

India to Launch Its First Unmanned Moon Mission

By [VIBHUTI AGARWAL](#)

NEW DELHI -- Amid its first economic slowdown in three years, India is getting ready to shoot the moon.

On Wednesday, the country is scheduled to launch its first unmanned moon mission, when lunar spacecraft Chandrayaan-1 blasts into space aboard an Indian-made rocket from the Satish Dhawan Space Center in the country's south.

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India's Chandrayaan-1 spacecraft, under wraps in Sriharikota, will carry payloads for five other countries on its two-year lunar-orbit mission.

The launch will put India into an Asian space race, which last year saw Japan and China launch lunar orbiters. Sites in those countries are regularly used for launching commercial satellites.

The Chandrayaan-1 mission is the Indian Space and Research Organization's first attempt to propel a spacecraft beyond the Earth's atmosphere, although India has been launching suborbital satellites since 1975. About 1,000 scientists and engineers have worked on the lunar project for four years.

The \$80 million two-year mission -- during which the Chandrayaan-1 spacecraft is expected to orbit about 60 miles from the lunar surface -- will conduct a series of experiments on the moon's mineral, geological and chemical characteristics, as well as searching for evidence of water on the lunar surface.

Chandrayaan-1 is carrying payloads for 11 scientific experiments, including five from India, two from the U.S. space agency, NASA, and one each from Germany, Britain, Sweden and Bulgaria.

A successful launch will make India the third Asian nation to place a satellite in lunar orbit. China's Chang'e I lunar satellite was launched in October 2007, after Japan launched its Kaguya lunar orbiter in September.

India's space program has its critics. Some argue that the Indian government is spending millions on space exploration while ignoring poverty at home, where per capita income is less than \$1,000 a year, public health and education services are poor, and rising food and fuel prices are pinching citizens.

It also comes at a time when India's booming economic growth has begun to slow amid the global financial crisis. Inflation-adjusted growth in gross domestic product fell to 7.9% in the quarter ended June 30, falling below 8% for the first time in three years.

C.S. Unnikrishnan, a scientist with the Tata Institute of Fundamental Research, in Mumbai, says that the lunar mission is driven by ISRO's desire to promote its business arm. "This mission will only project ISRO as a major player in commercial launch systems," he said.

ISRO has launched satellites for customers from Germany, Belgium, Indonesia and Argentina since 2001. The global marketing wing of ISRO, Bangalore-based Antrix Corp. had revenue of \$192 million in the year ended March 31. Antrix says the "ISRO launch services are economical compared to other Asian competitors."

The lunar mission is strongly supported by India's Congress-led government and even the country's nationalistic leftist party leaders. "Opposing the mission would be demoralizing for our scientific community," says Atul Kumar Anjaan, national secretary of the Communist Party of India. "Such projects are a national pride and involve years of innovation."

Write to Vibhuti Agarwal at vibhuti.agarwal@wsj.com