospital to reach within a period golden hour, thus saving as many lives as possible.

As Chairman of the Technical Committee for this Conference on "Accident Prevention : Road Safety Measures", I thought it is my privilege to give a broad overview of the technical contents of the Conference. The theme of this Conference is obviously a part of the national campaign on reduction of road fatalities which was inaugurated by our Hon'ble Union Minister for Road Transport & Highways Shri Kamal Nath Ji on 23rd September 2009, as a joint initiative of the Ministry and the International Road Federation. In India the roads are preferred mode of transport carrying almost 87% of the passenger traffic and 67% of freight traffic. As is commonly known, road safety is dependent on engineering, enforcement and education, yet in order to combat this situation and to effectively reduce the road fatalities, we may perhaps have to relook into the provisions of existing road safety standards and make some guidelines which include safety measures combined with user behavior. In the conference, the various topics on which the learned speakers from the various countries will deliberate, who have pretty long experience in the field of road safety, and the participants will be educated by their specific experiences, which may be tried to some of our Indian road situations. The conference is being held for two days. After the inaugural session, we will have Plenary Session which will have 5 presentations bringing out the accidents scenario, the safety measures, perspective of road safety in India and legal provisions. The Plenary Session will be followed by 5 Technical Sessions on the themes of Road Safety, Engineer Measures, Public Education and Campaign, Institutional Arrangement and Legal Provisions, Vehicles Design for Built-in-Safety and Incident Management & Technology. At the end we are going to have a Panel Discussion on Accident Prevention for the target of 50% reduction of fatality by the year 2012. The Technical Committee has taken a lot of pain to select speakers from various international and national organizations, based on their experience in respective areas. On the whole, the conference have very high technical content, which I am

sure will result in fruitful and lively deliberations culminating into effective recommendations with regard to accident prevention and road safety measures.

Thank you.

**Inaugural Speech by Mr. Brahm Dutt, Secretary to Govt. of India,
Ministry of Road Transport & Highways**



Mr. Kapila, Mr. Nirmaljit Singh, Miss Pareira, distinguished delegates, invited ladies and gentlemen.

It is indeed my privileged to be here this morning to address you on the subject chosen by the Fourth IRF Regional Conference "Accident Prevention : Road Safety Measures". This is a very important issue of national importance. In India, the way we are growing, our road network and the way vehicle population is increasing day by day, it is of utmost importance that we pay adequate attention to road safety related aspects. As you know, India has a very large road network. We have about 3.3 million kilometers of roads in India, and a major proportion of these roads are definitely very poor in terms of their standards. They cover length and breadth of the country and besides that almost all the villages are now connected by road of at least of some standard; it may not be even a good road, but some road. In India, added problem is that the Public Transport Systems is very poor. This adds to the problem of poor people. More and more poor people are dependent on their individual vehicles and locally fabricated vehicles which are totally unsafe. They do not conform to any norms, and I have no hesitation to say that most of them are totally illegal. So you can imagine the kind of scenario we have in India on the roads. Yesterday, I was attending a meeting related to Road Safety, in which the Government has set up a Committee for the National Road Safety and Traffic Management Board, which is to be setup through an Act of Parliament.

I was told that in Delhi there are 48 types of vehicles, starting from cycle and going to bullock cart, three wheelers and of course very sophisticated motor cars and heavy vehicles. So you can imagine the kind of chaos we have on the roads. So this vast variety of vehicles, large number of people on the road and large number of them semi-literate or even if they are literate / educated, totally unaware of the danger they are facing by ignoring the basic precautions one needs to take while using the road. So this kind of scenario, where every body is in a hurry to reach his place of destination, even if he has to cut corner, he ignores

the road safety rules, and one is really not bothered. This is the kind of scenario which one can find every day on the road. So, with this kind of situation, how really we proceed, this is a very formidable challenge before not only those who are entrusted with the task of providing safe roads, providing safe vehicles and enforcing rules but also for a common citizen who is not only concerned about his own safety, but is very sensitive to the need of safety for others. This, this kind of situation offers threats and challenges which are really mind boggling. I everyday think where we are moving, what we can do and how to do it.

Our India, if you look at the figures of growth, we had about 300,000 vehicles in the year 1950, and today we have 140 million vehicles of different kinds, out of which more than 80% are two wheelers and two wheelers by their very nature are unsafe. The equilibrium in such vehicles is dynamic, and the moment motion stops or there is some problem in the path which the vehicle is taking, the rider falls; and added to that the person who is driving, he does not know, he does not want to know or knowingly he does not want to obey the rules. Then, the other people, who are moving in four wheelers, they are totally unmindful about what happens to the pedestrians, what happens to the two wheelers and what happens to the others who are using the road, say bullock carts or the vehicles which are not as safe as the vehicles in which the persons who don't care for others are moving. Here, in India, we all know that everybody has a kind of attitude that 'I am big'. If somebody in two-wheeler feels pedestrians does not matter, if somebody moving in four-wheeler feels that those moving in two-wheelers do not really count for anything, and if your are a lorry driver, i.e. truck-driver, he never cares for anybody. This situation, when you compare with what exists in the world outside, it is a totally different situation. You go to Europe, where even if a pedestrian makes a mistake, the car driver does not hurt him; he stops and allows him to go, and so and so forth. But here the situation is opposite, and whosoever is most venerable, he is expected to be more careful. He is expected to observe all the rules, he is expected to do everything. And whosoever is less venerable, he has all the unwritten rights and he enjoys it. So this is a very very peculiar situation, which a civilized society can ignore only at its own peril, and that is what the crux of whole issue.

I can give you figures after figures that 105,000 people die every year, 450,000 get injured, there is loss of Rs. 75,000 crores worth of production. Actually, the people who died are most venerable, they were at their productive age. I can say all these, but the fact remains that we as a society, are we acting in a responsible way? We as citizens, are we really behaving in a responsible way? Here I would like to say that, I keep on addressing the seminars, conferences in this room very often and people normally come from all over the country and I don't know what impact does these have on the situation, that is the problems that we are trying to address. So, the first and foremost thing for all of us is that we go back with the commitment that we will do something for all the people in terms of providing a better road environment. So that is the first and foremost thing and which is most important when we talk of accident prevention. In India today nothing is more important than the education for the road users whether they are pedestrians, or they are drivers. Education is the most important and each one of us can do that without any cost to us. Each of us can do it, but do we really do? If we ask that question to ourselves, I am not sure how many of us will get a positive answer, an honest answer from within. I think that is the first and the foremost thing which I would emphasize when it come to accident prevention.

Accident prevention, of course, primarily means good road and road signage (what we call the road furniture and facilities) to guide the road users. Second most important thing would be the provisions for strict enforcement of the Motor Vehicle Act, specially those which concerns about the driving license, the vehicles regulations and enforcement measures. And the third is, of course, the campaign for the safe behavior on road. These three elements are keys to prevent accidents. Our vehicles are fairly safe in terms of vehicles safety standard. We are party to most of the GTRs that are negotiated, finalized in the group called WP-29 in Geneva, which I happened to attend. Our automobile industry is moving very fast, and the vehicles are world standard, but their maintenance may not be upto the

mark, particularly the heavy vehicles. Though the law says that every year there shall be a fitness certificate for the commercial vehicles, but how many fitness certificates are being given in the way they should be given. We are trying to set up more fitness testing centers so that the RTOs just do not certify a vehicle to be fit or road worthy only by visual inspection. We are trying to make it compulsory and the time will come when the certifying authority will be deprived of his power to give a certificate merely by seeing it, and will be by a thorough check up by a valid testing centre. We are on our way to introduce that kind of system. Same thing is true for the Driver Training School. In India, people say we can get driving license without learning how to drive. In the city, yesterday I was told that there is no proper facility to learn driving. So, we need to have proper facilities also where one can learn driving. There is no space and the roads which are full of people from early morning till late in the night; so one wonders how one can learn driving. There are solutions, technology provides solution, and there are stimulators and all those can help learn better. But the fact remains that, basic driving has to be learnt on the road irrespective of whether there is a stimulator or not. Thus, we need to make sure that our drivers are safe drivers and our vehicles are safe, particularly the heavy vehicles (to be without mechanical defect). The other provisions of law, like those aiming at overloading and other related issues, they need to be implemented. We are in the process of amending the Motor Vehicle Act. Our Minister has ordered that we should have a relook at the whole Act, rather than amending a few provisions which were cleared by the Standing Committee of the Parliament, and that process is on. A committee has been set up headed by Mr. Sunder. It consists of experts in related fields. I request all of you to give suggestions so that we have a good Motor Vehicle Act. Our road designing is good as our engineers are very capable, our IRC Manuals are perhaps second to none in the world, but to what extent they are being followed that needs to be looked into. Road itself plays an important role in prevention of accident.

Today the technology also gives very good solutions to prevent accidents. Last year I was in Columbia in US and visited a Testing Centre for vehicles, and there were various kinds of things including ITS, which helps us to prevent accident. They give advance warning to the driver, and in the event of accident, they reduce the impact of the accident, both on human beings inside the vehicle and the objects outside the vehicle. So, the technology needs to be used to the fullest so that we have some safeguard and some improvement in the areas where human beings are failing. We have from the Ministry side partnered with the IRF, and we have launched a campaign on 23rd September 2009, and this campaign I really wish that it becomes what Mr. Kapila wanted as a Mission. We must make sure that we are doing the safety related developments in the right way; and everybody be made aware of his/her responsibilities in this national mission. The 4 Es which are critical in the area of road safety must be taken advantage of.

I really wish that IRF takes this campaign to nooks and corners of the country and succeeds in its Mission and we in the Ministry are totally committed to give them all support. I mean that not only just to come and speak here, but we will give active financial support in all possible ways. I request all the persons who have come here by leaving many things they could have done during this time to go back with the Mission, and your time spent now and in the Technical Sessions should lead a kind of mission throughout the country. It is my earnest hope, and I am sure Mr. Kapila, who is very enthusiastic, and his organization which has a very well established track record throughout the world, which is something very commendable, and surely in the area of road safety we will succeed in our collective mission. So with these works I thank the organizers to invite me to speak on this occasion. I also thank all of you to giving a very patient hearing to me.

Thank you.

Vote of Thanks by Ms. Nathalie Pareira, IRF



Mr. Kapila, Mr. Dutt, Mr. Singh, and guests, Good Morning

On behalf of the International Road Federation, and on my behalf, it is my proud privilege to propose a vote of thanks. The IRF is extremely thankful to the Secretary, Road Transport & Highways Mr. Brahm Dutt for his gracious presence and for inauguration of the conference. His address gives the valuable guidance to the deliberations of the conference. We are very grateful to Mr. Nirmal Jit Singh, Director General (Road Development) & Special Secretary and Chairman, Technical Committee of the conference for his lucid overview of the technical contents of this conference. I may mention that I am attending this conference on behalf of the parent body International Road Federation at Geneva and at the invitation of Mr. K. K. Kapila, Vice Chairman of IRF in Geneva and Chairman of the International Road Federation, India Chapter. I am highly impressed by the arrangement and management as well as the attendance of the conference, and all the credit for this goes to Mr. Kapila and his team. IRF is grateful to him for spearheading the cause of the road safety in India and in association with Ministry of Road Transport & Highways. At this point I would also like to mention a few words about the International Road Federation. IRF is a non-profit international organization to encourage and promote the development and maintenance of better and safe roads and road transport system in all regions of the world. It intends to promote education and understanding of general public and the governments throughout the world of the social, economic and environmental benefits which are derived from developing modern road, road transport system and road traffic control. Members of the IRF are commercial or professional firms, corporations, associations, public and private organizations, educational and research institutions, national and international road associations with an interest in roads and road transports. The Indian Chapter of IRF has been established since February 2009. One of the objectives of the IRF is to encourage and promote the importance of road safety through the application of appropriate road safety standards and guidelines. This conference aims to meet the IRF objectives.

We are extremely thankful to all the speakers who have come from all the way from all the different parts of the world to share their experience in this conference. We are extremely thankful to each one of you. We are grateful for all the delegates and invitees of their gracious presence. The conference will not be successful without your participation. We are also thankful to all the principal sponsors, sponsors and co-sponsors for their valuable contributions and assistance. We also wish to thank the media, both print and electronic for covering this occasion. We also thank the India Habitat Centre for providing the necessary facility to hold this successful conference.

Thank you all.