







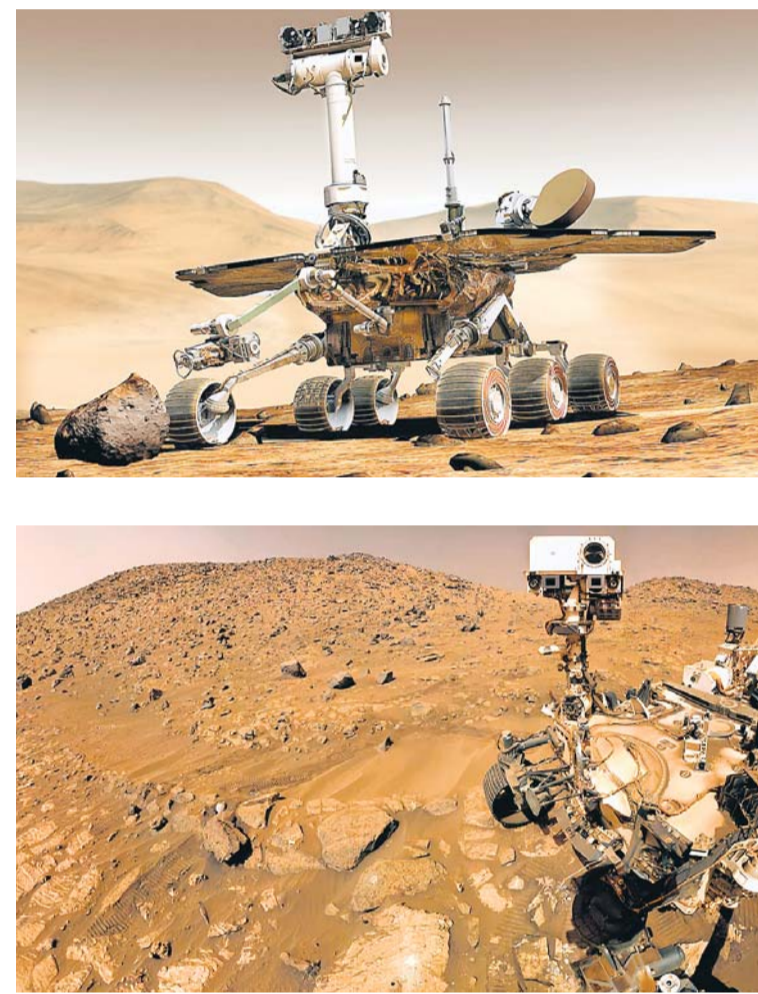




#SCIENCE

## Nasa Rover discovery hints at ancient microbial life on Mars

A 3ft by 2ft rock, marked with off-white spots, may offer fossilised record of microbes, dating back billions of years.



Spotty vein-filled rock found by a Nasa rover on Mars contains features that suggest that it may have hosted microbial life billions of years ago. The arrow-head-shaped rock, named Cheyava Falls, was discovered by Nasa's Perseverance rover on 21 July, as it trundled along the northern edge of Neretva Vallis, an ancient river valley, carved by water flowing into the red planet's Jezero crater.

Analysis of the 3ft by 2ft rock revealed signs of organic material, intriguing surface spots similar to those associated with fossilised microbes on Earth and evidence that water once passed through the rock, the agency said.

Ken Farley, the Project Scientist on the mission at the California Institute of Technology, said that Cheyava Falls was "the most puzzling, complex and potentially important rock yet investigated by Perseverance," though the team make clear that non-biological processes may have given rise to the features.

"On one hand, we have our first compelling detection of organic material, distinctive colourful spots indicative of chemical reactions, that microbial life could use as an energy source, and clear evidence that water, necessary for life, once passed through the rock," Farley said.

"On the other hand, we have been unable to determine exactly how the rock formed and to what extent nearby rocks may have heated Cheyava Falls and contributed to these features."

In the ancient past, Mars was a warmer, wetter planet. If life ever existed there, researchers believe that traces should remain within its rocks, in the form of organic material and potentially fossilised remnants.

Scans of the Cheyava Falls rock by Perseverance's Sherlock instrument suggest that it contains organic compounds. Such carbon-based molecules are regarded as the building blocks of life, but can also be produced by non-biological processes. Large white veins of calcium phosphate run along the rock. Between them are bands of reddish material, likely haematite, one of the iron oxide compounds that gives Mars its rusty colour. Closer inspection of the bands revealed dozens of little leopard spot-like features. Each of the off-white spots is surrounded by a black ring containing iron and phosphate.

David Flannery, an Astrobiologist at Queensland University of Technology in Australia and a member of the mission, called the spots "a big surprise," because on Earth, similar features "are often associated with the fossilised record of microbes."

White spots can form on rocks through chemical reactions involving haematite, producing iron and phosphate, as well as energy that microbes could live on. While the features are intriguing, nothing seen yet appears to be an actual fossilised microbe. Researchers are desperate to get their hands on samples for more thorough investigation, but Nasa's plans to return the Mars rocks to Earth have run into difficulties.



Manu Bhaker and Sarabjot Singh secured India's second medal at the Paris Olympics on Tuesday, earning a bronze in the 10 m Air Pistol mixed team event at the Chateauroux Shooting Centre. This marks India's second shooting medal of the ongoing Paris Games, following Manu's bronze in the women's 10 m air pistol event. India led 4-2 after the third series and extended their lead to 8-2 after the fifth

# She Said They'll Do It Again... God Willing...



Anjali Sharma  
Senior Journalist &  
Wildlife Enthusiast

With a saint's humility, she had said to Prime Minister Modi ji, "God willing, we'll do it again." She reads *Gita* for resolving things, which most other things can't, at least not easily. She has addressed depression, and lost faith in herself and good luck. What she has gained out of this catharsis in life is what humans struggle to get all their lives, and few do.

The Indian pair of Manu Bhaker and Sarabjot Singh won the bronze medal in the 10 m Air Pistol mixed team event at the Chateauroux Shooting Centre. This is India's second shooting medal of Paris 2024. Manu Bhaker and Sarabjot Singh secured India's second medal at the Paris Olympics on Tuesday, earning a bronze in the 10 m Air Pistol mixed team event at the Chateauroux Shooting Centre. This marks India's second shooting medal of the ongoing Paris Games, following Manu's bronze in the women's 10 m air pistol event. India



#OLYMPICS

led 4-2 after the third series and extended their lead to 8-2 after the fifth. Although, South Korea narrowed the gap to 10-6 after the eighth series, the Indian duo maintained their composure to secure a comfortable victory.

The Bhaker-Sarabjot duo defeated the South Korean duo 16-10, winning a total of eight rounds of shots during the clash. It was a thrilling

Sarabjot, he didn't start well but managed to stay above, consistently providing immense support to his partner, Manu, as the Indian duo created history beating South Korea. Meanwhile, the Serbian duo of Arunovic Zorana and Mikec Damir won the gold medal match against Turkey's Tarhan Seval Ilyada and Dikec Yusuf by a 14-16 margin. It was a nail-biting encounter as the Serbian duo secured the gold medal while Turkey had to settle for silver. Meanwhile, India is now at the 27th position in the medal tally after winning the second bronze medal while Japan is on top with six gold, two silver and four bronze medals. Indian shooter Sarabjot Singh has also won a second bronze medal for India. He won the bronze medal with Indian shooter, Manu Bhaker, in 10 m air pistol mixed team event at the Paris 2024 Olympics. In 2023, he secured an Olympic quota for India by winning a bronze medal at the 15th Asian Shooting Championship in South Korea. The 23-year-old also claimed a gold medal in the 10 m air pistol event at the ISSF World Cup in Bhopal, that same year.



Who is Sarabjot Singh?

Hailing from a farmer's family in Anbala, Punjab, Sarabjot Singh is known for his maturity and grounded nature, despite his achievements in the sport. His self-confidence had led many experts to believe that he could secure a podium finish at the Olympics. Sarabjot's promising career began with a gold medal at the 2019 Junior World Championship. He continued to impress with a team gold at the 2022 Asian Games in Hangzhou and an individual bronze at the 2023 Asian Championship.

"I don't feel any pressure. I am giving my best, don't feel low, don't feel anything related to the Olympics," Sarabjot Singh said, a few weeks back, when he was undergoing training in Luxembourg along with other Olympic-bound Indian shooters.

Hailing from Haryana, Sarabjot is an individual and mixed team World junior champion in 2021. He has won three World Cup gold medals in 2023 and 2024 (including one in Munich in June), apart from two Asian Games medals last year. He also won a bronze medal in 2023 Changwon Asian Shooting Championship and sealed a Paris Olympics quota place for India in men's 10 m air pistol. He was the winner of the men's 10 m air pistol team gold and mixed team silver at the Hangzhou Asian Games.

# We have a history with Shooting



Prakash Bhandari  
The writer is a senior journalist

#SHOOTING

at shooting was an essential to the personality of a true royal. This was one of the reasons why some of the leading shooters of India belonged to the erstwhile royal families. Now, with a shooting range in Jaipur and numerous other shooting joints, which have mushroomed, the state is showing good results. Two shooters, Anant Naruka and Maheshwari Chauthan, are representing the country in Paris.

In the last Olympic at Tokyo, two shooters, Apoorvi Chandela and Divyansh Panwar, had taken part.

The names of Dr. Karni Singh, a former ruler of Bikaner and five time member of Lok Sabha, was also a silver medalist in the World championship in Cairo in 1962, and a 17-time national champion in clay pigeon and skeet, five-time

Olympian Randhir Singh, a scion of the Patiala royal family and Keshav Sen, the *Thakur* of Kharwa, who was the national champion and was a member of the Indian shooting team to 1960 Olympics in Rome, and Maharao Bhim Singh, who at the age of 67, took part in the skeet Olympic of 1976 Montreal Olympics. Karni Singh holds a record of the sort having donned the country's colours in five Olympics from Tokyo to Moscow.

Not just the *Maharajas* and *Rajkumars* (Princes), even the *Rajkumaris* (Princesses) took to the sport seriously. Karni Singh's daughter, Rajyashree Kumari, and Bhim Singh's daughter, Bhuwaneswari Kumari represented India, along with their fathers in a number of international shooting events.

There is a unique record in the history of Indian sports. *Arjuna award* is the highest award given to a sportsperson, and both Karni Singh and Bhim Singh received it for their excellence in shooting. Their daughters, Rajyashree Kumari and Bhuwaneswari Kumari, also received the Arjuna award. Such is our fascinating history of shooting as a sport.

Kharwa in Ajmer district is a *thikana* with its own history. Kharwa enjoyed an independent status under the British rule in Ajmer. The *thikana* was known as *Tajimi Istimriad* and one of its ruler, Rao Gopal Singh Kharwa, was among the first to revolt against the British. He was imprisoned for four years.

The Kharwa family excelled in sports and loved shooting. They have been a shooting sport family and ace hunters or *shikaris*. Rao Ganapati Singh, the *thakur* of

Kharwa, a polished person with rich taste, had a good collection of guns. Rao Ganpati Singh imported trap equipment from London and got it set up on his farm to practice shooting. His shooting range is the oldest in the state and the Bikaner's Lalgarh Range came into being much later. Ganpati Singh would enjoy shooting in his exclusive range along with his sons and daughters. But Kunwar Keshav Sen, the eldest son was the best among the Kharwa shooters. He started taking part in the national level competitions and in the first-ever northern India championship, that was held in Delhi, took part and finished second in the clay pigeon championship.

In the team event, father Rao Ganpati Singh, Kunwar Keshav Sen and sister, Jaya Kumari, won. In this championship, Prime Minister Jawahar Lal Nehru was the Chief Guest and they received prizes from him.

Keshav Singh could fire all kinds of guns and pistols and in the first ever nationals in 1953, he bagged second and third positions in full bore rifle and revolver team event, he excelled in big-bore free rifles and big-bore standard rifles. Later, he went on to excel in clay pigeon trap and skeets.

Kharwa own more than 100 guns of various forms and values. Keshav has left behind 1800 used cartridges. These cartridges are of 34 grammes. Nowadays, lighter cartridges are used which are of 24 grammes. Firing a 34-gramme cartridge would end up in shoulder pains.

The non-availability of cartridges and other reasons forced Keshav Sen to give up shooting. However, his son, Chandra Sen and now his grandson, Yadunath Sen are carrying on the family tradition.

Maharao Bhim Singh also had a Skeet Range in his vast palace in



Jawahar Lal Nehru presenting Keshav Sen for winning individual honours in national championship in Delhi.

Kota and he, along with Apji Kalyan Singh and a few *thakurs*, pursued their interest in shooting. Apji Kalyan Singh was also an international shooter and he later became an international judge. *Maharajas*



Kharwa threesome, Jaya Kumari, Rao Ganpati Singh and Keshav Sen.

Avani Lekhara, the Golden Girl

Avani Lekhara, who is 23 now, made Rajasthan and the country proud, by winning gold medal in the 10 m air rifle standing and a bronze medal in the 50 m rifle three positions at 2020 Summer Paralympics. She is among the ranked shooter in Women's 10 m Air Rifle standing SH1. She is also the first Indian woman to win multiple medals in a single Paralympic Games. She has been given out of turn appointment as Assistant Conservator of Forest (ACF) by the Government of Rajasthan.

Lekhara won India's first gold medal at the 2020 Summer Paralympics. With a score of 249.6 points in the final event, the young shooter set a Paralympic record and tied the world record. She began shooting in 2015,



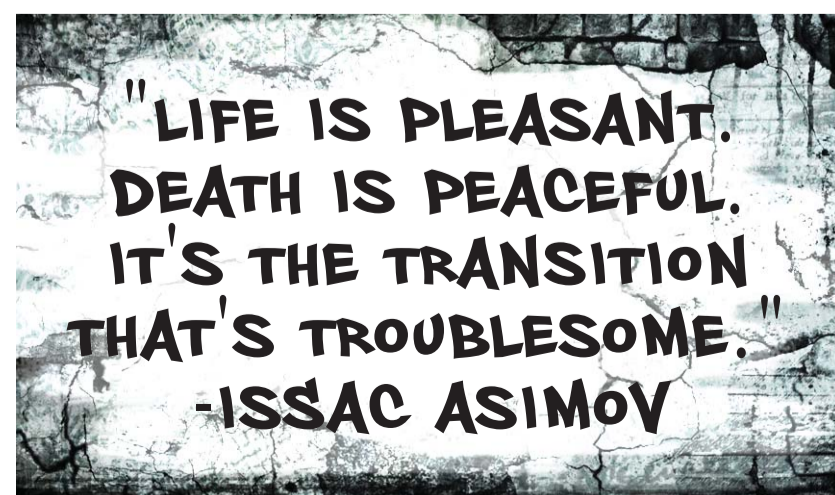
inspired by former Olympic champion, Abhinav Bindra, and has since won several national and international titles. A car accident in 2012, at the age of 11,

left her with complete paraplegia. Her father encouraged her to join sports, training in archery but she moved to shooting, in which she found her true passion.

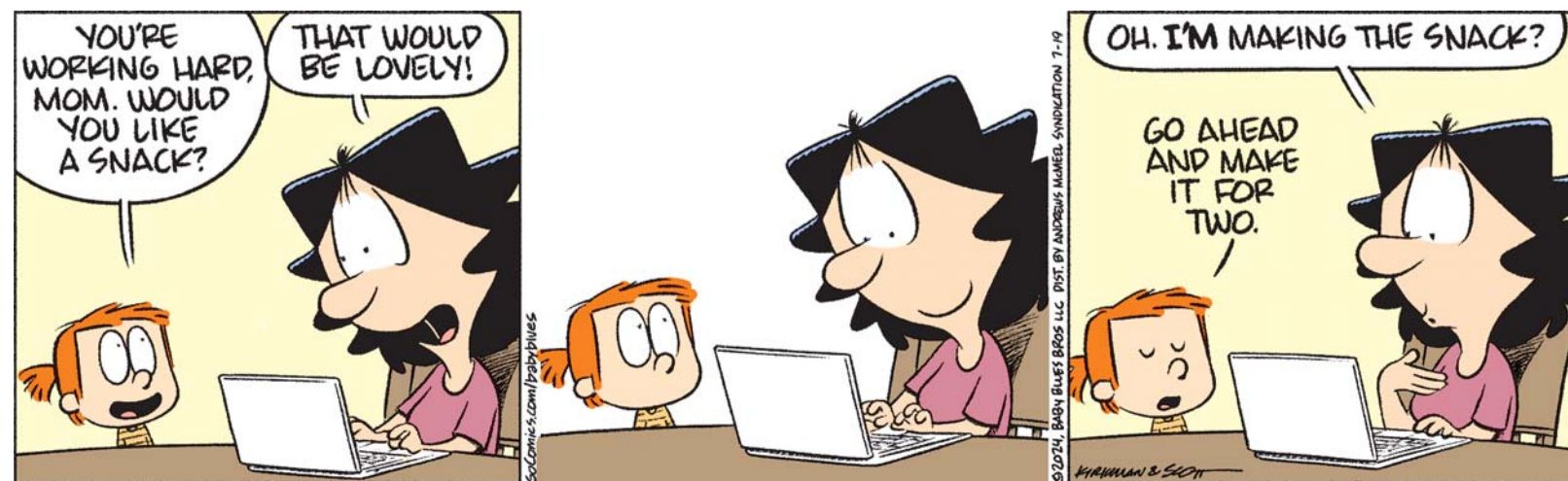
Awards

- 2021 *Khel Ratna Award*, highest sporting honour of India.
- 2021 *Young Indian of the Year - GQ India*
- 2021 *Vogue Women of the Year - Vogue Magazine*
- 2021 *Best Female Debut Paralympic Awards - International Paralympic Committee*
- 2022 *Padma Shri*
- 2022 *FICCI FLO Award for Excellence in Sports*
- 2022 *She Age Award by Hindustan Times*
- 2022 *Para Athlete of the Year (Female) - Sportstar*
- 2022 *BBC India Change Maker Of The Year 2021*
- 2022 *BRICS CCI WE - Trailblazer 2022*

THE WALL



BABY BLUES



By Rick Kirkman & Jerry Scott

ZITS



By Jerry Scott & Jim Borgman















मुख्यमंत्री भजनलाल शर्मा ने मंगलवार को विधानसभा में विधायक दल की बैठक को संबोधित किया। मु.मंत्री ने कहा, भाजपा विधायकों की गुजरता में ट्रेनिंग कराई जायेगी।

# सभी मंत्री सप्ताह में एक दिन विधायकों की सुनवाई करें- मुख्यमंत्री भजनलाल

## मुख्यमंत्री ने मंत्रियों को कार्यकर्ताओं के साथ टिफिन बैठक करने के निर्देश भी दिए

जयपुर, 30 जुलाई (का.सं.)। विधानसभा में आज भाजपा विधायक दल की बैठक आयोजित की गई। विधायक दल की पिछली बैठकों में मुख्यमंत्री भजनलाल शर्मा ने विधायकों को ट्रेनिंग देने की मंशा जाहिर की थी, जिसके बाद अब यह तय किया गया है कि अगस्त में दो दिन की चिंतन बैठक आयोजित की जाएगी।

यह बैठक गुजरात में आयोजित हो सकती है। इस बैठक में विधायकों को विधानसभा के नियमों व कार्यप्रणाली के प्रशिक्षण के साथ-साथ क्षेत्र की जनता के साथ संवाद की ट्रेनिंग भी दी जाएगी।

- विधानसभा में आयोजित विधायक दल की बैठक में मुख्यमंत्री ने विधायकों को विधानसभा के कायदे-कानूनों का प्रशिक्षण देने पर जोर दिया।
- मुख्यमंत्री ने बताया कि विधायकों की 14 दिन की ट्रेनिंग अगस्त में गुजरात में होगी।
- मुख्यमंत्री भजनलाल शर्मा ने सरकार के सभी मंत्रियों को सप्ताह में तीन दिन जयपुर रहने के निर्देश दिए और कहा कि विधायकों के काम होने चाहिए।

मुख्यमंत्री भजनलाल शर्मा ने मंत्रियों को सप्ताह में तीन दिन जयपुर रहने के निर्देश दिए और कहा कि विधायकों के काम होने चाहिए।

# झारखण्ड में रेल एक्सिडेंट, 18 बोगियां पटरी से उतरीं

## हावड़ा-मुम्बई मेल ट्रेन के टकराने से पास में खड़ी मालगाड़ी की भी कुछ बोगियां पटरी से उतर गईं, हादसे में दो लोगों की मौत व 22 घायल हुए हैं

नई दिल्ली, 30 जुलाई। रेलवे ने झारखंड के बाराबांकी स्टेशन के पास मंगलवार को हुए 12810 हावड़ा-मुम्बई मेल हादसे में मृतकों के परिजनों और घायलों के लिए मुआवजे की घोषणा की है। रेलवे की ओर से मृतकों के परिजनों को 10-10 लाख रुपये की राशि दी गई है। घायलों को 1-1 लाख रुपये देने की घोषणा की गई। हादसे में अब तक 2 लोगों की मौत हुई है। वहीं झारखंड के स्वास्थ्य मंत्री बन्ना गुप्ता ने मुख्यमंत्री राहत कोष से मृतक के परिजनों को दो-दो लाख रुपये जबकि घायलों को 50-50 हजार रुपये देने की घोषणा की।

- यह दुर्घटना मंगलवार तड़के पाँचे चार बजे जमशेदपुर से लगभग 80 किलोमीटर दूर बड़ाबम्बू के पास हुई।
- शुरुआती जांच में सामने आया है कि एक रेलवे कर्मचारी ने घटना से आधे घंटे पहले ही दुर्घटना स्थल की जगह पर पटरी में खराबी होने की सूचना दी थी लेकिन इस पर लापरवाही बरती गई और सुरत कार्यवाही नहीं की गई।

लखनऊ के रेलवे मंत्रालय के आर.ए.सी. की जांच में पता चला कि हावड़ा-मुम्बई मेल ट्रेन को मंगलवार रात 11:30 बजे पटरी से उतरा था। ट्रेन के टकराने से दो लोगों की मौत हो गई और 22 घायल हुए हैं।

### 3 अगस्त को...

भाजपा अध्यक्ष मदन राठी के प्रस्तावित कार्यक्रम के अनुसार जो दिल्ली से 3 अगस्त को सुबह 7 बजे सड़क मार्ग से रवाना होकर राजस्थान के बाँडेर पर सुबह 9 बजे पहुँचेंगे, जहाँ पर उनका भव्य स्वागत का दौर शुरू होगा। इसके बाद वे बहरोड़, कोटपुतली, शाहपुर होते हुये, जयपुर प्रवेश करेंगे। इन सभी स्थानों पर कार्यक्रमों और नेताओं की ओर से उनका स्वागत साकार किया जाएगा। करीब 11:30 बजे राठीजी जयपुर पार्टी कार्यालय पहुँचेंगे तथा 12 से 1 बजे के बीच में पदभार ग्रहण करेंगे।

दो दिन जयपुर में रुकने के बाद, राठीजी 5 अगस्त को दिल्ली जाएंगे और 12 अगस्त तक राजस्थान की कार्यवाही में शामिल होंगे। उसके बाद 13 अगस्त के बाद प्रदेशध्यक्ष का पाली आने का कार्यक्रम बनेगा। नवनियुक्त अध्यक्ष के पदभार ग्रहण के दौरान मुख्यमंत्री भजनलाल शर्मा, पूर्व मुख्यमंत्री वसुंधरा राजे, मंत्रिमंडल के सभी सदस्य, सभी पूर्व अध्यक्ष तथा प्रदेश पदाधिकारी उपस्थित रहेंगे। प्रदेश कार्यालय पर ताजपोशी की तैयारियों ने जोर पकड़ लिया है। पार्टी कार्यालय के बाहर और आस पास राठीजी के समर्थकों ने पोस्टर लगा दिए हैं। ताजपोशी के मौके पर प्रदेश भर से समर्थकों को जयपुर पहुँचने के लिए कहा जा रहा है। पदभार ग्रहण करने से पहले, पार्टी कार्यालय के बाहर राठीजी नेताओं, कार्यकर्ताओं के साथ समर्थकों को संबोधित भी करेंगे।

# 'यू.पी.ए. राज में सिर्फ दो राज्यों की गिनती होती, बाकी 26 राज्यों की उपेक्षा की जाती थी'

## वित्त मंत्री निर्मला सीतारमन ने बजट में विपक्षी गठबंधन इंडिया शासित राज्यों की अनदेखी किये जाने के आरोपों का सदन में जवाब दिया

नई दिल्ली, 30 जुलाई। केंद्रीय वित्त मंत्री निर्मला सीतारमन ने मंगलवार को कहा कि बजट में सभी वर्गों और सभी क्षेत्रों के हितों पर ध्यान दिया गया है। मगर, दुर्भाग्य से विपक्षी दलों के लोग भ्रम फैला रहे हैं और राज्यों की उपेक्षा का आरोप लगा कर राजनीति कर रहे हैं। सीतारमन ने लोकसभा में बजट 2024-25 पर चार दिन चली चर्चा का जवाब देते हुए यह बात कही। उन्होंने कहा कि बजट में सभी वर्गों और सभी क्षेत्र के साधने का प्रयास करके सभी तरह की चुनौतियों से निपटने के प्रावधान किए गए हैं। बजट व्यय में 48.21 लाख करोड़ रुपये का प्रावधान है जो पिछले साल से 7.3 प्रतिशत अधिक है। उन्होंने स्पष्ट किया कि बजट भाषण में कभी किसी राज्य का नाम नहीं लेना का मतलब यह नहीं है कि उस राज्य को पैसा नहीं दिया जा रहा है और उसकी उपेक्षा की जा रही है।

निर्मला सीतारमन ने कहा कि यूपीए सरकार के समय में 2009-10 के पूर्ण बजट में केवल बिहार और उत्तर प्रदेश का उल्लेख किया गया था और 26 राज्यों का उल्लेख तक नहीं था। उन्होंने विभिन्न राज्यों के लिए बजट में योजनाओं के लिए आवंटन की सूची गिनाते हुए कहा कि उनके बजट भाषण में राज्यों की उपेक्षा करने का झूठ फैलाने की कोशिश की गई है, जिससे उन्हें बहुत पीड़ा है। सीतारमन ने कहा कि बजट में पूंजीगत व्यय 11.11 लाख करोड़ रुपये है जो कोविड के पहले की तुलना में तीन गुना हो गया है। कोविड के

प्रभाव से उभर कर अर्थव्यवस्था तेजी से बढ़ रही है। प्रभावी पूंजीगत व्यय 15 लाख करोड़ रुपये से अधिक है जो पिछले साल के संशोधित अनुमान से 18 प्रतिशत से ज्यादा है। वित्त मंत्री ने कहा कि कृषि और संबंधित क्षेत्रों के लिए पूंजीगत व्यय 1.52 लाख करोड़ रुपये है। शिक्षा और कौशल पर पर व्यय 1.8 लाख करोड़ रुपये का प्रावधान है जबकि महिलों के बाल विकास के लिए 3.27 लाख करोड़ रुपये है। ग्रामीण विकास के लिए 2.66 लाख करोड़ रुपये का प्रावधान किया गया है।