FICCI

COMPENDIUM ON
LEADING BEST PRACTICES IN ROAD SAFETY IN INDIA

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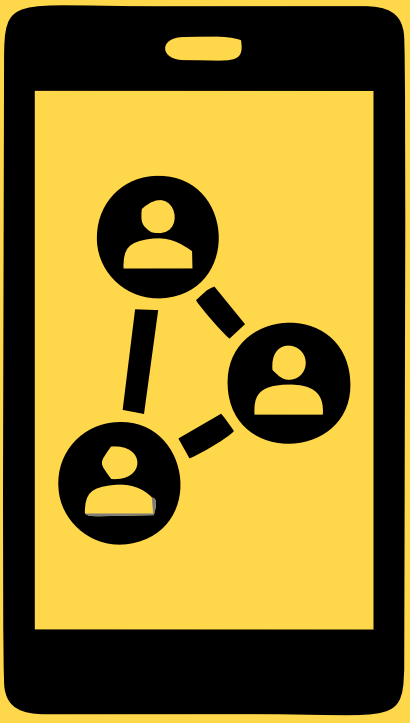
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Category I:

Outstanding Road Safety Media Campaigns/PR & Marketing Initiatives



Category Description

(Mainstream media campaign (TV/Print/Radio/others)/Marketing agencies or organisations/social media handles/PR teams/others who have contributed to road safety directly or indirectly)

TVS Motor Company

Road Safety Initiative: TVS Ride4Safety - Protect Little Riders Campaign



Initiative Overview

Implemented: March 2024

Implementation City/State: Bengaluru, Karnataka

In a pursuit to highlight the importance of road safety gear, especially for kids, TVS Motor Company lead the 'TVS Ride4Safety: Protect Little Riders' campaign.

This comes in alignment with the thought that several Indian households own a two-wheeler with most pillion riders being kids, a lot of them being TVS consumers themselves. When parents ride with their children, they use helmets. However, one of their most common cognitive delusions is that their children are safe in their care, which does not allow them to necessarily consider getting helmets for the kids. This value-action gap leaves millions of children vulnerable to risk as they are more prone to serious injuries in the absence of road safety gear during an accident. TVS Motor's consumer research also uncovered that while many parents were unaware of the importance of helmets for children when riding two-wheelers, even those who understood the need, struggled to find helmets that fit their children's heads.

To address this, TVS developed a line of helmets for children in various sizes/fittings in collaboration with leading helmet manufacturers. To create awareness about this blond spot, the brand created television commercials that contextualised this act of leaving children unprotected.

What makes the initiative unique?

The organisation likes to call it different from the typical road safety campaigns, which often use a "warning" narrative to emphasise the consequences of not wearing protective gear. Hence, the 'Protect Little Riders' campaign took a unique approach by

focusing on how parents instinctively protect their children in other situations, like during rain or snow, but might not realise the importance of a helmet when their child is riding with them. Understanding that many parents were unaware of the availability of helmets for children, the campaign chose a non-accusatory, awareness-driven approach.

Impact & Beneficiaries

- Garnered nearly three million views within two weeks of the campaign & over 15 million views till date
- Saw over 35,000 pledges made on the campaign's dedicated website
- Encouraged parents to ensure their children wear helmets while riding

The campaign targeted two-wheeler riders and owners, encouraging them to recognise the importance of road safety gear for children, just as they do for adults. Ultimately, the initiative aimed to protect every child who rides as a pillion passenger. By raising national awareness about the need for helmets for children, the campaign sought to ensure that these young riders can grow up safely and become the leaders for tomorrow.



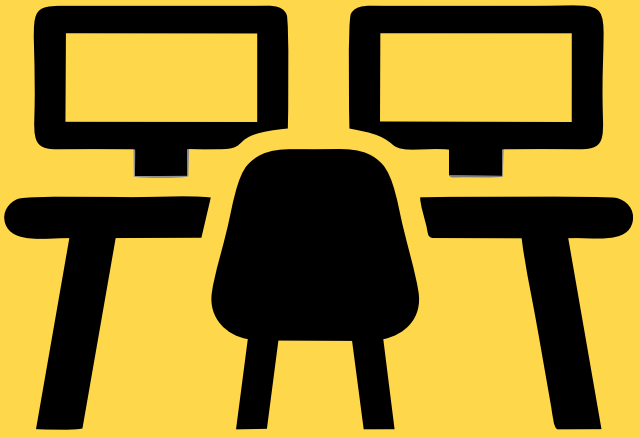
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Category II:

Road Safety Initiative or Intervention by –

i) **Large Corporates**
ii) **MSMEs**
iii) **Startups**



Category Description

(Organisations developing and marketing their products and services that are extremely beneficial to make safer roads, safer vehicles, safer road users, traffic management systems and enforcement equipment for road safety and any other products and services relevant to road safety.)

Jio Things Ltd

Road Safety Initiative: Automated Journey Risk Management (Jio Humsafar)

(Large Corporates)



Initiative Overview

Implemented: January 2022

Implementation City/State: Multiple States (Maharashtra, Gujarat, Uttar Pradesh)

The Automated Journey Risk Management is an initiative towards development of a data-driven approach using historical data from across India to ensure end-to-end road safety.

It takes inputs from vehicle telematics devices, AI-enabled cameras, voice boxes, and machine learning algorithms to assess vehicle, trip, and driver performance. This enables dynamic route optimisation and ensures driver and vehicle safety. For driver and vehicle scores, advanced AI extracts driver activity from a telematics module. An Advanced Driver Assistance (ADA) camera is installed in the vehicle, while machine learning algorithms provide real-time scores for vehicles and predict future performance.

- Enhanced safety through real-time monitoring and assessment of driver behaviour and vehicle performance
- Monitors and analyses driving patterns and delivers real-time voice-enabled commands and in-cabin safety alerts, enhancing driver alertness

- Employs machine learning techniques, including multiple regression analysis and deep neural networks, to create a comprehensive assessment of vehicle and driver performance
- Incorporates journey risk management and safety-enabled route optimisation to ensure routes are efficient and prioritise driver and vehicle safety
- An end-to-end route safety approach that anticipates potential hazards along the journey, optimising routes to mitigate risks
- Reduces vehicle maintenance costs by preventing wear and tear from harsh driving conditions and ensures timely deliveries by avoiding risky areas prone to delays

What makes the initiative unique?

The management system can provide a root cause analysis for each trip, allowing the identification of factors that contribute to a trip being either successful or problematic. Based on this analysis, drivers receive tailored feedback. The initiative leverages deep neural networks, machine learning, and multiple regression on experimental data to develop the algorithm, incorporating various weighted factors for different scenarios. This approach can be used to determine the optimal route by balancing travel distance with the preventive costs of choosing the safest path, considering variables such as time of the day and day of the week. Additionally, the system can analyse the performance of multi-point cargo trips, offering driver training on potential route hazards.

Impact & Beneficiaries

- Pan-India presence and is used by fleet managers of organisations
- Tracked 10,000+ cars, 5,000+ buses, 1,000+ ambulances & 10,000+ other vehicles, including trucks and tankers
- More than 300 collision warnings detected over the past one year
- Impact Analytics, as presented, indicate that the technology deployment improved driver score by 50%
- Detected a decrease in critical alerts by 45% and total alerts by 60% (critical alerts include collision warning, driver distraction, driver fatigue, and seat belt compliance)

The management system caters to all industries that are currently serving B2B, and the petrochemicals and retail & FMCG sector. The system has future potential for B2C as well.

Hindustan Unilever

Road Safety Initiative: 'Suraksha Sab Ke Saath' programme

(Large Corporates)



Initiative Overview

Implemented: January 2023 (ongoing)

Implementation City/State: Pan-India

With an aim to achieving 'Goal Zero'-zero harm to people, zero fatalities, and zero damage to the environment and goods, HUL launched the Suraksha Sab Ke Sath" programme, focusing on safeguarding the lives of HUL's transportation partners and drivers while making India's roads safer. The programme employs a six-pillar approach to tackle road safety challenges, addressing:

i) Driver fitness on duty

ii) Vehicle fitness on duty

iii) Driver behaviour on the job

iv) Journey risk management

v) Post-accident care

vi) Partnership and collaboration

As part of the programme's implementation, HUL has established 58 Driver Management Centres (DMCs), operated by trained road safety counsellors provided by the Chola MS. These centres are equipped with training facilities and audio-visual aids. HUL has also ensured the availability of dedicated driver restrooms with clean drinking water and hygienic washrooms at all DMCs located in factories and warehouses to support driver well-being.

Through the DMCs, drivers receive road safety training based on a monthly calendar, ensuring vehicle roadworthiness and the installation of telematics devices in collaboration with Fleetx to monitor driver behaviour. The DMC counsellors use telematics dashboards to monitor and enhance driver safety performance, providing timely interventions, customised training modules, and practical training and counselling.

The DMCs initiative is also being expanded to India's neighbours, including Bangladesh, Sri Lanka, Nepal, and Pakistan.

What makes the initiative unique?

The 'Suraksha Sab Ke Sath' programme extends road safety culture beyond HUL's own drivers, reaching truck drivers throughout the broader transportation ecosystem. By leveraging meticulous planning and a hybrid telematics approach, HUL tracks 20,000 shipments each month, enabling personalised driver counselling. The impact of these efforts is evident in the significant reduction of road fatalities within HUL's logistics operations.

Impact & Beneficiaries

- Decrease in road accident fatalities by 35%, since the launch of the programme in 2023, within HUL India's logistics operations compared to 2022
- DMC infrastructure established across all 58 locations within a record six months
- Since the DMCs' inception, 78,000 vehicles inspected for roadworthiness using a detailed checklist
- Total of 330,000 drivers received counselling at DMCs across India
- 9,000 drivers completed the eight-hour Defensive Driver Training module
- 90,000 drivers participated in ToolBox training sessions, wherein they share experiences and learn from incidents to enhance journey safety

The programme caters to the driver community and society at large.

Ashok Leyland

Road Safety Initiative: Skilling of drivers & risk awareness camps

(Large Corporates – Mention)



Initiative Overview

Implemented: **April 2023**

Implementation City/State: Pan India

This is a comprehensive road safety initiative that focuses on enhancing driver skills and promoting awareness among the public. This initiative includes the skilling of drivers in safety and defensive driving through various training programs offered on campus, on-site, and online. Additionally, 372 road safety awareness events and roadshows have been conducted, reaching over 30,000 road users, including young children and diverse sections of society. To ensure the health and well-being of drivers, which is crucial for safe driving, the organisation has also organised free health checkups and consultations.

What makes the initiative unique?

The uniqueness of this initiative lies in addressing a critical gap in driver education. Currently, many drivers on the road have acquired their skills informally - learning from friends, family, or by working as helpers to truck drivers. As a result, they often lack exposure to structured, scientifically designed training programs and are not fully

knowledgeable about road signs, CMVR norms, and other essential regulations. This makes them more prone to errors that can lead to road accidents.

With the guiding principle that 'A professionally skilled driver is a safe driver,' under the initiative, about 209,000 have been drivers during FY2022-23. This training focuses on educating drivers about safe driving practices, rules and regulations, maintaining a healthy lifestyle, and fostering good driving habits and discipline, all of which contribute to safer roads.

Additionally, by instilling road safety awareness in young minds, from school children to college students, the initiative has helped cultivate responsible road users in society.

Impact & Beneficiaries

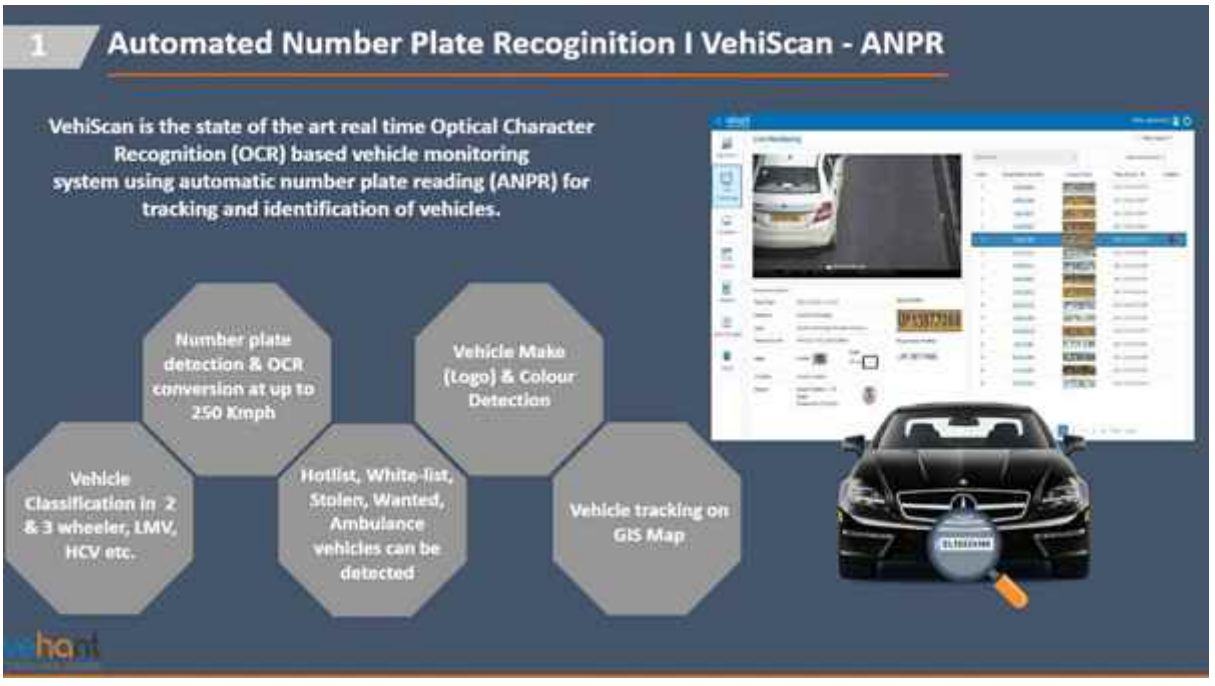
The impact of these initiatives is substantial, as detailed below:

Drivers Trained on Road Safety	198,993
Health Check-up Camps/Vision Tests	50,053
Sessions for School Children	5,500
AIDS Awareness Camps	4,200
Yoga Sessions/Participants	2,900
Drivers Trained in Public Places	3,600
HAZMAT Training	20,000
First Aid Training	9,000
Spectacles Provided to Drivers	1,578

Vehant Technologies

Road Safety Initiative: Automatic Number Plate Recognition (ANPR) cameras

(MSMEs)



Initiative Overview

Implemented: January 2024

Implementation City/State: Dehradun, Uttarakhand

The project was launched to supply, install, and support Automatic Number Plate Recognition (ANPR) cameras across Uttarakhand, with a focus on Dehradun. This initiative aimed to enhance traffic management and enforcement through an advanced Intelligent Traffic Management System (ITMS) integrated with ANPR technology. High-performance ANPR cameras were strategically placed to monitor traffic flow, detect speed violations, and identify infractions such as helmet-less riding, triple riding, and wrong-lane driving. The captured data feeds into a sophisticated Video Management System (VMS) for real-time analysis. A central web-based traffic management system (CMS) and an automated e-challan system were also deployed, ensuring efficient violation processing and comprehensive traffic enforcement. Additionally, the project included a vehicle count and classification system, providing essential data for traffic planning. This initiative represents a significant advancement in traffic management, improving road safety and operational efficiency, and positioning Uttarakhand as a leader in smart traffic management.

What makes the initiative unique?

The initiative is distinguished by its comprehensive and integrated approach to traffic management. This solution combines advanced AI-driven automatic number plate recognition with intelligent traffic management, allowing for real-time detection and enforcement of various traffic violations such as speeding, helmet-less riding, and wrong-lane usage. The integration of a web-based central traffic management system with an e-challan system ensures efficient and transparent processing of violations. Additionally, the system's scalability and adaptability to future technological advancements make it a future-proof investment for authorities.

Impact & Beneficiaries

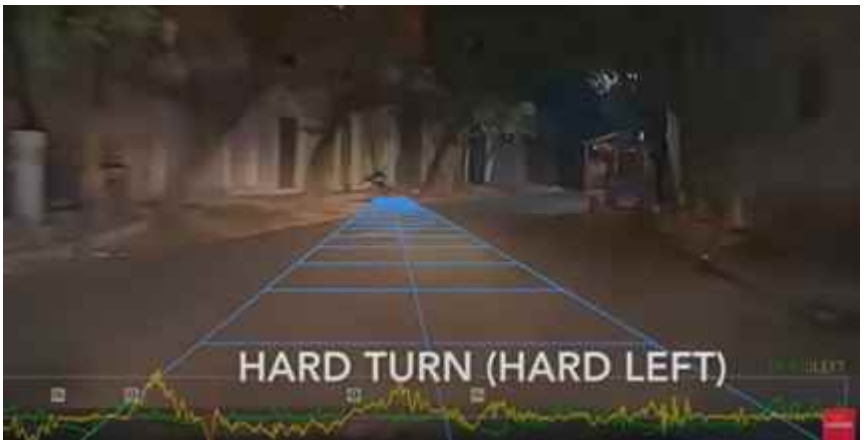
The initiative catered to government, transportation department, GST department, environment department, and citizens.

Netradyne Technologies

Road Safety Initiative: Driver-i (AI-powered device for safe mobility)

(Startups)





Initiative Overview

Implemented: 2021

Implementation City/State: Pan India

The initiative by Netradyne Technologies is focused on addressing human error in real time using computer-vision artificial intelligence (AI) technology. Several fleet organisations adopting the technology have reported to have reduced their road accidents by more than 50% within a few quarters of deployment.

Over the last eight years, this AI-enabled device for safe mobility (Driver-I), a Make-in-India, Made for Globe solution has been adopted by large global organizations- (with high safety standards), such as Amazon, Shell, Hindustan Unilever, Indian Oil and Skytanking. By leveraging advanced algorithms and sensors, the system can detect various risky driver behaviours. Through timely alerts, personalised coaching, and actionable insights, drivers and fleet managers can make informed decisions, fostering

a safer driving environment. Its clients have reported reduction in accidents in the range of 50%-80%, by using this device.

The initiative provides advanced fleet safety solutions, solving global road and driver safety problems using vast AI and machine learning (ML) capabilities that are built into an Internet of Things (IoT) device. By leveraging advanced algorithms and sensors, the systems can detect various risky behaviour, including over-speeding, distraction and fatigue. Through timely alerts, personalised coaching and actionable insights, drivers and fleet managers can make informed decisions, ultimately fostering a safer driving environment.

What makes the initiative unique?

The Driver-i platform leverages AI and computer vision for proactive driver monitoring. This technology shifts the traditional approach by continuously analysing driver performance and detecting potential risks in real time, providing objective feedback based on extensive video data. Key aspects of its uniqueness include:

- Exceptional accuracy and precision of up to 99%, which is uncommon in complex AI systems
- The platform's analysis is informed by 14 billion miles of driving data, collected across diverse road conditions, driving patterns, terrains, and weather, ensuring high accuracy
- Its intelligent system can assess two seemingly low-risk behaviours and determine if they combine to create a high-risk situation requiring immediate action
- The platform also emphasizes positive reinforcement, rewarding good driving practices, which gradually fosters safer driving behaviour

Impact & Beneficiaries

1) **Accident Reduction:** Companies using real-time driver behaviour analysis and actionable feedback saw a 50% reduction in accidents within just a few quarters.
2) **Incident Decrease:** An 80% decrease in incidents and violations was reported by a global petroleum company in India after implementing the system.
3) **Improved Driver Alertness:** Writer Safeguard, part of the Hitachi group, experienced a 74% reduction in driver drowsiness and a 38% drop in distracted driving within a year.
4) **Driving Score Impact:** A 300-point improvement in Netradyne's Driving Score (on a 1000-point scale) led to a 55% reduction in accident rates.
5) **Environmental Benefits:** Adoption of defensive driving habits contributed to optimized fleet operations, reducing fuel consumption and lowering carbon emissions.



Category III:

Initiatives/Interventions by Logistics/Private Transport Providers



Category Description

(Educating and protecting drivers, focus on passenger and cargo safety, adhering to strict safety protocols, investing in advanced technologies, preventive maintenance of fleet, identifying and mitigating road safety risks and any other programmes / projects relevant to road safety.)

DP World

Road Safety Initiative: Fleet Hardware (Electronic Stability Control System & Tailgating System for trucks)



Initiative Overview

Implemented: January 2024

Implementation City/State: Delhi NCR, Maharashtra, Andhra Pradesh

In acquiring new truck trailers for operations, DP World integrated the latest HSE technical specifications, including Electronic Stability Control (ESC) and a Tailgating system.

i) The ESC system enhances trailer stability by detecting sudden shifts in the truck's centre of gravity. It automatically applies the brakes during harsh cornering, hard braking, or speeding, helping to prevent rollovers and improve overall vehicle control.

ii) Addressing the high risk of reverse collisions, the tailgating system uses proximity sensors to eliminate blind spots at the rear of the truck. It automatically halts the vehicle if an obstacle is detected, thereby preventing accidents while reversing.

These fail-safe systems act as engineering safety barriers, ensuring that even in cases of human error, the technology will minimise harm. These systems also come with a commercial benefit as they are an attempt towards kick-starting a safer truck movement for Indian roads.

What makes the initiative unique?

Currently, these technologies are not widely adopted in the industry. This initiative aims to set a new standard by integrating ESC and Tailgating systems into truck specifications. These systems function as engineering controls rather than administrative ones, providing a fail-safe mechanism to prevent accidents. By implementing these upgrades, it is an industry-wide drive towards transformation, promoting safer practices, and reducing rollover and reversing incidents in the trucking and logistics sectors.

Impact & Beneficiaries

By procuring 46 of these advanced trucks, DP World's initiative has also set a benchmark in encouraging industry-wide adoption of such transformative technologies.

It caters to truck drivers, road users, society (all vehicles) and logistics corporates /businesses.

Transport Corporation of India Ltd (TCIL)

Road Safety Initiative: TCI Safe Safar



Initiative Overview

Implemented: January 2019

Implementation City/State: 11 states

Launched in 2019, the TCI Safe Safar initiative aims to improve road safety awareness and elevate the role of drivers in the transport and logistics sectors. The program focuses on driver welfare and education, recognizing drivers as essential to global industries and economies. Reaching over one million people across India, TCI Safe Safar uniquely engages audiences through traditional nukkad nataks, using local performances to deliver messages on safety, health, and environmental awareness. The initiative highlights drivers as heroes, promoting safer roads and earning several awards, including the James Tye Award (British Safety Council, 2020) and FICCI Road Safety Awards (2019).

Operating across 11 states, the initiative, with over 550 events held at key truck terminals and industrial hubs nationwide, is also committed towards sustainability. Two dedicated trucks travel the country, promoting environmental stewardship and road safety, wherein Truck 1 focuses on green technologies and sustainability in the north and west regions; Truck 2 emphasises safety practices in the south and east regions.

Vision for the future includes:

- **Vision 2030:** Introduction of an electric vehicle (EV) truck to promote sustainable logistics and reduce carbon footprints
- **Pod Series:** Sharing stories of resilience and change in the transport industry to garner public support
- **Spreading Awareness:** Academic case studies, school programs, and initiatives like "Voice of Driver" to educate and inspire future leaders

What makes the initiative unique?

The initiative distinguishes itself in the realm of road safety with its innovative and comprehensive approach. By integrating advanced safety technologies, extensive outreach, and a strong focus on driver well-being, it goes beyond conventional programs. Prioritising rigorous driver training, continuous support, and health management, it also aimed to create a sustainable model that not only reduces accidents but also fosters long-term safety practices.

Impact & Beneficiaries

- Collaborated with over 100 corporates, providing resources, venues, and platforms to extend the initiative's reach
- Active social media campaigns like 'Dhanyawaad Drivers' and 'Dhyaan Do Jaan Nahi' foster a committed online community for road safety and sustainability
- Reached 1,144,819 people, covering 51,164 kilometers and engaging 29,681 drivers
- Health camps for drivers are conducted, often in collaboration with TCI Foundation's 'Khushi Clinics'



Category IV:

Road Safety Initiative/ Intervention by Infra/ Road Companies



Category Description

(Focus on Incorporation of safe systems approach during design and construction stages of road network, construction zone safety, road network maintenance strategies, blackspot identification and rectification measures, improvement of junctions / dangerous road sections, road safety audits and ratings and any other programmes / projects relevant to road safety.)

Sekura – Epic Concesiones 3 Ltd

Road Safety Initiative: Speed Calming System (SCS)



Initiative Overview

Implemented: August 2023

Implementation City/State: Harur & Lingampally, Telangana

The 'Speed Calming System (SCS)' is an industry-first AI/ML-based road safety system, which uses behavioural science principles to improve traffic safety. The SCS detects various traffic violations common on Indian roads and displays the violator's vehicle registration number (VRN) on an electronic signboard. This immediate visibility encourages immediate corrective action and fosters sustainable positive behavioural change in driver, leading to calming of traffic.

The SCS includes two overhead gantries positioned approximately 300 m apart on the approach to accident-prone locations (grey/black spots). These gantries feature a violation detection system and an electronic display system, that includes:

(a) **Detection Gantry:** Located about 600 m before the accident-prone location, this gantry is equipped with a custom-developed proprietary AI-Based Camera system with thermal & ANPR cameras. It profiles & counts vehicles while detecting a wide range of traffic violations and capturing VRNs in a multi-lane environment on the Highway.

(b) **Display Gantry:** This features Variable Message Signboards (VMS) installed for each lane. It is integrated with detection gantry, showing speed & VRN of the violating vehicle in near real-time.

Based on the gravity of violation, colour-coded display of speed/VRN on relevant VMS heightens the impact on both violators and compliant road users alike, triggering a sustainable behavioural change well before reaching the dangerous location and calming traffic. Its versatility makes this solution an invaluable tool for agencies committed to improving road safety.

What makes the initiative unique?

One of the most unique aspects of the initiative is that this solution aligns with the SDG-3.6, aiming for a 50% reduction in road traffic injuries by 2030. The SCS stands out as a cost-effective solution that combines detection, violation/VRN display, and evidence collection into one system.

Unlike conventional radar-based systems, which are expensive and limited to speed detection, the innovative AI-based camera solution addresses a broader spectrum of traffic violations in Indian context, including speeding, wrong-side driving, unauthorized parking, abrupt overtaking, lane discipline breaches, seatbelt & helmet violation, triple riding, jay walking, illegal pedestrian crossing, oversized vehicles, and more. While the traditional system focuses on punitive measures like fines, which are effective only if the violator survives the violation, the SCS promotes lasting behavioural change without relying solely on penalties. It retains the capability to provide evidence for enforcement when needed. The system's cost effectiveness and easy replication make it suitable for deployment on NHs and state highways or any other roads in developing countries where similar to Indian traffic violations are rampant.

Welspun Enterprises Ltd

Road Safety Initiative: Varanasi-Aurangabad Road Project (VARP)



Initiative Overview

Implemented: September 2021 (Commencement)

Implementation City/State: Uttar Pradesh & Bihar

The VARP is designed to enhance safety, efficiency, and environmental sustainability along this key corridor. It incorporates the following range of measures to educate road users, improve infrastructure, and integrate advanced technologies:

- Installation of 5,560 traffic signboards to guide drivers
- Delay starters in rollers and safe starters in graders to prevent accidental starts
- Light Dependent Resistor (LDR) switches to reduce electrical consumption and promote energy efficiency
- Use of cones, drums, barricades, and delineators to manage traffic flow, with portable Variable Message Signs (VMS) and arrow boards for additional guidance
- Provision of temporary footpaths and crossing points, with clear guidance, and kerb ramps or raised footpaths to assist differently abled and visually impaired individuals; water-filled barricades to protect pedestrians and cyclists near excavation sites
- Speed control measures including speed breakers and raised rumble strips, supplemented by warning signs and appropriate lighting

- Warning lights at the ends of barriers, reflective materials on pedestrian barriers, and clear signage for footpath blockages, along with temporary pavement markings and road studs for direction
- Transit mixers equipped with back cameras to enhance visibility and reduce collision risks; vehicles fitted with GPS-based speed detection systems to monitor and deter speeding and reckless driving
- Large retroreflectors on the rear of construction vehicles to improve nighttime visibility
- An app-based system integrated into 11 ambulances for faster accident response; an emergency response vehicle with hazard warning flashers for prompt incident management
- Solar road studs at diversions to enhance nighttime visibility, and solar chevron blinkers to improve safety on curved roads and diversions at night; deployment of trained flagmen with protective gear, using flags and sign paddles for effective traffic control

What makes the initiative unique?

The strategic importance of the Varanasi-Aurangabad Road Project is underscored by its span across the states of Uttar Pradesh and Bihar, serving as a vital connector between New Delhi and Kolkata. This project links key economically significant cities such as Kanpur, Varanasi, Aurangabad, and Durgapur to the broader national network, thereby facilitating enhanced regional connectivity and economic integration. It also commits majorly to ESG goals.

Impact & Beneficiaries

- Reduced travel time between Varanasi and Aurangabad by an hour
- Enhanced commuter convenience and safety
- Utilised eco-friendly materials like Pond Ash instead of natural soil
- Minimised ecological impact
- Reduced fuel consumption and carbon emissions

The implementation of road safety measures in the Varanasi-Aurangabad road project benefits a wide array of stakeholders, significantly enhancing the well-being of the public, commuters, and vulnerable groups such as children, the elderly, and disabled individuals. Drivers and pedestrians in these regions experience increased safety through improved road conditions, better signage, and designated pathways. Commuters, including public transport users, benefit from safer transit environments, while local businesses enjoy reduced congestion and a safer environment for their employees and customers.



Category V:

State Government Road Safety Initiative/ Intervention



Category Description

(State Government / Road Safety Authority / Road Safety Lead Agency of the state who are constantly committed to reduce road crashes in their state by preparation and execution of road safety action plans, building safer roads, institutional strengthening, improved enforcement, framing effective road safety rules, statutory framework and any other programmes / projects relevant to road safety.)

State Transport Authority, Odisha

Road Safety Initiative: Project SuVahak – HMV Driver Training Programme



Initiative Overview

Implemented: 2011 (ongoing)

Implementation City/State: Odisha

Project SuVahak is a first-of-its-kind state-level HMV driver training programme launched in Odisha to enhance road safety and improve driver skills. The project aims to provide drivers with job opportunities in India and internationally. Training is conducted across the Institute of Driving Training and Research (IDTR) in Odisha.

Currently, four IDTRs are operational in the state, located in Chhatia, Bonai, Palur, and Keonjhar. The IDTR campuses are tobacco-free and offer inclusive training to prisoners, transgender people, and women. This initiative mainly focuses on reducing accidents and fatalities and encourage change in driver behaviour on road.

What makes the initiative unique?

The initiative takes a holistic approach, including policy formulation, infrastructure development, and technological integration to enhance road safety. Additionally, it also engages the community by raising awareness and improving their capacity to contribute to road safety.

Impact & Beneficiaries

Drivers trained under project SuVahak have so far maintained a zero-accident record.

The project caters to any licensed driver, including former prisoners, transgenders, and women.



Category VI:

Road Safety Initiatives/ Interventions by Automobile Companies



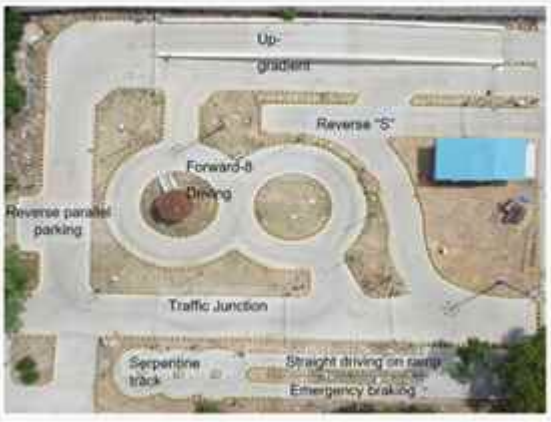
Category Description

(Automobile organizations committed to making vehicles safer on the road by improving vehicle designs, material improvement, leveraging smart technologies such as ADAS etc)

Maruti Suzuki India Ltd

Road Safety Initiative: Automated Driving Test Tracks

TRACK DESIGN





Initiative Overview

Implemented: 2017

Implementation City/State: Multiple states (Delhi, Haryana, Uttarakhand, Uttar Pradesh, Bihar)

The process for granting driving licenses lays the foundation for road safety, since it contributes to the quality of drivers and road safety awareness. Maruti Suzuki is working to improve road safety since decades and has taken significant strides to strengthen the process of driving test required for obtaining a license through its ADTTs.

The project, executed under the public private partnership (PPP) model with the state transport departments, aligned with the centralised Drivers of Motor Vehicles Rules. The organisation has constructed automated scientifically designed test tracks and uses the latest technologies to evaluate driving skills required for obtaining a driving license. The tracks assess crucial driving skills on scientifically laid tracks, including reverse parallel parking, overtaking, traffic junction navigation and gradient tests for four-wheelers. Two-wheeler applicants undergo tests, such as navigating a serpentine track, emergency braking and balancing strip. The smartphone-based Harnessing Auto Mobile for Safety solution is jointly developed by Maruti Suzuki's Institute of Driving and Traffic Research (IDTR) and Microsoft Research India to provide a safe, automated and transparent driving license test process.

What makes the initiative unique?

This solution offers scalability, making it cost-effective and accessible for a large volume of tests. The use of smartphones for monitoring and evaluation adds a level of versatility not commonly found in traditional testing methods. The automated driving test tracks addresses issues related to subjectivity and inconsistency in manual testing. By automating the evaluation process, the solution ensures a more objective, standardised, and impartial assessment of driving skills. The initiative also emphasises data-driven insights, providing detailed reports on an applicants' performance.

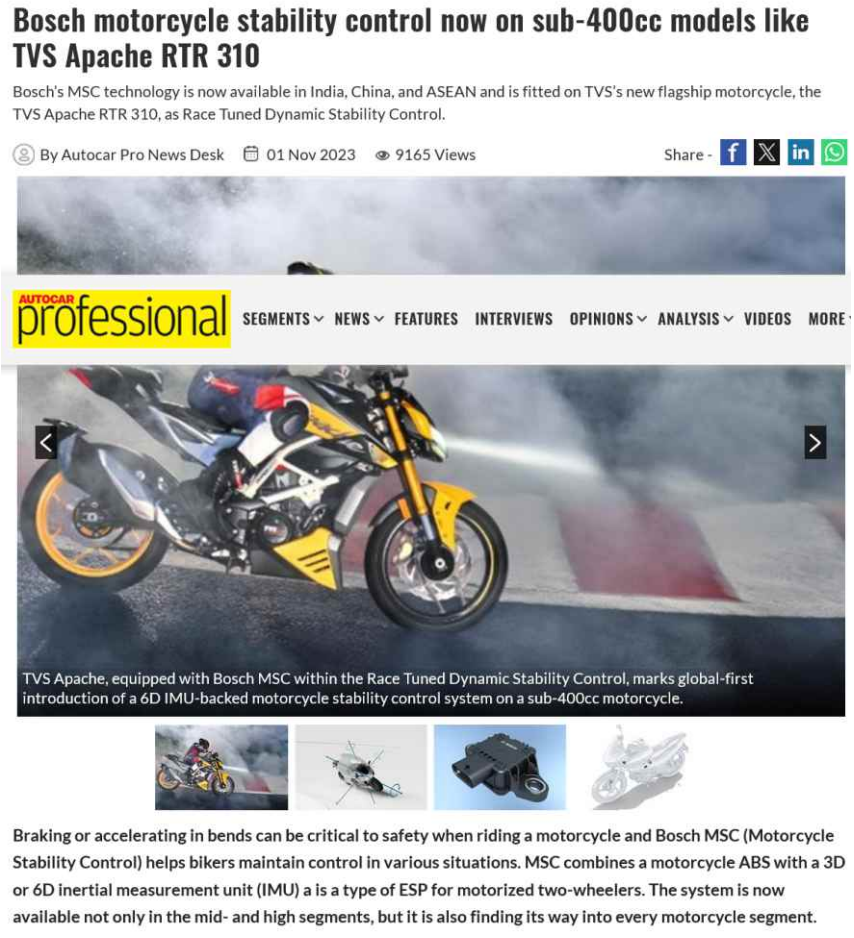
Impact & Beneficiaries

- Total tests on ADTT (since inception till June 2023): 6.44 Lacs; Pass rate under ADTT: 52.66% (Pass rate during manual method of driving skill evaluation: 84.16%)
- With licenses being prime to getting employment as drivers, the project is a game-changer. Soon after the introduction of ADTTs and standardization of testing, the pass percentage of the applicants dipped sharply to about 34%. Now, the progressively increasing pass percentage indicates that the candidates are coming better prepared for their driving test

The solution caters to driving license-issuing centres, driving license seekers, and road users at large.

Bosch Ltd

Road Safety Initiative: MSC (Motorcycle Stability Control) for All



Bosch motorcycle stability control now on sub-400cc models like TVS Apache RTR 310

Bosch's MSC technology is now available in India, China, and ASEAN and is fitted on TVS's new flagship motorcycle, the TVS Apache RTR 310, as Race Tuned Dynamic Stability Control.

By Autocar Pro News Desk 01 Nov 2023 9165 Views Share -

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TVS Apache, equipped with Bosch MSC within the Race Tuned Dynamic Stability Control, marks global-first introduction of a 6D IMU-backed motorcycle stability control system on a sub-400cc motorcycle.

Braking or accelerating in bends can be critical to safety when riding a motorcycle and Bosch MSC (Motorcycle Stability Control) helps bikers maintain control in various situations. MSC combines a motorcycle ABS with a 3D or 6D inertial measurement unit (IMU) a is a type of ESP for motorized two-wheelers. The system is now available not only in the mid- and high segments, but it is also finding its way into every motorcycle segment.

Initiative Overview

Implemented: September 2023

Implementation City/State: Pan India

With the vision, "No more fatalities for motorcyclists in road traffic,' Bosch launched the MSC (Motorcycle Stability Control) for all, in an attempt to prevent motorcycle accidents. Research by Bosch indicates that MSC can reduce motorcycle accidents in curves by up to 5% in Germany, while ABS reduces accidents in straight lines by 26%.

MSC comes in where things get critical for motorcyclists - when leaning and in bends. The braking and acceleration during cornering is especially critical for motorcycles because curves increase the demand on the rider's attention and ability to react. The system works by supporting the rider in wide range of situations - during both braking and accelerating, and while either riding straight or while cornering. The MSC system

can control the distribution of braking & traction forces using an algorithm that considers all available vehicle information such as wheels, vehicle attitude & powertrain. With its ability to control fundamental vehicle dynamics, the MSC system is a basis for further development & integration of comprehensive safety systems.

What makes the initiative unique?

Historically, MSC has been used in larger motorcycles, but Bosch aims to make this technology more accessible. In 2020, a new MSC variant was introduced with a 3D inertial measurement unit for the KTM RC390, balancing safety and affordability for smaller models. In 2023, another MSC variant was launched for emerging markets, such as India, with the TVS Motors RR310.

Impact & Beneficiaries

About 2 million+ riders are the primary beneficiary of MSC for all for being most vulnerable on roads. The secondary level of beneficiaries will range from every possible asset in this road eco-system.

Tata Motors

Road Safety Initiative: PRIMA – Smart & Safe Truck



Initiative Overview

Implemented: August 2022

Implementation City/State: Maharashtra; Jamshedpur, Jharkhand

The TATA Motors PRIMA truck initiative addresses the critical issue of truck occupant fatalities in India, where approximately 10,500 such incidents occur annually. Traditional passive safety systems alone are insufficient for addressing the safety needs of trucks due to their size and weight. Therefore, Tata Motors has integrated Advanced Driver Assistance Systems (ADAS) in the new PRIMA trucks to enhance safety.

Key safety features include (these advanced safety features are designed to significantly reduce the likelihood and severity of accidents):

- Collision Mitigation System (CMS): Predicts vehicle movements, detects traffic hazards, and initiates automatic braking if a collision is imminent, enhancing road safety.
- Lane Departure Warning System (LDWS): Monitors lane markings using front-facing cameras, providing alerts for unintended lane drifts at speeds above 60 km/h.
- Driver Monitoring System (DMS): Detects driver drowsiness and distraction, offering alerts to prevent accidents and support driver coaching.

- Electronic Stability Control (ESC): Prevents skids and maintains traction, improving handling and reducing rollover risk.
- Hill Start Assist (HSA): Prevents rollback on inclines, aiding safer driving on steep or slippery roads.
- Tyre Pressure Monitoring System (TPMS): Monitors tire pressure to reduce blowouts, improve fuel efficiency, and extend tire life.

What makes the initiative unique?

These have been developed specifically for Indian road conditions, and these algorithms ensure high responsiveness and effectiveness in various traffic scenarios. The trucks provide real-world simulations and customer-centric targets used to elevate system performance, with rigorous testing on proving grounds to ensure reliability and effectiveness. They have been designed to accommodate 95% of the population, the DMS functions effectively with various face coverings and ensures optimal visibility while maintaining head injury zone clearance. With advanced settings, the DMS features integration with IVN (CAN, Wi-Fi, UDS) and is FOTA-enabled, providing seamless updates and connectivity.

Impact & Beneficiaries

The solution caters to drivers and helpers (vehicle occupants), Vehicle Road Users (VRUs) like pedestrians, bicyclists, etc.

FICCI

Category VII:

Initiatives or Interventions by STUs/Councils/ Associations/Government & Allied Bodies, NGOs

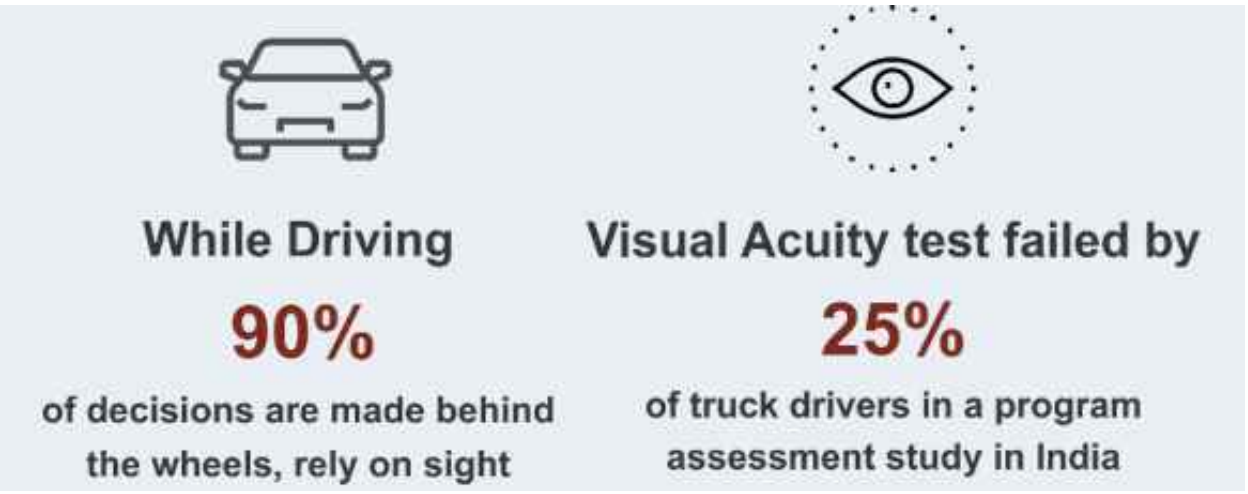


Category Description

(STUs/ Councils/ Associations/ Govt. & Allied bodies (NGOs) making a positive impact on society by their outstanding road safety interventions / initiatives)

VisionSpring Foundation

Road Safety Initiative: 'See to Be Safe' Initiative



Initiative Overview

Implemented: January 2019 (ongoing)

Implementation City/State: Pan India

VisionSpring Foundation's See to Be Safe initiative is aimed at screening commercial drivers and allied transport workers across India to enhance road safety, improve occupational health and boost economic productivity. By ensuring that drivers have a clear and healthy vision, the initiative focuses on reducing the risk of accidents caused by poor eyesight, especially for those who spend long hours driving. Regular vision screenings help identify and correct vision problems among transport workers, contributing to their overall health and wellbeing, and improving their work performance and quality of life.

Additionally, the initiative raises awareness about the importance of eye health through educational campaigns and workshops, informing drivers about the availability of affordable vision care solutions. By collaborating with various stakeholders, including transport companies, government agencies and healthcare providers, the Foundation ensures the widespread reach and sustainability of the programme.

What makes the initiative unique?

In this ground-breaking initiative, follow-up support is also provided to new eyeglass wearers. This initiative improves vision, road safety, and economic productivity, benefiting both individuals and communities.

Impact & Beneficiaries

- Screened 3,94,092 commercial drivers & allied transport workers across India since 2019
- Yielded significant improvements in the vision capabilities of 2,08,829 individuals, who experienced an 85% improvement in their ability to identify moving objects in low-light conditions at night
- About 72% of recipients received eyeglasses for the first time and identification of cataracts and other eye diseases with subsequent referrals for treatment
- About 80% (1,96,545) individuals reported improvement in their ability to drive safely at night
- About 83% improvement reported by 2,03,915 individuals in their capacity to judge the distance and speed of oncoming vehicles, a critical skill for making accurate and timely decisions on the road

The initiative caters to drivers and allied transport workers.





Category VIII:

Contribution by Institutes of Higher Education & Research Organisations



Category Description

(Universities, Colleges, Research Organizations contributing to road safety in the form of peer-reviewed research publications and any other programmes / projects relevant to road safety)

JP Research India Pvt Ltd

Road Safety Initiative: Road Accident Sampling System – India (RASSI)



CONDUCTING CAPACITY BUILDING TRAINING PROGRAMS ON "SCIENTIFIC ROAD CRASH INVESTIGATIONS AND DATA COLLECTION" FOR POLICE OFFICERS AT VARIOUS LOCATIONS

Initiative Overview

Implemented: April 2011 (ongoing)

Implementation City/State: Multiple states (Gujarat, Rajasthan, Maharashtra, West Bengal, Uttarakhand, Tamil Nadu)

The Road Accident Sampling System - India (RASSI) is a pioneering initiative for data-driven crash investigations in India. Since its inception in 2011, RASSI has expanded across six states and collected data on over 7,000 crashes. The initiative involves investigating around 900 crashes annually with detailed analyses, including scene examination, injury analysis, and vehicle inspections. Data from these investigations supports vehicle design improvements, infrastructure enhancements, and safety technology evaluations. RASSI's database aligns with global standards and is used to inform road safety policies, support OEM safety systems, and train over 300 officers annually. The initiative provides comprehensive insights into crash dynamics, contributing factors, and safety interventions.

Its key benefits include:

- Utilises a Haddon Matrix approach to identify crash contributing factors
- Includes pre-crash data reconstruction for up to five seconds

- Supports data-driven safety interventions and technology evaluations, including ADAS
- Enhances vehicle design, safety devices, and emergency care through injury analysis
- Provides infrastructure insights and recommendations to government agencies
- Aids policy making and research, with 56 published papers
- Trains over 300 officers annually on scientific crash investigations and data collection

What makes the initiative unique?

Due to its comprehensive and rigorous approach, the initiative utilises a robust statistical model for national projections. It collects detailed data on over 500 parameters related to vehicles, infrastructure, and human factors, ensuring compatibility with international systems such as IGLAD and NASS/CDS. RASSI employs standardised data coding and advanced tools for crash reconstruction and analysis, adhering to internationally accepted injury scaling norms. This thorough methodology enables clear identification of contributing factors, which supports effective mitigation measures. Endorsed by major automotive OEMs, component manufacturers, and research organizations, RASSI provides credible data essential for research and policymaking.

Impact & Beneficiaries

The research system caters to:

- Auto OEMs (4/3/2 wheelers)
- Research agencies like ARAI and JPR Inc for evaluating effectiveness of safety tech
- Industry expert bodies like ITTAC for component/parts/tyre behaviour
- Central/state authorities for enabling data driven decisions and policy interventions
- Road safety committees, Police and other stakeholders

FICCI

Category IX:

Innovative Education Programme on Road Safety by Schools

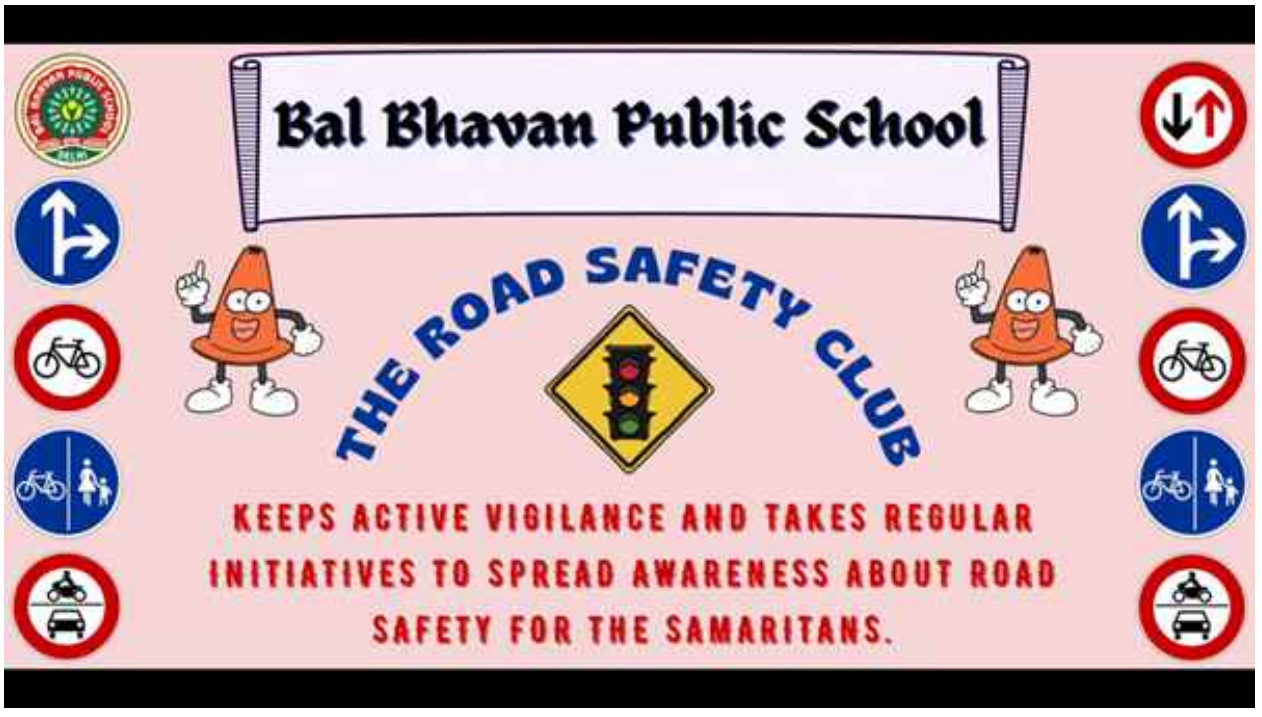


Category Description

(Education institutions (Primary, Middle and High Schools, Pre-University Colleges) that have incorporated road safety education programmes in their curriculum (Formal / Informal) and to raise awareness in road safety via road safety campaigns / clubs and any other programmes / projects relevant to road safety.)

Bal Bhavan Public School, Mayur Vihar

Road Safety Initiative: Sculpting Responsible Samaritans Through Quality Education



Initiative Overview

Implemented: 2010

Implementation City/State: Mayur Vihar, Delhi

With a vision to sculpt responsible Samaritans and imparting quality and mindful education at school level, Bal Bhavan Public School, Mayur Vihar has implemented various programmes aimed at fostering awareness and responsible behaviour among students, staff, and the community. Workshops, webinars, and hands-on activities have been conducted to educate students on road safety, traffic rules, and the importance of responsible conduct. The school has also engaged in partnerships with road safety personnel and organizations, organized competitions, and participated in events like Road Safety Week to further emphasize the significance of road safety. The initiatives include practical measures such as carpooling, helmet use, and adherence to traffic regulations by school bus drivers.

The school's efforts extend to the community through workshops, assemblies, and volunteer programs, all aimed at creating a safer road environment. The Road Safety Club plays a crucial role in managing traffic within the school premises and promoting a culture of safety. The impact of these initiatives is evident in the enhanced knowledge and awareness among students and the broader community.

What makes the initiative unique?

The school's Road Safety Program is unique due to its comprehensive, age-appropriate approach and community-wide engagement. Tailored activities for each grade, from traffic rules for nursery kids to discussions on road traffic injuries for senior students, ensure relevant and effective learning. The standout features include active participation in community events like Raahgiri Day and collaborations with Delhi Traffic Police, reinforcing our commitment to road safety beyond the classroom. Practical implementation, such as promoting carpooling among teachers and ensuring drivers follow safety regulations, integrates road safety into daily routines. Engaging all stakeholders-students, parents, teachers, and staff-our program fosters a culture of safety. Regular interactive sessions, expert webinars, and creative activities empower students to be proactive road safety ambassadors, ensuring lasting impact and a safer community.

Impact & Beneficiaries

The sessions and programme have been instrumental in students' understanding of road safety, increasing their mindfulness of the rules, and showcase of responsible behaviour. Students find the participation at the club fun and educational.

The workshops and sessions have been able to educate students, parents, and staff, creating a comprehensive approach to safety.

Bal Bharati Public School, Pitampura

Road Safety Initiative: 'Be a Road Safety Champion' by VROOM



Initiative Overview

Implemented: 2014 (ongoing)

Implementation City/State: Pitampura, Delhi

Bal Bharati Public School, Pitampura, established 'VROOM,' a Road Safety Club dedicated to creating road-smart and responsible citizens. The club engages students, parents, staff, and the wider community in various activities aimed at promoting road safety. These activities include street plays, workshops, online competitions, pledge ceremonies, signature campaigns, field trips, and more. The club collaborates with organizations such as HeroMotoCorp, NDTV, PVRNest, FICCI, and Delhi Traffic Police to amplify its efforts in spreading awareness. The initiative integrates road safety into the curriculum and seeks to involve the entire community in fostering a safer road environment.

The school has implemented several road safety measures:

1. The use of two-wheelers by students is banned, with strict action against violators.
2. Carpooling is practiced by both staff and parents.
3. Staff members leave the school after student dispersal to avoid road congestion.

4. A signature campaign among parents and neighbourhood societies has been positively received to raise awareness.
5. Regular workshops by the Traffic Police have enhanced safety knowledge among students, drivers, and helpers.
6. Each school bus is monitored by a teaching staff member and a helper, with cameras installed for safety.
7. Parking areas have been mapped and demarcated for smoother dispersal, with designated spots for parents, buses, visitors, and staff.

What makes the initiative unique?

The school views road safety as an ongoing commitment, aiming to shift responsibility from authorities to individuals for creating safer roads. The school engages students of all ages in road safety activities, encouraging innovative ideas and actively channeling their efforts. The students' participation and recognition at national platforms, such as CBSE, Delhi Technical University, and Indian Agricultural Research Institute, highlight the success of this initiative.

Impact & Beneficiaries

The club caters to students, the staff of the institution, along with the parents of the students, the immediate neighbouring schools and the residents of the area benefitted from our endeavours. The traffic police personnel also appreciated the efforts that eased the traffic situation of the vicinity resulting in reduced cases of on-road snarls and accidents around the school. The innovative idea of creating E.R.O.S (Emergency Response Operating System) will definitely prove helpful at a global level.

Category X:

Healthcare Sector for Road Safety



Category Description

(Hospitals, Medical Colleges / Universities, Emergency response service providers, societies working in post-crash care scenarios / others who have contributed to the establishment of state-of-the-art accident trauma care centre, advanced life support ambulances, golden hour care and any other programmes / projects relevant to road safety.)

Maruti Suzuki India Ltd

Road Safety Initiative: First-Aid Trauma Care Training for Drivers





Initiative Overview

Implemented: **2022**

Implementation City/State: Multiple states (Delhi, Haryana, Bihar)

As part of its CSR initiative, Maruti Suzuki partnered with IRF-IC to provide First-Aid Trauma Care training to drivers enrolled in the IDTRs in Delhi, Haryana, and Aurangabad (Bihar). This training is crucial for drivers as it can save lives, minimise injury severity, reduce healthcare costs, lessen psychological trauma, and enhance road safety.

Participants included IDTR staff, HMV drivers, truck drivers, and bus conductors. The programme began with a road safety anthem, followed by brief sessions on road safety, the 'Good Samaritan Law', and the 'Golden Hour Concept'. The First-Aid Trauma Care training featured an audiovisual session, hands-on demonstrations, and detailed explanations, covering topics such as traumatic and non-traumatic injuries, CPR (cardio-pulmonary resuscitation), victim care, splint and sling use, proper helmet removal, bleeding control, victim transportation, abdominal thrusts (Heimlich Maneuver), and log-roll techniques. Additional training addressed medical emergencies like dog bites, snake bites, seizures, drowning, choking, and burns.

What makes the initiative unique?

This customised programme provides practical hands-on life-saving interventions to enable drivers to handle trauma and injuries. This could prove effective in reducing road accident fatalities, particularly of VRUs under the Good Samaritan Law.

Impact & Beneficiaries

After a driver's training in trauma care, they have been able to provide basic life-saving interventions such as stopping bleeding, clearing the airway, and administering CPR, which can significantly increase the chances of survival of an injured person.

The programme caters to IDTR staff, HMV drivers, truck drivers, bus conductors, etc.



About FICCI

Established in 1927, FICCI is the largest and the oldest apex business organisation in India. Its history is closely interwoven with India's struggle for independence, its industrialisation, and its emergence as one of the most rapidly growing global economies.

A non-government, not-for-profit organisation, FICCI is the voice of India's business and industry. From influencing policy to encouraging debate, engaging with policymakers and civil society, FICCI articulates the views and concerns of industry. The organisation serves its members from the Indian private and public corporate sectors and multinational companies, drawing its strength from diverse regional chambers of commerce and industry across states, reaching out to more than 2,50,000 companies. FICCI provides a platform for networking and consensus building within and across sectors and is the first port of call for Indian industry, policymakers, and the international business community.