



Safer Cars for ASEAN Region

New Car Assessment Programme For Southeast Asia (ASEAN NCAP)

Professor Dr. Wong Shaw Voon
Chairman, ASEAN NCAP

165th World Forum for Harmonization of Vehicle Regulations
Geneva, 10 - 13 March 2015

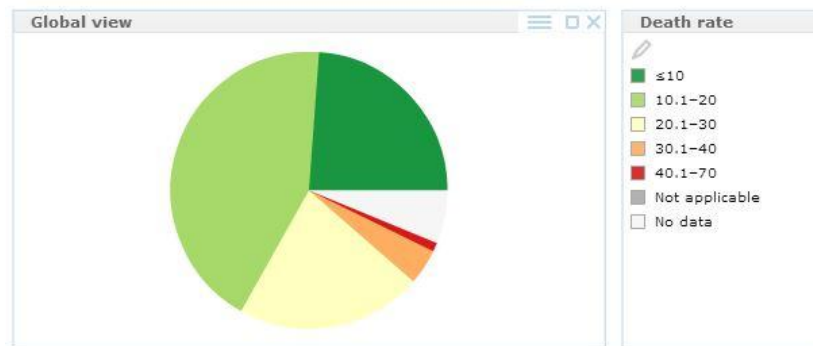


Executive Summary

- New Car Assessment Program for Southeast Asia region (ASEAN NCAP) has been established since 8th December 2011.
- Ever since, we have assessed 34 models from 18 car manufacturers all over the world.
- We have tested 17 from Top 20 Manufacturers of ASEAN countries.
- We covered minimum of 50% from the TIV of ASEAN Markets.
- ASEAN NCAP (4-star) widely accepted as reference 'standard' for countries without crash regulation.

- ASEAN NCAP understood that new technology has been developed rapidly in the area of driving assist. ASEAN NCAP encouraged manufacturer to develop and equip the latest vehicle with the system with **priority** to be given to a system which able to help to reduce motorcyclist incidents and fatalities.
- The roadmap has been produced through open and close consultation with car manufacturer, NCAPs colleagues and ASEAN NCAP Stakeholders.

The Road Traffic Injury Problem



Country	Index
Singapore	5.1
Brunei	6.8
Philippines	9.1
Myanmar	15.0
Cambodia	17.2
Indonesia	17.7
Laos	20.4
Vietnam	24.7
Malaysia	25.0
Thailand	38.1

Road safety death rate (per 100,000 population)
Global status report on road safety 2013

- In order to achieve desirable result in future, priority need to be given based on road user.
- Distribution of road safety deaths by road user type as follows;

Country	4 wheels	2/3 wheels	Cyclist	Pedestrian	Others
Indonesia	6.1	35.7	1.7	21.1	35.4
Laos	14.6	74.4	1.3	6.3	3.4
Malaysia	26	58.7	2.8	9.1	3.4
Myanmar	26.2	22.9	8.6	26.5	15.9
Singapore	8.8	46.1	8.3	28.5	8.3
Thailand	13.3	73.5	3.0	7.8	2.5
Cambodia	11.8	66.6	4	12.0	5.7

- The developing country will require a convenience mobility. Motorcycle will be efficient non safe mobility.
- Tata has introduced the “0 Star” Tata NANO in Myanmar.
- In Cambodia, dumping grounds for second hand car from developed countries?. ASEAN NCAP hopes that the imported second hand car will satisfy minimum safety level to reduce mishaps.
- It will be ASEAN NCAP responsibility to drive manufacturer to provide a safer car to be offered for the region.
- **safety** can and must be affordable.
- **Safety** is not a privilege of the rich, but the right for all.

- Our outcome depends on what we focus.
- There is a need to understand 15-29 years old group socio demographic in ASEAN for better implementation of strategy.
- Minimize their exposure to non safe mobility by providing safe and affordable alternatives.
- Producing safer and affordable vehicle. ASEAN NCAP encourage and challenge manufacturer to produce safer and safer vehicle.

- As a conclusion, producing safer mobility is not rhetoric. Understanding industry situation and consistently negotiate to produce the utmost result is the best way to handle NCAP program in the region.
- Definitely, producing affordable safer vehicle will be one of the road safety solution, but not the total solution.
- There is **millions on non-safe** vehicle running on ASEAN streets, its unfinished business of vehicle safety fighters.

➤ ASEAN Top 3 Vehicle Production Statistics 2014

World Ranking	Country	Passenger	Commercial	Total	Percentage
9	Thailand	1,122,780	1,409,797	2,379,806	2.73%
15	Indonesia	925,111	283,100	1,208,211	1.38%
22	Malaysia	540,200	55,970	596,170	0.68%

vehicles registered
2013 – 3.4 million
2014 – 3.1 million

Strategic Approaches

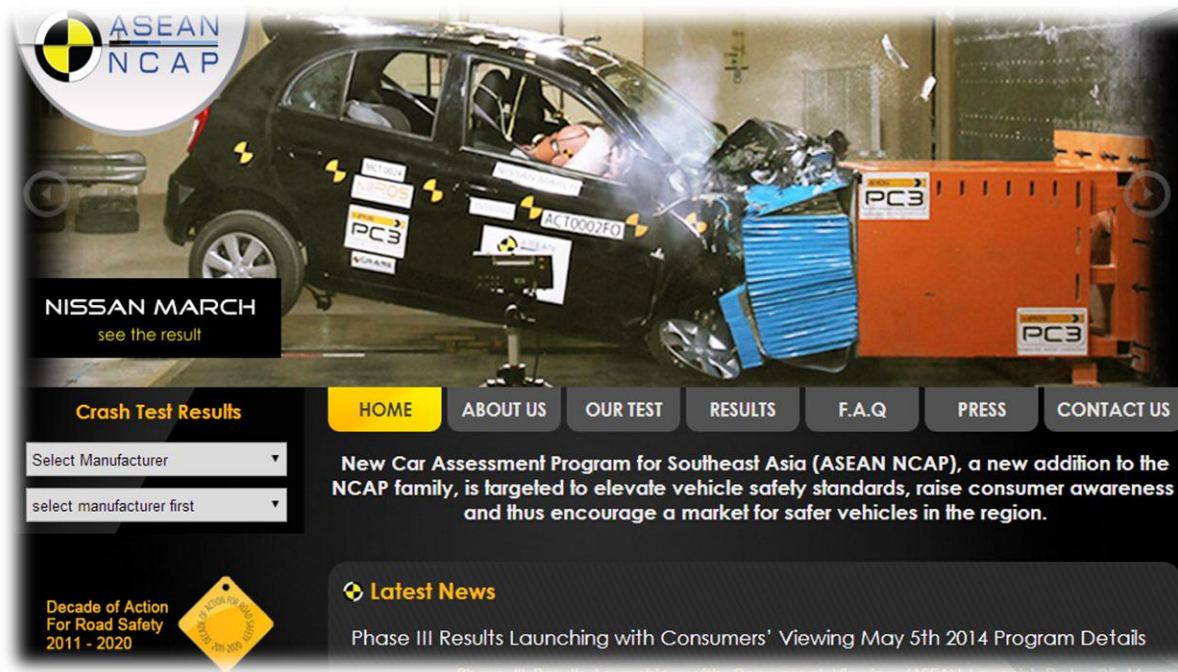
- For ASEAN NCAP to achieve its target, several strategic approaches have been addressed for immediate execution;
 - Reliable database of road fatalities and accidents
 - Effective communication with consumer and stakeholders.
 - Encouragement of crash avoidance technology fitment especially related to collision with motorcycle.
 - ❖ Supporting motorcyclist PPE and active safety devices i.e. ABS for Motorcycle.
 - Promoting safer cars.
 - Removal of non safer cars from the system
 - ❖ Highlights on the aged car and after-repaired issues - crashworthy and roadworthy.
 - Improving safety beyond rating (Research Test i.e. braking and pedestrian).

➤ Website – aseancap.org

Crash test results

News & press release

Link to other media/social media



➤ Social/Electronic Media

- Facebook
- Twitter
- Flickr (photos)
- Youtube Channel
- Wikipedia

➤ Exhibitions

➤ Relationship with media and OEMs' media reps

- Press release
- Bloggers
- OEMs' ads mentioning ASEAN NCAP

➤ ASEAN Community

- Universities/Higher Education
- Automobile Associations



Encouragement of Crash Avoidance Technology

- Focus to avoid collision with motorcycle.
- The recent technology of AEB must work for avoiding or mitigating collision with m/c, otherwise the great potential impact of AEB is not unlocked to the region.
- Lane watch and BSI that work to prevent collision with m/c
- Although ASEAN NCAP highly promoted the fitment of latest crash avoidance technology in our market, the focus should be on how we can save **motorcyclist**.



- Simple yet effective solution would be able to reduce motorcyclist casualty.

Promoting Safer Cars

- ASEAN NCAP focus on Top 30 of ASEAN volumes with minimum of 4-star rating.
- However, it is very dynamic and keep changing position year by year.
- To maintain the exclusivity of Top 30, ASEAN NCAP reconsidering to further looks into Top 50 for ensuring the safety quality of Top 30 cars.
- Manufacturer is encouraged to launch the new vehicle with rating.

- ASEAN NCAP also need to consider other people movers such as Van, because it is also among top 30 vehicle i.e. Daihatsu Granmax, Suzuki Futura, Mitsubishi L300).
- A special edition of ASEAN NCAP may be introduced in special phase to cover this type of vehicle.

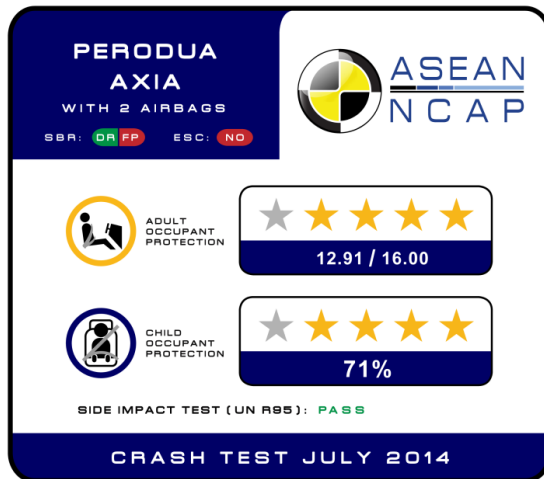


Promoting Safer Cars

- ASEAN NCAP fully support the **Global NCAP Fleet Safety Guide and Safer Car Purchasing Policy 2014-2015.**
- Although ASEAN NCAP mainly about passenger cars, there should be a synergize activity to level up motorcycle safety. ABS system, passive safety of car for motorcyclist
- ASEAN NCAP would play a major role in encouraging partnership with Motorcycle industry.

Affordable Safety

- During the starting of ASEAN NCAP, many have commented that “safety = expensive”, now we finally can enjoy 4-star car with affordable price.
- **RM24,900 / THB 250K / IDR 92M / SGD 9800 / USD 8000 / EU 6000 / YEN 800K**



Assessed by ASEAN NCAP

Type	Phase 1	Phase 2	Phase 3	Phase 3+
<u>Pick Up</u>			Chevrolet Colorado [5,4] Isuzu DMax [4]	
<u>Sedan</u>	Ford Fiesta [5] Honda City [5] Toyota Vios [4] Proton Saga [3]	Nissan Almera [4] Mazda 2 [4] Honda Civic [5,4] Toyota Prius [5]	Proton Preve' [5] Toyota Corolla Altis [5,4] VW Polo Sedan [4] Chevrolet Sonic [4]	New Honda City [5,4] Nissan Teana [5]
<u>Small Car</u>	Nissan March [4] Hyundai i10 [2] Perodua MyVi [3]	Mitsubishi Mirage [4] Suzuki Swift [4]	Peugeot 208 [4] Kia Picanto [4,0]	New Jazz [5,4] Perodua AXIA [4] New Proton [5] Tata Vista [3] New MyVi [4]
<u>MPV</u>		Toyota Avanza [4] Daihatsu Xenia [4] Perodua Alza [4]		
<u>SUV</u>		Mitsubishi Pajero Sport [4] Subaru XV [5]	Honda CR-V [5,4]	

- Pre-ASEAN vehicles on the road
- Some old cars are not crashworthiness and roadworthiness – mainly for mobility needs.
- ASEAN NCAP is exploring for methods to discourage the usage of such.



- Pick Up is the most selling vehicle in the region.
- Thus crash compatibility between Pick Up versus another vehicle has to be explored.



- To stabilize the rating and maturing the development of new vehicle, ASEAN NCAP will maintained its current protocol until end of 2016 except for Side Impact R95 requirements.
- Starting 2015, Side Impact R95 is mandatory for 3-star car and above.
 - For option test with launching, R95 certificate is acceptable.
 - Other than above, test need to be conducted at ASEAN NCAP official laboratory.

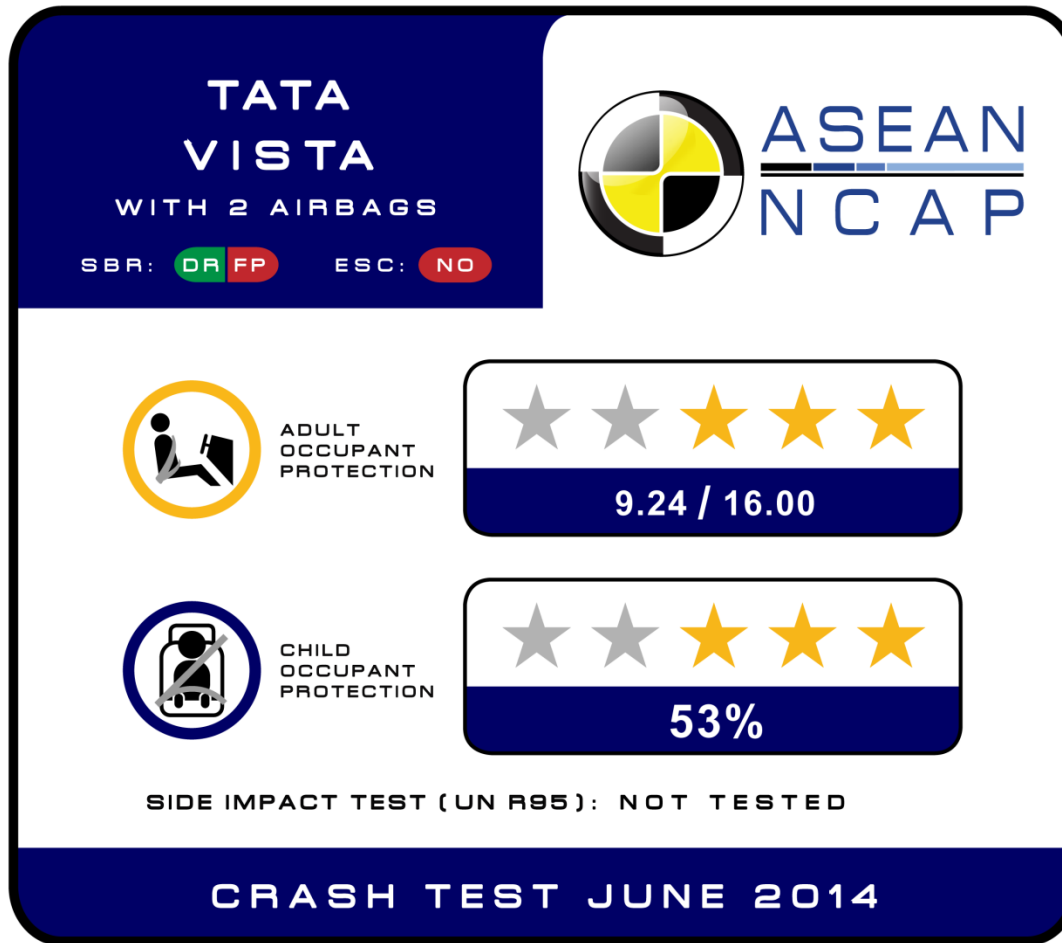
From current to 2016

- To ensure the repeatability and quality, ASEAN NCAP is undertaking reassessment or audit test at the moment.
 - ❑ Priority to the car that has extended their ratings for example MIRAGE to ATTRAGE.
 - ❑ Deviation of safety items for example the introduction of new variant without top tether where else it was tested with it before.
- Working on New Rating and possible testing protocol. Technical Committee will announce by January 2016.

➤ ASEAN NCAP wish to focus on developing new testing regime as below;

- New combined rating system
- Frontal Occupant Protection
- Lateral Occupant Protection
- Child Occupant Protection
- Safety Assist Technology






- Although 5-star+ is not introduced; the new rating will separate higher achievers from the ordinary 5-star.
- Also to ensure the proper distribution of weightage for each star ratings.
 - Previously, difference between 5 & 4-star is by ESC & SBR. 4-star doesn't need to have any SBR, ESC or even ABS.

- ASEAN NCAP has witnessed many miss use of dual ratings.
 - Usually display higher variant.
- This is not effective for ASEAN as a region
 - 4-star label may be display in country where only 0-star variant is available.
- ASEAN NCAP notes of the recent development of Euro NCAP – from single to dual star rating.
- ASEAN NCAP understands the move is to promote more safety assist technology in a mature market.
- Hence, for ASEAN NCAP foresee that single rating is more effective for the region to promote safer vehicle.

- New Rating would be separated in 3 categories;
 - Adult Occupant Protection (AOP)
 - Child Occupant Protection (COP)
 - Safety Assist Technology (SAT)
- The new rating may be as the followings:
 - AOP (50%) [current]
 - COP & SAT (25%+25%=50%) [future]

ASEAN NCAP: Safer cars for today and future

2017 Rating System	AOP		COP		Safety Assist		
	ODB	16	Dynamic Assessment Frontal	16	Effective Braking & Avoidance	7	
	Full Frontal	2	Dynamic Assessment Side	8	Seat Belt Reminders	6	
	SIDE	16	Installation of CRS	12	AEB City	1	
	Head Protection Tech.	2	Vehicle based assessment	13	Blind Spot Technology	1	
					Advance SAT	2	
Max.Score (1)		36		49		17	
Normalized score (2)	actual score / (1)		actual score / (1)		actual score / (1)		
Weighting (3)	50%		25%		25%		Overall Score
Weighted Score	(2) x (3)		(2) x (3)		(2) x (3)		Total
Rating	minimum: normalised (2) / actual score by box for the respective star rating						Min. Overall Score
5-star	80%	28.8	80%	39.20	60%	10.2	80%
4-star	70%	25.2	70%	34.30	50%	8.5	70%
3-star	50%	18.0	50%	24.50	30%	5.1	60%
2-star	30%	10.8	30%	14.70	20%	3.4	55%
1-star	20%	7.2	20%	9.80	10%	1.7	45%

Frontal Occupant Protection

- Development of new test protocols i.e. full frontal etc.
- Minimum points for 5-star, will current 14 points good enough or too stringent.
- Will further analyze by considering compatibility study, pre-NCAP vehicle real world crashworthiness study.
- The main debate will be portion of frontal in combined rating, thus detail study need to be done.
- Additional test protocols will be explored. ASEAN NCAP will also refer to the Euro NCAP latest plan on offset front impact protection (to improve structural engagement for a broad range of vehicles)

Lateral Occupant Protection

- Portion of combined ratings need to be developed based on real world crash study.
- New NCAP side impact test will be considered together with Q1.5 & Q3 dummy.
- Development of Curtain Airbag Evaluation to replace pole test.

Child Occupant Protection

- Q1.5 & Q3 expected to be delivered to MIROS PC3 by End of 2015.
- Development test will start by 2016.
- New point system will be introduced.
- Why not having our own **ASEAN NCAP Child Seat?** Possible solution for safer, affordable and practical CRS.

Safety Assist Technology

- Protocols for SBR and ESC need to be developed within 2015.
- Will be follow closely the Euro NCAP case study on PTW 2017/2018, especially on AEB development for Motorcycle
- Shall prioritize on SATs that suitable to save motorcyclist in ASEAN region.
- Suitability of the system/device in the region has to be explored together with OEM.

**Thank you for your
attention**

Copyright Statement

This work is the intellectual property of ASEAN NCAP. Permission is granted for this material to be shared for non-commercial, educational purposes, provided that this copyright statement appears on the reproduced materials and notice is given that the copying is by permission of ASEAN NCAP. To disseminate otherwise or to republish requires written permission from ASEAN NCAP.