

4. Bharat NCAP 2.0

The Ministry of Road Transport and Highways (MoRTH) has released a draft notification for Bharat NCAP 2.0, proposing a comprehensive upgrade of India's passenger-vehicle safety rating system effective October 2027.

Key Framework Changes Proposed in Bharat NCAP 2.0

1. Five-Pillar Rating Structure (Major Overhaul) - The updated system moves away from the traditional focus on just adult and child safety to a holistic real-world safety framework. The new five pillars are -

Crash Protection (Passive Safety) - Assesses structural integrity, airbag efficacy, seatbelt restraint systems, and energy absorption capability. Focuses on survivability in high-speed frontal and side-impact collisions.

Vulnerable Road User (VRU) Protection - Evaluates injury risk to pedestrians, cyclists, two-wheeler riders, and children interacting with vehicles. Includes tests on bumper design, bonnet deformation, and sensor-based pedestrian detection.

Safe Driving (Driver Monitoring) - Examines driver-assistance and fatigue monitoring features like seatbelt reminders, speed assist, lane-keeping support, and distraction warnings.

Accident Avoidance (Active Safety) - Gives weight to advanced safety technologies like Autonomous Emergency Braking (AEB), ESC, Blind Spot Detection, stability control, and collision avoidance systems.

Post-Crash Safety (Emergency Response) - Assesses seatbelt unlock ability, fire risk, e-call functions, emergency exit ease, high-voltage battery protection in EVs, and medical rescue facilitation. This multi-layered rating system aligns Bharat NCAP with Euro NCAP 2030 protocols.

2. New Eligibility Conditions

Vehicles must have the following features *as standard* to qualify for evaluation -

1. Electronic Stability Control (ESC)
2. Side Head Protection Devices (curtain airbags)

This ensures that only vehicles meeting a minimum safety baseline can be rated, lifting overall safety standards across segments.

3. Shift in Rating Philosophy

Earlier Approach - Dominated by *crashworthiness* (AOP, COP) + limited safety assist.

New Approach

1. Greater weight to *accident prevention* (AEB, ESC, ADAS).
2. Enforces *road-user safety*, not just occupant protection.
3. Rewards vehicles providing better post-crash survivability.

This encourages manufacturers to integrate ADAS Level 1 & 2 capabilities, improving real-world safety.

4. Timeline - New norms are proposed to take effect from October 2027, after the present norms expire on 20 September 2027. Gives automakers sufficient time for redesign, sensor integration, and re-engineering.

Bharat NCAP (Expanded)



Definition & Purpose

1. Bharat NCAP is India's independent car safety rating system that evaluates the crash safety performance of vehicles sold domestically.
2. Rates vehicles on a 0–5-star scale for adult occupant protection and child safety.
3. Objectives include -
 1. Reducing Road fatalities
 2. Improving vehicle safety
 3. Empowering buyers
 4. Encouraging manufacturers
 5. Making Indian cars export-ready

Launch and Oversight - Launched by the Ministry of Road Transport & Highways (MoRTH) on 22 August 2023. Administered as an independent authority, though supported technically by MoRTH. Testing governed by AIS-197 standards — India's equivalent of global NCAP safety protocols.

Vehicle Categories Covered - Right-hand drive passenger vehicles under 3,500 kg GVW.

Includes - 1. Internal Combustion Engine (ICE) cars

2. CNG/LPG variants

3. Electric Vehicles (EVs)

Hybrids, SUVs, hatchbacks, and sedans are also eligible.

Vehicles are Tested - Voluntary participation by manufacturers (or government nomination). Assesses protection for -

1. Head
2. Neck
3. Chest
4. Knee
5. Pelvis
6. Abdomen

Evaluates -

1. Airbag effectiveness

2. Crash pulse
3. Shell integrity
4. Child restraint systems
5. Seatbelt reminders
6. Structural stability
7. High-voltage safety (EVs)

Bharat NCAP 2.0 Was Needed

1. India's High Road Fatality Burden – India accounts for 11% of global road deaths despite having only 1% of the world's vehicle population. Highlights gaps in both vehicle safety and driver behaviour.

2. Safety of Vulnerable Road Users (VRUs)

1. Pedestrians, cyclists, and two-wheeler users face the highest risk.
2. VRUs constitute ~50% of road fatalities in India.
3. Previous NCAP protocols did not adequately address this segment.

3. Rise in High-Speed Mobility – Expansion of expressways, access-controlled highways, and higher-speed road infrastructure increases –

1. Impact severity
2. Risk of fatal crashes
3. Need for active safety technologies

4. Need for Global Alignment

1. India aims to be an automobile export hub.
2. Upgraded norms help align with –
 1. Euro NCAP
 2. ASEAN NCAP
 3. Global NCAP Vision 2030

Ensures Indian vehicles meet global safety expectations.

Significance of Bharat NCAP 2.0

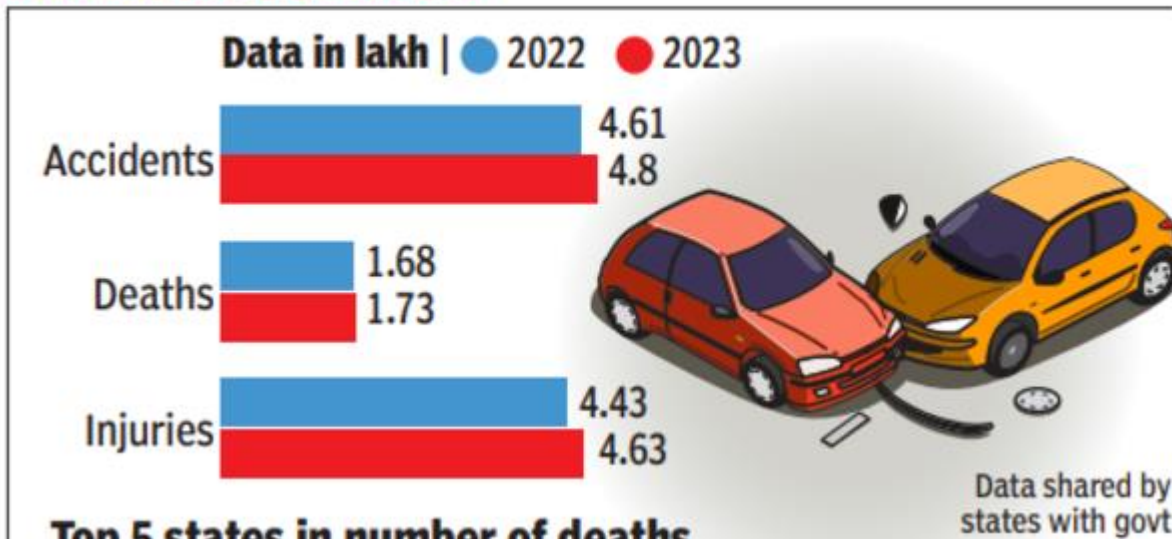
For Buyers (Consumer Benefits)

1. Provides clearer, more comprehensive safety ratings.
2. Covers *both* crashworthiness and crash-avoidance technology.
3. Helps families choose safer vehicles beyond marketing claims.
4. Improves consumer awareness on structural integrity and ADAS features.

5. 2. For Manufacturers (Industry Impact) – Encourages adoption of

1. ESC
 2. AEB
 3. Lane assist
 4. Pedestrian protection tech
 5. multi-airbag systems
 6. High-strength steel and EV battery safeguards
6. Pushes Indian automakers to match –
1. Euro NCAP
 2. Japan NCAP
 3. Australian NCAP standards
7. Enhances export competitiveness and global acceptance of Indian cars.

MEAN STREETS



Top 5 states in number of deaths

State	Fatalities		Increase (%)
	2022	2023	
Uttar Pradesh	22,595	23,652	4.7
Tamil Nadu	17,884	18,347	2.6
Maharashtra	15,224	15,366	1
Madhya Pradesh	13,427	13,798	2.8
Karnataka	11,702	12,321	5.2
Rajasthan	11,104	11,762	5.9

For Road Safety Goals (National Impact) – Strengthens India's commitment to

1. Reducing Road fatalities by 50% by 2030 (UN Decade of Action for Road Safety).
2. Improving emergency response and post-crash care.
3. Prioritising safety of VRUs, not just occupants.

Supports India's broader Vision Zero goals for road safety.

Conclusion

Bharat NCAP 2.0 marks a decisive shift towards real-world, technology-centric, consumer-driven safety standards. By integrating active safety, ADAS, VRU protection, and post-crash rescue, the upgraded framework pushes India's automotive ecosystem into a global safety benchmark era. With implementation from October 2027, the reforms will significantly influence car design, engineering, and safety culture in India.

Source - <https://www.indiatoday.in/auto/latest-auto-news/story/bharat-ncap-20-draft-know-whats-new-and-different-2825123-2025-11-24>