CONTRO - MARS - QUARTZ - 1202

India is quite capable of sending a rocket to Mars and fighting poverty at the same time

By Leo Mirani @lmirani November 5, 2013

Le 5 nov,

This morning, India successfully launched a rocket to Mars. Christened Mangalyaan, or Mars vehicle, the rocket is part of a scientific mission that cost a grand total of Rs 4.5 billion, or $73 million. In terms of the space business, that's a bargain. By contrast, NASA's next Mars mission will cost $671 million and do the same thing as India's craft: orbit the red planet collecting data.

+

The secret to India's low-budget space program is a simple one: operating within constraints and without luxuries. The Indian Space Research Organisation (ISRO) adapts what technology it can, strips out costs wherever it can and is staffed with modestly-paid yet incredibly hard-working scientists, explains the Economic Times. It is willing to take more risks, for example by building just one physical model of its craft compared to the three employed by NASA in case one fails. And it sets tight schedules to reduce costs even further.

+

Won't somebody please think about the children

Mangalyaan is an impressive achievement, both scientific and budgetary. But as several news reports have noted, India remains an extremely poor country with many millions still going hungry. One piece on a US site, headlined "India Swears Its Redundant, Mega-Priced Mars Probe Is Totally Worth It," is explicit: "How does a country with one of the lowest development levels in the world justify spending on a space program?" This is as familiar and predictable a formulation as the articles by foreign correspondents that begin by calling India a "land of contrasts" and note with wonderment the sight of slums and great luxury apartments existing side by side.

+

ISRO's founding father addressed this criticism several decades ago:

+

There are some who question the relevance of space activities in a developing nation. To us, there is no ambiguity of purpose. We do not have the fantasy of competing with the economically advanced nations in the exploration of the moon or the planets or manned space-flight. But we are convinced that if we are to play a meaningful role nationally and in the comity of nations, we must be second to none in the application of advanced technologies to the real problems of man and society.

+

Bangalored

Indeed, India's space research and other advanced technological efforts are what birthed its technology industry. Bangalore did not become a tech hub simply because of its pleasant weather and lovely gardens. It is the home of ISRO, the Defence Research and Development Organisation, Hindustan Aeronautics Limited, and other high-tech industries that created an environment for and pool of engineers.

+

Moreover, the $73 million India spent on Mangalyaan is hardly snatching food from the mouths of starving babies. Two months ago, the government signed into law the Food Security Bill, which will provide roughly 800 million Indians with subsidized food and cost just under an estimated $20 billion every year. Whether you think that the bill is an outstanding piece of humanitarian legislation or a colossal scam that will only enrich middlemen and bureaucrats, it is impossible to argue that Indian government is splashing out on sexy space rockets at the expense of the poor. Mangalyaan costs less than 0.4% of the bill's annual budget.

+

Questioning a poor country's decision to launch a space program also implicitly ignores the fact that rich countries have poor people too. In 1962, President John F Kennedy declared to Americans that "we choose to go to the moon." That year, 38.6 million Americans, or 21% of the nation (~~Excel file~~), lived below the poverty line. Last year, it was still 15%.

+