

# समाचार पत्रों से चयित अंश Newspapers Clippings

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Wed, 15 Mar, 2017

(Online)

## **India Test Fires Supersonic Cruise Missile**

*India successfully test launched a BrahMos Extended Range missile on March 11.*

The Indian Ministry of Defense's research arm, the Defense Research Development Organization (DRDO), conducted a test launch of an extended range version of the BrahMos supersonic cruise missile from the Integrated Test Range at Chandipur off the coast of the eastern Indian state of Odisha on March 11, according to a statement by the Indo-Russian joint venture BrahMos Aerospace.

"In a historical first, the formidable missile system once again proved its mettle to precisely hit enemy targets at much higher range than the current range of 290 km, with supersonic speed of 2.8 Mach," the statement reads. According to sources, the standoff engagement range of the improved BrahMos will be approximately 600 kilometers.

"During the launch at 1130 hours, the land-attack version of the supersonic cruise missile system met its mission parameters in a copybook manner. It was a text book launch achieving 100 percent results, executed with high precision from the Mobile Autonomous Launcher (MAL) deployed in full configuration," the statement continued.

The BrahMos is a joint venture between DRDO and Russian rocket design bureau NPO Mashinostroyeniya. The jointly developed two-stage missile is a derivative of the Russian P-800 Oniks over-the-horizon supersonic anti-ship cruise missile and first entered service with the Indian military in 2006. It is twice as heavy and allegedly four times faster than the American Tomahawk subsonic cruise missile.

With top speeds of Mach 2.8 to 3, the BrahMos is considered to be the world's fastest cruise missile currently in operation. The BrahMos operates on a so-called fire and forget principle. The missile's terminal altitude is as low as 10 meters; the ship-launched anti-ship version of the BrahMos can fly three to four meters above the sea to avoid detection.

Both the land-launched and sea-launched variants of the missile are already in service. An air-launched version of the missile, the so-called BrahMos-A, is expected to become operational with the Indian Air Force in the near future. BrahMos cruise missiles of all variants can alternatively be fitted with conventional or nuclear warheads.

"With the successful test firing of BrahMos Extended Range missile, BrahMos-ER, the Indian Armed Forces will be empowered to knock down enemy targets far beyond the 400 kilometers. BrahMos has thus proved its prowess once again as the best supersonic cruise missile system in the world," the CEO and managing director of BrahMos Aerospace said following the successful test launch.

The upgrade of the missile followed India's entry into the Missile Technology Control Regime (MTCR), which removed caps on the missile's range. Previous restrictions prohibited Russia from supplying India with the necessary technology to do so.

## Rs 2.5 lakh cr worth products developed by DRDO

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The figure does not include the strategic systems the premier defence research organisation developed, Minister of State for Defence Subhash Bhamre said, replying to a question in Rajya Sabha.

He said the DRDO has spent a total of Rs 15,538 crore on various projects since 2013-14.

The Minister said over the past five decades the DRDO has developed large number of military systems, technologies and products and put their value at Rs 2.50 lakh crore.

Replying to a separate question, Bhamre said 92 contracts involving Rs 83,544 crore were signed with Indian vendors for procurement of various military systems including helicopters and missiles.

A total of 55 contracts for procurement of defence equipment and weapons were signed with foreign vendors during the period.

Bhamre said the expenditure on capital acquisition in 2015-16 was Rs 61,761 crore against the revised budgetary allocation of Rs 65,400 crore.

In the current fiscal the expenditure on capital acquisition was Rs 65,838 crore till February against revised estimate of Rs 71,700 crore.

To a question on one-rank-one-pension, the Minister said the number of eligible person for the benefit was 20,75,165 and a sum of Rs 12,456 crore has been allocated for the year 2016-17. The Minister said the first installment and lump sum amount has been paid to 19,93,815 beneficiaries for which Rs 4,076 crore were spent. The number of beneficiaries paid the second instalment was 15,57,950 for which an amount of Rs 2,298 crore has been disbursed.

To another question, Bhamre said based on operational requirement of army, construction/improvement of 530 roads have been included in the Long Term Roll on Works Plan of Border Roads Organisation.



## ‘Oily food kills more Jawans than bullets do’

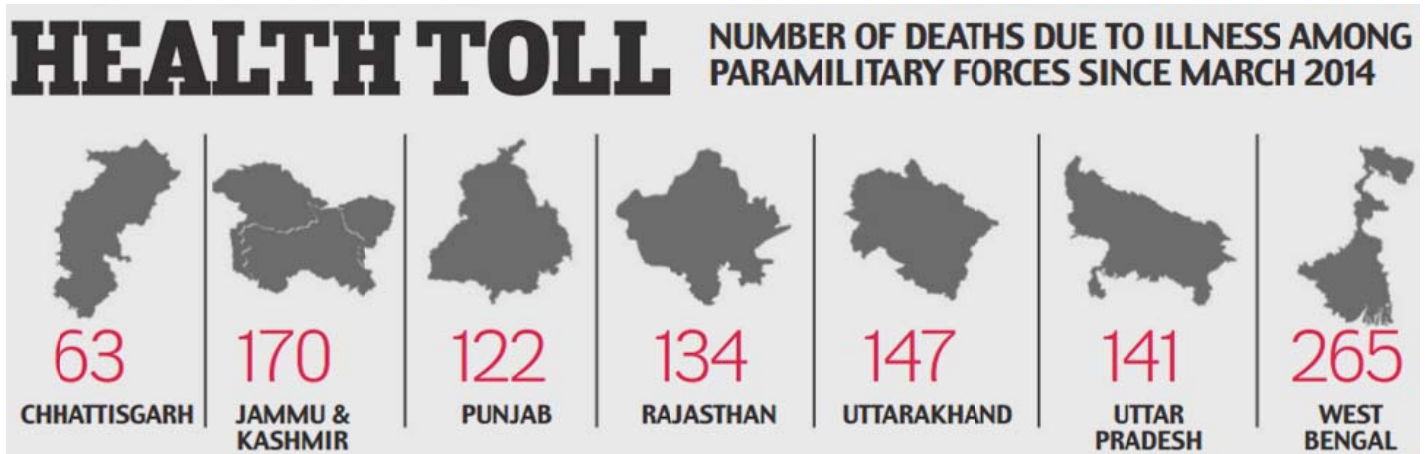
*MHA data shows paramilitary forces lose more men to weak hearts, diabetes etc than combat ops; experts blame poor diet*

A guerrilla attack by a troop of lifestyle diseases is taking down thousands of India’s soldiers. New statistics made available by the ministry of home affairs (MHA) reveal that the leading cause of death among personnel from the Central Armed Police Forces (CAPF), or paramilitary, is not combat but ill health.

The seven forces – CRPF, BSF, ITBP, SSB, CISF, NSG and Assam Rifles— have lost 1,067 men in combat or counter-insurgency operations over a period of three years and two months. More than thrice as many personnel— 3,611— have died due to illnesses. Former BSF chief DK Pathak says he had organised a review by the force’s medical directorate, which raised concerns.

“The study gave us an insight that heart diseases were the leading cause of deaths in forces, followed by suicides,” he said. “Further, every two months three soldiers were dying of heart attacks.” While BSF jawan Tej Bahadur complained of ill-cooked food and poor-quality ration in videos that created a flutter on social media this year, the findings of the medical directorate review paint a different picture. “Rich food, high cholesterol and poor lifestyle were taking a toll on the soldiers’ health, leading to high blood pressure, heart attack and diabetes,” said a consolidated study. The soldiers have been told to reduce girth as well as replace samosas and jalebis in their diet with fruits and salads.

Personnel from Punjab and some from Haryana faced more heart-related problems because of a high-dairy diet, said Pathak. The CRPF and BSF deployed in violence-racked Jammu and Kashmir, Naxal-infested areas such as in Chhattisgarh as well as West Bengal and Tripura have taken the most hits, the MHA data show. These parts are also turning out to be a stress graveyard for soldiers. While the highest number of combat-related casualties for the CAPF during the 38 months was in Jammu and Kashmir at 303 deaths for all ranks, Chhattisgarh was second at 163 followed by West Bengal at 70.



However, the race to death due to diseases or illnesses shows West Bengal taking the lead at 265, with J&K next at 170, followed closely by UP at 141, Rajasthan at 134 and Punjab at 122. Stress-triggered heart attack is turning out to be a major killer apart from a variety of diseases and illnesses, data show. Other identified causes are cancer, dengue, hepatitis B, jaundice, malaria, etc. While the instances of deaths due to HIV/AIDS and malaria went down in the paramilitary during this period, fatalities in rail and road accidents continue. Also, the lower ranks in the forces are more prone to diseases. A senior BSF officer said the increasing girth of soldiers has been a cause of concern.

“A number of initiatives are being taken by the force to ensure a healthy lifestyle among the personnel,” he added. The Border Security Force is tasked to secure the two most important borders of India with Pakistan and Bangladesh, besides being deployed for a variety of internal security duties including anti-Maoist operations. Last year, the then CRPF chief Durga Prasad discussed with the medical board deaths of personnel due to diseases, especially heart attack. Soldiers with smartphones were advised to download an app, which would monitor the heart and alert in case of any ailment.

Prasad told Mail Today, “Bad food, oily snacks, cholesterol-rich items have made their way to a soldier’s plate. We advise the soldiers that the ration is what they purchase with their money and they should choose a healthier option.” The CRPF in the last decade tried to tie up with culinary schools to teach the cooks to produce healthier food, but the plan failed. “We have a new MoU with skill development so that we can initiate training of cooks,” the former DG said.

“Besides, we’re introducing circuit training to improve cardiovascular activity in left-wing extremism areas as well as in limited format in J&K that is considered a hard duty.” Both forces though admit that factors such as constant threat to life and being away from family were adding to stress-related deaths. A senior officer said, “In the Naxal belt and Northeast, the forces have effectively managed malaria-related deaths, which have come down over the past years. But challenges remain nonetheless. An officer told Mail Today that many

soldiers with medical problems are posted in Punjab, Rajasthan and West Bengal as well as other cities for easy access to hospitals, which is why the CAPF have reported more deaths in these areas.

Fri, 17 Mar, 2017

# Bangladesh PM's visit may see key defence pact signed

**SIMRAN SODHI**  
TRIBUNE NEWS SERVICE

NEW DELHI, MARCH 16

Seven years after an invitation was extended to her, Bangladesh Prime Minister Sheikh Hasina will pay a state visit here from April 7 to 10. As India gets ready to woo Dhaka, President Pranab Mukherjee has extended the rare gesture of inviting Hasina to stay in the Rashtrapati Bhawan during her visit here.

India and Bangladesh are expected to sign a defence pact during Hasina's visit. The development is being seen as a sign of India's unease as China steps up the ante to forge closer ties with Dhaka.

It is reliably learnt that the



Sheikh Hasina, Bangladesh PM

defence pact will include training, sale of military hardware and military-to-military cooperation between the two countries. India is also willing to commit up to \$500 million in line of credit for military cooperation with Dhaka. The urgency for the pact comes from the Indian side.

Chinese President Xi Jinping's stopover in Dhaka last year, en route to Goa for the BRICS Summit, saw China sign pacts with Dhaka for an investment amounting to

\$25 billion. India would find it hard to match the Chinese generosity.

It is also significant that Hasina's visit here comes after the electoral victory of PM Modi in domestic polls. The Teesta water-sharing agreement has not been signed with Dhaka because of the objections of West Bengal CM Mamata Banerjee. The PM is likely to find it easier to press ahead with the Teesta agreement now.

Dhaka has complained privately that even though their government has been pro-India in its policies, the reciprocation from Delhi has been low. The Teesta pact will help Hasina showcase to her people that she managed to get a good deal from India.

Fri, 17 Mar, 2017

## ‘China should take a fresh look at ties with India’

A leading Chinese daily affiliated with the People's Daily on Thursday signalled that China should take a fresh look at its ties with India following the recent assembly elections, which demonstrate the likelihood of Prime Minister Narendra Modi's long-term dominance over Indian politics.

An op-ed in the Global Times on Thursday said the BJP's "sweeping electoral victory in Uttar Pradesh" has "not only increased Modi's chance to win the 2019 general elections, some even predict he is already set for a second term". It highlighted that since "Beijing-New Delhi ties have recently entered a subtle and delicate phase, observers soon started to pay close attention to how the bilateral relationship will develop after Modi

tightens his grip on power”. Signalling the need for re-thinking, the daily said China should read the changes in India as “an opportunity to give more consideration over how to make breakthroughs in Beijing-New Delhi relations with a hard-line Indian government”.

**Strong support** - Long Xingchun, Director of Center of India Studies, China West Normal University, told The Hindu that the recent elections embody “the eagerness of the Indian people to pursue development and this has resulted in strong support for Mr. Modi”. He added; “[Mr.] Modi is becoming a strong leader with people’s support. This would enable him to make bold decisions to solve major problems with China.”

Separately, a detailed analysis in the Shanghai-based Guancha Syndicate notes that the elections results show the “general trend of the BJP’s rising momentum”. It points out that Mr. Modi’s distinct brand of “developmentalism” has a unique appeal, as voters are tired of old zero sum games and want to achieve caste reconciliation. The website lauds the “people orientation” in Mr. Modi’s campaign which managed to mobilise women and breach the traditional “rich-upper caste-male” electoral formula.

## THE ASIAN AGE

*Fri, 17 Mar, 2017*

### **Taiwan says can hit China with missiles**

*The ministry has said in the past that it has produced cruise missiles, but has never publicly stated their capabilities.*

Taipei: Taiwan said for the first time publicly that it was capable of launching missiles at China, as the government on Thursday unveiled a defence report warning of increased risk of Chinese invasion. China still sees Taiwan as part of its territory to be brought back into its fold, by force if necessary, even though the island has been self-governing since the two sides split after a civil war in 1949.

Ties have worsened since Beijing-sceptic President Tsai Ing-wen took power last year, ending an eight-year rapprochement. Delivering the four-yearly report to Parliament, defence minister Feng Shih-kuan replied “yes” when asked by a lawmaker whether Taiwan was capable of firing at mainland China.

“It is the first time the ministry has confirmed this,” lawmaker Wang Ting-yu said, adding Taiwanese missiles might be able to travel over 1,500 kilometres. The ministry has said in the past that it has produced cruise missiles, but has never publicly stated their capabilities.

## THE ASIAN AGE

*Fri, 17 Mar, 2017*

### **Taiwan military to upgrade F-16 fighters, seek stealth capability**

Taipei: Taiwan says it is planning to upgrade its F-16 fighter jets and will seek cutting-edge stealth aircraft from the United States in the face of a growing military threat from rival China. Thursday’s announcement follows the release of this year’s \$11.4 billion defense budget, an increase of less than 1 percent from last year.

That compares to China’s 7 percent rise in defense spending, announced this week, to about \$151 billion, the world’s second largest after the United States. Defense Minister Feng Shih-kuan told lawmakers that Taiwan is focusing on inexpensive but effective “asymmetric warfare” techniques to combat threats in the air and seas. China considers the self-governing island to be its own territory, to be brought under its control by force if necessary.

Fri, 17 Mar, 2017

## **Pak test-fires surface-to-sea new missile**

Pakistan Navy today said it conducted a successful test of a new land-based anti-ship missile, bolstering its operational reach to launch longrange, anti-ship missiles from land. The trial of the missile was conducted from the coastal region and the missile secured a hit on a target placed at sea, a press release from the Navy said. The missile is equipped with advanced technology and avionics, which enable engagement of targets at sea with a high degree of accuracy.

However, the navy did not give more details, including the name of the new missile. The test-launch was witnessed by Vice Chief of Naval Staff Admiral Khan Hasham Bin Saddique and senior officers of Pakistan Navy. Admiral Saddique commended the accomplishment of the objectives of the trial, the release said. Chief of Naval Staff Admiral Muhammad Zakaullah in his message said that the weapon system has added a new dimension to the operational reach of Pakistan Nav.

## **THE ASIAN AGE**

Fri, 17 Mar, 2017

## **Military bites off major chunk of skinny Budget**

*Trump proposes dramatic cuts in climate change funds*

President Donald Trump will ask the US Congress for dramatic cuts to many federal programmes as he seeks to bulk up defence spending, start building a wall on the border with Mexico and spend more money deporting illegal immigrants. In a federal budget proposal with many losers, the Environmental Protection Agency and State Department stand out as targets for the biggest spending reductions. Funding would disappear altogether for 19 independent bodies that count on federal money for public broadcasting, the arts and regional issues from Alaska to Appalachia.

Mr Trump's budget outline is a bare-bones plan covering just "discretionary" spending for the 2018 fiscal year starting on October 1. Congress may reject some or many of his proposed cuts. Moderate Republicans have already expressed unease with potential cuts to popular domestic programmes.

Mr Trump is willing to discuss priorities, said White House budget director Mick Mulvaney.

Mr Trump wants to spend \$54 billion more on defense, put a down payment on his border wall, and breathe life into a few other campaign promises. His initial budget outline does not incorporate his promise to pour \$1 trillion into roads, bridges, airports and other infrastructure projects. The White House has said the infrastructure plan is still to come. The defense increases are matched by cuts to other programmes so as to not increase the \$488 billion federal deficit. — Reuters



Fri, 17 Mar, 2017

## **Quantum leaps**

*The strangeness of the quantum realm opens up exciting new technological possibilities*

A bathing cap that can watch individual neurons, allowing others to monitor the wearer's mind. A sensor that can spot hidden nuclear submarines. A computer that can discover new drugs, revolutionise securities trading and design new materials. A global network of communication links whose security is underwritten by unbreakable physical laws. Such—and more—is the promise of quantum technology.

All this potential arises from improvements in scientists' ability to trap, poke and prod single atoms and wispy particles of light called photons. Today's computer chips get cheaper and faster as their features get smaller, but quantum mechanics says that at tiny enough scales, particles sail through solids, short-circuiting the chip's innards. Quantum technologies come at the problem from the other direction. Rather than scale devices down, quantum technologies employ the unusual behaviours of single atoms and particles and scale them up. Like computerisation before it, this unlocks a world of possibilities, with applications in nearly every existing industry—and the potential to spark entirely new ones.

### **Strange but true**

Quantum mechanics—a theory of the behaviour at the atomic level put together in the early 20th century—has a well-earned reputation for weirdness. That is because the world as humanity sees it is not, in fact, how the world works. Quantum mechanics replaced wholesale the centuries-old notion of a clockwork, deterministic universe with a reality that deals in probabilities rather than certainties—one where the very act of measurement affects what is measured. Along with that upheaval came a few truly mind-bending implications, such as the fact that particles are fundamentally neither here nor there but, until pinned down, both here and there at the same time: they are in a “superposition” of here-there-ness. The theory also suggested that particles can be spookily linked: do something to one and the change is felt instantaneously by the other, even across vast reaches of space. This “entanglement” confounded even the theory's originators.

It is exactly these effects that show such promise now: the techniques that were refined in a bid to learn more about the quantum world are now being harnessed to put it to good use. Gizmos that exploit superposition and entanglement can vastly outperform existing ones—and accomplish things once thought to be impossible.

Improving atomic clocks by incorporating entanglement, for example, makes them more accurate than those used today in satellite positioning. That could improve navigational precision by orders of magnitude, which would make self-driving cars safer and more reliable. And because the strength of the local gravitational field affects the flow of time (according to general relativity, another immensely successful but counter-intuitive theory), such clocks would also be able to measure tiny variations in gravity. That could be used to spot underground pipes without having to dig up the road, or track submarines far below the waves.

Other aspects of quantum theory permit messaging without worries about eavesdroppers. Signals encoded using either superposed or entangled particles cannot be intercepted, duplicated and passed on. That has obvious appeal to companies and governments the world over. China has already launched a satellite that can receive and reroute such signals; a global, unhackable network could eventually follow.

The advantageous interplay between odd quantum effects reaches its zenith in quantum computers. Rather than the 0s and 1s of standard computing, a quantum computer's bits are in superpositions of both, and each “qubit” is entangled with every other. Using algorithms that recast problems in quantum-amenable forms, such computers will be able to chomp their way through calculations that would take today's best supercomputers millennia. Even as high-security quantum networks are being developed, a countervailing worry is that quantum computers will eventually render obsolete today's cryptographic techniques, which are based on hard mathematical problems.

Long before that happens, however, smaller quantum computers will make other contributions in industries from energy and logistics to drug design and finance. Even simple quantum computers should be able to tackle classes of problems that choke conventional machines, such as optimising trading strategies or plucking promising drug candidates from scientific literature. Google said last week that such machines are only five years from commercial exploitability. This week IBM, which already runs a publicly accessible, rudimentary quantum computer, announced expansion plans. As our Technology Quarterly in this issue explains, big tech firms and startups alike are developing software to exploit these devices' curious abilities. A new ecosystem of middlemen is emerging to match new hardware to industries that might benefit.

### **The solace of quantum**

This landscape has much in common with the state of the internet in the early 1990s: a largely laboratory-based affair that had occupied scientists for decades, but in which industry was starting to see broader



potential. Blue-chip firms are buying into it, or developing their own research efforts. Startups are multiplying. Governments are investing “strategically”, having paid for the underlying research for many years—a reminder that there are some goods, such as blue-sky scientific work, that markets cannot be relied upon to provide.

Fortunately for quantum technologists, the remaining challenges are mostly engineering ones, rather than scientific. And today’s quantum-enhanced gizmos are just the beginning. What is most exciting about quantum technology is its as yet untapped potential. Experts at the frontier of any transformative technology have a spotty record of foreseeing many of the uses it will find; Thomas Edison thought his phonograph’s strength would lie in elocution lessons. For much of the 20th century “quantum” has, in the popular consciousness, simply signified “weird”. In the 21st, it will come to mean “better”.



*Fri, 17 Mar, 2017*

## **Now, China building largest cosmic-ray lab**

After commissioning the world's biggest telescope, China is now building one of the largest and most sensitive cosmic-ray facilities, costing about \$180 million, official media reported on Thursday.

Located about 4,410 meters above sea level in the mountainous Sichuan province of China, the Large High Altitude Air Shower Observatory (LHAASO) will attempt to search for the origin of high energy cosmic rays, state-run People's Daily reported.

The observatory aims to study the evolution of the universe and high energy celestial bodies, as well as to push forward the frontier of new physics, it said.

The construction of the LHAASO is set for completion in January 2021. It will be a key frontier project for cosmic ray research internationally, the report said. Cosmic rays are particles that originate in outer space and are accelerated to energies higher than those that can be achieved in even the largest man-made particle accelerators. The origin of the cosmic rays, however, has remained a mystery since they were first spotted some 100 years ago, it said.

LHAASO will be mankind's first attempt to hunt for the highest-energy Gamma ray, which is the burst of radiation thought to be produced alongside cosmic rays in our galaxy .



*Fri, 17 Mar, 2017*

## **ISRO plans to recruit extra workforce**

In keeping with the growing worldwide demand for its rocket launch services for placement of satellites in space and other space applications, Indian Space Research Organisation (ISRO) plans to recruit an extra workforce of scientists and engineers to take care of its expanding business. A proposal to this effect has been submitted by the Space Commission to the Department of Expenditure, Ministry of Finance, for their recommendations before final approval by the Union Cabinet, said Dr Jitendra Singh, Union Minister of State for Atomic Energy and Space in a written reply in the Lok Sabha yesterday.

Singh said at present 7062 scientists and engineers are working with Isro. With increasing frequency of rocket launches the need for augmenting the existing workforce has been felt. “The demand for space based services in the country is increasing resulting in increased launch frequency and applications of space technology in emerging areas.” “The proposal has been reviewed and recommended by the Space Commission and the same is submitted to the Department of Expenditure, Ministry of Finance, for their recommendations, before placing it for the approval of the Union Cabinet, the minister stated.

## Health spending to be 2.5% of GDP

*Centre announces new policy with an 'assurance' of health care for all*

The Centre cleared the long-awaited National Health Policy 2017, which promises to increase public health spending to 2.5% of GDP in a time-bound manner and guarantees health care services to all Indian citizens, particularly the underprivileged, on Wednesday.

While Union Health Minister J.P. Nadda called the new policy a 'milestone,' rights-based activists said the government had fallen short of making health a fundamental right, a section that was removed from the final draft passed on Wednesday.

The policy aims to move away from 'sick care' to 'wellness,' Mr. Nadda said in Parliament on Thursday. "The policy seeks to move away from sick-care to wellness, with a thrust on prevention and health promotion. While the policy seeks to reorient and strengthen public health systems, it also looks afresh at strategic purchasing from the private sector and leveraging their strengths to achieve national health goals," said Mr Nadda.

The government will pursue ambitious targets like reducing Under-Five Mortality to 23 by 2025 and Maternal Mortality Ratio from current levels to 100 by 2020, and Infant Mortality Rate to 28 by 2019. It also seeks to reduce neonatal mortality to 16 and stillbirth rate to "single digit" by 2025.

In September 2016, the Supreme Court had directed the Centre to finalise the crucial health policy.

The policy advocates a progressively incremental assurance-based approach to health care provision. Previous drafts proposed to make this a fundamental right, and failure to provide health would have legal consequences. Removing that makes this an empty promise, activists said. "The promise on health spending does not square up with the past budgets of this government. Money for critical programs has stagnated or gone down in real terms," said Dr. Amit Sengupta, Convenor of the India Chapter of People's Health Movement, an NGO.