

India's electioneers make bold pledges on science

Major parties back climate plan, but differ on nuclear policy.

Science features prominently in the manifestos of the main political parties contesting India's month-long general election, which began on 16 April.

The battle mainly involves two coalitions: the ruling left-of-centre United Progressive Alliance (UPA), led by the Indian National Congress (INC) party, and the National Democratic Alliance (NDA), led by the nationalist Bharatiya Janata Party (BJP). A third group made up of regional and Communist parties also has growing support. The five rounds of elections to select the 543 members of the Lok Sabha (the lower house of parliament) will last until 13 May, with the winners announced on 16 May and the new government taking power by 2 June. Pollsters predict that no party will win an absolute majority and expect another coalition government, with current prime minister Manmohan Singh in the frame to serve a second term.

Election promises made by the leading parties often fail to materialize, says physicist and former science minister M. G. K. Menon, although there have been significant exceptions in the past. "India's big leap in information technology today," he told *Nature*, "is the result of an election promise by the BJP in 1999, which was fulfilled during its rule."

During his five years in government, Singh has often emphasized the importance of science to the country's development. Singh's INC party has already committed to creating new Indian Institutes of Science Education and Research, and promises to continue its renewal of science and technology infrastructure "to attract and retain the best talent from India and abroad", according to its election manifesto.

But Thirumalachari Ramasami, who is secretary of the government's Department of Science and Technology, points out that although there is no shortage of political support for science in India, a key hurdle for further development is simply a lack of scientists. "We require people with ideas," he says, "but where are the people?"

Government spending on science research now stands at about 0.9% of gross domestic product, and is expected to rise to about 2% by 2012, says Krishnaswami Kasturirangan, who headed the Indian Space Research Organisation in 1994–2003 and who is now a member of the upper house of parliament, the Rajya Sabha. Kasturirangan believes that the growth in India's science spending is likely to continue towards that target whichever party wins power.



The BJP says that it aims to create funding mechanisms to promote basic research, although detailed plans have yet to be released. Citing biotechnology and materials science as priority areas, the party also promises to set up autonomous organizations to facilitate technology transfer from universities and national laboratories to industry, while giving academic institutions more freedom in spending

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SNAPSHOT

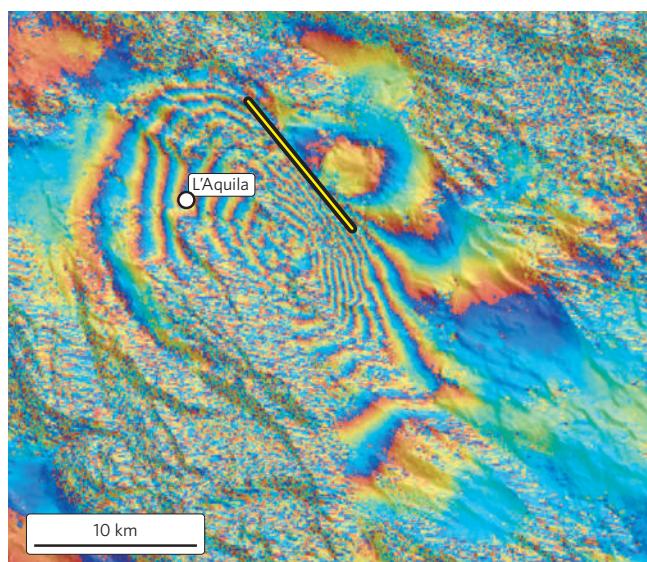
Motion detector

Satellite radar images are helping to pin down the origins of the magnitude 6.3 earthquake that devastated the Italian town of L'Aquila on 6 April.

Data taken before and after the quake by the Advanced Synthetic Aperture Radar instrument on the European Space Agency's Earth-monitoring satellite, Envisat, have been used to create an interferogram of the region (pictured). Each coloured fringe corresponds to 28 millimetres of ground motion, and shows that the ground east of the fault (shown) has risen while the basin containing L'Aquila has sunk. Geologists from the Institute for Electromagnetic Sensing of the Environment, part of the Italian National Research Council, and the National Institute of Geophysics and Volcanology in Rome produced the first interferograms of the site.

Richard Walters and John Elliott of the University of Oxford, UK, have now used the same data to model the earthquake, and concluded that the fault line ruptured for about 11 kilometres and slipped by about 80 centimetres.

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