



India Chapter

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PANEL DISCUSSION

Mr. K.K. Kapila, Chairman of the International Road Federation of the Geneva Programme Centre, chaired the Panel discussion. The Panelists drawn from various organizations connected with road sector development included: Mr. C. Kandasamy, Director General (Road Development) and Special Secretary, Ministry of Road Transport & Highways, Mr. V.L. Patankar, Additional Director General from the Ministry of Road Transport & Highways, Mr. S. Bandopadhyay, Joint Secretary (Transport) from the Ministry of Road Transport & Highways, Mr. N.C. Solanki, Director (Projects) from NRRDA, Mr. S.P.S. Bakshi, CMD, EPI, Mr. Anish Dayal, Advocate, Supreme Court of India, and Mr. Greg Smith, Regional Director (Asia Pacific), iRAP.

Welcoming the Panelists to the concluding session of 8th IRF Regional Conference, Mr. Kapila elaborated upon the procedure to be followed for arriving at the final recommendations to be sent to government and other stakeholders. The discussions are reproduced here below.

K.K. Kapila : Friends, this session is primarily intended for framing the recommendations emerging out of our discussions over the last two days. I have a set of recommendations, which has been prepared by the Rapporteurs and has been vetted by me from time to time. I shall read these out, they are in four different portions, General, which includes Urban and Non Urban Roads, Urban Roads and Streets, Non Urban Roads, Highways and Expressways. Once I complete the section relating to General Urban and Non urban Roads, I would request the Panelists to give me any additional points, which they feel should be added in this particular area.

The first Recommendation is that Road Safety Audit should be made mandatory in respect of the following stages of projects: Feasibility, Detailed Project Report, Construction, Pre-opening & Operation and all road agencies, authorities, should adopt this uniformly across the country. The recommendation of RSA must be implemented mandatorily and, if necessary, should be appropriately backed by legal provisions.

The high speed networks such as the National Highway and State Highways network be upgraded to a minimum 3 star rating level and a yearly target of a fixed percentage say 5% or 10% of road networks in these categories should be targeted for conversion to safer roads.

A statutory body, which should clear the road in terms of road safety requirements before opening it to traffic should be created expeditiously under the Government for road safety and traffic management. This could be akin to the Railway Safety Board, which is independent of the Railway Ministry and is under the jurisdiction of the Ministry of Civil Aviation. In the absence of such a body, the various recommendations for improving road safety on road networks are not likely to get implemented. This Body shall have the role of coordination and integration among the stakeholders, agencies, government ministries and would clear all roads before they are opened to traffic.

A Road Safety Fund should be created under the proposed statutory body viz Road Safety Board which is presently under consideration of the Government, and all funds of road safety accruing from different sources be pooled into it. A counterpart body, State Road Safety Council exists in states under Section 215 of MV Act, which should not function without guidance from Central Board. Specific road safety allocation of 10% of the annual budget of MoRT&H should continue. Similar provision should be introduced in the budget of road sector in the states for road safety. Additional funds for road safety need to be created by apportioning 10% of the accruals under CRF for both; MoRT&H and the States.

A comprehensive road data collection system be adopted across all States and Union Territories of India for which MoRT&H should take necessary initiative so that this becomes a reality positively by June 2014.

Additional sources of funding of road safety programs be explored in respect of Insurance, Taxes, MPLAD, CSR, etc.

All projects of urban transport or road network improvement, upgradation of rural and non urban roads shall be approved only after incorporating the requisite road safety provisions for implementation of road safety measures. It shall be the responsibility of State PWDs, NHAI, MoRT&H, NRRDA and State governments under MoUD directives to meet safety requirements of all road users equitably. For this purpose, a programme of socialization of road safety for the road design engineers is crucial.

There is need to explore the possibility of engaging the private sector in road safety programmes under the PPP mode. In this regard, the possibilities of consolidating all type of encroachers; dhabas, truck repair units, shops etc. in an efficient manner to release the encroached misused road land for appropriate road usage.

Provisioning of skywalks in densely populated areas particularly near railway stations, bus terminals etc. may be explored for improving the road safety in a significant way.

Suitable legislation mandating the usage of white lights for street lighting system be adopted as against yellow lights to improve visibility at night and thereby road safety.

The last in this category is Radio frequency, used internationally for V2V and V2I communications for implementation of ITS needs to be standardized for India as per UN Convention. In addition, the recommendation of Nilekani Committee for RFID tags to be used for inter-operable toll collection system should be implemented for smooth traffic flow and extra safety on the high speed toll roads.

This is the first set under the General Urban and Non Urban Roads. May I invite comments from the Panel. May I request Mr. Kandasamy to add something to this, Sir.

C. Kandasamy : Making safety audit mandatory is positively required and I was wondering whether there should be some provision in the sanction estimate itself. We can consider this, since we are proposing safety audit not only at feasibility stage and having some organization along the lines of Railway Safety Board. It means before opening the bids, one will have a safety audit and then whatever is required, as one of the presenters mentioned, the cost is about 2% for whatever further safety improvements are required and have not been contemplated earlier at the feasibility stage, so probably if we provide something and leave it with the engineer i.e. Supervision engineer or Authorities engineers in EPC projects. In that case, we may not have to consider separate sanctions and funding, so probably that also can be a suggestion apart from having the mandatory audit, legal provisions and then 3 star rating minimum. The other thing that was mentioned is setting up a statutory body, like Railways have, and placing it under the Civil Aviation Ministry. Probably the Safety Board that we are proposing in the Ministry itself can take on this role as an independent body. As regards the other suggestions, I think everything is do-able. Thank you.

Greg Smith : You may have mentioned it, and I may not have heard, but I think it would be useful to encourage a review of the IRC documents and design standards to make sure that they match upto international best practices, wherever possible.

S. Bandopadhyay : The present functions of the Road Safety Board envisage road construction and the related civil engineering road safety part also, but meanwhile it was thought that when a road regulator is coming, the road construction specifications can be given to the road regulator. Do we have any views on this?

K.K. Kapila : No discussion has taken place on this particular aspect. But I think once we review the IRC specifications with respect to improvements therein with regard to road safety, we should be able to use the same specifications throughout thereafter.

C. Kandasamy : IRC is already doing it and periodically IRC committees update the specifications. IRC will also be taking it up with assistance from World Bank, ADB and all that, and that is already being mooted. So, as President of IRC, I would like to inform that IRC has a system of updating its own specifications and standards.

N.C. Solanki : I want to add two points. If road safety audit is to be conducted, it has to be in a particular interval, because when we specify that this road is safe at a point of time, we may find after sometime that it is not safe. Secondly, the provision of road safety education is a must.

S. Bandopadhyay : I think when we speak of making road safety audit mandatory, it should be based on traffic and the incidence of accidents. So when, as you have proposed, the data that is being collected and monitored shows that the number of accidents and deaths cross a threshold limit, then frequent road safety audit, every year, should be made mandatory.

K.K. Kapila : The idea here is that before you declare a road open to traffic, there should be a road safety audit done and if there are any corrections required, those should be got implemented and then only the road should be open to traffic. So if that is to be done, all roads will have to go through that process. It's like the Railway Safety Check on the railway line, before it is opened to traffic.

S. Bandopadhyay : But there is a difference between railways and roads. Roads are under the management and ownership of so many agencies, so you cannot compare the two and whether the decision we have taken is a practical decision and implementable, will need to be seen. So therefore I am saying that you cannot have road safety audits for all the roads. You have to identify important roads, roads more prone to accidents and those not prone to accidents, otherwise it will not be practical. There may be good laws and policies, but how they are implemented is more important.

C. Kandasamy : We may decide, in case the audience agrees, that the establishment of the proposed Safety Board should be expedited and the Board will have the entire thing under its ambit. In the meantime, we can think of providing additionally some percentage in the estimate itself, so that as the Chairman was mentioning, before opening it, the supervision consultant or the authorities engineer could get the independent safety audit done and then do whatever extra is required, because he is not the consultant who has prepared the DPR, he is a Supervision consultant and he will have the safety audit done at that stage during construction, at the time of completion and then he has some provision at his disposal to get the things

carried out. The presenter in one of our sessions said that this expenditure, he has experience of doing it in Karnataka projects and so many other countries also, at maximum is 2% of the project cost.

S. Bandopadhyay : Mr. Solanki is here and his specialization is rural roads. Any view on making it mandatory for each and every stretch of your roads?

N.C. Solanki : No. Under PMGSY, we have made it mandatory for all roads constructed and those under construction.

C. Kandasamy : I also feel that it should be for all roads, because accidents or road crashes can take place on any road. It should be as you said not only for project roads, gradually it should be extended to all roads.

V.L. Patankar : Thank you Mr. Chairman. I thought as a recommendation at the end of the Conference, the message needs to go very clearly and categorically, and on unequivocal terms, that nothing below the standards, which are road safety requirement compliant, will be acceptable. Yesterday, in the opening session, Mr. Upadhyay said that everything starts with the design and plan of road construction and in our country at least, a majority of the highway and road projects we are taking up are capacity augmentation or alignment improvement projects, rather than green field projects. Now in these projects also, as we have said, road safety audit is a must right from the DPR stage of the project preparation stage. So a message should go, that the road safety requirement projected by the road safety auditor should definitely be taken care of. Now the issue would come up from where the money would come. I think from the road safety requirement perspective, it is better not to improve or upgrade a road rather than upgrade a road half heartedly, because if we look at it from the point of the accidents and the deaths that take place, if a road is not improved, probably the deaths would not really occur to that extent, as if a road is improved and is not compliant with the road safety requirements. So, if we do a job, we should do the job to the level that demands improvement from the perspective of road safety requirements, or otherwise we should not do it. So I think that message is required to go very clearly and categorically that if we are not able to provide funds to the extent required, the improvement should be taken up to the extent of what we can afford.

K.K. Kapila : Thank you. Yes, Mr. Sinha.

A.V. Sinha : There is no question that Audit should be a part of procedure. It has to be integrated with the whole system like you get an estimate and process it under various processes, financial clearance and sanction and then tendering. Similarly, safety audit should be an integral part of the procedure. It is essential because every road has to be audited for safety, it need not be a very elaborate exercise but it needs to be audited. The second thing is the

auditor should be independent, and not be the contractor or the supervision consultant or the owner. The auditor should be an independent body, which can really see if whatever is envisaged in the project is safe or not, and whether it has been delivered safely or not. So two things are important, first, road safety audit should be made mandatory, I can put it loosely that way because it should be a part of procedure like sanctioning, like tendering, it should be auditing also and secondly it should be done independently. Now the question of funding has also come up. I don't think it will require so much funding, it will be a very small amount but if it once becomes a part of procedure, everyone will do it and at every stage that is required it will be done. That is all. Thank you.

G. Sharan : I have two points to add regarding road safety. The way we are developing our national highways and going for the expressway, the road safety audit for new construction must be made mandatory, and my suggestion will be that we must conduct road safety audit at least once for all the projects going to be taken up, but needs deciding as to what should be the frequency. As Mr. Bandopadhyay has also said, depending on accidents, frequency of audits can be decided. All new constructions may be revisited after 2-3 years, and it is very important that the type of road audit we undertake gives us answers to such questions as to whether we are really going to add value with the road safety or any system, whether accidents are going to reduce or the investment will be futile. So audit should be followed by the review of the audit we have done, what feedback etc. So two things, which I want to suggest are that road audit whether new constructions, expressway or two lane becoming four lane, 4 lane becoming 6 lane and whether 2 lane with paved shoulders, single lane, two lane etc. should be done at least once for all the types of roads. Number two, the frequency depending on the category of roads, may be 2 years, 3 years, 5 years, so that we are very sure that whatever we are going to invest is paid back to us in due course of time. Thank you.

K.K. Kapila : Mr. Puri.

S.K. Puri : I would like to add to whatever has already been said regarding the funding part. Sir, we have seen that in ongoing projects, the variations which come up are not that thickness is to be increased or the pavement or the width is to be increased. What happens is service road is not there, so there is a requirement from the local authorities or the local people or public for providing such roads. There is no underpass, so underpass must be provided, crash barriers not there, so crash barriers are to be provided. So all these variations are basically safety related issues. With that what is happening is that the project gets delayed and we end up paying escalation claims to the contractor, which may be more than 15%, 20%, 30%. If this audit is done at the design stage itself before bidding, it may result in only 5 to 10% extra cost, which will be much less than the cost we are otherwise paying. Thank you.

Greg Smith : Can I add to that also. We must get construction right from the start. One of the mistakes that the developed countries made is that they did not build road safety into their road network, when they first built roads and they spent an enormous amount of money retrofitting safety in. But if there is one learning we can take from the U.K. and the U.S., it is that doing it right from the start is going to save a lot of money and a lot of lives. I would also say that thinking about that the need for auditing new projects is absolutely there, it is critical that this should be there every time to ensure adherence to the design standards. But you can also think about which sections should we target in order to really bring about reduction in roads deaths in India, and I would say that typically in a country, about half a country's road deaths happen in about 10% of the road network and I think it's even more extreme in India, it's more like 5% of the road network. So if you can pin down those 5%, which carry high volume traffic and are starting to get a little bit faster, if you focus on those roads you will get very high returns on road safety. So we can take a very targeted approach to get very high returns quite quickly.

Dr. Ravinder : First, we have to see how road safety audits are being implemented on the ground. If we look at most of the findings in today's context, the concessionaire is unable to implement, so even if some drawings are not ready, they will go for the construction. So we should have a critical review of the execution of the road safety audit findings. That is the first point. Second is regarding the separate cell on the same lines of the Railway Safety Board. There it is a totally different ball game wherein you do not have different stages of safety audit, which also a different agency will carry out. In our context, roads context, we have different stages of the safety and also if we keep a separate cell that will create technical problems, the other one is may be we can give a COD legality at least to start with. Thank you.

Delegate : Dr Ravinder and also Mr. Puri pointed out to the fact that we must recommend road safety audit at the design stage before the work goes out to tender. It is a point where the solutions can be implemented in the cheapest way. The second point I wish to make, I spoke to Mr. Kandasamy about it this morning, we should change the land acquisition process at the DPR stage before it goes out to tender as well. We should have a policy to acquire more land junctions, where a national highway meets another national highway and where a state highway or MDR meets national highway. At the moment we have a process of acquiring land 30, 45 metres or 60 metres from the centre line throughout, that should change. We should have more land acquired at least the land which is required for a clover leaf interchange may be 20 years down the line or 15 years down the line at the point where a national highway meets another national highway and for a grade separator, land which is required for a well designed grade separator, where a state highway meets a national highway, that has to be clearly spelt out.

K.K. Kapila : I think the road safety audit should be mandatory in respect of the following stages of the project: Feasibility, Detailed Project Report, Construction, Pre-opening and Operation. So it is at all stages that we are doing it. It is not that after the road is completed that we are coming forward to do a road safety audit. The last one is only to ensure that all that was conceived, perceived, and pointed out at various stages by the road safety auditors, has been incorporated in the road system and then as Mr. Kandasamy rightly said even then if it has not been done, we will make appropriate provisions in the estimate itself 2% or 3% amount to address the problem, if there is any, at that stage. Is that right Sir?

C. Kandasamy : I think his point if I have heard it correctly is that there is normally a general tendency to acquire land of just 60 metre width throughout, but he seems to point out that at intersections as per requirement it has to be more, so if we add only 2 to 3% in the estimate which we propose to leave with the IE, it may not be possible to cover this and so probably that should be covered in the estimate in the DPR itself.

K.K. Kapila : We will cover that in the DPR itself. Right at the design stage itself, we shall make a special mention of it.

So we now move to the next set of recommendations. In fact, in this I think we need to add one more situation that when you already have a concessionaire who is building a road and you want him to do certain additional works, which are necessary as per the road safety audit requirements, we should be able to give him the money either in form of variation or extension of the period of concession. So we will add that as a recommendation, if it is alright with all of you.

The other recommendation, which I thought would be very valuable for a concessionaire is that if on a particular road run by a concessionaire, there is no fatal accident for 12 months, he should get extension of 1 month additionally for collecting toll. For every year, in which there is no fatal accident, he should be allowed to continue i.e. his extension period is extended by a month. That will give all concessionaires a desire to build and maintain safe roads. So we will add these two recommendations.

Delegate : I request that the feasibility first report should include the diagnosis report. Whatever feasibility, whether feasibility DPR, the first report should be the diagnosis report of that particular road, which has been observed by the consultant regarding the accidents and other spots, after which only the feasibility report should come up. I wish to add that diagnosis report should be added into the project paper itself.

K.K. Kapila : That should be a part of feasibility, that's how you do it. It has to be covered in the feasibility itself.

The recommendation is that in case of urban roads and streets, the requirement of vulnerable road users like pedestrians, cyclists, rickshaws and other non-motorized modes must be specifically assessed and provided for, if required even by reducing the space for ROW and facilities for the motorized modes. The urban road / street design should focus on catering for the large number of public transport users and therefore every requirement of public transport modes and safety of the public transport users should be provided without fail. ITS should be used to check violations under PPP mode by providing all advance technology for maintaining them. The provider could then share the revenue with the police department from the collections of the amount against violations, plus a fixed amount, to ensure that it is a win win for both sides.

S.P.S. Bakshi : In fact when we are talking about road safety, a very important subject is, as you know, that of trauma centres. I will suggest that the design of the trauma centre and its minimum facilities should also be added and the distance on the national highways and state highways where it can be provided and once we are developing the roads and constructing trauma centres, there could easily be a provision made for helipads. This is I feel a very important subject, it is being ignored where road safety is concerned. This could be further added up in our recommendations. But another subject which all of us must be experiencing so far as road safety is concerned is that when we are driving on the road suddenly there is a bump. Many of us are victims of the unplanned ways in which speed breakers are being constructed. So we can make a recommendation on road safety audit that we should only go for rumble strips and standardize that and especially with the road marking paints. When we go overseas, we have seen all the rumble strips are painted yellow or with raised paints and it is visible from a distance and so all the drivers and others are cautioned from a distance about the speed breakers.

Recently, I saw something regarding Road Safety, the idea of which I liked. I was in Srilanka and I have seen that at the intersections, from a distance of 100 metres before the intersection, the centre line is in a zigzag manner. Initially, I was not able to understand the reason for this but subsequently I realized that this is an indication that there is an intersection after 100 metres. If we further add these innovations, I think that there will be value addition in the road safety audit, visibly, because you see once you drive on the road, the signages or road marking give a sense of the road safety. Thank you very much.

Anish Dayal : Just taking on the issue of signages, I don't know if there is a recommendation relating to that because I had touched upon it in my presentation. The issue of lane markings is not something, which has been standardized in India but at least signages are and there is an IRC sort of list which is used in the first schedule. So something, which can be used for proper signages and standard signages, which are recognized.

V.L. Patankar : In fact the standards on signages are already there as far as IRC is concerned. I thought in your presentation you talked about it, probably it was from the point of whether a mention of that is required under the Motor Vehicle Act or as a part of the legislation somewhere, that part could be looked at as far as any other road feature or the geometry is concerned, the standardization as regards signages or even lane markings is there.

Anish Dayal : You are right. The only thing is I am seeing it from the statutory point. IRC might have its own existing standards, but does the law recognize it? If the law recognizes it, then we can mandatorily implement it. So that's the link I am trying to draw. That linkage needs to be created.

V. Kandasamy : So probably the suggestion is unlike BIS, IRC codes or guidelines are not mandatory now. Probably like BIS, that also should be made mandatory. That probably will solve the problem.

K.K. Kapila : I think we will try to get legal linkage to it. The modalities of linkage can be decided later, but we need to work on it and get it.

Anish Dayal : Well the point I was making is that in the Motor Vehicles Act, when you can have signage as a part of the schedule, then lane markings which are completely absent in that statute can also be introduced so the standard is set by the IRC, the implementation is put in the statute. I think that is extremely critical to do that because if you start implementing IRC standards as a policy in your building design, what will happen, unless the legal stuff happens, is that it will be an adhoc implementation for a few roads and not all over India. I think that is the point I was trying to make.

In fact, the Act actually talks about the fact that the state governments will implement it.

K.K. Kapila : We will extend the Act to cover lanes as well.

V.L. Patankar : What is required to be seen is how do we establish that linkage.

K.K. Kapila : We need to establish legal linkage, that is the basic point.

Delegate : When we recommend road safety audit as mandatory, we should also recommend how we are going to do it, who is going to do it. So I believe once it is mandatory, there would be a massive requirement of training programmes.

K.K. Kapila : When we lay down the rules and laws, that will be covered. We will be providing for the appropriate legal arrangement.

Anish Dayal : In fact, I think among the suggestions I was making in the suggestion part of the presentation, an important suggestion involved rule making procedure and not enactment by

the Parliamentary procedure. So a neat solution has to be found on a rule making basis, where the Ministry can itself do it on the basis of certain standards.

K.K. Kapila : Go via rule mode, basically.

Delegate : Instead of rule, if we can go for the working manual, that will be an easier task, I think. The rule should say that the procedure and the stages given in the working manual shall be followed, so that the working manual can be updated at any time.

K.K. Kapila : The third is the section relating to non-Urban Roads, Highways and Expressways. Here the point, which was being made has come. Land required for accommodating safety provisions as per DPR and RSA must be acquired at any cost at the first instance itself, along with the land required for the main carriageway and service roads. However, if it is not possible to acquire land due to other considerations, then alternative engineering solutions need to be found, irrespective of financial implications, rather than constructing sub-optimal and unsafe roads.

The circular of MoRT&H of April 2010 for implementation of the provisions for forgiving roads, which specifies the safety standards to be adopted in every road project, must be made mandatory, to be followed in letter and spirit. Agencies who do not follow the same shall be held responsible and suitable action shall be taken against them.

For existing highways, expressways, RSA must be conducted urgently to assess the road safety deficiencies and the cost for addressing the same should be met from 10% of the fund earmarked from the budget and from the concessionaires by paying through variations for extending the concession period.

Considering the level of development and availability of modern tools for enhancing road safety and advancement in online data collection, about operation of the highway, it is recommended that adoption of ITS and HTMS, ATMS, etc. need to be progressively enlarged. It is also recommended that at least 10% of the multi-lane high speed network selected NH and expressways must be covered by such system by June 2014.

In this section, any there any comments, any additions, that somebody would like to suggest. Greg, anything further. June 2014 be December, OK change it to December. Actually, one must set a target, which is a difficult one but at least one must work towards the target so we achieve it partially, if not fully. So December, we move it to December.

Bus code and Truck code should be implemented at the earliest to enhance safety of these vehicles in case of crash. Body building of trucks and buses, therefore, should be done in the organized sector for which appropriate legislation be drawn up.

Training of RTOs, Motor Vehicle Inspectors should be taken up for testing and certification of commercial vehicles as required by MV Act. Strict check for FUPD, SUPD and RUPD, the front under and the side one and other full fitments related to safety like mirrors, etc. be enforced at the time of registration as well as later certifications. Existing Rule 62 needs to be strengthened further in this regard.

Vehicle safety should be comprehensively included in the provisions of MV Act and the Government should take initiative through SIAM to implement all such modern in-vehicle safety features uniformly in all vehicles as adopted in other high income countries. For conspicuity of bicycles and tractor trailers plying on highway urban roads, provision of affixing retro-reflective tape must be made mandatory. Further existing provisions of MV Act for fixing conspicuity tapes on commercial vehicles should also be uniformly and strictly implemented.

If for a concessionaire, no fatal accident takes place, in a given year, the concession period should be extended by one month.

For spreading road safety awareness across all villages, road side community safety programs may be taken up by NRRDA as a part of the PMGSY in collaboration with local authorities/bodies.

Any other points in this area, any suggestions for further inclusion?

Anish Dayal : I think the problem is that the Central Government cannot legislate on the issue of non-motorized vehicles such as bicycles. We had found one provision with the Bureau of Indian Standards, standard can be made mandatory by a Central Government notification and not legislation. That is one route. The other route is of course an advisory and hand holding route with all the state governments and municipalities. That may not work. I think the BIS route is possibly the best route so far that we have.

K.K. Kapila : So how would you word it?

Anish Dayal : The Central Government may use its powers under the BIS Act to make standards on non-motorized vehicles mandatory, particularly retro-reflecting tapes, that's the least. The non-motorized vehicles are purely under the jurisdiction of local bodies. It is within the state jurisdiction. So, the State Governments can legislate on that.

Delegate : Introducing safety provisions for buses and trucks, if possible, the basic safety aspect should be introduced at the chassis level and it should be that putting the bar for under protection of the cars and all that. So if it is possible, it can be made the responsibility of manufacturers to introduce the basic safety features in the chassis or before it comes on the road for body building.

K.K. Kapila : Please make it clearer. It is not clear.

Delegate : Introduction of basic safety feature for buses and trucks like older vehicle protection, that parallel bar which is required to protect the cars going under the vehicle, big vehicles, it should be made in the manufacturing process at the chassis manufacture level rather than body building stage. So, basic safety feature should be introduced.

K.K. Kapila : It has been covered that we must introduce it right at the stage of construction of the truck or the bus when you make the body. If you are making it in the unorganized sector, you must make those provisions at that stage itself so when RTOs check it, they are there, otherwise the vehicle will not be passed for usage.

Delegate : My point is, introduce it before going for the body building.

V.L. Patankar : Probably what you are saying is that there would be some of the components, which are required to be taken care of right at the chassis manufacturing level itself, rather than the body building level.

K.K. Kapila : We will have to examine that.

Mr. Saluja : Sir, it was brought out by one of the speakers that when these chassis, which are built by the not so proper manufacturers, when they go to the RTO, they are not aware, so they just pass 50 engines in an hour or so. So my point is that we must also make some recommendation that the RTOs must have a knowledge of this subject so that they just don't keep on clearing those. Thank you.

K.K. Kapila : Any other point?

Delegate : The entry of the vehicle near the highways or petrol pumps and dhabas should not be directly allowed on major roads, expressways. Service roads should be provided at these junctions to compensate for the difference in speed.

K.K. Kapila : Yes. Facilities. They should be approached through a service road or accelerating and de-accelerating lane. I think that's covered here.

Delegate : Sir, the introduction of safety measures in all new vehicles may take some time, but as the first step, ABS system in all vehicles as a safety measure should be introduced with immediate effect and will result in minimum decrease of 20% of the accidents.

K.K. Kapila : Thank you.

Anish Dayal : I have a point on pedestrian rights, sir, I don't know if that is out of context. But as I said the rules of the road regulations can be reviewed to see all aspects of traffic flow and

management including pedestrian rights, rules of road regulations which are under the Motor Vehicles Act, they can be strengthened and made robust on all aspects, particularly pedestrian rights and emergency vehicle access, they are both contained there in a very flimsy fashion. Now if there is a violation of the rule, it automatically attracts a penalty under the Motor Vehicles Act, but it is never implemented. So the point is if you have a road safety audit, the road safety audit will theoretically give a pedestrian crossing but we all know in India that the zebra crossing doesn't mean anything, whatsoever. So, there has to be some change, which has to be brought about, but I don't think there is a law that exists, so the implementation can come later.

K.K. Kapila : It can come through the rule route.

Anish Dayal : Absolutely, through the rule route.

K.K. Kapila : Just figure out the whole thing and give it to me. Anybody else?

Delegate : I am of the opinion that the extension of concession period is not appropriate, because already we are experiencing some reluctance from the commuters for the toll, so the incentive for accident free maintenance may be in another form.

C. Kandasamy : It is not clear. Can you repeat it. Probably, instead of extending the concession period, some other incentive, what can be that incentive.

K.K. Kapila : You can either pay by money or you can pay by extension of concession. They are the two modes of payment. Government finds it more difficult to make payment immediately, they would prefer the route of extension. That's why I have suggested extension of concession. But as long as you get either one of them, I think there should be no difficulty.

V.L. Patankar : I can give one more suggestion in this regard. What could be done is in addition, we are thinking of some certification or compensation or some money to be given or an extension period. The problem appears that if it is above 20 years of concession period, and if for every year you give one month, it adds upto 20 months or something like that. One could always think of giving some bonus marks or some criteria, whereby he would get some ranking higher than what otherwise he would have got because of the good performance. So that would be something like a benefit going to him by virtue of getting some marks or some grade higher, which ranks him above the others.

Greg Smith : I think there are interesting discussions happening at the moment on the potential for social impact bonds to be used to fund safer roads. So what you potentially say is for every serious injury, the state incurs an economic cost in terms of the hospital phase, loss in productivity, so if we can say to a private investor, if you build this road and you reduce deaths

by a certain amount, we will reward that with a bonus payment i.e. related to the saving that the government would have incurred by saving loss in productivity. So you create this very positive incentive and that means you might start attracting people to invest in roads, companies, that might not have otherwise done so and it starts to make it more attractive than it would have been otherwise.

Anish Dayal : There is this new provision in the Companies Act about 2% being CSR. I don't know if road safety has been included in that list.

K.K. Kapila : We have requested Ministry of Corporate Affairs to add it.

Delegate : Sir we can think of a pain gain arrangement as well. When you incentivize a concessionaire for a better safety record, you can also include penalizing a concessionaire for a bad safety record. So he can be affected both ways, i.e. if you have a higher fatality rate, it's a problem, if you improve your safety record, you have instant results.

K.K. Kapila : To go to the government to say that this should be exempted from tax is going to be a Herculean task. I don't think we should muddle with the Finance Ministry's legislations. We can certainly say that we will give a bonus of x amount, which can be included but we cannot go and ask for any tax relief on this account. That will be very difficult and cumbersome.

V.L. Patankar : Incentivizing is always a better option.

Delegate : Sir, the issue of land acquisition at junctions should also be addressed. Now, a concessionaire is able to get land for project roads, however, when he comes to the junctions, he is not able to get the land, so ultimately he ends up with developing sub standard junctions, due to the land acquisition problem at the cross road.

K.K. Kapila : The new legislation on land acquisition will, I think, make it possible to acquire such land.

With this, we come to the end of this Conference. I would like to take this opportunity to thank all the Panelists here and all of you for being with us and contributing to the recommendations. I am confident that these recommendations will be given careful consideration by the government and most of them you will find getting implemented in due course. Thank you very much. Kindly join us for a cup of tea outside.

C. Kandasamy : Thanks to the Chair for this initiative. We have had two extremely fruitful days of deliberations on the various issues and aspects of road safety by a plethora of experts.

The 8th Regional Conference of the IRF India Chapter concluded with Mr. Kapila presenting Mementoes to all the Speakers.