

# NANO—A NIGHTMARE

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Nothing has generated as much hyperbole in the global automobile industry in recent years as the unveiling, last month, of an ultra-cheap bare-bones car made by the Tatas, India's steel and engineering giant.

Priced at 2,500 US dollars, the 'Nano' is arguably the world's cheapest four-wheeled passenger vehicle.

However, the 'dream car' may turn out to be an ecological nightmare and a not-so-safe driving machine, without airbags to protect riders or anti-lock braking systems. It could prove a menace to India's already congested roads, and a source of enormous pollution and of health damage, besides becoming a drain on public resources.

Above all, it will set back the all-important fight against global warming, in which the Indian government is at best a reluctant partner who refuses to accept any time-bound commitment to reduce his greenhouse emissions, now growing three times faster than the world average.

According to management experts, the car has created a new paradigm of "frugal engineering" and will trigger breathtaking innovations in manufacturing technology in the global automobile industry based on severe cost-cutting.

Yet, despite stripping the Nano down to its most rudimentary dimensions to produce what a United States media presenter termed as "a golf cart crossed with a jelly bean", Tata Motors is unlikely to be able to fulfil its 2,500 price promise for long.

"In fact, the figure is an introductory offer excluding taxes and local duties; on the road, the car will actually cost between 3,310 – 3,819 dollars," says Dinesh Mohan, a transportation expert and professor of biomedical engineering at the Indian Institute of Technology, Delhi. "And that's the initial cost of the bare-bones model. Other versions, including an air-conditioned model, will cost more."

Tata Motors chairman Ratan Tata has already hinted that the introductory price may not last long. "We may not be able to hold the price emotionally. We have to understand that steel and tyre prices...are rising," he said, while launching the car.

He recalled that in 1983, the Maruti 800 car made in India by Suzuki too was offered at 1,145 dollars, but the price almost doubled within a year.

The Nano's ultra-low price tag covers major subsidies offered by the Marxist government of West Bengal, where the car will be manufactured. According to former state finance minister Ashok Mitra, the subsidies (210 million dollars) work out to one-fourth of the car project's initial capital cost.

The Left Front state government has leased 997 acres of land to the Tatas virtually free, with no down-payment. It's also advancing them a 50 million dollar loan at one percent interest and further granting an exemption from the value-added tax for 10 years, amounting to 125 million dollars.

If the indirect subsidies given to private automobiles through the free use of roads and parking space are added, cars like the Nano would no longer be ultra-cheap to the point of being ironic.

Hype about "the world's cheapest car" apart, the Nano is deeply flawed because of inadequate safety features and emission standards, say environmentalists and experts.

"This car is likely to have low longevity and high maintenance costs," commented Mohan. "It already fails the current Western emission and safety standards, and will soon fail Indian standards too as India adopts the 'Euro-IV' emission norms applicable in many European Union countries."

The ruthless way the Tatas have pared down the Nano's costs has meant cutting many corners to stay focused on frugality and minimalism.

For instance, the Nano's designers reportedly used a hollow shaft instead of a solid beam to connect the steering-wheel to the axle, and plastics and adhesives in place of many studs and bolts. The car's low-performance wheel bearings may wear out rapidly beyond 70 kmph.

It has only one windshield wiper instead of two. It uses belt-driven continuous variable transmission, which slows down acceleration. To save merely ten dollars the suspension was redesigned to eliminate devices called actuators, which adjust the angle of the car's lights to the way it's loaded.

"Such measures are likely to have an impact on the car's safety, sturdiness and durability/longevity," adds Mohan. "Some of it will only become apparent once the car has been on the road for a few years. It's premature today to certify that the Nano is safe and reliable."

Tata's claim that the Nano has passed the crash test and meets the national emission standards called Bharat-II and -III has not been verified by an independent and competent agency. Besides, Tata himself admits that the Nano, as of now, falls short of the Euro-IV standards.

"India should have adopted these norms long ago, but delayed doing so under the automobile lobby's pressure", says Anumita Roychowdhury of the Centre for Science and Environment (CSE), an internationally-known green lobby in New Delhi.

Euro-IV norms will come into force in India's major cities in April 2010 and are considerably stricter than Bharat-II or III, which are 10 to 5 years behind Europe. For instance, under Euro-IV, sulphur emissions must be reduced 35-fold in relation to Bharat-II.

"Similarly, key safety standards are long overdue in India which has unacceptably high road accident and casualty rates," adds Roychowdhury. "They are on their way. These include full-body crash tests -- which determine how cars will crumple in collisions, minimising the impact on passengers—airbags and anti-lock braking systems. Implementing them will raise the Nano's claimed costs by 40 to 50 percent."

"It's not good enough to have safety systems; cars must be frequently and rigorously inspected after they have experienced actual roads conditions, which often affect the systems that control emissions. This rarely happens in India," Mohan said. Michael Walsh, a pollution consultant and former US Environmental Protection Agency regulator, has been quoted as saying that a car as cheap as the Nano is likely to lack the complex technology needed to maintain its initial level of emissions, and it could soon produce four to five times its initial

pollution levels. "It strikes me as impossible that such a vehicle will be a very clean vehicle" over its lifetime, he told *The New York Times*.

The Tata car will set a trend under which industry will take advantage of India's existing poor emission standards and rush to produce new vehicles before better standards are in place.

Scooter manufacturer Bajaj Auto has already announced that it will make a 3,000 dollar car in collaboration with Renault. Volkswagen, Nissan and General Motors are also considering plans to make stripped-down cars priced between the Nano and the Maruti 800.

The addition of these vehicles will further slow down traffic in Indian cities-- whose speed has considerably decreased, and in some case halved in recent years.

It will greatly add to pollution, which has reached critical levels in 57 percent of Indian cities and is generating a health havoc, with disorders ranging from respiratory illnesses and hypertension to obesity.

India and China are emerging as leaders in low-cost car manufacture and consumption. In India, forecasts a consultancy firm, an additional 30 million households will be ready to buy a small car by 2010 --20 times the present market size.

By 2013, India's car market will be annually growing at 14.5 percent, and China's at just over eight percent. By 2020, some forecasts say, more than 150 million Indians and 140 million Chinese will have cars.

If this really happens, it will become nearly impossible to achieve major reductions in global greenhouse gas emissions. China and India account for 70 percent of the global increase in energy demand over the past two years.

If the "Nano trend" continues, the small window of opportunity to control spiralling energy use and greenhouse emissions will slam shut. If India is serious about reversing climate change, it must rethink its automobile policy. *—IPS*