collaboration in the thrilling saga of space exploration, let us celebrate *Bharat's* unstoppable journey to greatness!

I now invite the hon. Leader of the House, Shri Piyush Goyal, to initiate the Discussion on "India's Glorious Space Journey Marked by Successful Soft Landing of Chandrayaan-3."

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## DISCUSSION ON "INDIA'S GLORIOUS SPACE JOURNEY MARKED BY SUCCESSFUL SOFT LANDING OF CHANDRAYAAN-3"

THE LEADER OF THE HOUSE (SHRI PIYUSH GOYAL): Thank you very much, hon. Chairman, Sir. It is indeed a matter of great pride for the entire nation and for all of us in this august House that you have permitted this subject to be taken up as the very first subject in the new Parliament. This is truly something which makes every citizen of 140 crore Indians proud of their scientists, proud of Indian industry which has contributed in a big measure to various components that have come into the entire mission. And today, as I stand before you, this is one moment in history that will be etched for generations to come as the turning point in which India truly entered the space age as one of the top four countries in the world. As you very rightly pointed out, Mr. Chairman, Sir, the fact that we were the first country in the world to land on the South Pole of the Moon, is, by itself, giving us a completely new and elevated pleasure.

Hon. Chairman, Sir, ISRO, the Indian Space Research Organisation, by scripting this glorious chapter to India's space journey and proving that even the sky is not the limit for India, has truly made the entire nation very, very proud and scripted this new space journey.

Hon. Chairman, Sir, the successful landing of Chandrayan-3 is a trailblazing event which happened over years of consistent focus on the subject.

(MR. DEPUTY CHAIRMAN *in the Chair.*)

There has been a lot of research, a lot of effort, lot of successes, lot of failures and this has been one area in which India has progressed step-by-step. Whenever we have faced adversity in its stride, in the mission phase, we have learnt from our failures, made failures the stepping stone to success.

And, finally, the historic achievement of the landing is a matter of great pride for every Indian. In fact, three lunar missions in fifteen years - it almost feels as if

the Moon is beckoning India, as if the Moon is awaiting India and, more, particularly, so, when we see the images coming out from there, when we see the messages that ISRO comes out, I think, each successive success is strengthening our resolve to capture the space.

Hon. Deputy Chairman, Sir, today, we stand before the world unlocking new avenues of scientific discovery with a new confidence, the self-confidence of an *Atmanirbhar Bharat*, the self-confidence of a country which produces the highest number of STEM graduates in the world, the self-confidence of a country which today stands before the world with one of the lowest cost missions and one of the most effective and speedy successes that any other country could have achieved. I remember that picture where in the Chandrayaan-II Mission, where after having almost come so close to the surface of the moon, for a small technical reason, we were not successful, a lot of naysayers had started trying to run down the Indian Mission, run down the ISRO, run down our scientists and for all those naysayers, for all those people who have this negativity about India, जो नकारात्मक सोच के लोग हैं, उन सबके लिए उस दिन सबक था, जब प्रधान मंत्री मोदी जी ने उस समय के इसरो के चेयरमैन को गले लगाया, उनकी क्षमता के ऊपर उनको बधाई देते हुए आगे की चुनौतियों के लिए उनको तैयार किया, उनका आत्मविश्वास बढ़ाया और उनको प्रोत्साहित किया। मैं समझता हूं कि वह जो चित्र है, वह देश के 140 करोड़ लोगों के ज़ेहन में, उनके दिल में और उनके मन में बस गया है। उस दिन के प्रोत्साहन को, उस दिन के माननीय प्रधान मंत्री नरेन्द्र मोदी जी के वाक्यों को जैसे उन्होंने पूरे जी-जान से अपने जीवन का एक अंश बना लिया और अपने जीवन का मिशन बनाते हुए, जिस प्रकार से वे आगे चले और इतने कम समय में चंद्रयान-3 की सक्सेस जी-20 के थोड़े ही दिन पहले हुई, मैं समझता हूं कि यह पूरे देश के लिए बहुत ही गर्व की बात है।

मुझे ध्यान है कि जयपुर में हमारे जी-20 के Trade and Investment Ministers, वाणिज्य और निवेश के मंत्रियों की बैठक चल रही थी। बैठक 24 और 25 अगस्त को होनी थी। उसी की पूर्व संध्या पर 23 अगस्त को हम सभी ने मिल कर एक साथ जब चंद्रयान-3 की Moon landing देखी, तो हम सबको गौरव महसूस हुआ। उस दिन जिस प्रकार से पूरा देश गौरवान्वित हो रहा था, मैं समझता हूं कि वह इतना infectious था, उसका प्रभाव विदेश से आए हुए मंत्रियों के ऊपर भी इतना गहरा था कि लगभग विश्व की सभी बड़ी ताकतों के नेता, सभी बड़े देशों के वाणिज्य और निवेश से संबंधित मंत्रियों ने अपने-अपने भाषण में हमारी मीटिंग में एक स्वर में भारत की तारीफ की। उन्होंने भारत की उपलब्धता को बहुत ही विशेष बताया, साइंटिफिक कम्युनिटी के लिए, हमारे साइंटिफिक अचीवमेंट के लिए भारत की सराहना की और माननीय प्रधान मंत्री नरेन्द्र मोदी जी को दुनिया भर के नेताओं ने जी-20 की मीटिंग में बधाई दी कि India has truly arrived at the world stage. अब भारत विश्व पटल पर अपनी छाप छोड़ रहा है। यह मैसेज आज भारत से बढ़कर पूरे विश्व में गया है कि भारत अब बड़ी-बड़ी चुनौतियों का सफलतापूर्वक सामना कर सकता है, सफलता प्राप्त कर सकता है। सर, पहले हम सुनते थे कि यू.एस., यू.एस.एस.आर, चाइना आदि देशों ने ऐसे एक-एक मिशन के लिए हज़ारों-लाखों करोड़ रूपये खर्च किए थे। मैं

समझता हूं कि भारत एक ऐसा देश है, जिसने बहुत कम खर्च पर, बहुत कम लागत पर यह काम किया। उसमें जो अधिकांश पुर्जे लगे हैं, उनको भारत में बनाकर, मेक इन इंडिया का जो ज़ोर लगाया गया है, यह सब आज भारत को एक अलग ही श्रेणी में लेकर जाता है। उस मीटिंग के दौरान कई देशों के मंत्रियों ने मुझसे साझा बातचीत भी की कि अब वे भी चाहते हैं कि स्पेस मिशन में वे हमारे साथ जुड़ें, उनके जो फ्यूचर स्पेस प्लांस हैं, उनमें भारत के साथ वे साझा भागीदारी करना चाहते हैं, पार्टनरशिप करना चाहते हैं, सीखना चाहते हैं और आगे चलकर स्पेस की तरफ ज्वाइंट एंडेवर बढ़ाना चाहते हैं।

माननीय उपसभापति महोदय, जो लैंडर और रोवर के मिशन लाइव हुए, इसकी सराहना हमने अलग-अलग पत्रिकाओं में देखी। इसके तीन प्रमुख जो उद्देश्य थे, the three main objectives of Chandrayaan-III, उन तीनों की इतनी सफलतापूर्वक, इतने precision से exact 06:04 मिनट पर लैंडिंग हुई। हमारे जो तीनों लक्ष्य थे – पहला यह कि मून सरफेस के ऊपर सेफ और सॉफ्ट लैंडिंग होगी; दूसरा था कि हम rover operations को demonstrate कर सकें, दिखा सकें, जो मून पर रोवर बाहर निकला और उसने operations किए और on site experiments, जो लूनर सरफेस पर करने थे, इन तीनों में शत-प्रतिशत सफलता प्राप्त करना हम सबका सौभाग्य है। मैं पूरे सदन के सदस्यों की तरफ से आपके माध्यम से प्रधान मंत्री नरेन्द्र मोदी जी की स्पेस, साइंस और टेक्नोलॉजी की जो टीम केंद्र और राज्यों में इस विषय के ऊपर चिंता करती है तथा जो इसरो की पूरी टीम है, जिसने इसमें दिन-रात मेहनत की, विशेषकर जो हमारी महिला साइंटिस्ट्स हैं, उनको विशेषकर धन्यवाद भी देता हूं, बधाई भी देता हूं। हमने गत दिनों में देखा है कि कैसे महिला साइंटिस्ट्स ने हमारे अलग-अलग स्पेस मिशंस में एक प्रमुख भूमिका निभाई है। ये महिला साइंटिस्ट्स आज वास्तव में भारत का गौरव बनी हैं। मुझे लगता है कि हम उनको धन्यवाद के रूप में तोहफा देने जा रहे हैं। हम उम्मीद करते हैं कि लोक सभा से पास होकर आज रात तक वह बिल यहां आ जाए और कल राज्य सभा में हम जब महिला आरक्षण बिल पास करेंगे, Constitution (Amendment) Bill पास करेंगे, तो मैं समझता हूं कि सही मायनों में हमारी बहनों, माताओं और हमारी छोटी बेटियों के लिए, जिन्होंने इतने बड़े लक्ष्य प्राप्त करने में अपनी अमिट छाप छोड़ी है, इतना बड़ा योगदान दिया है, उनके प्रति भी पूरे देश और विश्व को मैसेज जाएगा कि यह देश बहुत कृतज्ञ देश है। यह देश महिलाओं का सम्मान करने में कटौती नहीं करता और आगे चलकर महिलाओं को और बड़े रूप में इस देश के विकास के प्रवाह में जोड़ने के लिए अहम कदम उठा रहा है।

माननीय उपसभापति महोदय, यह जो विक्रम लैंडर था, जो प्रज्ञान रोवर था और जो प्रपल्शन मॉड्यूल था, यह भारत में बना। मुझे याद है कि वर्ष 2014 में जब मेक इन इंडिया का माननीय प्रधान मंत्री जी ने आह्वान किया था, तब कई सारी टिप्पणियां आती थीं कि यह मेक इन इंडिया सफल नहीं हो रहा है, मेक इन इंडिया में क्या हो रहा है, क्या नई चीज़ की! अभी कुछ दिनों पहले मैं एक नेता का बयान पढ़ रहा था, जो एक प्रकार से बड़े ओछे शब्दों में, बहुत छोटे स्तर पर मेक इन इंडिया का मज़ाक उड़ाने की कोशिश हो रही थी। मैं समझता हूं कि हमारे इस मिशन ने, चंद्रयान-3 ने और इसरो की कामयाबी ने पूरी तरह से यह सिद्ध कर दिया कि भारत में बना हुआ सामान, भारत में बने हुए पुर्जे और भारत में बने हुए अलग-अलग components तथा equipments, जो इस मिशन में लगे, इस सबने इस देश को नई ऊंचाइयों तक पहुंचाया है और

आज पूरा विश्व भारत की तरफ देखता है। जब वे देखते हैं कि हमें manufacturing capabilities चाहिए, हमें टैलेंट चाहिए, हमें स्किल्स चाहिए, तो उनको जो एक विश्वसनीय देश नज़र आता है, विश्वसनीय साझेदारी में भाग लेने वाला पार्टनर नज़र आता है, वह भारत नज़र आता है। आज भारत के ऊपर विश्व की निगाहें टिकी हुई हैं, विश्व का विश्वास बना हुआ है।

माननीय उपसभापति महोदय, अगर हम design capabilities देखें, तो चंद्रयान-3 के दौरान जो design capabilities डेवलप हुई हैं, उनसे हमें आगे चलकर बहुत लाभ होगा

हमने अलग-अलग तरीके से देखा है कि स्पेस टेक्नोलॉजी का लाभ भारत की विकास यात्रा में सिर्फ स्पेस ही नहीं, बल्कि वह हमारे लोकल डेवलेपमेंट में भी बहुत बड़े तरीके से लाभ देता है। माननीय सदस्य जानते हैं और आपने भी भली-भांति देखा है कि 'पीएम गति शक्ति' क्या है - यह एक प्रकार से स्पेस टेक्नोलॉजी का इस्तेमाल करते हुए भारत की आधारभूत सुविधाएं, भारत के इंफ्रास्ट्रक्चर को मजबूती देने, गति देने और प्रगति को तेज करने का एक साधन है। 'पीएम गति शक्ति' में स्पेस टेक्नोलॉजी इस्तेमाल करके अलग-अलग layers of data तैयार किया गया है, स्पेस से मैपिंग की गई है। इस काम के संबंध में प्रधान मंत्री जी, जब आज से 12-14 साल पहले गुजरात के मुख्य मंत्री थे, तब उनके मन में एक कल्पना आई थी कि भारत में स्पेस टेक्नोलॉजी का मैक्सिमम इस्तेमाल कैसे किया जाए, भारत स्पेस टेक्नोलॉजी का कैसे लाभ ले सकता है। तब उन्होंने गांधी नगर में एक BISAG नामक संस्था establish की। उन्होंने BISAG के माध्यम से यह शुरुआत की कि कैसे भारत के भविष्य की विकास यात्रा में आधुनिक सुविधाएं देते हुए सफलतापूर्वक हम भारत को एक International Centre for Manufacturing Trade and Business बना सकें। लाखों-करोड़ों लोगों को नौकरियां देने के लिए हम जो काम कर रहे हैं, उसके लिए स्पेस टेक्नोलॉजी का इस्तेमाल करने का जीता-जागता उदाहरण 'पीएम गति शक्ति' है। इस प्रकार से हम स्पेस से जो भी सीखेंगे, जो भी चन्द्रयान-3 की उपलब्धियां होंगी, उनसे आगे चलकर भारत में इंफ्रास्ट्रक्चर डेवलप होगा। भारत में किस प्रकार से आगे हमें critical mineral resources पर काम करना है - अलग-अलग तरीके से यह स्पेस का रिसर्च भारत को नई ऊचांइयों तक लेकर जाएगा। मेरा विश्वास है कि इस उपलब्धि में हम सब मिलकर जो आगे के बड़े ambitious plans हैं, जो योजनाएं हैं, जो हमारी दूरदर्शी सोच है कि कैसे हमारी स्पेस टेक्नोलॉजी और स्पेस मिशन्स भारत को आगे लेकर जाने में काम करेंगे, उन पर काम करेंगे। यह जो नया उत्साहित भारत है, यह जो aspirational India की नई आकांक्षाएं हैं, इनको पूरा करने में चन्द्रयान के बाद आने वाला गगनयान मिशन है, जो लगभग 2024 में अनुमानित है, प्लान्ड है, उसको भी हम कैसे सफल बनाएंगे, उसके लिए हम सब इसरो को शुभकामनाएं देंगे। हम सब मिलकर एक संदेश दें कि आगे आने वाले गगनयान के लिए भी इसरो पूरे तरीके से सफल हो। हमारी माताएं, बहनें, हमारे इसरो के साइंटिस्ट्स पूरी लगन के साथ इसमें लगे हुए हैं, उनको हम यहां से एक शुभ संदेश दें कि उनका गगनयान मिशन भी सफल हो। हम देख रहे हैं कि आदित्य-L1 मिशन, जो Earth और Sun के बीच में यहां से लगभग 15 लाख किलोमीटर की दूरी पर जाकर stationed होगा, जो lagrange point है, वहां से सूर्य की किरणों की ताकत, सूर्य की ताकत के बारे में स्ट्डी करेगा, वह उस प्वाइंट तक सफलतापूर्वक पहुंचे। वह रास्ते में है और successfully लान्च हो चुका है। वह पहला dedicated Space का Mission है, जो सूर्य को स्टडी करने के लिए यहां से भेजा गया है। इसी के साथ-साथ एक dedicated Polarimetry

Mission, XPoSat है, जो x-ray के माध्यम से Polarimeter Satellite के रूप में बाहर काम करेगा। इस तरीके से हमारी जो आगे की नई-नई योजनाएं हैं, उनके लिए हम सब मिलकर इस सदन से एक स्वर में एक अच्छा संदेश और शुभकामनाएं भेजें। एक तरफ चंद्रयान-3 की सफलता के लिए बधाई और दूसरी तरफ शुभेच्छा, आगे के बड़े-बड़े लक्ष्यों को प्राप्त करने के लिए। जब एक स्वर में पूरा सदन यह मैसेज भेजेगा, मैं समझता हूं कि सभी लोग, जो इस मिशन के साथ जुड़े हुए हैं, चाहे वह प्रधान मंत्री नरेन्द्र मोदी जी का प्रोत्साहन हो, चाहे हमारे अफसरगण हों, चाहे इसरो के साइंटिस्ट्स हों, हर एक व्यक्ति, जो इन अलग-अलग मिशन्स में अपने-अपने पुर्जे या अपने-अपने कम्पोनेंट्स, इक्विपमेंट्स बनाकर योगदान दे रहा है और एक प्रकार से 140 करोड़ देशवासियों का उत्साहवर्धन करने का काम करते हुए आज डिस्कशन में हम जो यह संदेश देने जा रहे हैं, यह भी बड़ा शुभ संदेश है। मैं उम्मीद करता हूं कि कल यहां पर महिलाओं को आरक्षण देने से संबंधित बिल जब यह सदन सर्वसम्मति से पास करेगा, पारित करेगा, तो दो शुभ संदेश - एक तरफ यहां का हमारा प्रवेश, आज का इसरो को चंद्रयान-3 की बधाई और शुभकामनाओं का मैसेज और तीसरा, कल आगे का जो लेजिस्लेटिव भारत का प्रवाह है, भारत के आने वाले दिनों में अमृत काल में विकसित भारत बनाने की जो जर्नी रहेगी, उसमें हमारी माताओं, बहनों और महिलाओं को आरक्षण देकर इस पार्लियामेंट और असेम्बलीज़, दोनों में ज्यादा योगदान मिले, इसके लिए हम जो कदम उठाने जा रहे हैं, मैं समझता हूं कि ये तीनों शुभ संदेश एक प्रकार से एक नई सुबह लेकर इस सेशन को भी यादगार बनाएंगे। यह नई सुबह देश की अमृत काल की यात्रा में भी हम सबके लिए ऐतिहासिक क्षण बनेगी और हम सब इसके साक्षी हैं, इसमें भाग ले रहे हैं, यह हम सबका बहुत बड़ा सौभाग्य है। आपने मुझे इस चर्चा को शुरू करने के लिए मौका दिया, इसके लिए मैं आपका आभारी हूं। बहुत-बहुत धन्यवाद।

**श्री उपसभापति**: धन्यवाद, पीयूष गोयल जी। माननीय श्री जयराम रमेश।

SHRI JAIRAM RAMESH (Karnataka): Sir, I rise to speak on a discussion that is titled, "India's glorious space journey marked by successful soft landing of Chandrayaan-3." Listening to the Leader of the House, it appeared as if this glorious space journey started only in 2014, and that the *sutradhar* of this space journey is the Prime Minister! Sir, I want to take this occasion to revisit this glorious space journey not to make political debating points but to pay tribute to a remarkable generation of Indian scientists and technologists who could have worked anywhere in the world but chose to come back to India in the 1950s and 1960s. I have before me a Government Order issued on the 22nd of February, 1962. This is dated 22nd of February, 1962, an Office Order issued by the Government of India, which reads, "The Union Government has set up the Indian National Committee for Space Research. The Committee set up on the recommendations of the Scientific Advisory Committee to the Cabinet will advise the Government on the promotion of research in exploration of space and its utilization for peaceful purposes." India's glorious space journey began

on the 22nd of February, 1962 which was marked by the establishment of the Indian National Committee on Space Research. There were two people who were responsible for getting this INCOSPAR set up. Both were the great scientists of India, one was Homi Bhabha, who was then the Chairman of the Scientific Advisory Committee to the Cabinet and the second was Vikram Sarabhai, a great name, a man who had a vision for Indian space, and I expected the hon. Leader of the House, at least, to make a passing mention of Dr. Vikram Sarabhai. ...(*Interruptions*)...

SHRI PIYUSH GOYAL: Sir, I am agreeing... ...*(Interruptions)*...

SHRI JAIRAM RAMESH (Karnataka): I am not yielding. ...*(Interruptions)*...

MR. DEPUTY CHAIRMAN: Please.

SHRI JAIRAM RAMESH: Sir, it was two weeks before INCOSPAR was set up that the then Prime Minister of India, Jawaharlal Nehru, went to Ahmedabad to visit the Physical Research Laboratory that was created by Vikram Sarabhai, way back in 1947. This is a photograph that I have of Pandit Nehru with Dr. Vikram Sarabhai and Dr. E V Chitnis. In the old Parliament House, you could have seen this photograph, but in this New Parliament House, we need a telescope to see each other. I don't have a telescope, Sir, but you can take my word, this is a photograph of the Prime Minister of India with Dr. Vikram Sarabhai and Prof. E V Chitnis, who is 97 years old and is still alive. He is one of the key figures in this space journey. In fact, Prof. Chitnis's greatest contribution to our space programme was the recruitment of a young engineer from the Madras Institute of Technology named APJ Abdul Kalam.

(MR. CHAIRMAN *in the Chair.*)

Sir, after the establishment of INCOSPAR on the 22nd of February, 1962, the second milestone in this glorious space journey was on the 21st of November, 1963, when India launched its sounding rocket from Thumba near Trivandrum. This was called TERLS, namely, the Thumba Equatorial Rocket Launching Station. This was the first sounding rocket, launched way back on the 21st of November, 1963, and this was made possible because of Dr. Vikram Sarabhai, because of Shri H.G.S. Murthy, because of Dr. Abdul Kalam, because of Dr. EV Chitnis and a large number of scientists and technologists.

Sir, ISRO was created on the 15th of August, 1969. This was when Dr. Vikram Sarabhai created the Indian Space Research Organization to give a developmental boost to the Indian space programme. The Indian space programme is the only programme in the world that has not come out of the military sector. It has been a civilian programme all through. The Indian space programme is the only programme to have a developmental thrust -- the use of space for remote sensing, the use of space for rural development, the use of space for communication and for weather forecasting. This has been the hallmark of India's space programme, going back to the creation of ISRO on 15th of August, 1969.

Sir, on the 25th of December, 1971, unfortunately, Dr. Vikram Sarabhai passed away, very suddenly, at the young age of 52. He died of a heart attack in Kovalam Beach near Trivandrum. The Indian space programme was then faced with a huge crisis. It had lost its *karta dharta,* it had lost its *nirmata*, it had lost its visionary, Vikram Sarabhai, who had lived and dreamt of India as a space power. It was then that the then Prime Minister of India, Smt. Indira Gandhi, took what I consider to be the most important step that has made India the space power that we are all proud of today. She wrote a letter to an Indian scientist who was then taking a sabbatical at the famous California Institute of Technology in Pasadena in California. The name of the scientist is Prof. Satish Dhawan, and it is in his honour that our launch centre in Sriharikota is called the Satish Dhawan Launch Centre.

Sir, Indira Gandhi wrote a letter on the 7th of January, 1972, and I wish to quote a few lines from this letter. This is the writing of the Prime Minister of India: "Dear Dr. Dhawan, Vikram's sudden and tragic death has deprived our entire space research programme of leadership. You are aware of the heavy investment we have made in it. The ten year profile of the development of space shows the extent of our commitment. We cannot afford to allow the entire organization to crumble. I should like you to accept the stewardship of our space programme, which I am proposing to separate from the Atomic Energy Commission." Sir, as we know, till 1972, Space and Atomic Energy were together. But it is in 1972 that Space got separated from the Atomic Energy Commission. She further writes: "It will be for you to structure this new organization. Please let me know urgently when I may expect you to return and what arrangements you would like us to make for the interim period. I hope you will respond to an emergency situation in a sensitive area of national importance."

This is a letter written by the Prime Minister of India to a scientist taking a sabbatical in California, who was then the Director of the Indian Institute of Science, Prof. Satish Dhawan. Prof. Satish Dhawan immediately accepted the offer of the Prime Minister. He put some conditions, that he would like ISRO to be headquartered

in Bangalore, that he would not like to be posted in New Delhi, that he would like to continue as the Director of the Indian Institute of Science and that he would like full freedom to run ISRO the way it should be run. The Prime Minister of India accepted and acceded to all these conditions. Sir, when he came back to India, when he took over as Chairman of ISRO, her Secretary, Mr. P.N. Haksar, sent Mrs. Gandhi a note, and I was fortunate enough to get a copy of this note in the archives. Mr. Haksar wrote, on the 25th of May, 1972, to the Prime Minister. He wrote, "Dr. Satish Dhawan is an extremely sensitive human being. Hitherto, he has led a relatively cloistered life, devoting himself to the pursuit of his own scientific specialty in the field of aerodynamics. I know he has many doubts and hesitations in accepting the responsibility of heading our Space Organization. And if he were to opt out of it, we literally have no one at present as the second best choice. It is, therefore, of vital importance that our Prime Minister should express, in her own way, her appreciation of the high sense of duty, which has led Dr. Dhawan to respond to the Prime Minister's call to him. It is equally necessary to say that Dr. Dhawan will continue to receive her personal support in sorting out any problems he may run up against any administrative and other fields, that Dr. Dhawan should not hesitate in coming to the Prime Minister and that he will always have direct access."

Sir, it is from this day onwards that Prime Ministers of India have held direct control of the Department of Space. It is from this day onwards that the Chairman of ISRO, the Chairman of the Space Commission, the Secretary, Department of Space, three roles combined in one individual, have only reported to the Prime Minister and nobody else. So, the glorious space journey, that the Leader of the House wants us to believe started in 2014, had the first milestone on the 22nd of February, 1962. The glorious journey, that the Leader of the House wants us to believe started in 2014, had its second milestone on the 15th of August, 1969 with the creation of ISRO. The glorious journey, that the Leader of the House wants us to believe began in 2014, had its third milestone in July, 1972, when Prof. Satish Dhawan became the Chairman of ISRO.

Sir, the success of Chandrayan-3 is based on the competencies, the capabilities, the capacities that have been created over a 60 year period. We launched satellites, but we first launched satellites on Soviet rockets. We did not have a Satellite Launch Vehicle. In July, 1979, our first SLV launch failed.

Dr. Kalam was in tears. So, Prof. Satish Dhawan said, "I am your leader. I will take responsibility for the failure. You sit at the back." That is leadership. In August 1980, the SLV-3 succeeded. Prof. Dhawan said to Dr. Kalam, "Kalam, you take credit for this. I will sit at the back." This is leadership. Leadership is not about

taking credit when things are going good and running away when things are going bad. Leadership is when you have the courage to take the responsibility for the things that are going wrong as much as you take credit when the things are going right. So, these are the milestones of a successful journey.

There have been many scientists and I want to recall them. I have mentioned Dr. Homi Bhabha; I have mentioned Dr. Vikram Sarabhai; and, I have mentioned Dr. Abdul Kalam. There is a great scientist of India who is forgotten today. He is the only scientist who has worked and contributed for our nuclear programme as well as for our space programme, and if you go to the Vikram Sarabhai Space Centre in Thiruvananthapuram, you will see a statue of him in the space organisation headquarters. His name is Dr. Brahm Prakash. He is probably one of the greatest metallurgists that India has produced and he made a huge difference to our space programme and to our atomic energy programme. We have had a series of successful Chairmen of ISRO. We had Prof. Satish Dhawan, Prof. U.R. Rao, Dr. Madhavan Nair, Dr. Kasturirangan, Dr. Radhakrishnan, Dr. Sivan and now, of course, we have Shri Somanath. Each of them has made contributions because the political leadership has given them the freedom to make those contributions.

I also want to say that India's space programme has always had a developmental orientation. It has always been space for development, space for communication, space for rural development, space for weather forecasting and space for identifying sources of water. Indian scientists and technologists have never seen India's space programme as a symbol of Indian nationalism. It has always been seen in a developmental perspective. It has always been seen as an instrument of fulfilling developmental aspirations, and, that is why, we had INSAT, the Indian national communication satellite. It is because of INSAT that we improved our weather forecasting, located sources of water, created new maps and created platforms like Bhuvan. So, while it is natural for all of us to take pride, I would like to urge all of us to please look at our space programme fundamentally as an instrument of development and not as an instrument of muscular nationalism. This has been the hallmark of India's space programme for the last 60 years and let it be in that spirit, with which it was founded by our scientists and technologists.

I am entirely in agreement with the Prime Minister when he said yesterday that the Chandrayan-3 achievement creates a new excitement for science. But, what is the point in creating an excitement for science when you are removing Darwin's Theory of Evolution from the textbooks? What is the importance of creating an excitement for science when you reject Newton and Einstein? You think all knowledge was available to India 2,000 years ago. That is not the scientific temper.

Scientific temper is the spirit of enquiry and the spirit of questioning. We have had a glorious tradition in mathematics. We have had a glorious tradition in metallurgy. We have had a glorious tradition in astronomy. Let us take pride in our past, but let us not think that all of modern science, all of modern technology was known to us 2,000 years ago. We have to move with the times. That is the scientific temper and that is the scientific spirit. If you reject science, if you do not give your scientific institutions freedom, if you do not allow scientific endeavour to flourish in a spirit of professionalism, you can have all the Chandrayans of the world, but it is not going to make a difference to the minds of the young. We have to create a scientific spirit, the spirit of questioning, the spirit of enquiry, the spirit of doubt. That is the spirit of science, which, I hope, will be created by this excitement.

Along with Chandrayan-3, let us not forget Chandrayan-1 which was launched in 2008. I have no hesitation in saying that the first announcement of Chandrayan was made by the then hon. Prime Minister, Shri Atal Bihari Vajpayee, on the 15th August in 2003. After that announcement in 2003, we had Chandrayan-1 in 2008. We had Chandrayan-2 in 2019 and we had Chandrayan-3 in 2023. What does it mean? It means that there is continuity in governance. If a Prime Minister refuses to acknowledge continuity in governance, if a Prime Minister believes that the world has started only when he became the Prime Minister, if a Prime Minister believes that Indian science and Indian space programme have become great only when he became the Prime Minister, I beg to differ. Along with Chandrayan-1, let us take Aditya-L1, which was also a great success. It has not been mentioned in the Resolution, but Aditya-L1, the solar laboratory was launched one week after Chandrayan-3. When did Aditya-L1 start? Aditya-L1 started in the year 2006. It took 17 years for Aditya-L1 ...*(Interruptions)*... Sir, can I finish? ...*(Interruptions)*... It took 17 years for Aditya-L1 to be conceived, to be planned, to be executed and to be launched.

The hon. Leader of the House said that we are now making things in India. We have always been making things in India. There are so many companies we can think of, like Larsen and Toubro and Walchandnagar Industries, which have been associated with the Indian space programme going back to the 1970s. To say that suddenly, after 2014, we have started making things for our space programme is a complete distortion of facts. In fact, the Indian space programme has always been based on creative partnerships with Indian private sector and Indian public sector. Our nuclear reactors are made in India; our rockets are made in India; our launchers are made in India; our satellites are made in India, and they were being made in India

before 2014 also. Sir, I do not know what your intention is, whether you want to pass a Resolution at the end of the discussion or not.

MR. CHAIRMAN: One second.

SHRI JAIRAM RAMESH: Let me finish, Sir. If you do want to pass, please acknowledge that the capabilities, competencies and capacities that have resulted in Chandrayan-3 success, are the results of investments made over the last 60 years. These are based on contributions of successive Prime Ministers. These are based on the contributions of a large number of Indian scientists and technologists, many of whom we don't even know of, many of whom we don't even acknowledge, but, I think, today is the day when we should salute our Indian scientific and technological community. It is the Indian scientists and technologists who gave India the Green Revolution in 1970s. It is the Indian scientists and technologists who gave India the White Revolution in 1970s. It is the Indian scientists and technologists who have created our Missile Development Programme - the Agnis, the Prithvis and the Nags.

It is the Indian scientists and Indian technologists who have given our space programme the profile in the world that it is today. I want to say one thing about these scientists and engineers. All the newspaper headlines, all our talk is based on our elite institutions of learning. I happen to come from one of them. I have no hesitation in saying that the contributions in the space programme have come from men and women who are graduates of Government engineering colleges, who are graduates of lesser-known engineering colleges. They are not from IITs, they are not from IIMs, but they are from colleges in Kolkata, colleges in Trivandrum, colleges in Surat, colleges in Baroda, colleges in Pune, colleges in Bhopal, colleges in Rajasthan, colleges in Indore, colleges in Jaipur, colleges in Chennai and many other places. Sir, this is the strength of Indian science. The strength of Indian science does not come from 5 institutes, 10 institutes or 15 institutes. The strength of Indian science comes from a very large population of engineering institutions, which we have to nurture, which we have to upgrade, which we have to recognize and to which we must give full freedom to operate.

So, Sir, I associate myself with the sentiments of the Leader of the House who has not heard whatever I have said because he has been busy in conversation with the person next to him throughout. ...*(Interruptions)*...

MR. CHAIRMAN: He has to react now. Mr. Jairam, now, you have made a reflection, let him react. The Leader of the House. Before that, let me say something.

Jairam, you were on the right track but when I took the seat, you got a little political, and, from science, you travelled to politics. ...*(Interruptions)*...

SHRI PIYUSH GOYAL: Sir, I had got up in between also. Unfortunately, Jairam Rameshji thought... ...*(Interruptions)*...

**श्री जयराम रमेशः** सर, हमारा पुराना रिश्ता है। इन्होंने कुछ साल पहले आइंस्टाइन और न्यूटन को कन्फ्यूज़ भी कर दिया था। मैं उनको उसकी याद नहीं दिलाऊँगा, पर आज उनसे भाषण सुनना पड़ा, प्रवचन सुनना पड़ा कि हमारे स्पेस प्रोग्राम की क्या उपलब्धियाँ हैं!

**श्री सभापतिः** पुराना रिश्ता और पुराना घाव मीठा दर्द देता है।

SHRI JAIRAM RAMESH: Sir, I associate myself with the Leader of the House and we acknowledge, we salute and we applaud ISRO; the past members of ISRO family as well as the present members of ISRO family. We congratulate our Indian scientists. We also congratulate our Indian technologists. I am sure that many more achievements will be there in the years to come. But, Sir, I will only end by pleading that we need to give our scientific and technological institutions full freedom, we need to give our scientific and technological institutions full independence and professionalism and we need to free our scientific and technological institutions from any political patronage, political interference and political intervention.

Let us, on that thought, acknowledge the glorious space journey that we have had and let us also acknowledge the milestones that we have gone through. Even though the Prime Minister and the Leader of the House may choose to airbrush them away from history, they are fact of life and they cannot be erased from the history. They are very much part of our space journey. I think, it is important for me to remind the House as to where we have come from, the journey that we have undertaken, the achievements that we have had, the people who have contributed, rather than fall victim to this new impression that has been created that this entire accomplishment of Chandrayaan-3 and Aditya L-1 is the result of only one individual. Thank you, Sir.

MR. CHAIRMAN: Now, Mr. Jawhar Sircar. ...*(Interruptions)*...

SHRI PIYUSH GOYAL: Sir, I got up as Jairam Ramesh initiated, and, you are right, he started on the right track. I got up only to say that I fully agree with him and associate with him while he was talking about the journey but, unfortunately, he did

not yield. But, now, since he has also taken it to a political level, I have only two comments to make.

Of course, the journey is extremely important. We have all assembled here and we are going to speak about the various aspects of journey and we have many other speakers who will be delving on who played what role and who provided what kind of funding support, who made this whole mission really get the kind of speed and scale that made it a success. But, at the end of the day, I am sure, my hon. colleague and friend, Jairam, will also appreciate that people run many races. There are marathon runs, there are sprint runs, there are 100 meter, 200 meter or 42 kilometer, all sorts of races are there ...*(Interruptions)*.. but ultimately, one must also acknowledge that that it is the determination that makes the winner win.

Secondly, he made a personal comment on me. Everybody is human and everybody can make mistakes. I may not be as infallible as Mr. Jairam Ramesh. He is, of course, infallible and he has never made any mistakes in life...

MR. CHAIRMAN: Please.

SHRI PIYUSH GOYAL: I have, very openly and in public, acknowledged that I made a mistake at that point of time in the rush of speaking but I have not made the kind of colossal mistakes * I think, we can leave it and have discussion outside the House. ...*(Interruptions)*...

DR. K. KESHAVA RAO (Telangana): Sir, ...*(Interruptions)*...

SHRI K.R. SURESH REDDY (Telangana): Sir, ...*(Interruptions)*...

MR. CHAIRMAN: Hon. Members, please. ...*(Interruptions)*... I will come to you. Please take your seat. ...*(Interruptions)*... Please take your seat. ...*(Interruptions)*... Hon. Members, I hope the comment I am making now will be appreciated as the intellectual level of the House is very high. About three decades ago, I was in Rajya Sabha as a junior Minister. A very distinguished Member was making a scholarly address, as Jairam Ramesh just made. At that point of time, there was entry of another Member. It is in the context of Leader of the Opposition saying, "I fully agree with him", I am on that. When that Member entered, the speaker got worried that that Member will unsettle him. Immediately, he said, "Even

* Not recorded.

my very good learned friend agrees with me" so that he does not say otherwise, and, came the swift comment, "Fools never differ". That was the comment. I said, "You have to understand that I said it in apologetic mode that if these two have agreed, we will have to see in several perspectives. Now, Mr. Jawhar Sircar. ...*(Interruptions)*...

SHRI DIGVIJAYA SINGH (Madhya Pradesh): Sir, it is ...*(Interruptions)*...

MR. CHAIRMAN: Yes, what did you say? ...*(Interruptions)*...

SHRI DIGVIJAYA SINGH: Sir, look at the rejoinder of the Leader of the House after such a brilliant speech, bringing in the issue of ...*(Interruptions)*...

MR. CHAIRMAN: One second. ...*(Interruptions)*... *One second.* ...*(Interruptions)*... It is deleted. ...*(Interruptions)*...

SHRI PIYUSH GOYAL: He threw a point at me, and I threw a point at him. ...*(Interruptions)*... Where is...*(Interruptions)*...

MR. CHAIRMAN: Please. ...*(Interruptions)*... Piyush ji, it is deleted.

SHRI PIYUSH GOYAL: It is between two friends. Let him not come in the way.

MR. CHAIRMAN: The comment is not on record. Hon. Members, after a long time, we had a good debate. ...*(Interruptions)*... After a long time, the people were informed. Maybe, there is a political pull which will be there on both sides, on all sides. But after a long time, we are on track. Therefore, we must appreciate it. My light comment was in that direction only. Let us ...*(Interruptions)*...

SHRI DIGVIJAYA SINGH: Sir, you should expunge his remarks. ...*(Interruptions)*...

MR. CHAIRMAN: I will look into it. But all I am saying is, after a long time, we have had some return to a situation where outside people will get some knowledge, they will get inspired. ...*(Interruptions)*... Do you want to say something, Madam?

SHRIMATI JAYA BACHCHAN (Uttar Pradesh): I was saying that I associate with you, Sir.

MR. CHAIRMAN: Well, one of the greatest artists, -- I have admired her for a long time, for several decades -- if she associates with the sentiment, it is a great positive gain for all of us. Now, Mr. Jawhar Sircar. He brings on the table huge bureaucratic experience.

SHRI JAWHAR SIRCAR (West Bengal): Thank you, Sir. As I can't see any clock, I hope my time starts now.

MR. CHAIRMAN: You have twenty-one minutes.

SHRI JAWHAR SIRCAR: The first point that I would like to make is across the House. We are Indians first, and as Indians, we take immense pride in the Chandrayaan Mission, we take immense pride in the scientific achievements of India, irrespective of which part of India we come from, what we represent. That is the first basic point that we have to remember.

[THE VICE-CHAIRPERSON (SHRIMATI GEETA ALIAS CHANDRAPRABHA) *in the Chair*.]

India is a continuum; India is eternal. We cannot slice a part of India and say, 'this was my part and all the credit happened during this part, all discredit happened during that part.' We were all part of a continuum.

When we talk of Chandrayaan -- Mr. Jairam Ramesh has explained it in great detail, the Chair also has explained in great detail -- the whole journey of Chandrayaan spans over six decades and more. Numerous individuals have contributed to it. Today is a time when we need to remember them. We need to celebrate the moment, but we also need to remember our history. We also need to celebrate history.

So, I will begin with what Mr. Jairam Ramesh said about the great contribution of Pandit Nehru to the whole episode, to the whole journey. As Indians, no one can deny -- I am not speaking parochially -- the immense contribution of the man who introduced scientific temper in India, the man who introduced all forms of scientific research, Dr. Vikram Sarabhai. We have come to a new House and there should be a new approach. Instead of only political leaders, we should celebrate the images, the statuaries of Vikram Sarabhai, of Abdul Kalam, of Homi Bhabha. These are the ones who took us to where we are. We have to admit that it is the great leadership,

the great vision, the unending toil of Homi Bhabha, of Satish Dhawan, of Vikram Sarabhai, of Abdul Kalam which took us to where we are today.

We also cannot acknowledge or disacknowledge or deny the role played by the Prime Ministers. The present Prime Minister must have surely contributed to this great journey. But that does not mean that earlier Prime Ministers, who laid the path, did not contribute and should be forgotten. As an Indian, my heart leaps when I see our Space Launch Vehicles propel the satellites of other countries and place them in space. We do a big favour to the rest of humanity, who are these nations. But my heart is big. As an Indian, as a person who shares the timelessness of India, we should have a big heart. A big heart that not only takes Space Launch Vehicles, but also propels ideas. Today, my heart leaps with joy for another reason, and the reason is that science is finally gaining over superstition. We have to believe in both experimentation, in empiricism and evidence before we open our mouths. Before we open our mouths, we must think of the consequences of what we are saying. How can one say that Ganesha's head was placed by plastic surgery? We had his *chaturthi* yesterday. We believe in the greatness of Ganesha, but how can you say that his head was placed by plastic surgery? How can you talk of stem cell science bringing in a particular large section in the Mahabharata? You have to have faith in something as well as a strong belief in rationality. Personally, I don't find any great conflict between faith in something and rationality; others may, but I don't. As an Indian, I can move along with faith and I can also move along with rationality, but I would not ever like to see the day when faith, superstition and backwardness trample upon the fruits of science. We had a Science Minister who came and said that we reject Darwin. We have another Minister who comes and says that we reject Einstein. For God sake, if you reject science, you cannot celebrate science, just because the timing was such. You cannot reap the benefits of timing and then say this.

We had a Science and Technology Minister who said that we discovered the theories of Pythagoras before Pythagoras. For God sake, you are the Minister of the great Republic of India! You cannot make these statements. I beseech of you, please restrain them from making irresponsible statements. A Vice-Chancellor of Andhra University talks about ancient stem cell research. A Chief Minister talks of internet and space communication during the age of Mahabharata. Let us, from this moment, take a note that before we make unscientific comments, we will restrain ourselves, we will stick to science so that we have many more Chandrayaans, we have many more Adityas, we have a superior 'Make in India'. Since people were talking about contribution, a very important point that we need to remember is that this contribution of Chandrayaan reveals that it is the smaller technological colleges of

India, that are not in the limelight, non-IITs, if I may put it bluntly, that have taken India into such a glorious position. We are feeding the IITs, but many of the products of IITs are going abroad to serve the interests of world capitalism, to serve the interests of world domination. Why are we doing it? We need to shift our emphasis to our smaller colleges. Bengal, incidentally, has sent 31 scientists in ISRO. We could have said more about it.

Now, when I mention about superstitions, I also come to two small spoiler points. We have spoken about the greatness of ISRO, but we have not mentioned one word about the Devas-Antrix Scandal. The Devas-Antrix scandal remains alive till today. A few months ago, the Delhi High Court pronounced the judgement which will make you shiver. They say that it is poison in the seed. The entire thing is a poisoned effort. It does not matter to me which regime did it. No regime gets into such great detail. It does not matter. We should have closed this chapter. We should have punished them because we remain vulnerable to an international fraud of something like Rs. 30,000 crores. Why should we pay it? Just because some technocrat made a dirty deal! We talk of the Nambi Effect. We celebrate. We can celebrate science. We can celebrate the effects of science. We can celebrate our victories, but do not, as the Chair has said, bring politics into it.

This brings me to a point where I say that if you want to really move forward with more Chandrayaans, with more Adityas, with more progress in this domain, then, free science. You have made science subservient to the rules of bureaucracy. You have created Departments and Ministries of Science where you have placed scientists, but the rules remain the same. The rules remain the same. You have to have a separate set of rules. You have to go in for faith. You have to allow them to function, not shackle them with bureaucratic rules. My heart leaps when I hear that India has joined the six nations for the National Quantum Mission. This National Quantum Mission will take India forward. Whether 'x' regime stays or 'y' regime comes or 'z' regime goes, it doesn't matter. This permanent contribution to the National Quantum Mission will take India forward. We should move higher.

We have already moved high on the Innovation Index. The world over look at us to see how much we have innovated, not how much we have talked. How many patents have we filed? This is a hard fact. And we have actually gone up. But we need to go further up. This is where the focus should be. The tragic point about Indian science is that even the budget of ISRO has been cut by eight per cent. The tragic part of Indian science is that we do not contribute enough to research and development (R&D). It is an international shame. I am saying it to the Ministers that it is an international shame because when we make claims, we must substantiate

claims. Contribution of our GDP to research and development is 0.65 per cent, out of which four per cent is contributed by the state sector, that is the Government sector, and only 0.2 per cent is contributed by the corporate sector in India. It is the same corporate sector for whom you have allowed remission of four lakh crore rupees. I am repeating it. You have remitted four lakh crore rupees by way of taxes from 2019. What have you got in return? Can you make them contribute half a per cent more? This is the remission of income tax or what you call corporation tax by way of favours. I am repeating the point. It is Rs.12.5 lakh crore. I am repeating it. Rs.12.5 lakh crore of bank customers' money has evaporated, has been extinguished and has been written off to favour big corporates. A big corporate, who belongs to a political party and who was also a Member of this House, has got away with Rs.5,000 crore...(*Interruptions*)... My submission, Madam, is not politics. My submission is that this is the type of money that could get in to help the science sector, with more funding. That is all. All I am saying is this. Don't talk of lack of resources. Say that we have resources but they have gone in wrong directions.

Now that we are conscious of our capabilities in science and technology, in industry and in Make in India, let us put more money in research and development. And where do we get the money from? I have already mentioned about Rs.5,000 crore that has been remitted. Do not permit these things to go on. We have had a long discussion on Space Mission. We have had an erudite discussion by Shri Jairam Ramesh, by hon. Chairman and by the Leader of the House. I thank all of you. We should have found time not only for the space and the moon but also for Manipur. We have had no time at all to discuss Manipur.

With these words, I thank you and I support the Resolution in favour of congratulating Indian science as a whole for several generations.

SHRI TIRUCHI SIVA (Tamil Nadu): Madam, I am very proud to participate in the discussion on India's glorious space journey marked by successful soft landing of Chandrayaan-3 on the moon as a citizen of India, and not of Bharat. It is really a proud moment. The whole world is celebrating it. Chandrayaan-3 landed on the moon very softly. The lander and the rover are doing their work very softly. But as we have landed in this new Parliament Building, we have seen only turmoil and turbulence in the past few days. That is moon and this is Parliament. It is a very happy moment that India is the first country to have landed on the south pole of the moon. This is being celebrated across the world, though it stands fourth among the other countries which have reached the moon. After this successful Mission, India's space exploration industry is being talked about in a big and proud way across the

world and the Indian spacecraft are being considered and seen as milestones of this sector. All the credit goes to the team of ISRO. Their relentless pursuit, dedication and passion have made this country very famous globally. I don't want to repeat what Mr. Jairam Ramesh told or Mr. Sircar spoke here. Yes, its history is very long. Vikram Sarabhai, who has to be recollected at this moment, started the ISRO journey from a church. The church gave its praying space to Vikram Sarabhai to launch its first rocket when he was searching for a suitable space. On this, no caste, no religion; it is India. India has travelled a long way. Now we are reaching greater heights which are being appreciated.

It is very important and I want to say it very emphatically. The Mission Director of Chandrayaan-3, which is very much celebrated, is Mr. P. Veeramuthuvel. He is from Villupuram, Tamil Nadu. Our Finance Minister also did her schooling from this place. He studied in a Government school. He went to Coimbatore and did his engineering. He worked in Lakshmi Engineering Works. Then he came to Tiruchi, to my place, and did from NIT. Now he is considered to be a very shining example for all the aspiring scientists and engineers who are indulged in aerospace.

Project Director of Chandrayaan-2 was Ms. Vanita Muthiah. She is from Chennai. She comes from a very ordinary, humble family. She also studied in a Government school. She studied in various engineering colleges in Tamil Nadu. She was the Project Director of Chandrayaan-2.

Then there was Chandrayaan-1. Mr. Mylswamy Annadurai who is known as the Moon Man; he was, indeed, the first one. In 1969, Apollo landed on the moon with Armstrong and returned. But it was the Mission of Mr. Mylswamy Annadurai which came with the result that water is available on the moon, and that is being hailed across the world. He is responsible for 60 satellites which have been successfully launched by ISRO. He is also from a very humble family. He studied in a Government school and achieved it.

Now Aditya-1 is going to explore the sun. The Mission Director is Ms. Nigar Shaji Sultana from Shengottai which is the southern end of Tamil Nadu. She is also from a very humble family. She studied in a Government school and did her engineering. What has been established by all these things is that to achieve something, a person need not study in a private school or a person need not go abroad to get education. All these students and all these engineers who have succeeded are from Tamil medium school and their second language is English only. To reach the space, Mr. Veeramuthuvel, the successful Mission Director, started from Villipuram and landed on the moon without Hindi and Sanskrit. We are very proud to say that these scientists have shown to the world that India's ISRO and its

space exploration is par excellence. It is better than the developed countries. So also they have established that even persons from ordinary families, with expertise in their own mother tongue, and having English as their link language, can successfully achieve many things. This is a very, very important thing that we have learnt in this.

We have to compliment every one of the scientists. Sivan, who was the former Chairman of ISRO from Kanyakumari, and the present Chairman, Somanath, and all have made us very proud. This Parliament, cutting across party lines, as citizens, as responsible Members of Parliament and on behalf of DMK Party, I congratulate them. Mr. Veeramuthuvel was immediately called and appreciated by our Chief Minister, Mr. M.K. Stalin, after the mission was successful. So, as Members of Parliament, with all responsibility and proud, let us compliment and congratulate the team of ISRO for having taken India globally to a very, very remarkable place. Thank you very much.

**श्री संदीप कुमार पाठक** (पंजाब): उपसभाध्यक्ष महोदया, मैं आज इस बहुत महत्वपूर्ण सफलता के लिए पूरे देश को बधाई देना चाहता हूँ और सबसे ज्यादा उन वैज्ञानिकों और लीडर्स को बधाई देना चाहता हूँ, जिन्होंने इसमें contribute किया है। मैं आपको यह बताना चाहूँगा कि स्पेस मिशन की शुरुआत स्वतंत्रता से बहुत पहले हो गई थी। कोलकाता में प्रोफेसर मित्रा थे, सी.वी. रमण साहब थे और आते-आते स्वतंत्रता के बाद फिर विक्रम साराभाई और होमी भाभा थे। इन लोगों ने एक ऐसी मजबूत scientific leadership की नींव रखी, जिसके कारण आज हमें इसरो का यह स्वरूप देखने को मिल रहा है। 1960 में ही सबसे पहले Indian National Committee बनी थी, बाद में फिर उसका नाम इसरो किया गया था। जयराम जी ने डिटेल में इसके बारे में बताया है, उस पर मैं नहीं जाऊँगा। लेकिन यह जानना बहुत जरूरी है कि इसरो सबसे पहले Department of Atomic Energy के अंडर आता था और बाद में फिर Department of Science बना कर उसको अलग किया गया और होमी भाभा को उसका सेक्रेटरी बनाया गया तथा विक्रम साराभाई, जो साइंटिस्ट थे, उनको इस इंस्टिट्यूट का प्रमुख बनाया गया। यह सबको जानना चाहिए कि 10 इंस्टीट्यूशन्स के build होने के 10 साल के अंदर ही सबसे पहला सैटेलाइट इसरो ने लॉंच कर दिया था, जो अपने आपमें एक बहुत बड़ी बात है। 20 साल होते-होते, जो सैटेलाइट लॉंच व्हीकल होते हैं, इंडिया ने उनको तैयार कर लिया था और 20वें साल के पहले ही अपने खुद के व्हीकल से अपने सैटेलाइट लॉंच करने शुरू कर दिए थे। जीएसएलवी, पीएसएलवी ऐसे लॉंच व्हीकल्स हैं, जिनके द्वारा देश के ही नहीं, बल्कि दूसरे देशों के सैटेलाइट को भी अंतरिक्ष में स्थापित करने का काम किया जा रहा है। प्रश्न आज यह नहीं है, बल्कि मूल प्रश्न को समझना पड़ेगा कि मूल प्रश्न क्या है। मूल प्रश्न यह है कि भारत ने स्पेस साइंस में इतना अच्छा कैसे कर लिया? आज कई सारी जो दूसरी संस्थाएँ हैं, उन दूसरी संस्थाओं को क्या हुआ? वे कहाँ पीछे रह गयीं? भारत ने स्पेस के क्षेत्र में ऐसा क्या किया कि इसरो इतना आगे चला गया? सबसे महत्वपूर्ण चीज़ होती है, एक व्यक्ति। मैं भी साइंटिस्ट हूँ। मैं राजनीति में आने से पहले साइंटिस्ट था, इसलिए मैं इस बात को अच्छी तरह से समझता हूँ। किसी एक साइंटिस्ट से ज्यादा महत्वपूर्ण होती है, संस्था और

उससे भी महत्वपूर्ण होती है उस संस्था को बनाने वाली लीडरशिप। यह संभव है कि हम सबके राजनीतिक मूल्यों में और राजनीतिक रूप से एक-दूसरे से मतभेद हो सकते हैं, लेकिन आज अगर पंडित जवाहरलाल नेहरू को याद नहीं किया गया, तो वह बेमानी होगा।

मैं आपको याद दिला दूँ कि आज़ादी के बाद हमारे देश की परिस्थिति ऐसी थी कि कई जगहों पर खाने के लिए पर्याप्त अन्न भी नहीं था। जब देश में पर्याप्त अन्न भी नहीं था, तो उस समय कोई व्यक्ति कैसे यह सोच सकता है कि पैसा स्पेस साइंस में लगाना है। निश्चित रूप से उनका राजनीतिक रूप से बहुत विरोध हुआ होगा, लेकिन उन सारे विरोधों को अलग रखते हुए उन्होंने अपनी राजनीतिक दूरदृष्टि और स्पष्टता दिखाई। इसको कहते हैं, लीडरशिप - उन्होंने ऐसी लीडरशिप दिखाई। आज जहाँ भारत है और जहाँ पाकिस्तान है, उसका मूल कारण क्या है? उसका मूल कारण यह है कि भारत को आज़ादी के बाद पहले प्रधान मंत्री के रूप में पंडित जवाहरलाल नेहरू मिले और पाकिस्तान को पहले प्रधान मंत्री के रूप में जिन्ना मिले। यही एक-दो मूल कारण हैं, जिनके कारण ही पाकिस्तान आज कहाँ है और भारत आज कहाँ है। हमारे कई सारे मतभेद हो सकते हैं। यह जरूरी नहीं है कि हम हर चीज़ में सहमत हों, लेकिन साइंस और टेक्नोलॉजी में पंडित जवाहरलाल नेहरू जी ने जो काम किया, उसको पूरा देश मानता है और उनकी लीडरशिप को आगे बढ़ाने के लिए हम सबको अनवरत बढ़ते रहना होगा।

जब इन्होंने इसरो को बनाया, तो उनका विज़न क्या था? विज़न यह नहीं था कि छाती पीट-पीट कर दूसरों को अपनी ताकत का एहसास कराना है, विज़न यह नहीं था कि अपने आप में ताकत एकत्रित करना है, विज़न यह था कि साइंस और टेक्नोलॉजी को जनमानस के हित में कैसे उपयोग किया जाएगा। यही वह उद्वेलित और अंडरलाइन रीज़न था, जिसके कारण पंडित जवाहरलाल नेहरू जी ने इस पर भरोसा दिखाया था। आज आप जो कुछ भी देखते हैं चाहे मौसम विभाग से संबंधित जानकारी हो या Communication technology हो, कई सारे क्षेत्रों में स्पेस टेक्नोलॉजी ने जो contribution दिया है, उसके कारण ही आज हम साइंस के दूसरे क्षेत्र में भी आगे बढ़ पाए हैं। लेकिन यह भी देखना पड़ेगा कि क्या पंडित जवाहरलाल नेहरू जी सब कुछ अकेले कर पाते? क्या राजनीतिक परिस्थितियाँ अकेले allow करतीं? यह संभव नहीं था। सरदार पटेल जी भी थे, जिन्होंने उस समय देश में राजनीतिक स्थिरता लाई। अम्बेडकर जी भी थे, जिन्होंने constitutionally इस देश को एक ऐसा महान Constitution दिया। इस तरीके से एक टीमवर्क होता है। किसी भी देश के विकास के लिए टीमवर्क सबसे महत्वपूर्ण होता है। मुझे लगता है कि आज गैर-राजनैतिक दलों में भी और अपने खुद के सभी राजनैतिक दलों में भी इस तरीके के टीमवर्क का अभाव है। विज़न बड़ा साफ था कि साइंस एण्ड टेक्नोलॉजी का उपयोग देश के हित के लिए करना है।

एक और महत्वपूर्ण चीज़ है कि अगर नींव का पत्थर सीधा लगता है, तो बाकी के पत्थर भी सीधे लगते जाते हैं और दीवार सीधी होती है। अगर नींव का पत्थर ही टेढ़ा लग जाए, तो कोई कितनी भी कोशिश कर ले, दीवार फिर सीधी नहीं होती है। इसलिए हमारे पॉलिटिकल लीडर्स, जिनमें पंडित जवाहरलाल नेहरू जी तो शामिल थे ही, उसके बाद इंदिरा गाँधी जी ने भी बहुत contribute किया, फिर अटल बिहारी वाजपेयी जी ने भी जो contribution दिया, वह अभूतपूर्व था।

आप सबको पता होगा कि जब चीन ने अपनी एक स्पेस टेक्नोलॉजी लॉंच की, तब अटल बिहारी वाजपेयी जी ने इसरो के साइंटिस्ट्स को यह कहा था कि इसका कुछ कीजिए, हमें भी इस पर कुछ अच्छा करना है। तब जाकर चन्द्रयान-प्रथम की परिकल्पना की गई। चन्द्रयान-प्रथम, चन्द्रयान-द्वितीय और फिर जाकर चन्द्रयान-तृतीय की उत्पत्ति हुई और उसमें सफलता मिली। कहने का यह मतलब है कि पूरे देश की कलेक्टिव लीडरशिप ने एकजुटता दिखाई और स्पष्टता दिखाई कि हमें इस दिशा में अग्रसर रहना है। यह भी important चीज़ है। आप कोई भी देश देख लें, जो विकसित है। ऐसा क्या कारण है कि वह देश विकसित है और ऐसा क्या कारण है कि कुछ देश अविकसित हैं या विकासशील हैं? उसका प्रमुख कारण यही है कि जिन-जिन देशों में देश के मुद्दों पर राजनीति नहीं खेली जाती है, वही देश आगे बढ़ते हैं। पॉलिटिकल पार्टीज़ तो आती रहेंगी, आज एक पॉलिटिकल पार्टी है, कल दूसरी आएगी, फिर तीसरी आएगी और फिर चौथी आएगी, लेकिन प्रश्न यह है कि क्या देश से संबंधित मुद्दों पर राजनीति होनी चाहिए? आज जो भी देश विकसित हैं, वे ऐसे मुद्दों पर राजनीति नहीं करते। मुझे प्रसन्नता है कि इस मुद्दे पर, यानी स्पेस टेक्नोलॉजी में सभी राजनीतिक दलों ने, आज तक भी प्रधान मंत्री ने जो कहा, उसमें सभी ने अपनी एकजुटता दिखाई है। इसलिए अगर विकसित देश बनना है, तो नारे देने से काम नहीं होगा, सिर्फ sloganeering करने से काम नहीं होगा। अगर विकसित बनना है, तो उसके लिए उस तरीके की व्यवस्था बनानी पड़ेगी। हम जब भी बात करते हैं, तो ऊपर-ऊपर की बात करते हैं कि हम यह कर देंगे, वह कर देंगे, फलां यह हो जाएगा, वह हो जाएगा, लेकिन कैसे होगा? जब तक आप आधारभूत चीज़ों पर deliberate नहीं करेंगे, व्यवस्था नहीं बनाएँगे, तब तक चीज़ें आगे नहीं बढ़ सकती हैं।

दूसरा प्रश्न यह उठता है कि बहुत सारे institutions हैं, DRDO है, IITs हैं, IIMs हैं, बहुत सारे regional engineering colleges हैं, मुझे लगता है कि हमारे देश में सबसे ज्यादा रिसर्च वाले इंस्टीट्यूशन्स हैं, लेकिन ऐसा क्या कारण हुआ कि इसरो विकसित हो गया और बाकी के इंस्टीट्यूशन्स विकसित नहीं हो पाए? पॉलिटिकल लीडरशिप तो उस समय भी थी, सबके लिए समान थी, फिर इसरो ही विकसित हुआ और बाकी के इंस्टीट्यूशन्स विकसित क्यों नहीं हुए? उसका एक बहुत महत्वपूर्ण कारण यह भी था कि साइंटिफिक लीडरशिप भी important होती है। इसरो को जो लीडर मिले, विक्रम साराभाई और होमी भाभा के रूप में, उनकी साइंटिफिक लीडरशिप ने भी जो नींव का पत्थर रखा, उसके कारण इसरो आज यहाँ तक पहुँचा।

आप एक चीज़ और देखिए, वर्क कल्चर किसी भी इंस्टीट्यूशन के लिए सबसे महत्वपूर्ण होता है। अगर उस इंस्टीट्यूशन का वर्क कल्चर सही है, तभी इंस्टीट्यूशन आगे बढ़ेगा। अगर वर्क कल्चर खराब हो गया, तो चाहे आप चले जाएँ, मैं चला जाऊँ या दुनिया का कोई भी व्यक्ति चला जाए, वह न उसको इधर कर सकता है, न उधर कर सकता है।

(**सभापति महोदय** *पीठासीन हुए।*)

वर्क कल्चर को ठीक करना पड़ेगा। इसरो के वर्क कल्चर में ऐसा क्या हुआ है? जहाँ तक मेरी थोड़ी समझ है, मेरे कई सारे मित्र भी वहाँ पर काम करते हैं, तो वहाँ पर डिलीवरी बेस्ड टारगेट्स होते हैं। वहाँ पर meritocracy पर सबसे ज्यादा ध्यान दिया गया है। जब आप

साइंटिस्ट्स की भर्ती करते हैं, साइंटिस्ट्स को लेते हैं, तो आप जिस तरीके से यह करते हैं, जो इसकी मानसिकता है, वह आधार बनाती है। इसरो का जो वर्क कल्चर है, हमारे देश में वह सर्वोत्तम है। अब यह तो जान गए कि इसरो में वर्क कल्चर ठीक है, लेकिन क्या हमने उस वर्क कल्चर को दूसरी संस्थाओं में लाने का प्रयास किया है? क्या हमने कभी ऐसी कोई कमिटी बनाई है? जो बाकी सरकारी संस्थाएं हैं, वे क्यों फेल हो रही हैं? मैं 'फेल हो रही हैं', तो नहीं कहना चाहूँगा, लेकिन अगर आप उम्मीद से कम परफॉर्म करते हैं, तो हमें इसे फेल मानना पड़ेगा। क्या आपने यह सोचा है कि हमारे देश में कितने सरकारी रिसर्च इंस्टीट्यूशंस हैं, उन्हें कितनी फंडिंग जाती है और फंडिंग के हिसाब से कितने साइंटिस्ट्स हैं और इसका क्या आउटपुट है? बहुत सारे ऐसे इंस्टीट्यूशंस हैं, जहाँ पर आउटपुट बिल्कुल ज़ीरो है, फिर भी वे चले जा रहे हैं। हमारे गाँव में यह कहा जाता है कि सरकारी नौकरी बहुत अच्छी होती है। अगर आप उनसे पूछेंगे कि सरकारी नौकरी में क्या है, तो वे कहते हैं कि वहाँ पर काम नहीं करना पड़ता है। क्या मैं गलत कह रहा हूँ? यह हो सकता है कि कई लोग मुझसे असहमत हों, लेकिन सरकारी संस्थाओं की यह परिस्थिति हो गई है कि उन्हें अब ऐसी जगह माना जाता है कि वहाँ पर आपको काम नहीं करना पड़ेगा। अगर सारे इंस्टीट्यूट्स के वर्क कल्चर को समय रहते ठीक नहीं किया, तो यह मानना कि भारत विकसित होगा, एक दिवास्वपन होगा। मैं राजनीतिक दलगत में उतरकर इतने महत्वपूर्ण मुद्दे को विशिएट नहीं करना चाहता हूँ। आपको वर्क कल्चर को ठीक करना पड़ेगा और इसके लिए सबको मिलकर काम करना पड़ेगा।

मैं कैम्ब्रिज, ऑक्सफोर्ड और एमआईटी में पढ़ने के बाद आईआईटी में प्रोफेसर बना था और मैं भी साइंटिस्ट था। जो साइंटिफिक फंडिंग है, वह धीरे-धीरे कम होती जा रही है। मैं मान सकता हूँ कि इसके पीछे कई सारी परिस्थितियाँ होंगी, लेकिन यही तो लीडरशिप का परिचायक होता है। जब आपको कष्ट होता है, जब आपके पास कम पैसे होते हैं, तब आप कम पैसे में किसको कितना फंड करते हैं और आपकी priority क्या है, यही दर्शाता है कि आपकी लीडरशिप कैसी है। जब आपके पास पूरे पैसे हैं, पर्याप्त पैसे हैं, तब सबको बराबर बांट देना, यह कोई बड़ी बात नहीं है। प्रश्न यही उठता है कि हम साइंटिफिक फंडिंग्स को धीरे-धीरे क्यों काटते जा रहे हैं? हमें बैठना पड़ेगा, हमें सोचना पड़ेगा और इसे दलगत राजनीति से ऊपर उठाना पड़ेगा कि कोई भी सरकार आए, कोई भी पार्टी आए, इन सब पर राजनीति बिल्कुल नहीं होनी चाहिए। यह सबसे महत्वपूर्ण प्रश्न है।

महोदय, हम बार-बार यह कहते हैं कि ब्रेन ड्रेन हो रहा है। मैं भी विदेशों में ही था। मैं भी साढ़े नौ-दस सालों के लिए बाहर ही था। मेरे मस्तिष्क में यह क्लियर था कि मुझे भारत में आना है, चाहे जो मर्जी हो जाए, मैं अपने देश के लिए काम करूँगा, लेकिन मुझसे अच्छे-अच्छे साइंटिस्ट्स भी हैं, जो मुझसे भी अच्छा कर सकते हैं, वे विदेशों में ही रुके हैं। उनमें से कई वापस आए भी थे और कई वापस आकर चले भी गए। मैं आपको एक उदाहरण देता हूँ। जब आप विदेश से अच्छी पढ़ाई करके, साइंटिस्ट बनकर यहाँ आते हैं, तो साइंटिस्ट बनने के बाद आप चाहेंगे कि मुझे लैबोरेटरी चाहिए। बिना लैबोरेटरी के साइंटिस्ट वैसे ही होता है, जैसे बिना पानी के मछली और बिना भाषण का नेता। अगर आप किसी साइंटिस्ट को दो-तीन साल के लिए बिना लैबोरेटरी छोड़ देते हैं, तो दो साल में उसके काम करने की चेष्टा, उसका सारा साइंस धरा का धरा रह जाता है और फिर दो साल के बाद वह एक सरकारी नौकर बन जाता है। दो साल के बाद उसे

सिर्फ यह टेंशन रहती है कि मुझे नौकरी कैसे बचानी है, मेरा promotion कैसे होना है और जैसे-तैसे जुगाड़-तुगाड़ करके काम कर लो, काम करके promotion हो जाएगा, तनख्वाह तो फिक्स्ड है। मैं किसी के विरुद्ध नहीं कह रहा हूँ, बल्कि मैं वर्क कल्चर की बात कर रहा हूँ। एक तो आपको वैज्ञानिकों के लिए मूलभूत सुविधा उपलब्ध करानी पड़ेगी। अगर हम यह नहीं करा पाते हैं, तो यह सोचना कि देश विकसित होगा, यह दिवास्वपन ही होगा। हम वहीं के वहीं बैठे रहेंगे और ताली बजाते रहेंगे।

सर, एक और बात है - meritocracy. मुझे लगता है कि साइंटिस्ट्स की रिक्रूटमेंट करके अपने देश में लाना, यहाँ पर उन्हें अच्छे तरीके से प्लेस करना, यह सबकी जिम्मेदारी होती है। अगर हम अच्छे साइंटिस्ट्स लाकर उन्हें रिटेन नहीं कर पाए, अच्छा वर्क कल्चर नहीं दे पाए, तो मुझे लगता है कि सारी सेलिब्रेशंस बेमानी होंगी। हमने एक इसरो तो बना लिया, लेकिन ,सिर्फ एक इसरो होने से पर्याप्त नहीं होता है। अगर हमें अपने देश को विकसित बनाना है, तो सारे सरकारी और प्राइवेट इंस्टीट्यूशंस के वर्क कल्चर को ठीक करना पड़ेगा और यह ऑटोमेटिक नहीं होगा। हर चीज़ के लिए कहा जाता है कि इसमें पॉलिटिक्स मत लाइए, लेकिन पॉलिटिक्स नहीं लाएंगे, तो कुछ सुधरने वाला नहीं है, इसलिए पॉलिटिक्स लेकर आइए, किन्तु अच्छी पॉलिटिक्स लाइए। हम सबको अच्छी पॉलिटिक्स लेकर आनी है, अच्छे इंस्टीट्यूशंस बनाने हैं। मैं एक बार फिर इसरो के साइंटिस्ट्स और देश के उन सभी साइंटिस्ट्स को बधाई देता हूँ, जो कम सुविधा के बावजूद इतना प्रयास कर रहे हैं। मैं उम्मीद करता हूँ कि ऐसे विषयों पर दलगत राजनीति से ऊपर उठकर देशहित में ऐसे काम करें, जो भारत और भारत माता को विकसित और सर्वोच्च बनाएं।

MR. CHAIRMAN: Now, Dr. Jitendra Singh.

THE MINISTER OF STATE OF THE MINISTRY OF SCIENCE AND TECHNOLOGY; THE MINISTER OF STATE IN THE PRIME MINISTER'S OFFICE; THE MINISTER OF STATE IN THE MINISTRY OF PERSONNEL, PUBLIC GRIEVANCES AND PENSIONS; THE MINISTER OF STATE IN THE DEPARTMENT OF ATOMIC ENERGY; AND THE MINISTER OF STATE IN THE DEPARTMENT OF SPACE (DR. JITENDRA SINGH): Thank you, Chairman, Sir, for giving me this opportunity. I have been keenly listening to all the speakers -- Mr. Jairam Ramesh, Mr. Sandeep Kumar Pathak and Siva*ji*. Mr. Jairam Ramesh is quite well-versed with this subject. We respect him for his studiousness. He has tried to also place some of the facts before the House and, in between, tried to also talk politics in science which I shall respond to in the course of few minutes, not in very big philosophical platitude as he did, but with statistical data because, as students of science, we are taught to speak with facts, figures and evidence. But before I do that and leave some thought for him to go home and ponder over, I seek your kind indulgence. प्रधान मंत्री, श्री नरेन्द्र मोदी जी के नेतृत्व की सरकार की मर्यादा के अनुकूल, यदि आपकी अनुमति है,

तो गैलरी में हमारे एक सज्जन बैठे हैं, अगर वे खड़े होकर सदस्यों को अपना चेहरे दिखाएंगे, तो अच्छा लगेगा। Mr. Veeramuthuvel is the Project Director of Chandrayaan. You have celebrated Chandrayaan, you have seen Chandrayaan, you have sung Chandrayaan, but this is the culture under the Government headed by Prime Minister Modi. With all the patronage and support from all the quarters in the Government, this team works in anonymity. If there was an iota of politics, this would not have been so; it would have been otherwise. He is not a dynast. He is not there by virtue of being a member of any family. He is there, and he does not even boast to be there. His appointment was made by the present Government to oversee Chandrayaan-3, the series of which started with Chandrayaan-1. The clearance for this was given by the then Prime Minister Shri Atal Bihari Vajpayee and the third of series happening under Prime Minister Modi.

Now, before I move further, I would give you full statistics, enough food for thought, but I would not create an unpleasant taste for the House. So, let us first celebrate what it is. I think, we are first here to celebrate the science and the scientists. If you go back and see the pictures in the archives, Sarabhai carried launcher vehicle on a bicycle carriage. Who was the Prime Minister at that time? Which was the Government at that time? सभापति जी, हमारे वैज्ञानिकों में कभी प्रतिभा की कमी नहीं थी, योग्यता की कमी नहीं थी। उनमें निष्ठा भी थी, मेहनत करने का जज्बा भी था, आँखों में सपने भी थे और कुछ न होते हुए भी कुछ कर गुजरने का साहस भी था, लेकिन अभाव था, अनुकूलता का और वह अभाव अब पूरा हुआ है। यह जो आंकड़े बताए गए हैं, this is part of the history. I do not think we have to repeat it; everybody is familiar with that. We do not even need a 'crorepati' question for this. Everybody knows that it started in 1962. It began and, in 1969, you had the I.S.R.O. All that has been given. What is important is: when we started our programme in the earlier mid sixties, on the one hand, you had Sarabhai devoid of transport.

Sir, on the other hand, you had Soviet Union and United States preparing to land a human being on the surface of moon. That was the gap. That was the difference and the distance between the two. And, still, this group of young scientists had that courage. Now, what has happened which has led to this quantum leap. Something might have happened. कोई जादू की छड़ी आ गई है। अभी हमारे मित्र कह रहे थे कि वैज्ञानिकों को पैसा नहीं दिया जाता, प्रोत्साहन नहीं दिया जाता। मैं एक-एक करके उसकी भी बात करूँगा। वे शायद हाल ही के कुछेक दस्तावेजों से परिचित नहीं हैं। ऐसा कुछ तो हुआ होगा, that we started meeting success now and not then; three generations later. इन्होंने कहा कि this is not a military programme. जयराम जी ने ठीक कहा and he complimented for not making it a military programme. The question then is, if it was not a military programme, then, why were the civilians debarred from

entering the premises of Sriharikota? You had regimented it. It is for the first time that the gates of Sriharikota have been unlocked in 2020. Who the Prime Minister at that time was, I am not going to say. It is because this debate is not around Prime Ministers. Unfortunately, it is being sought to be.... ...*(Interruptions)*...

SHRI JAIRAM RAMESH: Why do you... ...*(Interruptions)*...

DR. JITENDRA SINGH: No; no, you made it. You made it a Nehruvian debate. I don't want to go into Nehruvian blunders. I am not going into that at all. It is because as I said, it is all honesty. We will talk in facts and figures on the basis of evidence. We don't even need to name the Prime Minister. I am not naming anybody. But, this happened only in 2020. At the time of launching of Chandrayaan, there were thousands and thousands of media persons right at the site, watching it with their naked eye. Somebody tweeted from that side -- I do not know whether it was Jairam*ji* himself -- as to what the difference is, क्या बड़ा हो गया? I was, at that time, at that site, and the landing had just happened ten minutes earlier and the media persons confronted me, 'What do you say?' उनका यह बयान आया। वे भी विद्वान हैं। वे कह रहे हैं कि क्या फर्क पड़ा जो इतना शोर हो रहा है? I asked him, 'When did you come here last?' He said, 'Sir, for the first time.' I said, 'That is the difference.' ...*(Interruptions)*... No; this will tell you... ...*(Interruptions)*...

**श्री सैयद नासिर हुसैन** (कर्नाटक): मीडिया को...(**व्यवधान**)...

MR. CHAIRMAN: Please don't interrupt. ...*(Interruptions)*...

**डा. जितेन्द्र सिंह:** बात तो आगे करेंगे, क्या हुआ? ...(**व्यवधान**)... तो यह ट्वीट करने का क्या मतलब था? ...(**व्यवधान**)... आप बात को सुनिए। ...(**व्यवधान**)... Now, the point is that the common man was debarred from even peeping inside the gates. This will address all that is being said. Now, they are saying as to why they were kept away. You had kept the Space Department behind a veil of secrecy. You had regimented it. You had disallowed it to be synergized with all the stakeholders. You had disallowed the industry to indulge in this and that is why; the progress got halted. It took us 75 years to reach where we have reached. That has happened after the quantum leap of the last few years. What has happened is, before 2014, there were four start-ups in space. It is embarrassing to say. Between 2020 and today, there are 150 start-ups, and earlier ones have already turned into entrepreneurs like Skyroot and others. One of our friends spoke about the science at large, but let us first celebrate as to

what we are doing. Then, it was said about engineering colleges, Government engineering colleges and women colleges, this is what Jairam*ji* was saying. He was saying as to why do we celebrate five IITs only. Thank God, we celebrate. These were created by Nehru. But, we have never said that our scientists are only from IITs. Even today, this entrepreneur I have introduced is not from IIT; none of them. We have also celebrated women scientists; Mr. Veeramuthuvel is the Project Director and the Joint Director is Ms. Kalpana. Of course, for Aditya, as Shri Tiruchi Siva*ji,* rightly mentioned, Nigar Shaji is from Tamil Nadu. Now, you have narrated the entire history because you think that you are addressing a House which hardly reads science, which hardly reads space. So, you score that in 1962, this happened and in 1969, Sarabhai died. We know all those details. About Sarabhai, I can tell you even further details as to how he died and what happened. He died from myocardial infection and there was a conference in IIT; he didn't wake up in the morning and then Satish Dhawan... *...(Interruptions)...*

SHRI JAIRAM RAMESH: Sir, this is most uncalled for. *...(Interruptions)...*

DR. JITENDRA SINGH: No; you have spoken. *...(Interruptions)...* You have spoken. *...(Interruptions)...*

SHRI JAIRAM RAMESH: Sir, what is this? *...(Interruptions)...*

DR. JITENDRA SINGH: I am not yielding. *...(Interruptions)...* What I am trying to say is that you are trying to relate a chronology. *...(Interruptions)...* You are trying to relate a chronology simply to submerge the facts.

SHRI SYED NASIR HUSSAIN: You told as to what all you have done.... *...(Interruptions)...* You can come and go. You can narrate the achievements... *...(Interruptions)...*

DR. JITENDRA SINGH: I can... *...(Interruptions)...* I am coming to that. *...(Interruptions)...*

MR. CHAIRMAN: Never from the seats like this. *...(Interruptions)...* No. *...(Interruptions)...* Please, no. *...(Interruptions)...* I have not given you the floor. *...(Interruptions)...*

DR. JITENDRA SINGH: I didn't interrupt. ...*(Interruptions)*... No; I am not yielding and I didn't interrupt. ...*(Interruptions)*...

MR. CHAIRMAN: I do not give you the floor. ...*(Interruptions)*... Please take your seats. ...*(Interruptions)*... Please continue. No; no. ...*(Interruptions)*... Don't come in defence of Jairam. ...*(Interruptions)*... Nothing will go on record. Jairam is competent to defend himself. ...*(Interruptions)*...

SHRI SYED NASIR HUSSAIN: *

DR. JITENDRA SINGH: I am narrating all. ...*(Interruptions)*...

MR. CHAIRMAN: And, if there will be an occasion, I will give opportunity. ...*(Interruptions)*...

DR. JITENDRA SINGH: I am narrating both what the past Governments did as well as this Government does and I am not naming the Prime Ministers. ...*(Interruptions)*... Everybody knows that Sarabhai passed away unfortunately at the prime of his life and Satish Dhawan stepped in and, of course, he had to, for legacy reasons, the headquarters continues to be in Bengaluru. Now, who knows Satish Dhawan more. Incidentally, he belonged to Jammu and Kashmir which many of the friends here may not be aware of. Nevertheless, that is besides the point. What I am trying to say is, need not share these facts just to impose ourselves. Let us actually talk about the facts and figures. Now, when you say as to what is new, and as it was tweeted, the new is the Budget itself. I am going to come to the funding as a whole. But, if you see *per se*, it is only the Government Budget. If you see the Space Budget alone; there is a 142 per cent increase in the last nine years. The Budget of Department of Space in 2013-14, you can check and verify, was Rs. 5,168.96 crore. The Budget in 2023-24, for the Department of Space is Rs. 12,543.91 crore, nearly Rs. 13,000 crore and there is almost three times increase. Now, for the friends who were generalizing and saying as to what is the Science Budget. I can give you individually. Overall, if you see, all the Science Departments, the total Budget in 2013-14 was Rs. 21,025 crore. This year, it is Rs. 57,303.69 crore. I am not going in to the other Departments of Science. For example, for Atomic Energy as somebody was referring to Atomic Energy, it was Rs. 7,561 crore in 2013-14 and it is,

* Not recorded

now, up three times to Rs. 25,078.49 crore. If you look at Department of Science & Technology, it was Rs. 7,000 crore in 2013-14, to be precise, Rs. 7,051.74 crore. Somebody can take down these figures and verify it. In 2023-24, it is more than twice, that is, Rs. 16,361.41 crore. Now, what more in funding? Our friend, who claims to be a scientist, was bemoaning this, what earlier Governments did not do and what this Government has done. What he was trying to suggest is that we should make it more liberal for funding.

Maybe, he has not gone through it because that day there was so much of din and, unfortunately, discussion could not happen when I brought in the Anusandhan National Research Foundation Bill over here. I wish you were there, we could deliberate on that. That has precisely addressed what hon. Member, Mr. Pathak, was mentioning. Issues which could not be addressed by the earlier Government successively for 75 years have been addressed now. I am not going to name who the Prime Minister was. The Anushandan National Research Foundation Bill envisages almost 80 per cent of funding from non-Governmental sources. It was important for India. Hon. Members and hon. Chairman, Sir, if we have to grow globally, we have to live up to global parameters, we have to be ready for global challenges and we have to beat them in the global strategies. America already had a foundation--I am sure he must be aware of it since he is claiming that he is a scientist from abroad--which was called the National Research Society. Some of the European countries like Germany had. Why did we not have? Why did we have to wait for 14 Prime Ministers? Why did we wait for 14 Prime Ministers? Who will answer this? And this is all based on facts and figures; you can check it. Today, we have National Research Foundation in the form of...

MR. CHAIRMAN: We will resume at 2.00 p.m. The House stands adjourned to meet at 2.00 p.m., today.

*The House then adjourned for lunch at one minute past one of the clock.*

*The House reassembled after lunch at two of the clock,*
MR. CHAIRMAN *in the Chair.*

MR. CHAIRMAN: Dr. Jitendra Singh to resume.

DR. JITENDRA SINGH: Sir, when I left, we were talking about some statistical figures. As I promised in the beginning, I shall talk about science and only science

and not referring to what happened under which Prime Minister, and let the House decide. So picking up from my last observation, there is a 142.68 per cent increase in the Space Budget between 2013-14 and 2023-24. If in 2013-14, it was Rs.5,168.96 crores and this year, it was Rs.12,543.91 crores. I agree with what was being said that there was activity happening earlier also and private participation having earlier also. But, as I said, the figure was so dismal, where there were only four space start-ups in 2014 and today, we have 150. And, that has been possible because a new arrangement was set up, an interface was set up which is known as 'IN-SPACe' which facilitates the engagement of industry and it is headed by a non-Government person, a person from the corporate sector, who is presently heading it. At the same time, a PSU was also set in called NSIL, New Space India Limited, in order to engage in collaborations. And, this is what has given the outcomes, a multiple or a manifold investment. So, there is a huge synergy now between research, academia, start-ups and industry. And, in certain ways and in certain projects, industry has quite a meaty contribution. Then, I was referring to Anusandhan which is just coming and that is where I had to stop. Out of the Rs.50,000 crores Budget that has been envisaged for five years, in Anusandhan National Research Foundation, you will be glad to know, as much as Rs.36,000 crores, almost 70 per cent, is going to come from non-Government sources and this has happened only six months back. I do not have to say who the Prime Minister was, and this will pave the way for a greater involvement of the industry because I, personally, also believe the time is gone when there used to be a demarcation for private and public sectors and if we have to grow further from where we are, as the hon. Prime Minister keeps reiterating the *Amrit Kaal*, at the end of 2047, and if we have to be a global player and decide a global leadership for us, we have to meet the global challenges, live up to the global parameters and have to have the global strategy. Now, this National Research Foundation was a concept being practiced in U.S. and also in some of the European countries. Why did we have to wait for six decades and who all were the Prime Ministers in between? I leave it at that. Now, as far as the foreign engagement is concerned, it was said that the satellites were being launched earlier also. Yes, I am not denying what is true. I am only adding to the half truth said. The total number of foreign satellites -- yes, this process first happened in 1990 -- till date, it is 424. Now what I am trying to say, the next sentence is interesting. Out of 424 satellites launched till 1990s, as many as 389, more than 90 per cent launched in the last nine years. Which was the Government and who was the Prime Minister? We have so far earned 174 million US dollars from the launching of the foreign satellites. Out of these 174 million US dollars, as much as 157 million dollars have been earned only in the last nine years. Which

was the Government, who was the ruler was, I don't have to spell that out. The figures speak for themselves. Out of the European satellites launched so far, in the last nearly 30 years or more than that, the total revenue generated is 256 million Euros; interestingly, out of 256 million Euros, 223 million Euros, that is, almost 90 per cent, have been earned in the last nine years, which means the scale has gone up, the speed has gone up. And, therefore, there is, as I said, a huge jump that has happened. Now, I think credit should be given to our scientists and to the kind of patronage, as I said in the beginning and which was very well also put out by hon. Jairam.

We had brilliant scientists like Sarabhai and Homi Bhabha, another brilliant scientist who incidentally came to India for a vacation or holiday, but the war broke out and he could not go back. By that time, the Independence was in the offing, he stayed back. But, nevertheless, the point is that we had to wait all these years for so many things to happen which could have happened earlier also. I am sure somebody would analyse as to why this could not have happened earlier when we had the human resources. What was lacking? What did not happen has happened. And, what could have happened, why did it not happen? The acumen was so much. I am saying so because the people should know and appreciate that our Chandrayaan had cost us just Rs. 600 crores, whereas a simultaneous lunar mission which did not prove to be successful costed around Rs. 16,000 crores! So, our scientists are working under huge financial constraints and they are admirably made up for that by investing in cerebral assets. We might be lacking in financial assets, but not in cerebral assets. So, what were we doing? We moved out and took about 20 circles around the earth using the gravitational force. It was like driving a car in a neutral gear in order to save the fuel. Then, we immediately trajected out, went into the lunar orbit, took around 40 circles around the moon and it took us around 30 to 40 days, quite in contrast to the Russian Mission that happened simultaneously. But, we saved a lot. I have to compliment the scientific community of India. They have given the world the concept of cost-effective space missions by producing missions which are not even 1/10$^{th}$ of the cost of the other missions. Our Aditya-L1 Mission, which was very rightly applauded by hon. Jairam*ji* and others, had cost us just about Rs. 380 crores. On the other side, it gives us an idea that if we did not have the constraints that the scientists are confronted with, they could have gone much higher and that is what is sought to be provided in the last few years. It is not about giving credit to anybody or taking credit from anybody. The processes were there, but they sought to be given a new global outlook. Now, if you go only by the figures, I think,

the record of sending 104 satellites, that is a world record, this was set up in February 15, 2017. I do not have to say which Government it was.

The first GSLV MKIII was sent on 5th June, 2017. The record number of foreign satellites launched in single go was 31. Out of which, 28 were foreign, sent on 12th June, 2018. In 2017, on 5th May, a South-Asian satellite, which sometimes popularly described as SAARC Satellite, is catering to all kinds of inputs to the neighbouring countries including Nepal, Bhutan, Bangladesh. Unfortunately, Pakistan chose to remain out of it to its own disadvantage. So, we are now in a position also to provide inputs and useful information to the neighbouring countries. It is very much in the spirit of Atmanirbhar Bharat and also in the same spirit of the Vaccine Maitri. A country which hardly had the concept of protective healthcare, it was like this. Even if we fell sick, we left it to God. If you get well, it is mother's blessings. If you do not get well, it is पिछले जन्म का कर्म। It may be because of the socio-economic constraints. Even the concept of healthcare was not socially or culturally commanding that kind of priority, That country today has become a leader in protective healthcare by providing first ever DNA vaccine and gifting it to the world. In the same spirit, the space technology now also is being provided for the benefit of the other countries. The other part of it is, which has very conspicuously happened in the last eight to nine years, that we have not confined ourselves only to the launching of rockets. The launching of rockets catch nation's fancy. The entire nation was glued to the screen when landing happened and it was because the gates had been opened up. The whole country took it as its own mission. What used to happen earlier? You had a launching in the remote corner of a newspaper' you used to see a single column news saying 'Sriharikota'. You could not even make out where Sriharikota is located. Now, we are getting tourists there, we are getting visitors there, we are getting boys and girls. We had 10,000 spectators to watch the launch of Aditya-L1 Mission, in comparison to just 10 of the team members we used to have in 2014. The spectators were from all the sections of the society. So, we have to move in a synergised manner, we have to involve people. This has to be whole of Government plus whole of nation's effort and that is precisely has happened now which has led to generation of cumulative, collective human resource as well as knowledge resource.

The other part as I was mentioning is, in the last eight to nine years, we have not confined ourselves to the launching of rockets, space technology today is being applied virtually in every development projects of every sector. I have no hesitation to say that the space technology has entered every Indian household. Some of us may not realise but it has already happened. In detection of floods and disasters, of course, we are ahead of others. The other day somebody has asked: what would be

the benefit of spending Rs. 600 crores on Chandrayaan? Many of us do not realise that the amount that has been saved by averting disasters through space technology is much, much more than the amount spent on Chandrayaan. So, in the age of figures, statistics and evidence, I cannot say, it is true, since I am saying so. Also, gone are the days when I would say, I am more experienced and wiser than you or I am more grey-haired.

MR. CHAIRMAN: Sir, I do not see grey hair. I see grey material; but, grey hair is not visible.

DR. JITENDRA SINGH: Sir, all kinds of colours are available in the market today. Sir, with an inspiring Chairman like you, I think, it motivates everybody to use the kind of colour which he or she wants.

MR. CHAIRMAN: For grey hair, you can look to Shri Jairam Ramesh, he has complete grey hair.

DR. JITENDRA SINGH: I will share some with him also. But, he has more grey matter than me.

So that was about our disaster-tackling capability. Again, through space technology, we have launched a huge smart city project in the last ten years. A role model success story which is now being emulated in the rest of the world also is our SVAMITVA Programme, which as I said, is working through whole of Government. We have Department of Rural Development and the Revenue Department. This is regarding mapping of land, mapping of farms using space technology and drones which brings in more of transparency, less of corruption. You do not have to make rounds to the revenue offices, you can assess it by yourself. I think, out of nearly six lakh inhabited Panchayats, almost three lakhs or so have been completed through this programme. It is being used for laying of railway tracks and for unmanned railway crossings, for telemedicine, of course, I do not have to mention about it. Then, we have agriculture sector also. Sir, virtually in every sphere of life and every sphere of sectoral development, we have the space technology now. I think, the time has come where I agree with most of the Members who very optimistically concluded their speeches. The measure of our success is always relative. The Einstein's theory has survived on that.

So, what is important is, as was being mentioned by someone, that US landed a human being in 1969. True! If you recall and those who are the keen

watchers would remember, Neil Armstrong landed there, took a stroll, BBC captured a film. That was the main news agency in those days. He made a famous statement which has gone down in the history. He said, 'one small step for man, giant step for mankind.' He said so, no doubt, but he could not notice the presence of water even though he had a stroll around. It was our Chandrayaan which later on went and got the evidence of *the* water molecules, the H2O, which could give a direct or indirect indication of the possibility of human habitat. सभापति महोदय, हम तसव्वुर में जो कहानियाँ सुना करते थे कि चाँद पर क्या होता होगा, लोग बसते हैं कि नहीं बसते हैं, बसते हैं, तो कैसे हैं, वहाँ पर परियाँ नाचती होंगी - उन पहेलियों का वैज्ञानिक उत्तर ढूंढ़ने की प्रेरणा अगर किसी ने दी, तो हमारे चंद्रयान ने दी। I think also one of the best examples of combining our traditional knowledge, which is our asset with the most modern cutting edge technology. विमान का नाम चंद्रयान, वह जहाँ पहुँचा वह शिव शक्ति, लेकिन जो उसके इनपुट्स आ रहे हैं, वे हमसे भी कहीं पहले नासा उपलब्ध करवा रहा है because that is a virgin area, virgin territory, nobody had ever ventured here. So, even those agencies which started much before us, now, that takes us to the other inference, and we are today at par as far as science, technology and innovation capabilities are concerned with any other country of the world. In some spheres, we have even moved one step ahead. And again, to give you an evidence, an example -- I am not talking which Government -- television debate happened in USA in 1950. All the learned Members of the Upper House know that in 1960, the famous Presidential election was finally determined by the outcome of a TV debate between John Kennedy and Richard Nixon. He turned the tables against Nixon. We, in India, did not have a cue what this was all about, what is TV, what is debate, how it happens. We saw TV for the first time sometime close to 1970, that too a weekly Chitrahaar. Which Government, which head of Government it was, I am not saying. Even computers came 15 years later. Today, quantum technology, the *latest* cutting edge technology, we are among five or six countries in the world which are into it. We are among the first who have Mission Quantum Technology launched just six months back; this again, under whom, I need not say. We are at the same level, the R&D level because in scientific projects, you have different levels. We have not yet gone into application level, but if they are in the research and development, we do. Otherwise, what would happen? Television would have become popular in America. They would have indulged in TV debates for elections and then we would suddenly wake up to something called this new discovery. Similarly, in space technology, as has been said, we are already among the first two or three. Now comes the space economy. True, our space economy is not something that we can boast of, but I do have the courage to say that this is a cumulative effect of the last sixty-seventy years since we have started.

Today we are only 8 billion space economy. I am very humbly, modestly admitting it, but our projection for 2040 is 40 billion. So, if since 1960s, as was being said, till 2000, second decade or third decade, we reached eight billion, and in the next 15 years, we will reach 40 billion, but the most interesting part is that only a few days back, I think, hardly a week back, we had a famous Report called, ADL Report, one of the international reports, Arthur De Little Report. They keep making such projections. The Report says that India could go up to not 40 but 100 billion dollar economy by 2040. In other words, my own projection about myself is lesser than what the others are thinking about me, which means that the world today has recognized the quantum jump that India has undertaken, the fast track in which it is moving. Now, our startups, as was being mentioned by some other Members, in 2014, we were only 350 to 400 startups. Which Government, all Members are learned enough. In 2016, Standup India, Startup India Policy was launched from the ramparts of Red Fort, announcement made in the Independence Address by the Prime Minister. Within a few years today, hon. Chairman, Sir, we have 1,25,000 startups, more than 110 unicorns. And what I am not saying, the Ruling Party is not saying, the Treasury Bench is not saying, the world is saying that India has suddenly jumped up to the third position in startup ecosystem in the world. Now if it has happened now, how can we help it? And if it has happened now, something must have been contributed to make this happen, some enabling milieu might have been created, and some enabling provision might have been created. Similarly, in Global Innovation Index, again, not mine, not yours, internationally determined parameters have recognized. In 2013-14, we were in 81$^{st}$ position, today we have jumped 41 positions and we are at number 40. Now, is it not a matter of pride for each one of us? When we talk of space economy, we can foresee that space economy is going to be a major contributor, India's future economy as well and we have jumped.

MR. CHAIRMAN: Hon. Members, I have got an input from some Members in writing. They say, 'many of us feel it is so cold.' One thing is very good. The Secretary-General will take steps to moderate the temperature and another significant facet, we are not generating heat, we are in full collaboration. The hon. Minister must have been very serious student of Shakespeare. He, in his speech, has taken to Julius Caesar, and our Jairam Ramesh has not interrupted him. Please go ahead.

DR. JITENDRA SINGH: I would like to tell, Sir, that the Aditya is going to study this part also, the thermal aspects, the magnetic aspects and the solar aspects emanating from the Sun, how effectively the possible harmful effects could be

avoided, and to what extent this could be put to advantage for those living on planet earth.

Sir, coming back, Global Innovation Index and International Index, we have come up 41 positions in nine years. Overall space economy is going to be an important part of it. We are today fifth and, I think, in many quarters, more celebration is done when it is said that we have overtaken the United Kingdom. So, just as we have overtaken the United Kingdom, some people also feel rejoiced that we are now launching US satellites. Now what I am trying to say is that now the world looks up to us. Gone are the days when India used to be led by others. Today the world is ready to be led by India under Prime Minister, Modi. ...*(Interruptions)*.. On biotechnology, how can I not say that it did not happen unless the Prime Minister changed? You have to accept it. Now biotechnology, we were only 50 startups in 2014. Fifty, we could not even say this very respectfully. ...*(Interruptions)*..

With the new provisions brought in, now we are going to have bio-manufacturing policy also. It has gone up today to 6,000. Our bio-economy was 10 billion US$ in 2013-14. Today, it has gone up eight times to 80 billion US$. So, in 65-70 years, we reached 10 billion US$; in nine years, we reached to 80 billion US$. So, eight times increase in eight or nine years! For a country which has a huge bio resource, we have a wide range of the Himalayas. Three-four States are in the lap of the Himalayas--Arunachal Pradesh, Uttarakhand, Himachal Pradesh, Jammu & Kashmir. I don't have to read all of those. We have 7,500 kilometres long coastal line, the longest in the world beginning from Odisha up to Maharashtra. The sea bed is full of minerals, metals and bio-diversity and bio-sources. Now, we have also launched Samudrayaan under the Ministry of Earth Sciences to explore that wealth. I am sure, given your kind of penchant and humour, you would appreciate that we are the only country which has an ocean named as Indian Ocean. The other day, I was telling some friends from Australia, 'You come from a place which is a country, an island and a continent--Australia! But the ocean is not known as the Australian Ocean.' Because my forefathers must have foreseen the huge wealth lying inside. उस अपार सम्पत्ति को निकालने का काम भी अभी पिछले 5 साल में समुद्र यान में शुरू हुआ। ...(**व्यवधान**)... समुद्र तो वहीं था। ...(**व्यवधान**)... ठीक है, 'भारत ओशन' रख लीजिए। ...(**व्यवधान**)... Welcome; a good suggestion and it is well taken. ...(*Interruptions*)...

MR. CHAIRMAN: I think, that is the sense of the House!

DR. JITENDRA SINGH: I think, there is a sense of acceptance; I am glad. ...(*Interruptions*)... So, these exclusive resources will contribute to our economy

and these are primarily scientifically driven. We have an Aroma Mission. It has happened only in the last five years. India has given the world the Purple Revolution. It has begun from the Himalayan States. Now, it is being emulated by all others--cultivation and production of aroma products, lavender products, giving competition to some of the imported products including their perfumes, etc., the confectionaries. All this has not only given us a sense of esteem to science and scientists, this has also given a sense of esteem to the common citizen of India.

Somebody was saying: What is done for the scientists to come back to India? What has happened to education? Though this discussion is not related particularly to education, of course, scientists have to undergo some kind of an education. We had a National Education Policy. At the risk of sounding unorthodox, I would say that we had a National Education Policy which has enabled to give us the best of the emirates as far as the scientists are concerned. It is said that an anomaly is sought to be created through the National Education Policy, 2020! ...(*Interruptions*)... False. I will tell you how it is. The professor will understand it better. After I did Class-XII, my parents wanted me to be a doctor; I did not manage it to a medical college. What do I do? I do graduation. Which subject? In Biology or Botany. I can't go to any other subject. The professor knows it better. Then, after graduation, what do I do? ...(*Interruptions*)... That is what I am coming to. I go for the civil services examination. If I make it, it is good; if I don't, then what do I do? I go for M.Sc. Again the same subjects--botany and zoology. I can't go to economics. Finally, either you do a Ph.D., then become a scientist or whatever. It was happening by default. Now, you have given credentials to aptitude, to talent, to the inherent capacity. You have exit-entry provisions. You can change your subjects after Class-XII. You are no longer a prisoner of your aspirations. You can combine science with economics. ...(*Interruptions*)... I am not yielding. Please go through the NEP 2020 document, then we can have a debate. You have not gone through that. After Class-XII, I can change my medical subjects; I go over to the economics. Was it there? Why was it not there before? ... (*Interruptions*)...

Please go through the draft, then we can debate. Secondly, this National Education Policy, 2020 has happened in 2020. The name indicates the year! What do I do? It didn't happen earlier. ... (*Interruptions*)... Yes, partly, I agree to the delinking of degree. It has also happened through this policy. We have actually liberated our science aptitudes, science capabilities and human resource at multiple levels--the level of funding, level of encouraging, level of also exercising the choice and preferences. Therefore, I can go on and on. But, I would conclude because I have taken more than the time required.

Sir, it is a moment to celebrate. I think, this should be in anybody's mind. ...(*Interruptions*)... Yes, and those who facilitate them. ...(*Interruptions*)... If you are serving a class; if a scientist is working for 24 hours, like a good Samaritan, if you offer him a cup of tea, do I not appreciate you? Yes, that is what we are doing. We are offering them funds when they require it. We are offering them the environment when they require it. We are offering them freedom when they require it. We are offering them energy when they require it. We have liberated them from those self-imposed shackles. We have liberated them from this. This has happened in the last nine years! Sir, just to conclude, I would say; it is not me saying or the Treasury Benches saying. It happened during Prime Minister's U.S. visit. I can't help it. It is in the public domain. The U.S. solicited that our astronauts should accompany them to the international space stations. That means, they have recognised the worth of our astronauts. What do I do? If the Opposition Members have a problem with that, it is not my fault. ...(*Interruptions*)... Are you my well-wisher or what?

SHRI TIRUCHI SIVA: Sir, the board displays that he is the Parliamentary Affairs Minister; but he is the Science & Technology Minister.

MR. CHAIRMAN: Friends, we are looking at all situations. Several small and minor things have to be done. No effort will be spared. I have requested the Members and the leaders to make suggestions to me also. I had an occasion to get their inputs also. We need only some breathing space. We are having ...(*Interruptions*)...

DR. JITENDRA SINGH: Sir, I would not take long. The Americans today solicited that our astronauts should be accompanying them to the international space stations. That means they recognise our capabilities. The Americans today suggest that we should be part of their semi-conductor consortium. That means, they think that we have some value addition to do with them. The Americans today want us to be their Artemis Agreement. Without any pride or prejudice, regardless of which side we are sitting, there is something to celebrate. Chandrayaan was a moment of glory for India. I don't think anybody can deny that. Now, of course, as Jairamji said, we will be going ahead with Gaganyaan. Just to share a small bit of information, we got delayed because of Covid and supply chain problems. We would be shortly sending the first trial mission which will be non-human. It will go quite a few miles. Then the second mission will again be non-human, but will mimic a human being; it will be a robot mission with a female robot, scientist Vyom-Mitra, possibly by the beginning of the next year.

Finally, as was being said by the hon. Member, we would have, in 2024, the first human space mission, Gaganyaan. Though our human space mission had been there, but again you would say Rakesh Sharma went there and he told Mrs. Gandhi '*Saara Jahan Se Achcha',* जो अभी तक बजता है। But, we are conveniently forgetting that was a Soviet Mission. A totally indigenous Mission from nut-bolt is now in the offing and that is why the world today looks up to us and recognizes us as a partner who is equally engagable and maybe a force to reckon with in the times to come. Thank you.

MR. CHAIRMAN: Hon. Members, it is very soothing to hear from all sides. We are having a scholarly debate. This will send a very good message and I am sure it will continue. Shrimati Sulata Deo.

SHRIMATI SULATA DEO (Odisha): Hon. Chairman, Sir, Jai Jagannath! I will speak on "India's glorious space journey marked by successful soft Landing of Chandrayaan-3." सर, मैं सुबह से सबकी बात सुन रही हूं और अभी मैंने मंत्री जी को भी सुना। मैं एक बात कहूंगी - डा. विक्रम साराभाई, डा. होमी भाभा और डा. ए.पी.जे. अब्दुल कलाम जी को आज यहीं से मेरा नमन है, श्रद्धांजलि है।

[**उपसभाध्यक्ष (श्रीमती ममता मोहंता) महोदया** *पीठासीन हुईं।*]

जो साइंटिस्ट्स आज हम लोगों के बीच में नहीं हैं, उनका जो स्वप्न था, वह स्वप्न तब पूरा हुआ, जब चंद्रयान-3 की सॉफ्ट लैंडिंग हुई। हम लोगों ने 2019 में जब चंद्रयान-2 का प्रक्षेपण किया था, तब कुछ तकनीकी खराबी के कारण उसकी सक्सेसफुल सॉफ्ट लैंडिंग नहीं हो पाई थी। मुझे याद है, तब न्यूयॉर्क टाइम्स ने हम लोगों का जिक्र एक satire cartoon दिखा कर किया था। आज अभी माननीय मंत्री जी बता रहे थे कि वही अमरीका आज हमारे साथ काम करना चाह रहा है। यह है हमारा भारत, जो कर दिखाने की क्षमता रखता है। एक कहावत है :

*"लहरों से डरकर नौका पार नहीं होती*
*कोशिश करने वालों की कभी हार नहीं होती।"*

भारत ने जो कोशिश की, वह कहीं न कहीं आज सक्सेसफुल हुई है। मैं एक बात और कहूंगी, हालांकि 2019 में चंद्रयान-2 की लैंडिंग फेल हो गई थी, लेकिन जब हमने चंद्रयान-3 भेजा, तो कहीं न कहीं उसको बहुत मोडिफाई किया गया था, जिसकी वजह से उसकी सक्सेफुल सॉफ्ट लैंडिग या सेफ लैंडिंग हो पाई। यह कोई कम बड़ी बात नहीं है। जब जुलाई में इसरो के माध्यम से हम लोगों ने चंद्रयान-3 भेजा, तो 3,84,400 किलोमीटर की दूरी पार करने के बाद उसने चन्द्रमा पर सॉफ्ट लैंडिंग की। 23 अगस्त, 2023 को भारत ही नहीं, सारे विश्व की नज़र

भारत के चंद्रयान-3 के ऊपर थी कि वह कैसे लैंड कर रहा है। यह है हमारे भारत के वैज्ञानिकों का बेहतरीन काम, जो हमारे भारत के वैज्ञानिकों ने किया और उस काम को पूरी दुनिया ने देखा। मैं अभी भी कहूंगी कि स्वतंत्रता के बाद भारत ने अंतरिक्ष के क्षेत्र में बहुत महत्वपूर्ण कदम उठाए और चंद्रयान-1 और चंद्रयान-2 जैसे मिशंस को प्रक्षेपित किया।

भारतीय अंतरिक्ष अनुसंधान संगठन (इसरो) ने चंद्रयान-3 मिशन के तहत चंद्रमा की सॉफ्ट लैंडिंग के लिए प्रयास किया। चंद्रयान-3 का मुख्य उद्देश्य चंद्रमा की सतह पर नर्म स्पर्श, यानी सॉफ्ट लैंडिंग करना था, जिससे वहां का वैज्ञानिक डेटा और जानकारी प्राप्त की जा सकती थी। यह मिशन भारत के अंतरिक्ष क्षेत्र में अद्वितीय तकनीक और अन्वेषण क्षमताओं का प्रतीक है। चंद्रयान-3 के सफल निर्देशन और डेटा संग्रह की मदद से वैज्ञानिक समुदाय को मूल्यवान जानकारी मिलेगी, जो अंतरिक्ष और चंद्रमा की समझ में मदद करेगी। चंद्रयान-3 की सफल लैंडिंग में भारत ने अपने अंतरिक्ष मिशन में एक और महत्वपूर्ण कदम बढ़ाया है और विश्वभर में अपनी तकनीक का प्रदर्शन किया है। इस सफलता के साथ भारत ने अंतरिक्ष और विज्ञान में अपनी प्रतिष्ठा बढ़ा दी है और विश्वभर में भारत एक महत्वपूर्ण खिलाड़ी बन गया है।

चंद्रयान-3 के माध्यम से भारत ने चंद्रमा की सतह पर विज्ञान के क्षेत्र में नये अवसरों की ओर कदम बढ़ाया है और अगले मिशन के लिए साथी डेटा प्राप्त किया है। इस मिशन के माध्यम से भारत ने अंतरिक्ष में जानकारी और वैज्ञानिक सामर्थ्य के सुधार का संकेत दिया है, जो देश के विकास के लिए महत्वपूर्ण है। चंद्रयान-3 की सफलता ने भारत के अंतरिक्ष मिशन की अगली पीढ़ियों को प्रेरित किया है और दुनिया को दिखाया है कि भारत अंतरिक्ष अनुसंधान में मान्यता प्राप्त करने के लिए तैयार है। मैं यह बोलूंगी कि रूस, अमरीका और चाइना के बाद भारत चतुर्थ कंट्री है, जिसने चंद्रमा पर लैंड किया है। देखा जाए तो भारत पहली ऐसी कंट्री है, जिसने South Polar region पर लैंड किया है। यह कोई कम बड़ी कथा नहीं है, क्योंकि जो कंट्रीज़ हम लोगों को पहले आड़ी आंख से भी नहीं देखती थीं, आज वे हम लोगों की सराहना कर रही हैं।

महोदया, मैं गर्व के साथ बताना चाहूंगी कि Chairman, ISRO, Dr. S. Somanath*ji* के साथ में जितने भी वैज्ञानिक थे, उनमें 100 से भी अधिक महिला वैज्ञानिक और इंजीनियर्स थीं, जिन्होंने चंद्रयान-3 की लॉंचिंग में टेकअप किया था। इनमें इसरो की एसोसिएट प्रोजेक्ट डायरेक्टर कल्पना जी भी एक हैं।

मैं गर्व के साथ एक बात और कहूंगी कि मेरी स्टेट ओडिशा से बहुत सारे young scientists इसरो में काम करते हैं, जिनमें से चार युवा साइंटिस्ट्स चंद्रयान-3 की लॉंचिग में शामिल थे - Debashish Mohapatra from Berhampur, K. Nagaraju from Berhampur, Dr. Sharat Kumar Das from Dhenkanal, Sushil Kumar Naik fropm Kendrapara. जब ओडिशा की बात आती है, तो मैं फिर से बताना चाहूंगी कि ओडिशा में 1984 में Space Application Centre (ORSAC) की स्थापना हुई थी, जो एक apex body है। space technology के साथ-साथ ORSAC - IT projects like GIS, GPS based remote sensing में भी ओडिशा अपना योगदान दे रहा है। ORSAC आज भी GRAM SAT और EDUSAT Programme को चला रहा है।

ओडिशा गवर्नमेंट के संबंध में एक और बात पर मुझे मेरी सरकार, मेरे मुख्य मंत्री और हमारे भूतपूर्व मुख्य मंत्री, स्वर्गीय बीजू बाबू के ऊपर गर्व होता है। ओडिशा गवर्नमेंट के अतर्गत

एक व्हीलर द्वीप है, जो ओडिशा के भद्रक डिस्ट्रिक्ट में स्थित है। ओडिशा के व्हीलर द्वीप का नामकरण डा. ए.पी.जे. अब्दुल कलाम जी की second death anniversary पर 'डा. ए.पी.जे. अब्दुल कलाम द्वीप' के रूप में किया है। इससे भी बड़ी बात यह है कि स्वर्गीय बीजू पटनायक जी, जो ओडिशा के फॉर्मर चीफ मिनिस्टर थे, उन्होंने डा. ए.पी.जे. अब्दुल कलाम जी की रिक्वेस्ट पर व्हीलर द्वीप को Ministry of Defence को एलॉट कर दिया था। कहीं न कहीं ओडिशा का यह जो योगदान है, वह सराहनीय है, क्योंकि science and technology में देश की सभी स्टेट्स का योगदान होना चाहिए। अगर सब कुछ ठीक रहा, तो बहुत ही जल्दी Made in Odisha miniature satellite CubeSat के माध्यम से ओडिशा की natural calamities like cyclone को कैसे रोका जाए और cyber security को कैसे बढ़ाया जाए, इसके लिए काम करेगी। Bhubaneswar-based Silicone Institute of Technology ने Kristellar Aerospace Pvt Ltd of Bengaluru के साथ एक पैक्ट साइन किया है, to develop the satellite, जो ISRO के जरिए लॉंच होगी। अभी भी मैं यही कहूंगी कि आज भारत को सारा विश्व देख रहा है। यह जो स्पेस टेक्नोलॉजी है, यह ...(**व्यवधान**)...

**उपसभाध्यक्ष (श्रीमती ममता मोहंता)** : माननीय सदस्या, आपका टाइम 8.00 मिनट ही था।

**श्रीमती सुलता देवः** मैं एक मिनट में खत्म कर रही हूँ।

महोदया, यह जो स्पेस टेक्नोलॉजी है, यह कहीं न कहीं हम लोगों को बहुत आगे लेकर जाएगी, भारत की इकोनॉमी को भी आगे लेकर जाएगी। चूँकि आज इसरो ने यह साबित कर दिया है कि हम लोग सॉफ्ट लैंडिंग कर सकते हैं, इसकी वजह से स्पेस के जितने इम्पॉर्टेंट इंटरनेशनल प्रोजेक्ट्स होंगे, जैसे अभी वे नासा को मिल रहे हैं, वैसे ही हम लोगों को भी मिलेंगे, हम लोग स्टार्टअप में भी आगे बढ़ेंगे। इसरो के माध्यम से हम ऑलरेडी स्टार्टअप में आगे बढ़ रहे हैं और इसरो इसको गाइड कर रहा है। अगर आगे भी ऐसा ही चलता रहा, तो हमारे साइंटिस्ट्स को, हमारे वैज्ञानिकों को और भी ज्यादा काम मिलेंगे। हमारे भारतवर्ष में 2040 में 100 बिलियन डॉलर का यह काम होगा, जब यह स्पेस टेक्नोलॉजी में शामिल हो जाएगा और स्पेस में इसकी अर्थनीति बढ़ेगी - मैं इतना ही कहूँगी। हमारे चंद्रयान-3 की सफल लॉंचिंग में हमारे यहाँ के जितने भी लोगों का, जितने भी साइंटिस्ट्स का हाथ रहा है, मैं उन सब लोगों के प्रति यहाँ से तहेदिल से शुक्रगुजार हूँ। मैं भारत की नागरिक हूँ और मैं इसके लिए खुद गर्वित हूँ।

नमस्कार, वन्दे उत्कल जननी।

THE VICE-CHAIRPERSON (SHRIMATI MAMATA MOHANTA): Now, Shri V. Vijayasai Reddy.

SHRI V. VIJAYASAI REDDY (Andhra Pradesh): Madam Vice-Chairperson, thank you for the opportunity you have given.

Madam, the recent landing of Chandrayaan-III on the Moon has solidified India's position as a world leader in space travel. India is the first country to land on

the South Pole of the Moon, which no other country has done so far. This is a matter of immense pride for all the people of India. So, we appreciate the scientists and the Government in this regard. Madam, my friend, Ramesh*ji*, is not there. He is coming now. Madam, my friend extensively spoke about the professionalism in ISRO, scientific research; my friend spoke extensively about the political interference; my friend has spoken extensively about the freedom and also budgetary resources. He has claimed that it was in 1962 that science and technology research in space had started. Yes, that is correct. But, if I don't bring to your kind notice one particular incident which had occurred, probably, I will not be doing justice to that. The injustice the Congress Party has done to the scientists' community has to be discussed in this august House. The Congress Party has got the legacy of stifling the scientific intellect. That unfortunate case, you might have forgotten, but we will not forget. Just remind the case of Nambi Narayanan, the injustice what you have done to the scientists' community. It is a case to be discussed, and which I should bring to the notice. It is the Congress Party that was in power, both at the Centre and also in Kerala; it is the Congress Party which has foisted the cases. The Congress Party has got the habit of foisting the false cases on many politicians. *...(Interruptions)...*

**श्री संजय राउत** (महाराष्ट्र): महोदया ...(**व्यवधान**)...

SHRI V. VIJAYASAI REDDY: They have foisted not only on politicians, they have foisted even on the scientists. *...(Interruptions)...* Please, please. *...(Interruptions)...* When you spoke, I was silent.

**उपसभाध्यक्ष** (**श्रीमती ममता मोहंता**): कृपया शान्त रहिए।

SHRI V. VIJAYASAI REDDY: Madam, it is the Congress Party.....*(Interruptions)...*

**उपसभाध्यक्ष** (**श्रीमती ममता मोहंता**): माननीय सदस्य, आप बैठिए। ...(**व्यवधान**)...

SHRI V. VIJAYASAI REDDY: Madam, please listen to me; don't listen to them. *...(Interruptions)...* Madam, it is the Congress Party.. *...(Interruptions)...*

**उपसभाध्यक्ष** (**श्रीमती ममता मोहंता**): आपकी बात रिकॉर्ड पर नहीं जाएगी। ...(**व्यवधान**)... आप शान्त रहिए। ...(**व्यवधान**)...

SHRI V. VIJAYASAI REDDY: Madam Vice-Chairperson, don't look at them. Please look at me, Madam. ..*(Interruptions)*.. It is the Congress party which had put Shri Nambi Narayanan in jail for 50 days. ..*(Interruptions)*.. and subjected him to torture, and they have done so with zero proof against Nambi Narayanan*ji*. There was absolutely no evidence, but, however, they had foisted false cases on him. They have harassed the scientists and the scientists community at large to fulfil their political vendetta. This is not good for the country. Madam, everyone knows in this country the reality in that particular case. What had happened in this particular case? Finally, the hon. Supreme Court came to the rescue. The Supreme Court had categorically stated that the arrest was wrongful, illegal and unlawful; and, therefore, ordered probe into the matter against the officers who had foisted the false cases. This has to be taken note of, Madam. This is the habit of the Congress party. ..*(Interruptions)*.. Don't look at them, Madam.

**उपसभाध्यक्ष (श्रीमती ममता मोहंता):** कृपया शान्त रहिए। **...(व्यवधान)...**

SHRI V. VIJAYASAI REDDY: They have the tendency and habit of disturbing the country and disturbing the people. ..*(Interruptions)*.. So, don't look at them. ..*(Interruptions)*.. On the one hand, my friend, Rameshji, claims that they had started in 1962, on the other hand, the BJP claims that they have done everything from 2014 onwards. Yes, from 2014 onwards, there is a rapid improvement and there is significant development. Madam, in between the Congress party and the BJP, I have to state here that the Leader of the Opposition from Andhra Pradesh, he comes in between and claims that he has done a lot in the scientific research and technology. ..*(Interruptions)*..

SHRI KANAKAMEDALA RAVINDRA KUMAR (Andhra Pradesh): *

SHRI V. VIJAYASAI REDDY: And, the Leader of the Opposition of Andhra Pradesh….

**उपसभाध्यक्ष (श्रीमती ममता मोहंता):** माननीय सदस्य, आप बैठिए। **...(व्यवधान)...**

SHRI V. VIJAYASAI REDDY: The Leader of the Opposition of Andhra Pradesh….*(Interruptions)*…

* Not recorded.

**उपसभाध्यक्ष (श्रीमती ममता मोहंता):** यह बात रिकॉर्ड नहीं होगी। **...(व्यवधान)...**

SHRI V. VIJAYASAI REDDY: Please. The Leader of the Opposition of Andhra Pradesh, several times, on many occasions.....*(Interruptions)...*

SHRI KANAKAMEDALA RAVINDRA KUMAR: *...*(Interuptions)...*

**उपसभाध्यक्ष (श्रीमती ममता मोहंता):** आप बैठिए। **...(व्यवधान)...**

SHRI V. VIJAYASAI REDDY: He has claimed that he has invented the computer and he is the founding father of space research**...**

SHRI KANAKAMEDALA RAVINDRA KUMAR: *

**उपसभाध्यक्ष (श्रीमती ममता मोहंता)** : प्लीज़ आप शान्त रहिए। **...(व्यवधान)...** आप शान्त रहिए। **...(व्यवधान)...**

SHRI V. VIJAYASAI REDDY: And, he is the person who has invented the cellphone also! ....*(Interruptions)...*

**उपसभाध्यक्ष (श्रीमती ममता मोहंता):** आप बैठिए। **...(व्यवधान)...** आप शान्त रहिए। **...(व्यवधान)...**

DR. K. KESHAVA RAO: *

SHRI TIRUCHI SIVA: *

SHRI V. VIJAYASAI REDDY: Dr. Keshava Rao, please sit down. I am not yielding. ....*(Interruptions)...* Please sit down. ....*(Interruptions)...*

**उपसभाध्यक्ष (श्रीमती ममता मोहंता):** आप शान्त रहिए। **...(व्यवधान)...**

SHRI TIRUCHI SIVA: *

**उपसभाध्यक्ष (श्रीमती ममता मोहंता):** आप शान्त रहिए। **...(व्यवधान)...**

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* Not recorded.

SHRI V. VIJAYASAI REDDY: Madam, don't look at him. ….*(Interruptions)…* I am not yielding to them.

DR. K. KESHAVA RAO: *

SHRI TIRUCHI SIVA: *

SHRI V. VIJAYASAI REDDY: Siva*ji*, you have no right to speak. ….*(Interruptions)…* You have no right to indulge in…*(Interruptions)*.. You have no right. ….*(Interruptions)…* You are absolutely doing wrong. ….*(Interruptions)…* Please sit down. ….*(Interruptions)…* When I am speaking, who are you to intervene. ….*(Interruptions)…*

**उपसभाध्यक्ष (श्रीमती ममता मोहंता):** आप बैठिए। **…(व्यवधान)…** आप बैठ जाइए।**…(व्यवधान)…**

SHRI V. VIJAYASAI REDDY: It is the Vice-Chairperson who can prevent me, not you. ….*(Interruptions)…* Sivaji, please sit. ….*(Interruptions)…*

SHRI TIRUCHI SIVA: *

SHRI V. VIJAYASAI REDDY: You also address the Chair.

**उपसभाध्यक्ष (श्रीमती ममता मोहंता):** आप बैठिए। **…(व्यवधान)…**

SHRI V. VIJAYASAI REDDY: Madam, please listen to me. My request to you is..

**उपसभाध्यक्ष (श्रीमती ममता मोहंता):** प्लीज़, आप बैठिए। **…(व्यवधान)…** आपकी बात रिकॉर्ड पर नहीं जाएगी। **…(व्यवधान)…**

SHRI V. VIJAYASAI REDDY: It is for the good of the country. ….*(Interruptions)…* It is for the good of the country. The Leader of the Opposition of Andhra Pradesh who is claiming that he is the founding father of everything, you investigate the case. *…(Interruptions)…*

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* Not recorded.

**उपसभाध्यक्ष (श्रीमती ममता मोहंता):** आप बैठिए। **...(व्यवधान)...** कृपया बैठ जाइए।**...(व्यवधान)...**

SHRI V. VIJAYASAI REDDY: You find out the facts….

**उपसभाध्यक्ष (श्रीमती ममता मोहंता):** आप बैठिए। **...(व्यवधान)...**

SHRI V. VIJAYASAI REDDY:..whether he has really invented everything, invented information technology, invented computer, invented cellphone. …*(Interruptions)*…

**उपसभाध्यक्ष (श्रीमती ममता मोहंता):** आप बैठिए। **...(व्यवधान)...** आपकी बात रिकॉर्ड नहीं होगी। **...(व्यवधान)...**

SHRI V. VIJAYASAI REDDY: If that is true, India can claim patent rights on that. …*(Interruptions)*…

**उपसभाध्यक्ष (श्रीमती ममता मोहंता):** आप बैठिए। **...(व्यवधान)...**

SHRI V. VIJAYASAI REDDY: And, all hardware manufacturing companies, software companies and also the cellphone companies in India would be making billions of rupees towards the patent rights that India will have, if Chandrababu Naidu's claim is correct. …*(Interruptions)*…

**उपसभाध्यक्ष (श्रीमती ममता मोहंता):** प्लीज़, आप बैठिए। **...(व्यवधान)...**

SHRI KANAKAMEDALA RAVINDRA KUMAR: * …*(Interruptions)*…

SHRI V. VIJAYASAI REDDY: Madam, next issue is, …*(Interruptions)*…

**उपसभाध्यक्ष (श्रीमती ममता मोहंता):** आप बैठिए। **...(व्यवधान)...**

SHRI V. VIJAYASAI REDDY: No point of order when debate is going on. …*(Interruptions)*.. The entire Opposition is † party. The Congress party is † party.

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* Not recorded.

†Expunged as ordered by the Chair.

And, these parties have joined with Congress party and made the country† *...(Interruptions)..*

**उपसभाध्यक्ष (श्रीमती ममता मोहंता):** प्लीज़ आप बैठिए। **...(व्यवधान)...**

SHRI V. VIJAYASAI REDDY: Please listen to me, Madam. Don't look at them. *...(Interruptions).*

**उपसभाध्यक्ष (श्रीमती ममता मोहंता):** कृपया आप बैठिए।**...(व्यवधान)...**

SHRI V. VIJAYASAI REDDY: Madam Vice-Chairperson, coming to the Budget. *...(Interruptions)...*

**उपसभाध्यक्ष (श्रीमती ममता मोहंता):** आप बैठिए।... **...(व्यवधान)...** कृपया आप अपनी बात कहें। **...(व्यवधान)...**

SHRI V. VIJAYASAI REDDY: India's Space Programme has the Budget of Rs. 2 billion dollars, whereas, the NASA of America has got the Budget 31 times bigger than India's Budget, which is at 62 billion dollars. *...(Interruptions)...*

**उपसभाध्यक्ष (श्रीमती ममता मोहंता):** कृपया व्यवस्था बनाए रखें। **...(व्यवधान)...** आप शांत रहिए। **...(व्यवधान)...**

SHRI V. VIJAYASAI REDDY: Let them make noise. *...(Interruptions)...* Whatever they want to make, let them do. *...(Interruptions)...* But it can't deter me from exposing the other parties. *...(Interruptions)...*

**उपसभाध्यक्ष (श्रीमती ममता मोहंता):** आप शांत रहिए। **...(व्यवधान)...** कृपया व्यवस्था बनाए रखें। **...(व्यवधान)...**

SHRI V. VIJAYASAI REDDY: It can't deter me from exposing Chandrababu Naidu. *...(Interruptions)...* Madam, I have already told that these parties are † parties. *...(Interruptions)...* They are interested in disturbing the country. *...(Interruptions)...* Madam, please look at me. ...(Interruptions)...

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†Expunged as ordered by the Chair.

**उपसभाध्यक्ष (श्रीमती ममता मोहंता):** कृपया शांत रहें। ...(**व्यवधान**)... आप बैठिए। ...(**व्यवधान**)...

SHRI V. VIJAYASAI REDDY: Mangalyaan was the cheapest Mission, the most economical mission. ...*(Interruptions)*... It is an economical mission which was completed with Rs. 450 crores. ...*(Interruptions)*... Madam, the Budget of Chandrayaan-3 was very cost-effective and the Mission costed only Rs. 615 crores. ...*(Interruptions)*... So, we need to appreciate the Government and Narendra Bhai Modi in this regard. ...*(Interruptions)*...

**उपसभाध्यक्ष (श्रीमती ममता मोहंता):** आप शांत रहें। ...(**व्यवधान**)...

SHRI V. VIJAYASAI REDDY: Madam, I have no hesitation to say that the cost of Chandrayaan-3, which is Rs. 615 crore, is lower than the Budget of a blockbuster movie. ...*(Interruptions)*... It is less than the cost of blockbuster movie which cost around 700-800 crores of rupees. We need to appreciate the hon. Prime Minister in this regard. ...*(Interruptions)*...

**उपसभाध्यक्ष (श्रीमती ममता मोहंता):** अगर कोई आपत्तिजनक बात कही गई है, तो उसकी जाँच होगी। ...(**व्यवधान**)... कृपया आप बैठिए। ...(**व्यवधान**)...

SHRI V. VIJAYASAI REDDY: Madam, the question now is, if ISRO can achieve so much with so little financial resources, just imagine how much it can achieve with more resources which the Congress Party has not provided during its 50 years of rule, which now the present Government is providing. ...*(Interruptions)*...

**उपसभाध्यक्ष (श्रीमती ममता मोहंता):** अगर कुछ आपत्तिजनक बात होगी, तो उसकी जाँच की जाएगी। ...(**व्यवधान**)... आप बैठिए। ...(**व्यवधान**)...

SHRI V. VIJAYASAI REDDY: Madam, in the Budget of 2023-24 of the Department of Space, the expenditure was slashed by eight per cent, and I request the Government of India not to slash the Budget expenditure in this regard. ...*(Interruptions)*... Madam, last year, the expenditure was revised downward by 23 per cent from the Budget Estimate of Rs. 13,700 crore to the Revised Estimate of Rs. 10,530 crore. ...*(Interruptions)*...

**उपसभाध्यक्ष (श्रीमती ममता मोहंता):** कृपया आप लोग बैठिए। ...(**व्यवधान**)...

SHRI V. VIJAYASAI REDDY: Madam, the biggest cut for the Space Technology under the Central Sector Schemes was slashed by Rs. 1,094 crores. ...*(Interruptions)*...

**उपसभाध्यक्ष (श्रीमती ममता मोहंता):** अगर कोई भी आपत्तिजनक बात होगी, तो उसकी जाँच की जाएगी। ...(**व्यवधान**)...

SHRI V. VIJAYASAI REDDY: Madam, now, I come to global comparison. ...*(Interruptions)*...

**उपसभाध्यक्ष (श्रीमती ममता मोहंता):** कृपया आप लोग बैठिए। ...(**व्यवधान**)... जो भी आपत्तिजनक बात होगी, उसकी जाँच की जाएगी। ...(**व्यवधान**)...

SHRI V. VIJAYASAI REDDY: Madam, I have already told that the Congress Party has learned, over a period of fifty years of their rule, how the ...*(Interruptions)*... Look at the global comparison. ...*(Interruptions)*...

**उपसभाध्यक्ष (श्रीमती ममता मोहंता):** कृपया आप लोग बैठिए। ...(**व्यवधान**)... अगर कुछ आपत्तिजनक बात होगी, तो उसकी जाँच की जाएगी। ...(**व्यवधान**)... कृपया आप लोग बैठिए। ...(**व्यवधान**)...

SHRI V. VIJAYASAI REDDY: Madam, NASA was founded only four years before the ISRO was founded, but since then the NASA has undertaken 1,000 Missions, whereas ISRO stands at little over 500 Missions. ...*(Interruptions)*... My point in this regard is, if ISRO is provided with adequate funds, it can achieve more than what NASA can achieve. ...*(Interruptions)*...

Madam, in 2021, China has 55 launches, and we had only two launches. Compared to India's launch vehicle, the 4 tonner GSLV-Mk3, China has Long March 5 rocket which is capable of carrying five times more payload. ...*(Interruptions)*...

**उपसभाध्यक्ष (श्रीमती ममता मोहंता):** कृपया आप लोग सुनिए। माननीय सदस्य को continue करने दीजिए। ...(**व्यवधान**)... अगर कुछ आपत्तिजनक बात होगी, तो उसकी जाँच की जाएगी। ...(**व्यवधान**)...

SHRI V. VIJAYASAI REDDY: Therefore, I request the Government and the hon. Prime Minister to increase the number of launches. ....*(Interruptions)*...

THE LEADER OF THE OPPOSITION (SHRI MALLIKARJUN KHARGE): Madam, ...*(Interruptions)*...

SHRI V. VIJAYASAI REDDY: Madam, I am not yielding. Whether he is LoP or anybody, I am not yielding. ...*(Interruptions)*... Madam Vice-Chairperson, I am not yielding. ...*(Interruptions)*... Let him be the Leader of Opposition, I am not yielding. ...*(Interruptions)*... If you want to give priority to the Leader of Opposition, you can give priority to the Leader of Opposition, but I am not yielding. ...*(Interruptions)*... I am not yielding. ...*(Interruptions)*...

Madam Vice-Chairperson, Asia's first Space University was established in Thiruvananthapuram. ...*(Interruptions)*... I am talking about Thiruvananthapuram. ...*(Interruptions)*... Let Members from Kerala listen. Let Kerala friends listen. ...*(Interruptions)*... Asia's first Space University was established in Thiruvananthapuram, Kerala, in 2007. ...*(Interruptions)*... Manoj*ji*, please be seated. I am not yielding to you, Manoj*ji*. ...*(Interruptions)*... Siva*ji*, I am not yielding. ...*(Interruptions)*... But I request the Government that more public spaces ...*(Time-bell rings.)*... and educational institutions are required to be built in India and India is to scale up the space activities. ...*(Interruptions)*...

**उपसभाध्यक्ष (श्रीमती ममता मोहंता):** माननीय सदस्य, आपका टाइम पूरा हो गया। ...(**व्यवधान**)...

SHRI V. VIJAYASAI REDDY: One minute, Madam.

Madam, it is also concerning to note that thousands of engineers pass out each year and they are migrating to other countries due to the limited opportunities within the country. ...*(Interruptions)*... ...*(Time-bell)*...

**उपसभाध्यक्ष (श्रीमती ममता मोहंता):** माननीय सदस्य, आपका टाइम पूरा हो गया। ...(**व्यवधान**)...

SHRI V. VIJAYASAI REDDY: I request the hon. Prime Minister to enhance the Budget and provide more opportunities in India to accommodate those engineers who pass out from Indian universities. ...*(Interruptions)*... One-third of all IIT graduates leave the country and work abroad. This is my request. ...*(Interruptions)*...

THE VICE-CHAIRPERSON (SHRIMATI MAMATA MOHANTA): Shri K.R. Suresh Reddy. ...*(Interruptions)*...

SHRI K.R. SURESH REDDY (Telangana): Madam, at the outset, I would like to thank you for the opportunity given to me, and I can assure you that from the heavy headwinds, my speech will sail through tailwinds.

Madam, today, the BRS Party joins the rest of the House to celebrate a remarkable milestone in the history of space exploration-- the triumphant landing of Chandrayaan-3 on the Moon's surface. This achievement not only represents a momentous occasion for India but also a significant leap for humanity as we continue to explore and unlock the mysteries of the cosmos. Madam, this Mission was born from the experiences and lessons learnt from its predecessors, Chandrayaan-1 and Chandrayaan-2, showcasing the spirit of innovation and resilience of the Indian Space Research Organization, as we know it as ISRO.

Chandrayaan-3 is India's ambitious and successful Lunar Mission. Chandrayaan-3 is India's successful attempt to achieve a soft landing on the Southern Pole of the Moon's surface for the first time. India is the only country to reach this part of the moon so far. To mark this great technological success, National Space Day will be celebrated each year on 23rd August. From Nehruji to Modiji, we salute the leadership, not getting into the politics of it, but for creating a firewall for space technology for non-political interference.

Also, I pay my respects to all, from the great Aryabhatta to Shri Somanath, who was instrumental behind this pilot project.

Madam, through Chandrayaan-3, India aims to showcase its technological prowess, scientific capabilities and its commitment to space exploration. If Chandrayaan-3 is a success, it would further strengthen India's position in the global space community. The mission would inspire the younger generation to pursue careers in Science, Technology, Engineering and Mathematics. Now, the question which lies before the Government and all of us is -- Is the Government prepared to take the kind of volumes which would be coming in through space technology? I was told that the data generated by the Chandrayaan Mission, the Aditya-L1 Mission and various satellites -- the hon. Minister informed this House of hundreds of satellites being sent -- is being analyzed by students and researchers who study the subject, Geospatial Science and Technology. Now, it is ironical that neither AICTE nor UGC recognizes this subject as an independent subject because it is a multi-disciplinary subject. Chandrayaan and Aditya-L1 missions would generate huge data. We need to prioritize and recognize this particular subject of Geospatial

Science and Technology through AICTE and UGC. I feel that this would be the right moment for the Minister to make an intervention and take necessary action in this regard. We need to bring to speed the various changes. As most of the Members suggested, schools and colleges in the rural areas need to be connected. It is not only in the IITs, but also in the various engineering colleges across the nation that these brilliant students, these brilliant scientists, are being produced. They need to be continuously encouraged. Now, as a step in this direction, Madam, the Government in my State of Telangana, under the leadership of KCR *garu*, has initiated certain measures through a T-SAT initiative, which the Telangana Government has started. Now, T-SAT imparts quality education using satellite and digital communication to the nook and corner of the State. Every corner of the State gets this facility and two satellite channels, Nipuna and Vidya, impart diversified education in schools, colleges, agricultural universities and also for students preparing for UPSC exams, reducing the financial cost which otherwise would have been a burden for them if they were in private colleges.

Madam, when the Chandrayaan launch was being shown live, students in remote areas watched the events live, thanks to this technology. When you get to speak to these young students after the launch of Chandrayaan, what really inspires all policy makers like us today is the kind of scientific temper that this one take-off has inspired in the students. Today, whether you go to the remotest of the villages or into the urban cities, you see students coming forward. They talk not just about becoming engineers and doctors but also becoming scientists, astronauts and delving deep into the outer space and bringing back whatever they can to help this nation. This is what the Chandrayaan Mission has done to the entire nation, especially, the young minds of India. The kind of scientific temper which it has brought in them goes a long, long way and we salute the fraternity of ISRO for giving us this opportunity.

Madam, talking about the T-SAT programme in Telangana, we have 35 lakh subscribers on the digital platform. It just gives you an assessment of the kind of impact that this policy is making. The Government of India needs to intervene. They need to support such initiatives. Yesterday, the hon. Prime Minister was talking about the federal structure of this country. I would like to bring to the notice of this House that here is a Government which is imparting such wonderful initiatives, but it is not being adequately funded. We hear talks of it becoming centralized, moving it away from Telangana and bringing it here to centralize it. So, another form of federalism coming in here is the fear that most of us have. Please allow the States to

bask in their scientific achievements. Let them localize the needs. Such facilities would go a long way in helping the States.

Madam, before I conclude, I would like to say that Shri Jairam Ramesh really enlightened the House a lot about science, which was very good. But then, the Leader of the House came with some political science and we have our own reasons to talk about that here. ...*(Interruptions)*... When he talked about the bifurcation of Andhra Pradesh into Telangana and Andhra not having been done scientifically, we have a very strong reason to object because it goes against the sentiments of the people of Telangana. We have been repeatedly saying that hundreds of people have sacrificed their lives to see this day. Today, Telangana is one of the number one progressing States. And if the hon. Leader of the House says that it was not done scientifically, then through you, I would like to ask him, in the last nine years, have you brought in any amendments to improve it? Have you given anything more apart from what is there in the Bill? You had an opportunity to do that, but, unfortunately, you did not. Playing around with sentiments like this is not really good. As we speak about federalism, it gives us a chance to say that Telangana is indeed an example of unity in diversity that this great country is proud about. Telangana is proving it not for some political achievements; Telangana is talking about how it is contributing to this country. It is contributing economically, agriculturally and even scientifically today. So, when things like these are happening, when progress like this can happen, if the party heading the Government comments like this, it would go against the interests of the State; this would go against the sentiments of the State. ...*(Interruptions)*...

DR. K. KESHAVA RAO: Just a minute, Madam. If they trust the people of Telangana... ...*(Interruptions)*...

**उपसभाध्यक्ष (श्रीमती ममता मोहंता):** आप बैठिए। ...(**व्यवधान**)... बैठिए। ...(**व्यवधान**)... आप continue करिए। ...(**व्यवधान**)... आप बैठिए। ...(**व्यवधान**)... माननीय सदस्य, आप बैठिए। ...(**व्यवधान**)... आप continue करिए। ...(**व्यवधान**)...

SHRI K.R. SURESH REDDY: Madam, I am not yielding. ...*(Interruptions)*...

**उपसभाध्यक्ष (श्रीमती ममता मोहंता):** आप continue करिए। ...(**व्यवधान**)...

SHRI K.R. SURESH REDDY: Madam, I would not like to bring in any politics here. I only wanted to speak on science, but politics is what has come from that side. So, I need to set the record straight. ...*(Interruptions)*... Those remarks were not

expunged. They are on record. If they are on record, then we have to object to it. Our point is, don't disturb the harmony. We said we would get separated as brothers and sisters. ...*(Interruptions)*... We continue to be like brothers and sisters. You develop and we develop. ...*(Interruptions)*... And, it is the responsibility of the Government of India to come to the rescue of both the States and set right matters if they feel that something has gone wrong. In the last nine years, have they brought in one single amendment to the Bill? No? Then where has something gone wrong? If you have seen something going wrong, have you made any special allocation? No. Have you settled the water dispute? No. What is happening then? Why do you make such sweeping remarks when we are just healing our wounds, trying to get closer to each other and becoming a part of the country's progress?

I request through you, Madam, that the remarks made by the Leader of the House may be expunged. Thank you very much.

THE VICE-CHAIRPERSON (SHRIMATI MAMATA MOHANTA): Hon. Member, Shri A.D. Singh.

SHRI A.D. SINGH (Bihar): Thank you, Madam Chairperson for giving me this opportunity to speak on this issue. On behalf of my leader, Shri Lalu Prasad Yadav and my Party, I would like to say that it is a matter of great pride.

(MR. CHAIRMAN *in the Chair.*)

Big congratulations to ISRO for making us proud through this successful mission. Their untiring efforts made the flawless journey of Chandrayaan-3 possible, that too in a very small budget. Further, I want to bring to the notice of my colleagues, on both sides, that Pandit Jawaharlal Nehru's vision is what brought us all to this stage.

If we go back to 1962, that was the time when Pandit Jawaharlal Nehru, independent India's first Prime Minister, recognised the need for investment in space research and set up the Indian National Committee for Space Research and he inculcated the vision of developing a scientific temper, and all institutions related to science and technology, fortunately, got established under his leadership in India, and by successive Prime Ministers, including Modi*ji* from 2014. So, we cannot give individual congratulations only to one or two persons. It was a joint effort of all the successive Governments equally and we are not here to compare as to which

Government did better. I am fed up of hearing that after 2014 to this day, such and such things have happened. In fact, I get dreams that before 2014, I never used to wear clothes also. So, I don't really know because if that is the situation in this country... ...*(Interruptions)*...

It all started in 1940 when Dr. Vikram Sarabhai came to the Indian Institute of Science, Bengaluru campus, after completing an undergraduate degree in Physics and Maths from the Cambridge University. Dr. Sarabhai became interested in the study of cosmic ray under the influence of Dr. C.V. Raman. In 1942, Dr. Sarabhai met Dr. Homi Bhabha, who had become a Professor at the newly-established Cosmic Ray Research Institute. They both saw cosmic rays from two different perspectives. While Dr. Bhabha was interested in cosmic rays for the atomic particles, Dr. Sarabhai would come to see them as tools to study the outer space. When India gained independence in 1947, Dr. Homi Bhabha wrote to the then Prime Minister to set up a separate branch of science relating to atomic energy. In 1954, Pandit Nehru created the Department of Atomic Energy seeing the launch of Sputnik satellite by the Soviet Union. Pandit Nehru instructed the Department of Atomic Energy, where Dr. Bhabha was the Secretary, to look after space research from the next year. Pandit Nehru famously said, "It is science alone that can solve the problems of hunger and poverty, of insanitation and illiteracy, of superstition and deadening custom and tradition, of vast resources running to waste, or a rich country inhabited by starving people..."

I also heard the hon. Minister on the other side that they welcomed and opened the ISRO gates for everybody. Let me clarify to the hon. Minister that as the gates were shut all these years, that is the reason for ISRO being so successful because, being a Member of the Consultative Committee of Defence, I have seen that organisations like DRDO and others which are there, there are lobbies, both Indian and foreign, who stall the development of science. For example, though we are talking that we are supporting the scientific community, but even today, we don't have a testing ground in the field of Defence. All the equipments that we develop have to be sent abroad for testing and it depends upon the whims and fancies of the local governments there to do it properly or not. ...*(Interruptions)*...

Then, the hon. Minister spoke of the high level of investment that we are making. India spends mere 0.66 per cent of GDP on science and technology, which is the lowest amongst the BRICS nations. Similarly, various Members from the Treasury Benches have talked about the 'Amrit Kaal'. Yes, sure, it is 'Amrit Kaal', but actual 'Amrit Kaal' will come when we are able to provide employment or sustainability for the 800 million people whom we are feeding by giving rice and wheat

and everything today. So, what kind of 'Amrit Kaal' is this? We have two Indias. One is the rich India and the other is the poor India. The poor India is starving even today. We are sitting on a time bomb of unemployment. So, as the hon. Minister said that on this index, we have become from 81 to 40, यह तो बताइए कि इस साइंस और टेक्नोलॉजी के जमाने में जो गरीब भूखों मर रहे हैं, उन गरीबों के लिए आप क्या कर रहे हैं? आप चलिए और देखिए कि कई स्टेट्स में उनकी क्या हालत है। यह 'अमृत काल' कह-कहकर, I am only being reminded of Goebbels' philosophy that untruth told many times will appear to be truth. जो 800 मिलियन का गरीब इंडिया है, अगर आप उसके लिए कुछ कर पाइएगा तो वह 'अमृत काल' होगा। जहाँ तक नेहरू जी को हर विषय पर बोलने की बात है, तो it was Pandit Nehru's democratic mind and vision for creating institutions by which we are able to speak like this today. मैं नेहरू जी या किसी और की बड़ाई नहीं कर रहा और न ही ऑनरेबल प्राइम मिनिस्टर की बुराई कर रहा हूँ। ऑनरेबल प्राइम मिनिस्टर भी बहुत अच्छा काम कर रहे हैं। जहाँ तक आप लोग यह बोल रहे हैं कि West या अमेरिका हमारी इज्जत करता है, तो मैं बताना चाहता हूँ कि I travel all over the world. I interact with the highest level of people in the society, whether it is West or other parts of the world, and whenever I ask them as to what is the position of India. † ठीक है, efforts भी हो रहे हैं। यहाँ-वहाँ उसकी 200 मीटिंग्स हुईं।

MR. CHAIRMAN: Just a minute. The hon. Member has made a statement. He needs to revisit it. All of us here in the House are alive to the rising morale and spirit of Bharat and everyone has contributed towards this. All segments of the House have contributed towards this. I have been abroad thrice. I have interacted with G-20 leaders. Don't you recognize the World Bank Chairman saying what we have achieved in six years could not be achieved in 50 years? Let us not demean and dent our institutions. You are a very informed person. Your personal experience is very limited on this count. The entire House has contributed to the rise of India. Everyone has done it. Both the sides have contributed. Don't make such a statement. I will look into that statement.

SHRI A.D. SINGH: Hon. Chairman, Sir, I offer my apologies in case I have offended anybody. I definitely have neither the knowledge nor the experience at your level, but I can speak the truth in the House. I can speak what I feel. It may be wrong.

MR. CHAIRMAN: You have taken your time. Thank you.

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†Expunged as ordered by the Chair.

SHRI A.D. SINGH: Sir, I wish to congratulate all the scientists, and I want to make suggestions about the Administration in this country, through you, Mr. Chairman, that हमारी various organizations में जो साइंटिस्ट्स हैं, उनको हम 60 साल की उम्र में रिटायर क्यों करते हैं? हम उनको कम से कम 65-70 साल तक रखें, because after reaching the age of 50 or 60 years, that is the time they have really matured mentally. ...*(Interruptions)*...

MR. CHAIRMAN: Thank you, hon. Member.

SHRI A.D. SINGH: I will take only one or two minutes. I have been to various institutions.

MR. CHAIRMAN: You have exceeded your time. Thank you.

SHRI A.D. SINGH: Right, Sir. Thank you.

MR. CHAIRMAN: Now, Dr. V. Sivadasan. उससे पहले मैं आपको बता दूँ कि इस देश की विकास यात्रा पक्ष और विपक्ष के भारी योगदान से हुई है। इस देश की विकास यात्रा में देश के हर नागरिक का योगदान है, उसमें किसान का योगदान है, मजदूर का योगदान है। यदि कोई महज पक्ष-विपक्ष की वजह से बात करे, तो यह ठीक नहीं है। There can be no contribution without participation of *paksh* and *vipaksh*, the Treasury Benches and the Opposition Benches. This is an occasion and a subject, on which I, as an Indian, felt hurt when a Member of this House said that we are being driven, and he gets such an impression. I am sure that impression may not be shared by many. At least, I have widely travelled and so have many of the Members here.

Rise of India is being noticed and it is contribution of one and all. If Mr. Kharge will go abroad, he will add to the lustre respect of the country. We cannot monopolise it. I will have a look at the observation made by hon. Member. If our artists go abroad, they create a name for us. Our musicians, our singers, our politicians, our industrialists, they all do it. Now, Dr. V. Sivadasan.

SHRI TIRUCHI SIVA: Sir, I have a point of order.

MR. CHAIRMAN: Under which rule?

SHRI TIRUCHI SIVA: It is Rule 258. Sir, on page 7 of Unparliamentary Expressions...

MR. CHAIRMAN: What exactly is your point of order?

SHRI TIRUCHI SIVA: Sir, it is with reference to the book, 'Unparliamentary Expressions'. Please see page 7.

MR. CHAIRMAN: I enquired from you something very simple. Under which rule, you are raising a point of order.

SHRI TIRUCHI SIVA: Sir, it is Rule 258.

MR. CHAIRMAN: I have passed on the book for the wisdom of the Leader of the Opposition so that he can also have a look at Rule 258. What is the substance?

SHRI TIRUCHI SIVA: Substance is very simple. It is with reference to page 7 of the book, Unparliamentary Expressions. We need your protection. When you were not here, during the course of the speech, hon. Member, Shri V. Vijayasai Reddy said, "All the Opposition parties are †" Sir, the word † is unparliamentary expression. Please expunge it.

MR. CHAIRMAN: I will look into it. Hon. Members, I started the practice that a lady Member of this House would also be sitting as Vice-Chairperson on the panel of Vice-Chairpersons. Now, we had a very distinguished Member of this House occupying this Chair. I wanted her to be here for a little longer. Whenever I go inside, I watch the debate very carefully. I will look into it. Trust me and have my word for it. If I am not in the House, I am glued to the television to see what is happening in the House. So, I will look into it. Our women Members are enormously talented. I have a request from them, and tomorrow perhaps, I may have in the panel, only women Members of the House. They are very talented. We will have it. Now, Dr. V. Sivadasan.

DR. V. SIVADASAN (Kerala): Respected Chairman, Sir, we are all very happy and proud of the achievements of Indian Space Research Organisation (ISRO) and the scientific community. Chandrayaan-3 is the result of collective effort of many public and private entities.

[THE VICE-CHAIRPERSON (SHRIMATI KANTA KARDAM) *in the Chair*.]

† Expunged as ordered by the Chair.

Six public-sector companies from Kerala including Keltron, Kerala Minerals and Metals Limited (KMML) and Steel and Forgings Industries Limited (SIFL) have contributed in this effort. This is a proud moment for all of us. This is the victory of scientific temper and spirit of the nation. Madam, science is a product of critical thinking. We can progress in science only if we have the courage to ask and answer questions. So, I see Chandrayaan as an occasion to uphold the spirit of critical thinking. Our Constitution has upheld the scientific temper. Our education system and the institutions should be built with this spirit.

Madam, Pandit Jawaharlal Nehru said, "A university stands for humanism, for tolerance, for reason, for adventure of ideas and for the search of truth." In 1963, Dr. Vikram Sarabhai, the Father of Indian Space Programme, established India's first rocket launching station at Thumba near Thiruvananthapuram. He taught us the importance of cultivating the new generation with scientific temper. Our respected Leader of the House did not mention his name. Dr. Vikram Sarabhai said, "There is no leader and there are no led. A leader has to be a cultivator rather than a manufacturer. He has to provide the soil and the overall climate and environment in which the seed can grow." It should not be forgotten.

Madam, this achievement is the result of our long-standing commitment towards science, but I am sorry to say that this Government is not ready to promote scientific temper. Science will provide universal view and solidarity to all human beings.

Madam, in India, existing situation is very difficult. If the budgetary allocation for science education and space research is curtailed, how will development take place in the future? In the text books of NCERT, 'Theory of Evolution' has been deleted. Why are they not interested in the promotion of science? Aryabhatta, Galileo, Bruno, Copernicus, Darwin, C.V. Raman and Dr. S. Chandrasekhar, all have contributed to the development of science. I remember one of the social reformer in Kerala, Sahodaran Ayyappan, who wrote a prayer 'Science Dasakam'. Please read it.

Madam, please see the figures of basic science fellowship in India. The number of fellowships has come down from 4,134 in 2016 to 703 in 2021 and the expenditure has come down from 105 crore of rupees to 15 crore of rupees in the same period. Only 15 crore of rupees! A lot of women scientists are working for the missions. You are talking about 'Nari Shakti'. But, post-doctoral fellowships for women has come down from 642 to 434 in this period and the expenditure has come down from 32 crore of rupees to 19 crore of rupees.

Now, let us see the budgetary allocation to ISRO and space research. In 2019, it was Rs. 13,139 crore but in 2021, it has come down to Rs. 12,642 crores. Only 12,642 crore of rupees! In space research also, the amount has come down from Rs. 13,700 to Rs. 12,543 in 2023-24.

Madam, embracing the scientists is easy, tweeting is very easy but giving money is difficult for this Government. In 2023-24, the Government has allocated Rs. 16,361 crore for the Union Ministry of Science & Technology. *(Time bell rings.)* One minute, Madam. Everybody got a chance to speak. It is only 0.4 per cent of our Budget. We are spending a very little portion of our GDP on science research. In Korea, they are spending 4.8 per cent of GDP on science and technology.

In the U.S., this amount is 3.45 per cent of GDP; in China, it is 2.4 per cent; and in India, only 0.7 per cent of the GDP is spent on science and technology. Madam, Chandrayaan should be an occasion to bring our focus to science. We need more scientists. *(Time-bell rings.)*

**उपसभाध्यक्ष (श्रीमती कान्ता कर्दम):** आपका एक मिनट का समय पूरा हो गया है।

DR. V. SIVADASAN: Just one minute more, Madam.

**उपसभाध्यक्ष (श्रीमती कान्ता कर्दम):** आपको सात मिनट का समय दे दिया गया है।

DR. V. SIVADASAN: Madam, I have received an answer...

**उपसभाध्यक्ष (श्रीमती कान्ता कर्दम):** आप आधे मिनट में अपनी बात समाप्त कीजिए।

DR. V. SIVADASAN: Okay, Madam. I have received an answer in this House regarding the total number of missions. I have been told that during 2018-19, 14 space missions were launched and all the 14 missions were successful. But in 2019-20, the number came down to 11. That means, 11 were launched and 11 were successful. But in 2020-21, this number came down to 5, and 5 were successful. But in 2021-22, only 5 missions were launched and 3 were successful. It is not due to lack of hard work from our scientists. I believe that it is due to lack of Government funding. Madam, they are spending larger amount on making statues than on science education. Regarding expenditure of Chandrayaan... *(Time-bell rings.)* Madam, just one minute.

**उपसभाध्यक्ष (श्रीमती कान्ता कर्दम):** आपको एक मिनट का समय और दिया जाता है। आप अपनी बात जल्दी समाप्त कीजिए। आपका समय दो मिनट ज्यादा हो गया है।

DR. V. SIVADASAN: Madam, the Chandrayaan project was for Rs. 615 crores, but the expenditure on statues might be of ten thousand crores.

I have another really important point regarding the HEC. They made the sliding doors for Chandrayaan spacecraft.

**उपसभाध्यक्ष (श्रीमती कान्ता कर्दम):** आप अपनी बात जल्दी समाप्त कीजिए।

DR. V. SIVADASAN: Their 2,400 employees have not been getting their salary for the last 18 months. So, this should be considered. *(Time-bell rings.)* This is my request. Thank you.

SHRI ABDUL WAHAB (Kerala): Thank you, Madam. I have seen you were giving extra time to my comrades. I hope the same thing will be done for me also.

First of all, I congratulate the whole team of scientists, ISRO and everybody for their wonderful job. It is not only from Jawaharlal Nehru *ji* to Modi *ji*, but before them also, so many people might have worked. I don't know exactly. I do not want to go into that discussion, but my only question is this. Our Minister of Science and Technology is not looking this way. So, I am talking to the empty Treasury Benches. I can see only Mr. Neeraj talking to somebody. Otherwise, everything is completely free. Thank you very much for ignoring this session. So, Chandrayaan is a very small thing for them. But our Chairman was telling...

**उपसभाध्यक्ष (श्रीमती कान्ता कर्दम):** वहाब जी, ऐसा नहीं है। आप गलत बात कह रहे हैं। आप देखिए, कितने लोग बैठे हुए हैं। आपने एक मेम्बर का नाम लिया है।

SHRI ABDUL WAHAB: Okay, I will change the track. ...*(Interruptions)*... I will come to the scientific temper. The Indian Space Research Organisation is the world's sixth largest national space agency. We agree. Whatever is happening now, we are all a part of that, from Kerala to Kashmir. But my problem is, we sent the Chandrayaan to the south side of the moon where it is very dark. The aim should be to send it from the north, from Delhi to South, to Kerala, Tamil Nadu, Karnataka. I am not saying, Andhra. It is divided. I don't know what they are going to do here. I am not saying about Andhra. It will make a big uproar. So, I am not touching it.

My first and foremost point is this. Me and my party congratulate all leaders, from Modi *ji* to Nehru *ji* for doing all this work. I am not seeing any difference. But, Madam, you have to remember one thing. Through you, I am trying to tell this. Nowadays, it is not 50 years or 5 years. Now, everything happens immediately. The Minister was telling about the last nine years. Technology has gone that far. Now, everything varies every month, not every year. So, नेहरू जी के टाइम में ऐसा हो गया, इस टाइम ऐसा हो गया। नहीं, अभी everything is fast. We are agreeing that we are on the fast track.

I want to add one more thing about whatever we say about scientists. My uncle used to be a scientist in BARC, Bhabha Atomic Research Centre. He was telling me something. They work for 24 hours, you were just admiring. But they are getting very low salary in comparison with others. People are going for techies everywhere. Why? It is because less money is here. My friend was telling about his experiences outside. He was insulted. ...*(Interruptions)*... Now, our Minister is coming. Anyways, he was insulted for going outside. Why are we going outside? I was also outside for many years. Why? It is because there are no avenues here, there is no employment here. Our friend was telling about his experience, † Can we not express our feelings inside the House? Should we always speak only about Modi *ji*, Modi *ji* and Modi *ji*, just like the Treasury Benches? It is just not possible. We will tell our views openly. This is the only place we have got. If we speak outside, we will be arrested under UAPA. So, this is the place where we can open our heart. *(Time-bell rings.)* Is my time finished?

**उपसभाध्यक्ष (श्रीमती कान्ता कर्दम):** आप अपनी स्पीच जल्दी कन्क्लूड कीजिए।

SHRI ABDUL WAHAB: You should not say this so early to me, Madam, because everybody was given extra time. I will come to the point and conclude immediately.

**उपसभाध्यक्ष (श्रीमती कान्ता कर्दम):** आप आधे मिनट में अपनी बात समाप्त कीजिए।

SHRI ABDUL WAHAB: Madam, the current Chairman, ISRO, Mr. Somanath, is from Kerala. He studied from T.K.M. Engineering College, Kollam. ...*(Interruptions)*... It is Thangal Kunju Musaliar College of Engineering. It is a minority-run institution. ...*(Interruptions)*... Why are you against this one? Is this engineering college not important? You are always on the Pinarayi Vijayan, Communist Party and all that.

† Expunged as ordered by the Chair.

Come out of all that. Be a Keralite. He studied in a college where he was felicitated. He was telling about what he has done in ISRO and all that. So, we have to mention about him also.

I will now talk about cost-effectiveness of Chandrayaan. Why is it cost-effective? It is because you are giving meagre salary to scientists. You give them more. They are getting only one-fifth of the salary they can get outside. Outside, they can get five times more. *(Time-bell rings.)* So, this cost-effectiveness is because of this. You can cut cost in many different ways. I cannot speak much now. It is also not allowed inside. Anyway, the cost effectiveness is not the only reason. It is because they are not getting salary. One of my friends here was giving me a paper. What is it saying?

**उपसभाध्यक्ष (श्रीमती कान्ता कर्दम):** आप जल्दी अपनी बात समाप्त कीजिए।

SHRI ABDUL WAHAB: Launching pad of Chandrayaan was made by HEC, Heavy Engineering Corporation. Its employees have not been getting salary for the last ten months. *(Time-bell rings.)* According to the BBC news, they are selling tea and idli. What a shame it is for us! Even after Chandrayaan has been launched, they have not got their salary of ten months.

DR. JITENDRA SINGH: They are not ISRO employees.

SHRI ABDUL WAHAB: But they worked for Chandrayaan.

DR. JITENDRA SINGH: Just one second. That was a half baked information which was reported. They supplied equipment to ISRO, and ISRO is expected to pay for the equipment, which they have done. Now, this is between the employer and the employee.

It is like this. You have a factory. I purchase products from you and I give you an amount for the purchase. Then you don't pay them. ...(*Interruptions*)... If you are not paying your employee, then that is a different story. It is like that. ISRO is only a buyer for that factory.

SHRI ABDUL WAHAB: I don't know whatever happens backstage. But the image of the country is tarnished by the BBC which is telling this story. At least ask them now to pay their salary. Don't cut the cost just like this. Thank you, Madam.

SHRI KAPIL SIBAL (Uttar Pradesh): Madam, I thank the Chair for giving me this opportunity to intervene in this debate. I have been listening with great attention to the somewhat fractious nature of the debate. I remember the learned Minister talking about Neil Armstrong way back in 1962. I think at that point in time the President of the United States was Richard Nixon. But there were no proceedings in the Senate to celebrate what Neil Armstrong had done. There were no proceedings in the House to demonstrate as to what the great scientist in the United States had done. But we still welcome the Prime Minister and welcome the Government for having taken up this issue to celebrate the achievements of the scientific community.

Science is a subject that is so far-reaching that it can change our lives. But to change our lives, we have to think about innovations in science at every level. At one level is what ISRO has done. It has been able to land Chandrayaan on the south pole of the moon. But at another level, we have to think about 1.4 billion people in this country and ask ourselves this question: What has science done for them?

(MR. CHAIRMAN *in the Chair.*)

I remember when I was the Minister in the Government, we started a project called 'Project - 800'. That 'Project - 800' dealt with 800 million people who almost live at the poverty line. I asked my scientific community why our rickshaw pullers have to pull rickshaws. Because of the kind of gasping that it results in, most of them get TB. When they get TB, their lives are shortened. Why can't you think of a solution by which they don't have to pull a rickshaw? You may reach the moon. You may reach the stars. You may research the skies. But what you need to do is, look after the people on the ground. And what happened, Sir? We invented something called 'Soleckshaw'. Now, through technology, people don't have to pull weight behind the rickshaw. That is what we were able to do. I also told them to look at the coolies at the railway stations.

MR. CHAIRMAN: Please look through the Chair.

SHRI KAPIL SIBAL: They have to carry weight. Why do they have to carry weight? Why can't we find solutions for them? Look at the way we treat our dead, the corpses, and the way we carry them in the vans and then try to offload them. Why can't we have a scientific solution for them? I talked about doing research for the common people, for planning and for things that will improve the lives of the common people. One of the problems that we have is this. And the Minister knows it. The

kind of funding that we do for research is so minimal that we won't be able to find those solutions. You may send man on the moon, but what you have to deal with is the man on the ground. May I tell you, Sir, one small thing? Nobody had ever gone to Antarctica. I decided one day that let us go to the Antarctica and see what is happening on the ground there. When we reached there -- I cannot even explain to you the pathetic conditions in which our scientists were living -- we found that those were absolutely inhuman conditions. For six months in a year, they have to be inside closed rooms. By the time they come out during summer, most of them lose their minds. They came back as broken souls. Why? Because there was no communication with their families and the rest of the world. There were no toilets. I, as the Minister, went there. There was no toilet to go to. You can't imagine how we dealt with it. I changed all that. The Minister will not talk about it. We changed all that. We brought information technology. ...(*Interruptions*)... We established the Himadri Station. Through information technology, through satellites, they talked to their families every weekend. We provided entertainment to them. We provided movies to them. Why? Because science and technology must bring solutions to ordinary people in this country.

Sir, may I tell you another thing? In research, the total research funding that we have in this country is about 50-60 billion dollars. Do you know how much China spends on R&D? It spends 560 billion dollars every year. How can we compete with them? We may send a man to the moon. It is a great thing that ISRO has done. I think we all must celebrate it. But there are miles to go before we sleep. There is no need to congratulate ourselves for landing on the moon. We will congratulate you and we will call a Special Session of this House when you solve the problems of the people of this country through technology. *(Time-bell rings.)* May I tell you, Sir, something very interesting? Because of our then Prime Minster, we set up a system near the Delhi Gate. I told them that, through science and technology, without going to any house, we can find out what unauthorised construction has taken place. I actually took them to that place and showed them every morning the kind of unauthorised construction that was taking place. That project is still there. But nobody goes there. It is because nobody wants to deal with unauthorised construction. I informed them that we can actually decide what amount of house tax can be paid without visiting the house.

MR. CHAIRMAN: Please conclude.

SHRI KAPIL SIBAL: Sir, there are fabulous things that science has done for the common people of this country which are not being talked about today. I just want to tell about it to the House. I don't mind sitting down. I have no problem with that. But I just want to tell you that it is time for the people to realise this.

Sir, you know it very well that we brought out the Tsunami Warning System which is the most modern in the world. In 120 days, we set it up. It is the most modern Tsunami Warning System in the world. And everybody appreciates it. We did it during our time. So, we must congratulate you for what you have done. But remember that it is not enough to congratulate yourselves. The only thing...(*Interruptions*)...

MR. CHAIRMAN: Shri Prakash Javadekar. ...(*Interruptions*)... Okay. ...(*Interruptions*)... One minute. ...(*Interruptions*)...

SHRI KAPIL SIBAL: Sir, thank you very much. Maybe on another day you will let me speak. Thank you very much, Sir.

MR. CHAIRMAN: Mr. Sibal, you can take one minute. Your mike is on.

SHRI KAPIL SIBAL: Sir, in agriculture, we set up a system through which we can find out moisture in the soil. We can inform the agriculturalist as to when the rain is going to come or when a particular plot of land doesn't have enough moisture, so that the agriculturalist can actually access water. We were able to tell the fishermen as to when chlorophyll in the ocean was enough for the fish to come, so that they can go and fish. We were able to tell the fishermen of the country through the warning system of inclement weather, as to when it is going to happen. The entire climate system was in analogue mode. We changed it all to digital mode. The kind of things that have happened in this country are so great that we must celebrate science on a daily basis.

Sir, the last thing that I want to say is this. Not only that. We have actually achieved so many milestones in the biotechnology sector in this country. But people don't talk about that because people want to use this forum to pat themselves on the back. Thank you very much, Sir.

MR. CHAIRMAN: Shri Prakash Javadekar.

**श्री प्रकाश जावडेकर** (महाराष्ट्र): सर, मेरा कितना समय है?

**श्री सभापति :** प्रकाश जावडेकर जी, मैंने बड़ी कोशिश की, मैं आपका समय तो नहीं बता सकता हूं, पर आपके पार्टिसिपेशन का समय 15 मिनट है।

**श्री प्रकाश जावडेकरः** सभापति महोदय, मैं आपका बहुत शुक्रगुज़ार हूं कि आपने मुझे अपनी बात रखने की परमिशन दी है। दो दिन पहले जब हमारी चर्चा हुई थी, तब मैं उस समय मिसइन्फॉर्मेशन या मिसकम्यूनिकेशन के कारण नहीं आ पाया था।

(**उपसभापति महोदय** *पीठासीन हुए।*)

सबसे पहले तो मैं आप सबके साथ चंद्रमा पर हमारा जो चंद्रयान गया, उसकी देश में जो खुशी है, उसमें सहभागी बनता हूं। विक्रम साराभाई से लेकर सभी वैज्ञानिक, जिन्होंने भारत में स्पेस साइंस की शुरुआत की - क्योंकि अगर आप नेहरू बोलते, तो फिर मोदी बोलना पड़ता। आप एक चीज़ तय कीजिए, अगर वैज्ञानिकों की बात करनी है, तो मैं वही कर रहा हूं। ..(**व्यवधान**).. एक मिनट।

MR. DEPUTY CHAIRMAN: Mr. Javadekar, please address the Chair. Please. ...*(Interruptions)*... कृपया शोर मत कीजिए। Hon. LoP, please take your seat. ...*(Interruptions)*... Nothing is going on record. ...*(Interruptions)*... Mr. Javadekar, please address the Chair. ...*(Interruptions)*...

**विपक्ष के नेता (श्री मल्लिकार्जुन खरगे)** : *

**श्री प्रकाश जावडेकर**: मैं बताता हूं। यह एक बड़ा माइलस्टोन है, क्योंकि कपिल सिब्बल जी ने अभी कहा कि बायोटेक्नोलॉजी से लेकर हर क्षेत्र में तरक्की हुई है। मैं उन्हें आश्वस्त करना चाहता हूं कि सारे नये प्रयोगों और भारत ने आज तक जो भी हासिल किया है, उनका देश की तरक्की के लिए उपयोग हो रहा है। सरकार बदलते ही टेक्नोलॉजी पुरानी हो गई है - ऐसा बोलकर फेंक नहीं देते हैं, उलटा आगे बढ़ाते हैं - हमारी ऐसी दृष्टि है। मैं सबसे कहूंगा कि एक 'रॉकेटरी' मूवी है, उसको देखिए। यह बहुत अच्छी मूवी है और उसमें यह बताया गया है कि भारत में एटम बम कैसे बना और रॉकेट कैसे बनने शुरू हुए। उस फिल्म में यह सब कहानी है और इसको फिल्म में बहुत अच्छी तरह से रखा गया है। उनको क्या दिक्कतें आईं, वह भी उस फिल्म में दिखाया गया है। सर्वश्री भाभा, साराभाई, कलाम, चिटनीस और धवन के प्रति देश हमेशा शुक्रगुज़ार रहेगा, क्योंकि इन्होंने देश का नाम रोशन किया है। कोई बोल रहा था कि उन्हें कम तनख्वाह मिलती है, तो मैं उनसे यह कहना चाहता हूं कि कम तनख्वाह मिलने के बावजूद भी देश प्रेम के कारण सतीश धवन वापस आए थे - यह हमें कभी नहीं भूलना चाहिए, बल्कि उनका ज्यादा शुक्रगुज़ार

* Not Recorded.

रहना चाहिए। आज हमारे यहाँ, बीच में ऐसी-ऐसी राजनीतिक नोंक-झोंक हुई कि दुनिया में क्या रिएक्शन है। आज सुबह सबने अखबार में पढ़ा होगा कि नवाज़ शरीफ कह रहे हैं कि पाकिस्तान कहीं नहीं है और भारत तो चंद्रमा पर भी चला गया। यह उनका दुख है और आज यह भारत की उपलब्धि है, जिस पर हमें गर्व होना चाहिए। ..(**व्यवधान**).. एक मिनट। उपग्रह छोड़ना, यानी उपग्रहों को लाँच करना - दूसरे देशों के या किसी के भी हों, हमारा जो इच्छित स्थल है, वहाँ तक उसे लाँच करना, वहाँ पर रखना - इस काम में हमने महारत हासिल की है। अगर अमरीका, ब्रिटेन और फ्रांस जैसे देश हमारे यहाँ पर आकर करवाते हैं, तो हमें खुशी होनी चाहिए, इसमें दुख की क्या बात है, इसमें विवाद की क्या बात है?

खरगे जी, आपको यह सुनकर अच्छा लगेगा कि एक बार पूना में ऑल पार्टी या कोई सरकारी कार्यक्रम था, उसमें कांग्रेस पार्टी के मंत्री श्री रामकृष्ण मोरे बोल रहे थे, उनके बाद में अटल जी बोले। अटल जी ने यह कहा कि हम यह कभी नहीं कहते कि आपके जमाने में कुछ नहीं हुआ। आपके जमाने में कुछ नहीं हुआ - ऐसा हम नहीं कहते, लेकिन जितना और जैसा होना चाहिए था, वैसा नहीं हुआ - यह हम कहते थे। मोदी जी एकमात्र प्रधान मंत्री हैं, जो बार-बार लाल किले की प्राचीर से भी कहते हैं कि हर प्रधान मंत्री ने अच्छा काम किया है। ..(**व्यवधान**).. हर प्रधान मंत्री ने देश के लिए काम किया है - ऐसा मोदी जी कहते हैं। मुझे यह बताइए ..(**व्यवधान**).. एक मिनट। एक प्रधान मंत्री म्यूज़ियम तैयार हुआ है। वहाँ पर नेहरू जी का, इंदिरा जी का, राजीव गाँधी जी का..(**व्यवधान**)..नहीं, उसके पीछे है, आप लोग गए ही नहीं हैं, तो हम क्या करें? आप जाइए, लेकिन मुझे यह बताइए कि क्या आपने कभी ऐसा सोचा था कि सभी प्रधान मंत्रियों का कोई म्यूज़ियम होगा और उसमें अटल जी का और बाकी प्रधान मंत्रियों के भी जीवन का विस्तार लगेगा! ..(**व्यवधान**).. नहीं करेंगे, नहीं किया। मैं आगे बताता हूं। ..(**व्यवधान**).. यह मन की उदारता होनी चाहिए। ..(**व्यवधान**)..मैं नरसिम्हा राव जी की याद नहीं कराऊंगा, आपको मालूम है, लेकिन अगर कोई बड़ी चीज़ होती है और देश का लीडर कौन है - ऐसा बोलते हैं, तो उस पर लोग बोलते हैं, हमें बोलने की जरूरत नहीं है।

महोदय, मैं दूसरे पक्ष पर आता हूं, जो मूल मुद्दा है, जिस पर संदीप पाठक जी ने भी बोला और कपिल सिब्बल जी ने भी अभी बोला है कि we lack in innovation. We have to take innovation much further. इनोवेशन से जो संपत्ति तैयार होती है, उससे देश आगे बढ़ता है। स्टीव जॉब्स - जो आईफोन के निर्माता हैं, मैं दो दिन उनके साथ था। उस समय आईफोन नहीं निकला था, उन्होंने हाथ में दिखाकर, जैसा hand-held है, वैसा दिखाकर बोला था कि मैं ऐसा hand-held तैयार करूंगा, जो multi use के लिए होगा और सारी दुनिया बदल जाएगी, way of communication - यह उन्होंने बताया था। बाद में आईफोन आया और हमने देखा कि कितना परिवर्तन हुआ। लेकिन इनोवेशन पर मैंने एक बार कहा कि आईफोन के जो सारे पाट्र्स हैं, अगर आप उनकी कीमत लगाएंगे ..(**व्यवधान**)..राजीव जी, यह मोबाइल में है। manufacturing cost of those products may not be more than Rs.15,000 or Rs.20,000. जो raw material है, लेकिन उसकी उपयोगिता आई, तो 1 लाख रुपये का हो गया। This is the wealth generated by innovation. इनोवेशन का सम्मान होना चाहिए। हम आज जो प्रस्ताव लाए हैं, वह इनोवेशन का सम्मान करने के लिए है, साइंटिस्ट्स को मुबारकबाद देने के लिए है, इसलिए यह यहाँ है। ..(**व्यवधान**).. एक मिनट। मैं बता रहा हूं, अभी खरगे जी गए हैं, चिदम्बरम जी आज नहीं हैं,

चिदम्बरम जी कहते थे कि मोबाइल से पेमेंट होगी, मोबाइल से ऐसा होगा - यह कैसे होगा! जैसे कल खरगे जी बोल रहे थे कि बैकवर्ड क्लास की महिला अनपढ़ है। अरे! यह किसने कहा? ..(**व्यवधान**)..

MR. DEPUTY CHAIRMAN: Please speak on the subject. प्रकाश जावडेकर जी, आप प्लीज़ सब्जेक्ट पर बोलिए। ..(**व्यवधान**)..

**श्री प्रकाश जावडेकर:** उनका अपमान मत कीजिए। वे स्कूल जाते हैं, कॉलेज में जाते हैं, पढ़ना चाहते हैं, आगे बढ़ना चाहते हैं। सवाल यह है कि वह लोगों को कैसे समझेगा - ऐसा बोलते थे। लेकिन आज यदि अमरीका से हमारा कोई दोस्त आता है, तो बाज़ार जाने के बाद सबसे ज्यादा अचम्भा करता है कि कोई कार्ड से पेमेंट ही नहीं कर रहा है, कोई कार्ड लेकर एटीएम तक जा ही नहीं रहा है, सभी मोबाइल से ही पेमेंट कर रहे हैं। ऐसा दुनिया में कहीं नहीं हो रहा है, जो भारत में हो रहा है। यह साइंस है, यह हमारी उपलब्धि है, देश की उपलब्धि है, सभी की उपलब्धि है और सभी को बढ़ते हुए भारत को प्रोत्साहन देना चाहिए, समर्थन देना चाहिए - ऐसा मेरा कहना है।

महोदय, यह इनोवेशन कैसे बढ़ेगा? जब मैं शिक्षा मंत्री था, तब एक कल्पना आई थी। इंजीनियरिंग कॉलेज के लिए hackathon शुरू किया गया था कि इंजीनियरिंग के 6 स्टूडेंट्स इकट्ठे बैठेंगे और जिसका सॉल्यूशन नहीं हुआ है, वैसे 500 सवाल उनके लिए दिए गए। इसमें से कोई भी सवाल चुनकर, उस पर तीन-चार महीने एफर्ट करें, शोध करें, आइडियाज़ लगाएं और उस तरीके से अपना सॉल्यूशन पेश करें, कोड पेश करें। हमने पहले वर्ष में इस तरह से किया था। इसमें 40 हज़ार इंजीनियरिंग छात्रों ने भाग लिया था।

मुझे अच्छा लगा कि अब इसके 8 साल हो गए और 8 साल में यह संख्या 5 लाख से भी अधिक हो गई है। इतने छात्र हर साल यह काम करते हैं। यह सही शिक्षा है, यह शोध की संस्था है, यह शोध का संस्कार है, इससे ही देश आगे बढ़ेगा।

इससे आगे जाकर हमने सभी आईआईटीज़ और एनआईटीज़ में इन्क्यूबेशन सेंटर्स शुरू किए। इन्क्यूबेशन सेंटर में आज इंडस्ट्री, यूनिवर्सिटी, एजुकेशनल इंस्टिट्यूट्स और स्टूडेंट्स, सब इकट्ठे आ रहे हैं। देश की जो लैब्स हैं, पहले ऐसा होता था कि लैब्स अलग, इंडस्ट्रीज़ अलग और यूनिवर्सिटीज़ अलग होती थीं, हमने तीनों को जोड़ दिया। इसके कारण शोध का एक माहौल बना। इसके कारण इस इन्क्यूबेशन सेंटर में केवल सैकड़ों नए प्रयोग ही नहीं हो रहे हैं, बल्कि बहुत अच्छे शोध के पेटेंट्स भी लग रहे हैं। पहले तो पेटेंट मिलने में भी 4-4 साल लगते थे, लेकिन अब 4 महीने में पेटेंट मिलता है। हमने यह बदलाव करके दिखाया है। ग्रैंड चैलेंज हुआ।

मेरा यह सौभाग्य रहा कि नेशनल एजुकेशन पॉलिसी की दो साल जो तैयारी हुई और जो पॉलिसी तैयार हुई, कस्तूरीरंगन जी ने मुझे उसकी आखिरी कॉपी सौंपी। फिर दूसरे दिन मैं पर्यावरण मंत्री था। यह नेशनल एजुकेशन पॉलिसी एक बहुत बड़ी ...(**व्यवधान**)... एक मिनट, नेशनल एजुकेशन पॉलिसी एक बहुत बड़ी उपलब्धि है। आज आपको पता नहीं होगा कि इसरो और डीआरडीओ की टेक्नोलॉजी कहाँ-कहाँ उपयोग में आती है! जो मछुआरे मछली के व्यवसाय के लिए समुद्र में जाते हैं, उनके लिए navigation is very important. Now, with the satellite,

they have a phone, they can receive all signals and get the correct direction. यह हो रहा है, यह इसरो का शोध है। पहले कॉलेजेज़ के इंस्पेक्शन के लिए हमारे 4-4, 5-5 प्राध्यापकों या शिक्षाविदों की अनेक टीमें बनती थीं और वे सभी जगह जाते थे। हमने सब बंद किया और अभी ...(**व्यवधान**)... एक मिनट, सब बंद हुआ और यह हुआ कि अब इसरो और डीआरडीओ के जो अच्छे शोध हुए, उनका उपयोग करके हम आज यहीं 5 लोग बैठ कर इंस्पेक्शन कर सकते हैं और उसमें कोई हेराफेरी नहीं कर सकता। इसलिए साइंस, ...(**व्यवधान**)... एक मिनट, मैं बताता हूँ कि साइंस का ...

MR. DEPUTY CHAIRMAN: Please, do not comment while sitting. This is not fair. Please. ....*(Interruptions)*...

**श्री प्रकाश जावडेकर:** साइंस का उपयोग केवल एक क्षेत्र में नहीं होता है, जब एक विज्ञान तैयार होता है, तो उसका अनेक क्षेत्रों में उपयोग होता है। इसलिए हमें यह समझना पड़ेगा और हमें भी यह बोलना पड़ेगा कि अगर हम एक काल में प्रधान मंत्री का नाम लेंगे और दूसरे काल में उनका नाम नहीं लेंगे, तो ऐसा तो नहीं होगा। प्रधान मंत्री देश का एक प्रतिनिधि होता है। वह जनता का चुना हुआ, 140 करोड़ लोगों द्वारा विश्वास दिया हुआ प्रतिनिधि है। हम उनका नाम नहीं लेंगे, ऐसा कैसे होगा! उन्होंने सपोर्ट दिया, जिसका वर्णन जितेन्द्र सिंह जी ने बहुत डिटेल में किया है। वे हमें एक ही बात कहते थे कि हम यह जो नई शिक्षा नीति बना रहे हैं, इसमें साइंटिफिक टेंपर कैसे तैयार होगा, वही तैयार करना है और वही आज हुआ है। देखिए उसके नतीजे! भारत आने वाले 10 साल में बहुत आगे बढ़ेगा और विश्व की तीसरी अर्थव्यवस्था बनेगा, मैं इतना ही विश्वास व्यक्त करता हूँ। बहुत-बहुत धन्यवाद।

**श्री उपसभापति:** धन्यवाद, माननीय जावडेकर जी। माननीय डा. सांतनु सेन जी, आपके पास 6 मिनट हैं।

DR. SANTANU SEN (West Bengal): Thank you, respected Chair. First of all, I would like to wish my previous speaker, Prakash Javadekar*ji*, a good ministerial berth in the coming reshuffling, the way he was praising Modi*ji*'s Government. It is because after 2024 Parliament elections, there would be no chance at all.

MR. DEPUTY CHAIRMAN: On the subject, please. ....*(Interruptions)*... Please speak on the subject.

DR. SANTANU SEN: Yes, I am coming to the subject. Sir, as we all know, the Indian National Committee for Space Research, that is, INCOSPAR was set up in 1962. It was superseded by I.S.R.O. in 1969. But I have got every doubt, while taking all the credit to their own account, the Treasury Bench can loudly speak out

and pronounce the full form of INCOSPAR or I.S.R.O. because both start with India. We have seen, being very scared of the I.N.D.I.A. alliance, they are in a mood to remove India from every nomenclature.

MR. DEPUTY CHAIRMAN: Please speak on the subject. ....*(Interruptions)*...

DR. SANTANU SEN: I am coming on the subject. ....*(Interruptions)*...

MR. DEPUTY CHAIRMAN: This is not the subject, please.

DR. SANTANU SEN: During landing of Chandrayaan-3, we have seen our learned Prime Minister celebrating sitting in South Africa because he went there to attend the BRICS Summit. Unfortunately, amongst all the BRICS countries, India is paying the lowest possible GDP for science and technology. That is only 0.6 per cent in comparison to that of America, which is 3 per cent; China, which is 2.4 per cent and South Korea, which is 4.5 per cent. I would cite some examples to show the real concern of our Government of India as far as I.S.R.O. is concerned. The funding of I.S.R.O. for 2022 was Rs.13,700 crores. For 2023, it has come down to Rs.10,530 crores. So far as the budgetary allocation is concerned, the Budget allocated in the Financial Year 2024 is only Rs.12,544 crores. It has been slashed down by 8 per cent if you compare it with the previous allocation. My previous colleague was talking about enormous development in science and technology in the country. Of course, that is why, during Covid, we had to keep faith on '*thali bajao*' *and* cow's urine to get rid of Covid. That is the ultimate example of science development and science and technology in our country. I will tell you that our State of Bengal has played a significant part in the historic feat. 31 scientists were there from Bengal. Shri Anuj Nandi from Islampur of West Bengal was not just a part of Chandrayaan-3 mission team...

MR. DEPUTY CHAIRMAN: Dr. *Saheb,* just a second. आपकी पार्टी से एक और वक्ता हैं और आपकी पार्टी के पास कुल 6 मिनट्स हैं। आप उनके लिए कितना समय छोड़ेंगे, that you decide.

DR. SANTANU SEN: ...but he also worked as the Chief Designer of the camera that was attached to the primary body of Chandrayaan-3. I would like to let the House know a very important information. There is a person in Jharkhand whose name is Deepak Uprariya. He was an expert of I.S.R.O. Now, there is a photograph in my

mobile which has been published in a very renowned newspaper. He is selling *idlis* on the road because he, like many others, is not getting their salary for 18 months. He has a bank loan of Rs.4 lakhs. He has kept all his wife's ornaments on mortgage to earn his livelihood. This is the great development of our Government. I would like our learned publicity masters to see to it. Another important point is this. In Chandrayaan-2, two women, Shrimati M. Vanitha and Shrimati Ritu Karidahl Srivastava, played a very important role in the form of Project Director and Mission Director. But, we have seen, in the case of Chandrayaan-3, there are all males performing in the team. My humble submission to our Government will be: Please try to encourage more and more women in this system. Finally, I would request our Treasury Benches: Please, do not forget the name of Dr. C.V. Raman, Dr. Vikram Sarabhai, Dr. Homi Jehangir Bhabha, Dr. A.P.J. Abdul Kalam, who were the pillars of this institute. My final submission to the Government is this. Yes; we have been seeing many publicity masters who are spending even 85 per cent of a particular project for publicity, who are spending huge and huge amounts of money in building up new buildings which are of hardly any necessity. But I.S.R.O., the pride of our nation, is severely ignored by our Government. My humble submission would be this. Yes; try to take the credit of this Chandrayaan-3 but, at the same time, please look into it that another Deepak Uprariya does not come on the field and sells *idlis* because of your neglect. Thank you very much, Sir.

**श्री उपसभापतिः** डा. सांतनु सेन जी, आपने अपनी पार्टी का लगभग पूरा समय ले लिया, so, the next speaker will not get time. This is just for information. Thank you. Now, *Mananiya* M. Mohamed Abdulla. You have three minutes to speak. ...*(Interruptions)*...

SHRI M. MOHAMED ABDULLA (Tamil Nadu): Sir, nine minutes.

MR. DEPUTY CHAIRMAN: Please, three minutes. ...*(Interruptions)*...

SHRI TIRUCHI SIVA: Sir, I have to say. ...*(Interruptions)*... I told the Chairman. ...*(Interruptions)*...

MR. DEPUTY CHAIRMAN: I have no information. Are you speaking? ...*(Interruptions)*... Do you want to speak? ...*(Interruptions)*...

SHRI TIRUCHI SIVA: No, Sir, I would like to give just a suggestion and he will continue. Please. Chairman Sir has given his consent. One of the Directors of Chandrayaan-3, Mr. Sankaran was my junior in college. It was a Government College which was meant for rural people. He had successfully done that and he is now working for Aditya-L1 also. I thought, we may felicitate in the college or anywhere else, but, it is right to mention those names here. That would be a real credit to them. In general, instead of mentioning it each and every name, I would suggest that the House can move a motion and adopt to congratulate all the scientists and engineers who were in the successful mission. I think, all the Members would agree and such a motion could be moved. I also conveyed it to the Minister.

MR. DEPUTY CHAIRMAN: Now, *Mananiya* M. Mohamed Abdulla. You have three minutes.

SHRI M. MOHAMED ABDULLA: Sir, the total allotted time is fifteen minutes. He has already spoken for six minutes and I have nine minutes to speak.

MR. DEPUTY CHAIRMAN: We will check it. Please speak.

SHRI M. MOHAMED ABDULLA: Mr. Deputy Chairman, Sir, on this pride moment that India becomes the first country to reach the South Pole and the fourth to be on the Moon, with the remembrance of Dr. A.P.J. Abdul Kalam, a Tamil pride, a national pride, I start my speech.

Sir, the country's ability to execute space missions reflects its confidence and shows that this is India's time. The Lander Module of the ISRO's third lunar mission Chandrayaan-3 made a successful landmark landing on the Moon's Southern Pole on August 23, as an iconic moment for India.

On this historic occasion, I would like to recall one thing that Chandrayaan-3's successful soft landing on the Moon had given Tamil Nadu an extra reason to cheer. Yes, all the Project Directors of this country's Lunar Mission and also the first Indian mission dedicated to observing the Sun are from our State of Tamil Nadu.

Dr. Mylswamy Annadurai, dubbed as the 'Moon Man of India', led the maiden Chandrayaan Mission in 2008, confirmed the presence of water on the Moon. With this, the world turned towards India. Then, at the second time in 2019, as the first Indian woman to lead India's lunar mission, Shrimati Vanitha Muthaiah, a Tamil lady, becomes the Project Director of Chandrayaan-2.

Then, Chandrayaan-3 was launched on July 14 and successfully landed safely on the Moon after 40 days and this country once again turned the world's gaze towards itself with Mr. Veeramuthuvel as its Project Director. Then, ADITYA-L1, the India's first Solar Mission and Shrimati Nigar Shaji, a Tamil lady, is the Project Director.

Sir, the most important thing, I would like to mention, at this time, through this august House is that all these scientists are not only form our State of Tamil Nadu, but they all studied in our State education system of Tamil Nadu, according to our State curriculum, from the poor and middle-class background belonging to the backward communities and minority communities.

Sir, Tamil Nadu have a visionary history behind this achievement. Through that, we had shown the best 'Governance Model' known as 'Dravidian Model' not only to the country but also to the entire world; that everyone should know and be aware of now.

Tamil Nadu has many firsts to its credit but very few are aware that it was in Chennai, Tamil Nadu that the world's first Mid-Day Meal was served to the students way back in 1920, hundred years back, based on the idea of Shri P. Theagaraya, the then President of the Dravidian Party, namely, the Justice Party. Shri A. Subbarayalu, the first Chief Minister of Madras Presidency implemented the Mid-Day Meal Scheme in a corporation school in Chennai.

The constitutional provision for universalization of primary education has not yet been fully implemented in India. It becomes a distant goal even now. But, Tamil Nadu tries to be ahead of achieving it. Tamil Nadu is one of the most literate States in India now.

Following the pioneering initiative of Justice Party Leader, Shri P. Theagaraya, our ex-Chief Ministers, Shri K. Kamaraj and Dr. Kalaignar had tweaked the feeding programme and contributed to its steady evolution. Gradually, its focus shifted to addressing nutritional issues and checking drop-outs from schools.

The purpose was the same when Kamaraj expanded the programme to all schools across the State. So, they wanted to see more students from poor socio-economic backgrounds enrolling in schools. The mid-day meal was a boon for students from the Scheduled Castes and the backward communities when Dr. Kalaignar insisted on five eggs and bananas to be supplied along with the mid-day meal in Government schools.

Sir, even after the development of Mid-Day Meal Scheme, Tamil Nadu found the gap in achieving the universalisation of school education to all. Hence, it is realized that for the overall development of the nation and State, education must be

made easily available to all. But, poor people in rural as well as urban areas fail to send their children to schools due to several reasons.

Keeping it on mind, as a part of that, the Tamil Nadu Government has started another scheme providing free bicycles to students initiated by Dr. Kalaignar. The name of the Scheme is Free Bicycle Scheme.

Dr. Kalaignar made higher education free for first generation learners and even launched the EVR Nagammai Memorial Free Graduate Educaiton for Girls Scheme. He was constantly launching similar schemes that made education accessible to everyone, especially, the under-privileged sections of society. There was 15 per cent reservation for rural students in professional courses and entrance exam for professional courses was scrapped. In 1989, he introduced Free Bus Pass Scheme for the school students to go to school. Free computer training for school students was launched....

MR. DEPUTY CHAIRMAN: *Mananiya* Mohamed Abdulla, we are having discussion on Chandrayaan.

SHRI M. MOHAMED ABDULLA: Yes, Sir, I am coming back to the point.

MR. DEPUTY CHAIRMAN: We are having discussion on Chandrayaan. ...*(Interruptions)*... Please.

SHRI M. MOHAMED ABDULLA: Yes, Sir, I am coming back to the point.

MR. DEPUTY CHAIRMAN: Please. ...*(Interruptions)*...

SHRI M. MOHAMED ABDULLA: Yes, Sir, this is how our backward scientists came to...

MR. DEPUTY CHAIRMAN: Leave all the background and come to the subject.

SHRI M. MOHAMED ABDULLA: Yes, Sir, I am just explaining. These are just a few of the many schemes started by Dr. Kalaignar. Even now, it is being continued under the leadership of our hon. Chief Minister Thalapathy M.K. Stalin which aims to optimize social welfare gains by tweaking a century-old scheme to offer it as the first meal of the day that is called as the Tamil Nadu Chief Minister Breakfast Scheme. As

Shri Jairam Ramesh said, it is a journey of 60 years of Indian education, but in Tamil Nadu, it has its own journey of about 100 years through the Dravidian ideology.

Through this, we have contributed not only to our State but also to our nation. This is what I have to point out now and this is how the uniqueness of our federal system contributes to the nation-building. The others are criticizing our welfare schemes as a "freebies" but we are investing it for the development of the nation in view of social justice. That is why we are proudly calling it as 'dravidian model', which is very much needed at this time for this country, not only for the scientific development but also for all-round development.

With that, I conclude. Thank you.

**श्री उपसभापतिः** डा. अशोक कुमार मित्तल, आपके पास 5.00 मिनट का समय है। माननीय सदस्यगण, आपको मालूम ही है कि डिस्कशन का जो विषय है, उसी पर हमें बोलना है and not other points related to it. Please speak on the subject. You know the rules.

**डा. अशोक कुमार मित्तल** (पंजाब): माननीय उपसभापति महोदय, आज मुझे इस नये सदन में चंद्रयान के ऊपर बोलने का मौका दिया जा रहा है, इसके लिए मैं माननीय सभापति जी को धन्यवाद देता हूं। सबसे पहले मैं इसरो के अध्यक्ष, श्री एस. सोमनाथ जी, उनकी पूरी टीम और उनकी पूरी संस्था को इस सदन की तरफ से, अपनी तरफ से और पूरे देश की तरफ से मुबारकबाद देना चाहूंगा, धन्यवाद करना चाहूंगा। उन्होंने पूरे विश्व में भारत का परचम फहरा दिया है।

सर, 1965 में हमारे तत्कालीन प्रधान मंत्री श्री लाल बहादुर शास्त्री जी ने पाकिस्तान युद्ध के दौरान देश को एक नारा दिया था -'जय जवान, जय किसान।' बाद में माननीय प्रधान मंत्री श्री वाजपेयी जी ने पोखरण के दौरान इस नारे में संशोधन किया और कहा -'जय जवान, जय किसान, जय विज्ञान।' मुझे वह समय याद है, जब 3 जनवरी, 2019 को हमारे माननीय प्रधान मंत्री श्री नरेन्द्र मोदी जी लवली प्रोफेशनल यूनिवर्सिटी में इंडियन साइंस कांग्रेस की अध्यक्षता करने के लिए आये, तो उन्होंने इस नारे में एक और संशोधन किया -'जय जवान, जय किसान, जय विज्ञान' इस नारे में उन्होंने एक नया शब्द जोड़ा - 'जय अनुसंधान' और पूरा नारा बना - 'जय जवान, जय किसान, जय विज्ञान, जय अनुसंधान।' मैं खुशकिस्मत हूँ कि जब प्रधान मंत्री श्री नरेन्द्र मोदी जी ने यह नारा दिया, तो मैं उसका साक्षी था।

(**सभापति महोदय** *पीठासीन हुए।*)

माननीय महोदय, मुझे खुशी है कि प्रधान मंत्री मोदी जी के उस नारे की वजह से आज हमारा देश चन्द्रयान की सफलता को पूरे विश्व में ज़ोर-शोर से मना रहा है। मैं इसके लिए फिर अपने पूरे देश को मुबारकबाद देना चाहूँगा।

सर, 23 अगस्त को चंद्रयान-3 ने सफल लैंडिंग की और उसके एक सप्ताह बाद हमारे देश का एक पवित्र त्यौहार 'रक्षा बंधन' आता है। जिस प्रकार हर बहन अपने भाई को राखी भेजती है, मुझे ऐसा प्रतीत हो रहा था, पूरे देश को ऐसा प्रतीत हो रहा था कि हमारे देश की 70 करोड़ बहनों ने चंद्रमा को, जिसको हम 'चंदा मामा' भी कहते हैं, चंद्रयान के रूप में एक राखी भेजी है।

माननीय महोदय, चांद का हम सबके जीवन से एक भावनात्मक जुड़ाव है, सम्बन्ध है। बचपन की लोरी 'चंदा मामा दूर के' सुन-सुन कर हम लोग बड़े हुए हैं। अगर हम बॉलीवुड की बात करें, तो मेरे ख्याल में पुरानी मूवीज़ में कोई भी गाना ऐसा नहीं होता था, जिसमें चंदा का वर्णन नहीं होता था। जैसे - 'चाँद सी महबूबा हो मेरी' या 'चंद्रमा में भी एक दाग है', इस तरह के गाने सुन-सुन कर हम बड़े हुए हैं। इसके साथ-साथ एक और इंटरेस्टिंग तथ्य यह है कि हॉलीवुड की एक मूवी आयी थी - 'मिशन इम्पॉसिबल', जो साइंस और टेक्नोलॉजी के फिक्शन पर थी। उसका बजट क्या था, हम बाद में उसकी बात करेंगे, लेकिन हमारे भारतीय वैज्ञानिक चंद्रयान-2 की असफलता से उत्साहित ही हुए, नीचे नहीं गये और चंद्रयान-3 को 'मिशन आई एम पॉसिबल' बना कर हमारे सामने पेश किया। सर, चंद्रयान-3 एक रिएलिटी है, यह फिक्शन मूवी नहीं है कि 615 करोड़ में हमारे वैज्ञानिकों ने इसको कामयाब किया। यह हमारे लिए और भी हर्ष का विषय है कि इस मिशन में महिलाओं का भी पूरा योगदान रहा, महिला वैज्ञानिकों का भी पूरा योगदान रहा और हमारा दूसरा सदन इस टाइम महिला रिजर्वेशन पर बात कर रहा है, यह हम सबके लिए हर्ष का एक विषय है।

हॉलीवुड में जेम्स बांड की मूवीज़ बहुत प्रसिद्ध हैं। उसमें एक मूवी थी -'Octopussy' ...(**समय की घंटी**)... सर, सिर्फ एक मिनट। उसमें भारत को snake charmer कहा गया है, जादू-टोने वाला देश कहा गया है। सर, मैं उससे प्रेरणा लेते हुए बोलना चाहूँगा कि हां, भारत जादू का देश है। यही वह देश है, उसी में ही जादूगर इसरो है, जिसने इतने कम समय में और इतने कम खर्च में एक सफल चंद्रयान बना कर हम सबके आगे पेश किया। यह भारत का ही जादू है और भारत ही एक जादूगर है। सर, चंद्रयान इस टाइम स्लीप मोड में है, लेकिन यह पूरा सदन, पूरा देश जागा हुआ है और हम सब इस सदन के माध्यम से पूरे देश को बधाई दे रहे हैं।

सर, मेरी एक छोटी सी विनती है। ...(**समय की घंटी**)... सर, एक मिनट। हमने 2023-24 में चंद्रयान लाँच किया और इसी वर्ष हमने इसरो का बजट घटा दिया! पिछले साल जो 13,700 करोड़ का बजट था, वह 12,543 करोड़ रह गया। सरकार से मेरी विनती है कि इसको दोबारा रिव्यू किया जाए।

सर, अन्त में मैं अपने वैज्ञानिकों को, भारत के वैज्ञानिकों को, इसरो के वैज्ञानिकों को बधाई और अभिनन्दन करने के लिए दो पंक्तियों से अपनी बात समाप्त करूँगा :

*"परिन्दों को मिलेगी मंजिल यकीनन, ये फैले हुए उनके पंख बोलते हैं।"*

*"वे लोग रहते हैं खामोश अकसर.."* - हमारे वैज्ञानिक -

*"वे लोग रहते हैं खामोश अकसर, जमाने में जिनके हुनर बोलते हैं।"*

बहुत-बहुत धन्यवाद।

MR. CHAIRMAN: Shrimati Nirmala Sitharaman.

THE MINISTER OF FINANCE; AND THE MINISTER OF CORPORATE AFFAIRS (SHRIMATI NIRMALA SITHARAMAN): Sir, I thank you very much for giving me an opportunity to speak on an issue in which the entire nation feels very proud and also has been one in voicing such a sense of pride in appreciating the ISRO. With the landing of Chandrayaan-3, particularly, on the South Pole of the Moon, India has become the first country to do so. Whilst countries have launched and landed on the Moon, we are only the fourth in the line, but for reaching the Moon's Southern Pole, we are the first. Now, I just want to briefly recall how, in 1975, India with the help of the Soviet Union, the then USSR, launched the Aryabhata Satellite. That was a heavy satellite, but it was launched by the Soviet Union for us. So, that was the first ever attempt by India's ISRO to position something in the space, to enter the space itself. But after that, if you look at this spectacular journey that the ISRO has had, this success of Chandrayaan-3 is certainly going to have a very big impact on India's industrial and technological ecosystem. It is, of course, going to affect directly and positively the satellite systems area, telecommunications area and there are very many other related fields all of which will benefit from it. Although in 1975, we needed the Soviet Union's help to launch our Aryabhata Space Station to go into the space for the first time from India, yet, as of July, 2023, our record is such that we have already launched 431 foreign satellites for other countries. 34 different countries have utilized ISRO's facility and its knowledge systems to launch their satellites. I am just recalling, in 1975, our Aryabhata was launched by the Soviet Union for us. But, today, we are in a position to launch 34 different countries' satellites totalling to 431. What a spectacular journey this is for ISRO! So, Chandrayaan-3, in my observation, also stood out for one particular achievement which has a blend of innovation, has a blend of how technology and innovation working together can work for global achievements and sustainability. I remember also seeing a lot of comments which said, "Oh, but this is no good. It has taken this many number of days to reach there. Did it require that many number of days? Can it not be done in lesser number of days?" Quoting some other countries, they said, "They reached the Moon in 20 days, whereas, you took 45 days" and so on.

But the secret behind that, the fact behind that, is the innovative way in which ISRO has handled it. In that, they chose a path to reach the Moon which was not otherwise thought of but thought only due to the route selection. And, I am using a very pedestrian language here. I am conscious of that. Using such a route selection, ISRO made it possible to do it cost effectively because the gravitational pulls in magnetic fields which come in the way, -- I am sorry again for a pedestrian language -- can exhaust more fuel but the way in which ISRO decided to take this

Chandrayaan-3 was chosen not for a racing expedition that I will have to reach there faster than somebody else but I have to reach there in a cost effective manner using lesser fuel and, therefore, serve the purpose of sustainability. Space research also has to be sustainable because otherwise it becomes too expensive and cannot be afforded at all. So, innovation intertwined with sustainability, particularly in the realm of space, is what ISRO has achieved by choosing the route with which it reached the South Pole of the Moon. Now the Lander that is there was named 'Vikram Probe'. Obviously, the name reminds us of Vikram Sarabhai who set up the first rocket launching station which we are now using repeatedly. Nobody ever in India can forget the contribution that Vikram Sarabhai or Homi Bhabha did. Of course, Homi then moved over to the Atomic Energy Commission which was carved out of the then body ISRO. So, Vikram Probe did something spectacular again having reached the South Pole, for the first time, the density and the temperature of the Moon's ionosphere has been recorded. Several people went to the Moon earlier, landed in the Moon earlier, but we did the first thing of landing in the South Pole. But, for the first time, again, the Moon's ionosphere and its density and the temperature there has been recorded by Vikram Probe. Interestingly, from the Probe, the Rover, which is moving slowly on the surface of the Moon, the Pragyan Rover, in its exploration, has unearthed ground breaking discoveries. The presence of sulphur, for instance, in the Lunar South Pole, has come as a very big surprise to the scientific community. So, I am happy to say Chandrayaan-3 landing in the South Pole, for the first time, does not just stop there, it has also created a lot more record on its own. Just going back, Chandrayaan-2 also would have achieved but for the last minute tragic failure, but ISRO showed case to the world that it shall not be deterred by that failure, it would learn lessons. Every strand of the errors have been identified, lessons learnt and, today, we see that the ISRO has corrected itself to the extent that very many little errors which had crept in earlier had been removed and better solutions have been offered than what had been given in Chandrayaan-2 itself. No wonder, that the Chief S. Somanath has been received by the Indian common citizen everywhere. When he went into a flight, people stood up and clapped for him. This is the kind of respect Indians have, our people have, for such great achievements of the scientists of this country; nobody ever forgets them. And, today, ISRO and ISRO scientists are all very much recognized by people of India and, in the process, proved another thing; I will later delve into this point. They are people who have studied from tier 2, tier 3 colleges, gone into Indian Institute of Sciences and many such institutions, but they are there sitting and contributing for the future development of India and also sharing their knowledge with the entire space community all over the world. Now, if I

spoke about Chandrayaan-2, Sir, I will also take this opportunity to say about Chandrayaan-1, which was launched in 2008. Even that was a wonderful...

MR. CHAIRMAN: Hon. Members, what a sight! Look at the Galleries! Jaya*ji*, look at the Galleries, all your gender people, and you are iconic to all of them, and, at a time, when the hon. Finance Minister is on her legs! This has happened right from the beginning. But that it would happen so continually, is unimaginable, spectacular. My tribute to this great power, which is being unleashed in India to change it for the better and to take it to 2047 gloriously.

SHRIMATI NIRMALA SITHARAMAN: Thank you very much, Sir. Sir, I will take this opportunity which you have given me by highlighting the women and girls in the Gallery. Equally impressive, Sir, and I am sure you would have noticed it as well and Jaya*ji* would also probably appreciate what we have. ...*(Interruptions)*... What I wanted to say is, Jaya*ji,* seeing the school children who are here, I am so touched by the fact that they are here to observe what we are discussing and I am sure, yes, all the Members would feel happy about the presence of the future generations of India here. ...*(Interruptions)*... Oh! okay. Hon. Leader of the House reminds me that I am not wrong in mentioning hon. Jaya*ji's* name because she apparently acted as a school child.

MR. CHAIRMAN: Yes.

SHRIMATI NIRMALA SITHARAMAN: Student with uniform in a film.

MR. CHAIRMAN: I was reflecting hon. Members to that memorable contribution as a great artist and elevating her to iconic status which she has sustained all throughout. Hon. Finance Minister.

SHRIMATI NIRMALA SITHARAMAN: Appreciations, Jaya*ji*. Sir, I did mention about Chandrayaan-2 and wanted to move over to briefly talk about Chandrayaan-1 as well. But, before I do talk about Chandrayaan-1, I want to remind myself and also place it before the hon. Members in this House that, probably, on 7th September 2019 midnight, the then Governor of West Bengal and the now Vice-President of India witnessed that landing which, of course, had a problem, but there were hundreds of school children in the Science City of Kolkata, and, today you are reminding us about the school children who are here to listen to this debate on the

Chandrayaan-3's success. So, Chandrayaan-1, if I can just go one step backward, was also a very successful mission. In 2008, when it was launched, it discovered the presence of water on the Moon surface and it also provided a lot of insights into the lunar geology. So, obviously, every time the ISRO had attempted to do, they have come out with extraordinary contributions to the Space Science and that is now actually being used by the space community, scientist community from all over the world. And, repeatedly, when we talk about ISRO, I will, definitely, recollect that the founders of ISRO, as I named them earlier, Vikram Sarabhai and Homi Bhabha, had all remembered that this contribution or this investment in space is an investment in future and that it will be done for the sake of development and also for the sake of humanity. That spirit continues even today. I would want to highlight that. And, when I do that, it is purposely because I want to bring to the context that continuously in India, ISRO has received that kind of a support from all communities, ordinary citizens, students, children, scientific community, and from the Government of the day, the kind of support that ISRO has received is something which all of us are proud of and we will continue doing that.

But, of course, before I go into talking many more things, I want to mention a theme here, and I would probably respond to it repeatedly. It is a comment which Shri Jairam Ramesh has made. Hon. Member is not here. But, he has made a comment in the morning about 'muscular nationalism' and said that 'you leave it to the scientists'. Sir, I was not in the House, but, I have seen it subsequently. Our former President, Shri A.P.J. Abdul Kalam, referred to Prof. Satish Dhawan and said leadership should be like that. When a mission failed, he had said "Don't worry at all; leave it there. I take the full responsibility as the head." But, next year, when it was corrected and they achieved success, Prof. Satish Dhawan had told our former President, the then scientist, Shri A.P.J. Abdul Kalam, "The success is due to your team and the success is to you." As a true leader, he gave the credit to the team. Absolutely! Who would deny the scientists and their contribution? But, if the Prime Minister of the country stands next to a scientist or a team of scientists who worked for something and when there is, unfortunately, failure or disappointment, and say 'do not worry, you will be doing better next time', what is wrong in it? Hon. Prime Minister stood next to Prof. Sivan, the scientist, during the launch of Chandrayaan 2 which in the last minute unfortunately broke all our hearts and disappointed all of us as much as the scientific community when it just could not land. Sir, standing next to him who had tears in his eyes, when he stood with him, Mr. Sivan had tears in his eyes. The Prime Minister said, "Last night, I understood your frame of mind. The look in your eyes said a lot. That is why I did not stay here for long. We might not

have reached the lunar surface as planned. You came as close as you could. Stay steady and look ahead. We have full confidence when it comes to a space programme. The best is yet to come." These are not words of any muscular nationalism. These are truly the words of our Prime Minister who wants to stand next to his scientists even at the time of disappointment as much as at the time of success. So, to decry this and say, 'Oh! You stop your muscular nationalism', is a bit of a perversion, which I think somebody of Mr. Jairam Ramesh's experience, it is not expected, Sir. And, this is not the first time. In 2014, ISRO had, by that time, launched 104 satellites at one go. Prime Minister Modi was the first one to say, India salutes all the scientists. It was on his Twitter handle, it is there even now. So, scientists are being given the due credit and we shall continue to give due credit; every Government has done it, we also do it. But, when we do it, because it is Prime Minister Modi, please do not give any other attributes which are not true.

Sir, for a minute, I will dwell again into cost of the mission. And that is one of the interesting facts about Chandrayaan 2, as much as of the Mangalyaan. One of the most interesting facts is that Chandrayaan 3 Mission costs around 75 million US Dollars only, approximately Rs. 615 crores. These are not final figures, because that will have to be finalised through the Department after tying up all the expenditures. It is approximately Rs. 615 crores. Then, again, for repeated comparison, Sir, our Chandrayaan 3 commanded a lesser budget when compared to some of the movies which are made on space itself. You are making movies on space so that we can understand better. We want to know better, our future generation would know what it means and, therefore, interesting films are being made. But, those films cost more than the cost of Chandrayaan 3 Mission. I will give you a random selection of names of some films and their costs; 'Interstellar' costs 165 million US Dollars, 'Passengers' costs 110 million US Dollars, 'The Martian' costs 108 million US Dollars, 'Gravity' costs 100 million US Dollars and Chandrayaan 3 cost only 75 million US Dollars! As I said earlier, innovative cost-cutting methods are the reason. It took a few days more, because of the gravitational pull, the magnetic fields dragged the satellite and therefore it exhaust the fuel. This is in my laymen language. I am sure there are some scientists here who would smear at my language. But, simply put, that is the reason why they chose the track with which they could reach even if it takes a few more days it cost them less.

Sir, I will come to the point that India's Space programmes are increasingly becoming Atmanirbhar. And the immense potential of home-grown industries and their technologies are now increasingly helping our expeditions to the space; Chandrayaan 3 benefitted from this.

I would like to highlight where these kinds of Atmanirbhar Bharat has come to interplay with the space programme. India actually, through Chandrayaan 3, has displayed and showcased its capability to design, to develop and to manufacture high-end equipments which are so required; but, all domestically. Now, leading companies like Hindustan Aeronautics Limited, which provided significant mechanical hardware and Bharat Heavy Electricals Limited, contributed with their titanium tanks which were so crucial and actually helped in cutting cost as well. But, it is a very innovative way in which we could do it. Sir, numerous private Indian firms have contributed to this, particularly, in the realms of mechanical and electronic fabrication. For a minute, I want to quote Vikram Sarabhai again. He says, "if we are to play a meaningful role nationally, and in the community of nations, we must be second to none in the application of advanced technologies." Now, these advanced technologies are not just coming from HAL and BHEL. They sure, are, coming from HAL and BHEL. But, private players, today, are giving these high-end technologies and have made an immense contribution to the efficiencies which are now getting recorded. The kinds of equipments which we see in Chandrayaan 3 are the state-of-the-art scientific instruments being used and all of them developed in India. They include: seismometer, langmuir probe instruments, thermal probe instruments, both X-ray and laser-based spectrometers, all of them have been built in India. So, I want to underline here, Sir, that scientific temper, scientific achievements are absolutely praiseworthy in ISRO. But, policy has also been doing a lot of rigorous changes which has now come to help with private participation in the space sector. I remember, during Atmanirbhar announcements and subsequently in the Budget of 2021-22, we had announced a strategic disinvestment policy, particularly, for Central Public Sector Enterprises in which we said, 'in the strategic areas, a minimum presence of the Government will be there and will continue to be there'.

We are not going to shut every unit there, not at all, but there will not be any area in India which will not be available for private sector, that is to say, no area will be shut for private sector. That policy has, actually, helped in getting the private sector to enter into space area and, as a result today, you have innovative ideas working together with the ISRO and that has made a lot of difference. India actually ranks fifth among countries for equity investments in space in the past decade and that is consistently because the policy has been made more and more favourable and, as a result, we are improving in getting equity funding for the private sector which wants to involve itself in space. But even today it is only 3 per cent of all the money which goes into the space arena globally. We need to have more private equity coming for those private companies which want to do innovative work in the

space area. Sir, you have rightly given the tone of women even at the beginning of my intervention, I would like to say how Chandrayaan-3, the landing spot in the Moon, has been named Shiv Shakti. Shiv Shakti obviously denotes the Ardhnarishwar principles, and, therefore, both Shiva and Shakti give the energy and the action. Therefore, I want to say, it is a tribute to the women scientists who worked in that mission. Indian women scientists have contributed immensely to the space programme. Women scientists and I quote the Prime Minister here, 'Women scientists of this mission have played a crucial role in ensuring its success. Without their contribution, this achievement was not just possible. They will inspire generations to come.' Sir, about or slightly over hundred women staff have played a direct significant role in conceptualizing, designing, realizing, testing and executing Chandrayaan-3. Over hundred women staff includes those who are scientists. The huge participation of women shows that the scientific empowerment of women has helped and glass ceiling has actually been broken in ISRO for quite some time now, I am not saying it happened yesterday, but for quite some time now, and as a result empowerment of women scientists. And having broken the glass ceiling, no doubt, metaphorically, they are reaching to the space. This empowerment of women scientists clearly shows that in India, there is enough opportunity and more for women provided they are given access, given opportunity, and, that is why, in this context, I would like to place on the Table here that Nari Shakti Vandan Adhiniyam which has been introduced in the Lok Sabha is necessarily an instrument through which we hope the political empowerment also can be done just as scientific empowerment has been happening in ISRO. If that kind of access is given to women, opportunity is given to women; they can perform as well as our scientists are performing in ISRO itself, in the political arena. I am sure when the Bill comes to the Rajya Sabha, it will have a smooth passage. I am sure all parties, all Members would kindly cooperate to have that cleared. Sir, because we are talking about Chandrayaan-3, I would like to highlight the names of those women scientists who have contributed to Chandrayaan-3. Among many others, which include more than hundred women staff, I am naming some of them here; they include Shrimati Kalpana Kalahasti, Dr. Ritu Karidhal Srivastava, who is known as the rocket woman of India, Shrimati Vanitha Muthaia, Shrimati Nandini Harinath, Shrimati Anuradha T.K., Shrimati Moumitta Dutta and Shrimati B.R. Lalithambika. So, these are scientists who have come from various parts of this country, have studied in institutions which are, probably, the two or three institutions, but sheer wanting to perform with excellence has moved them to do many things on reaching ISRO and today contributing towards the launch of Chandrayaan-3. Sir, Chandrayaan-3 was a great

success. There are other cosmic endeavours by the ISRO which is launching Aditya-L1, which is a space based observatory dedicated to studying the Sun. Here again the innovative thought of the ISRO has played an important function. Its primary function is, of course, to monitor solar corona, while simultaneously conducting direct observations of the solar wind at the point where it will be located and that point, I think, is called Sun-Earth Lagragian point, a point where it could stay without having to consume too much fuel because it is such a position that it can help in observing Sun without any obstruction in between. So, the Sun-Earth Lagrangian point which is about 1.5 million kilometers away from the Earth going towards the Sun, is a very important mission. The significant feature of this one is that it has got seven payloads which include the visible emission line coronagraph which like I said earlier, Chandrayaan, BHEL, HAL have contributed in this case, the Indian Institute of Astrophysics, which is located in Bangalore has contributed in this particular visible emission line coronagraph which is going to be very important an instrument which is going to be observing the Sun. So, Aditya-L1, which was launched from Sriharikota by ISRO on the 2nd of September, 2023 is one of those very important observatories for the Sun which India will be doing. There are three other countries which again have done this before, but India has now achieved it. Sir, here again a woman scientist has contributed in the Aditya-L1, Nigar Shaji is a woman scientist who is actually behind this Aditya mission. So, I will come for the last bit, Sir.

Before I conclude, I just want to highlight a few points about how we see the future of space and ISRO in India. I just want to highlight the point that we shall continue the spirit of Vikram Sarabhai. In that achievements by ISRO shall be for the mankind, achievements by ISRO shall be for development and achievements will be for sharing with all. With that, actually, that is why the Prime Minister said, when he looked at Vasudhaiva Kutambhkam, G20 and so on, India will continue to explore, learn and share for the betterment of all humankind. So, this is what the Prime Minister said and this is what was the appreciation also given to the scientists and again standing by the scientists. Now I have my friend, hon. Member, Jairam Ramesh, saying the point that muscular nationalism does not play here, standing next to the scientists at the time of achievement and also during disappointments. So, that is the point I would like to highlight. More importantly, Sir, it is important, in June 2023, when the Prime Minister visited the United States of America, we signed an accord, the Artemis Accord, very important in that, India also will be one of those 27 countries, which have signed this Accord. It is a multilateral space initiative, led by West, in which one of the objectives is to send humans back to the Moon through an international space station and we shall be happily a party to that. In this context, I

would want to pick up on something which a former NASA Associate Administrator observed. His name is Mike Gold.

He was a former associate administrator in NASA. He was behind drafting and shepherding Artemis Accord. So, it is important to understand what his perspectives were when India joined this Accord. I quote him. "India will not only fill the void that Russia is leaving, but will far exceed it." This is Mike Gold saying, who is a former associate administrator at NASA who drafted and shepherded the Artemis Accord. He further says, "The capabilities of India to engage, to innovate, to support a more robust industry, particularly commercial space, is going to far outstrip anything that Russia had ever been able to do." He also says, "India was a sleeping giant in the space world but that is awakening now." He says, "Already, the country has done so much with so little." Again that frugality with which our scientists are working has been observed by the former associate administrator of NASA.

Sir, I believe, one of the hon. Members in the morning, while talking--probably it is hon. Member Jawhar Sircar--said, "Bureaucracy now should be off science. ISRO should be devoid of bureaucratic influence." Now, it is not me, not anybody from India. But, I would like to again recall the words of former associate administrator of NASA, Mike Gold. He says, "India's bureaucratic reforms in its space efforts are helping the country move faster in the sector." So, bureaucracy has not been obstructive; actually, the reforms are helping it to move faster. So, moving faster is not being an obstruction. We need to understand that these reforms are taking place so that this kind of an approach where you are able to take decisions in time is facilitating the bureaucracy. The National Research Foundation is not headed --I am sure, the Minister was here and might have spoken about it in the morning-- by a bureaucrat with huge funds given for them to decide where that should be deployed. It is headed by a scientist, Dr. Sood, if I am right. He heads it; no bureaucrat, no former IAS is sitting there. It is a scientist who is dealing with it. So, I would like to highlight that these reforms, therefore, will be transformative not just for India but also for the U.S., the commercial space sector as a whole. It is the observation we have heard by the former associate administrator of NASA.

Finally, Sir, the current Government's policies have helped the power of the youth, the power of the scientific community, the power of the Indian StartUps. All of them together are helping today's ISRO. I am not taking more time, Sir, in case you want me to conclude. There are now over 140-plus registered space tech StartUps, all of whom are doing brilliant work. As a continuation of the policy which I said, AatmaNirbhar Bharat of the 2021-22 Budget, and now you have the Indian Space Policy 2023, which has come out. That seeks to institutionalise the private sector

participation in space sector; the establishment of Indian National Space Promotion and Authorization Center (IN-SPACe) is also facilitating the usage of ISRO by private entities. With all these, the Government is also spending a considerable amount to re-skill nearly 4,000 technicians, technical and scientific assistants of ISRO so that they can improve upon their skills.

Sir, I finally close with again one observation, that Indian scientists are not just being in ISRO, Indian scientists are contributing to the space programmes all over the world. How can we ever forget Kalpana Chawla's contribution in the 1997 Shuttle? She was the first woman of Indian origin to be in space! I would also now recall that in January, 2023, A.C. Charania has become NASA's new Chief Technologist serving as Principal Advisor to the administrator Bill Nelson. Similarly, in March, 2023, we heard of Amit Kshatriya who has become the first head of NASA's newly established Moon to Mars Programme. So, Indians in space are not just in ISRO but also all over the world.

Sir, thank you very much for giving me this opportunity.

MR. CHAIRMAN: I have two quick observations. Shri Jawhar Sircar, who, as you indicated, has been a bureaucrat for four decades! We have been liberal with time and, as the Finance Minister, please be liberal with the finance! Everyone agrees on that! Now, Dr. Prashanta Nanda.

DR. PRASHANTA NANDA (Odisha): Thank you, Mr. Chairman, Sir, for giving me this opportunity. Chandrayaan-3 rightly deserves the space and time in Parliament of India and it has got that in Lok Sabha and in Rajya Sabha also.

Sir, you were saying that the galleries were full and that the people from everywhere in this country must be watching our academic discussion in Rajya Sabha regarding Chandrayaan-3, to listen about the total story of Chandrayaan-3 from 1962 till today. In that deliberation, they must have been happy to listen to Shrimati Nirmala Sitharaman, Jairam Rameshji and others too.

[**उपसभाध्यक्ष (डा. सांतनु सेन) महोदय** *पीठासीन हुए।*]

लेकिन इस बातचीत में, टोटल डिबेट में कौन किसकी नानी को याद कराना चाहता था, मुझे नहीं मालूम, पर मुझे इतना मालूम है कि मुझे आज अपनी मां याद आ गई। 74 साल पहले जब भी मैं खाना नहीं खाता था, तब मेरी मां मुझे छत के ऊपर लेकर जाती थी और कहती थी कि बेटा, मामा को देख ले, खाना खा ले, नहीं तो मामा गुस्सा हो जाएगा, वह घर नहीं बुलाएगा। मैं खाना खा लेता था, लेकिन फिर भी मामा घर नहीं बुलाते थे। उन्होंने कभी घर नहीं बुलाया। इसी दुख को

दूर करने के लिए 1962 में जो शुरुआत हुई, वह 23 अगस्त, 2023 को पूरी हो गई। अभी निर्मला सीतारमण जी बोल रही थीं कि hundred women scientists - मैडम, वे hundred scientists नहीं थीं, hundred मांएं थीं। वे मांएं थीं, जो लाखों-करोड़ों मांओं का वादा पूरा करा रही थीं, और उनका वादा पूरा हो गया। यहां हमें सिर्फ उन्हीं के बारे में बोलना है। कौन किधर है, कौन पावर में है और कौन पावर में नहीं है, इसके साथ हमारा कोई लेना-देना नहीं है। सीधी सी बात है कि एक 4X4 की hundred meters की रिले रेस चल रही है। उसमें चार व्यक्ति भागते हैं, जिनमें से कोई बहुत फास्ट होता है - लेकिन ओलम्पिक में जब मेडल मिलता है, तो चारों लोगों को खड़ा कर देते हैं और बोलते हैं कि सबको मेडल मिलेगा। वर्ष 1962 से लेकर अब तक जितने साइंटिस्ट्स, जितने प्रधान मंत्री इसमें लगे थे, मेरे हिसाब से सबको एक-एक मेडल मिलना चाहिए। They deserve it.

मैं यह भी बोलना चाहता हूं कि आज इसरो में जितने लोग हैं, उनमें 16,000 females हैं, जो काम कर रही हैं। वे हमारी मां हैं, इसीलिए हम सोच रहे हैं।

क्यों न लोक सभा और राज्य सभा में उतनी संख्या में हमारी लेडीज़ आ जाएं! अगर डबल इंजन की बात करते हैं, तो उसमें यही होगा कि एक इंजन पुरुष है और दूसरा इंजन स्त्री है। अगर ये दोनों इंजन काम करेंगे, तो बहुत बढ़िया होगा। सर, मेरे पास ज्यादा टाइम नहीं है, लेकिन मेरा बोलने का बहुत दिल कर रहा था और सुनने का भी दिल कर रहा था, इसलिए मैं बैठा रहा हूं। मैं यह कहना चाहता हूं कि यह कहा गया कि पहले कम पैसे मिलते थे और आज हम ज्यादा पैसे देते हैं। मेरे पिताजी को 30 रुपये तनख्वाह मिलती थी और हम आराम से खाते-पीते थे, लेकिन आज उतने आराम के लिए तीन लाख रुपये लगेंगे। पैसों का devaluation हुआ है, इसलिए पैसों की बात न करें, दिल की बात करें और अक्ल की बात करें। यदि अक्ल की बात करेंगे, तो 60 नहीं, 6,000 साल पहले भी जो इंडियन बनवास करते थे, जो साधु-संत थे, वे भी साइंटिस्ट्स थे और आज भी जो हैं, वे भी साइंटिस्ट्स हैं। सब साइंटिस्ट्स थे, तो किसी को पैसों की जरूरत नहीं है, उनको एकाग्रता की जरूरत है और जितनी एकाग्रता देश उनसे चाहता है, उन्होंने हर काल में दी है। उन्होंने हमें वेद दिए हैं, उपनिषद् दिए हैं, गीता दी है और आज चन्द्रयान भी दे दिया। वही साइंटिस्ट्स लोग हैं, केवल उनका नाम बदल गया है, लेकिन उन्होंने ही दिया है। इसमें मेरा इतना कहना है कि हम ओडिशा से आए हैं। सभी को यह लगता होगा कि यह तो छोटा-सा है। मैं यह कहना चाहता हूं कि यह छोटा-सा है, बहुत बड़ा नहीं है, लेकिन हमारी भी इसमें साझेदारी है। हमारी भी कहानी सुन लीजिए कि हम इस यात्रा में कैसे जा रहे हैं। सर, मैं ओडिशा के बारे में बोल रहा हूं। In 1984, Odisha Space Applications Centre (ORSAC), the apex body of the State of Odisha for space technology applications, was established in the year 1984. Along with space tech, ORSAC is involved in IT projects like Remote Sensing, GIS and GPS based projects, Geographic Information System and Global Positioning System. The organisation also runs GRAMSAT and EDUSAT. In 2017, Odisha formally named the outer Wheeler Island in Bhadrak district of Odisha as APJ Abdul Kalam Island - यह नाम दिया गया है as a tribute to the former President on his second death anniversary. Former Chief Minister, Shri Biju Patnaik *(Time-bell rings.)* सर, मुझे एक मिनट का समय दे दीजिए। Former Chief Minister, Shri Biju Patnaik, had allotted the historic Wheeler Island to the Ministry of

Defence on the request of Dr. Kalam in 1993. Dr. Kalam had described the Wheeler Island as his theatre of action. He said, 'It is my theatre of action'. Dr. Kalam also played a key role in ensuring that the island is the nesting ground for the endangered Olive Ridley turtles remained safe by changing the illumination structure. लास्ट में मैं यह कहना चाहता हूं कि हम ओडिशा के लोग इतना कहना चाहते हैं कि यह हम कर सकते हैं। If everything goes well, then, Made in Odisha miniature satellite, Cube Sat will soon support the State in managing natural calamities like cyclone and enhancing cyber security. जिस साइक्लोन से हम लड़ रहे हैं, साल में दस बार लड़ रहे हैं ...(**समय की घंटी**)... ...(**व्यवधान**)...

**उपसभाध्यक्ष** (**डा. सांतनु सेन**): आपका एक मिनट का समय पूरा हो गया है।

**डा. प्रशांत नन्दा**: उसकी जानकारी के लिए जो सैटेलाइट होगी, वह ओडिशा की होगी। इसलिए हम बोल रहे हैं कि यह जो यात्रा है, जो सफलता है और सब लोग जो गोल्ड मेडल लेने के लिए खड़े हैं, उसमें ओडिशा भी शामिल है, क्योंकि हमने भी उसमें योगदान दिया है, ओडिशा की महिलाओं ने भी योगदान दिया है। मेरे पास बहुत समय नहीं है, फिर भी इतना याद रखिए कि यह एक नेशनल गर्व है। It is a pride of our nation. *(Time-bell rings.)*

THE VICE-CHAIRPERSON (DR. SANTANU SEN): You have taken one minute extra. Please conclude.

DR. PRASHANTA NANDA: This is the day of the scientists who have made it...

THE VICE-CHAIRPERSON (DR. SANTANU SEN): Please conclude.

**डा. प्रशांत नन्दा**: मैं यह बोलना चाहता हूं कि आज हम गर्व से छाती ठोककर बोल सकते हैं कि कितने देश हैं।...(**व्यवधान**)... जिसमें हम बोल सकते हैं कि India is not comparable with other scientists. We can and we would say that हमारा अगला जो गगनयान मिशन है या जो आदित्य मिशन है, वे भी आएंगे और वे भी करके दिखाएंगे कि इंडिया क्या चीज़ है - उस दिन के लिए इंतजार करें।

DR. M. THAMBIDURAI (Tamil Nadu): Thank you, Mr. Vice-Chairman, Sir. On behalf of the AIADMK party, I would like to participate in the discussion on India's glorious space journey marked by successful soft landing of Chandrayaan-3. Mr. Vice-Chairman, Sir, since morning, we have been listening to most of the speakers. It was initiated by the Minister of Commerce and Industry. Then afterwards, the Minister of Space intervened. Later on, the Minister of Finance also intervened.

Now, at the fag end of the day, we are going to participate in the discussion. I am thankful for that. Chandrayaan-1, Chandrayaan-2, Chandrayaan-3 are all described by various Members. It is a success for Indian scientists. We have to remember all the scientists like Sir C. V. Raman, a nobel laureate. He is a man who gave physics which is the base for all development. So, we have to think of Sir C. V. Raman, the nobel laureate. Next is, Vikram Sarabhai, Homi Bhabha and Dr. A. P. J. Abdul Kalam. Dr. A. P. J. Abdul Kalam studied in MIT in Chennai. You know very well. That is a famous institute in Chennai. It is a place for education. He studied in that place. As others said, there are so many people who contributed for the development of space research and eminent scientists also participated. So many Prime Ministers put so much of efforts; but, our Prime Minister, Shri Narendra Modi, in his period, was successful. That is why many people appreciated Modiji and it is a success in his period where Chandrayaan-3 safely landed, started research and gave so much information to the whole world. That is why we are appreciating and also our Minister of Space was explaining that education is also very important for the success of India. Before education, super beliefs are there. Super beliefs are explained in health and in various superstitions, but if all these are removed...

THE VICE-CHAIRPERSON (DR. SANTANU SEN): Your time is over.

DR. M. THAMBIDURAI: How is the time over? I can't understand. I will just take a few minutes. We are four Members in our party. No Member has spoken. We are coming to a close. It is embarrassing to us. I was the senior presiding officer in Lok Sabha and I was five times Lok Sabha Member. I know the sense of the House. I am speaking because this is the successful story and I am explaining it. I have just started and you say that my time is over! How can I conclude? Okay, I will restrict myself. What did he say about the success of education? I want to speak only on that point. Education means science education which is also very important. Especially in Tamil Nadu, Dravidian movement is the root cause for giving good education in our country.

That is why, even in Chennai, the Birla Kolarangam at the Periyar Science and Technology Centre near Guindy has been established. I want to highlight the achievements the country has made in space and its successful journey. *Puratchi Thalaivar* MGR, our founder leader of the AIADMK Party, had started many educational institutions, especially for technical education. There are many ITIs and polytechnics. So, that kind of science education is given.

THE VICE-CHAIRPERSON (DR. SANTANU SEN): Please conclude.

DR. M. THAMBIDURAI: You have to create so many scientists. I also want to specifically mention about some people from Tamil Nadu, because names of various persons have been mentioned. Our Minister mentioned about Veeramuthu. Then, Vanitha Muthiah, Dr. APJ Abdul Kalam..*(Time-bell rings.)*

THE VICE-CHAIRPERSON (DR. SANTANU SEN): You have already taken two minutes extra.

DR. M. THAMBIDURAI: Like that, there are many highly educated people in Tamil Nadu because of the good educational standards.

THE VICE-CHAIRPERSON (DR. SANTANU SEN): Thank you.

DR. M. THAMBIDURAI: They have all contributed to the space journey. Once again, I thank our hon. Prime Minister, Narendra Modiji. During his period, this successful mission has taken place.

THE VICE-CHAIRPERSON (DR. SANTANU SEN): Thank you very much.

DR. M. THAMBIDURAI: I would like to thank all Prime Ministers and the Indian scientists who have contributed towards this. Thank you.

THE VICE-CHAIRPERSON (DR. SANTANU SEN): Now, Shri Abir Ranjan Biswas.

SHRI ABIR RANJAN BISWAS (West Bengal): Sir, I thank you very much for giving me the opportunity. At the very outset, let me start by congratulating heartily our great scientists who successfully executed the Chandrayaan-3 Mission making India the first nation to land on the South Pole of the Moon. Our scientists worked hard for the success of Chandrayaan and just at the crucial moment when the Chardrayaan was about to land, the entire nation was deprived of the chance of seeing the landing or our scientists congratulating each other because the official TV feed got cut to a video showing the PM waving the National Flag. ..(Interruptions).. The camera was turned to the PM while the nation waited with bated breath to see the actual landing video and the celebration of our scientists. Sir, the scientists, I reiterate, were the real heroes because despite the Department of Space having a

budgetary cut of more than eight per cent this year, compared to the last fiscal year 2022-23, which, in turn, had an expenditure cut of 32 per cent for the space science part notwithstanding the fact that Chandrayaan-III and Aditya L-I Missions were included in this. That is why I say that this is the very reason why I laud our heroes, our scientists, and Bengal has played a part in it.

THE VICE-CHAIRPERSON (DR. SANTANU SEN): Just a minute. The hon. Minister wants to say something.

DR. JITENDRA SINGH: I did not want to interrupt him because he is speaking in a good flow.

SHRI ABIR RANJAN BISWAS: Sir, I am not yielding.

DR. JITENDRA SINGH: I just wanted to put the records straight. When the PM was shown on the screen, the other part of the screen was showing the landing. So, it is not...

SHRI ABIR RANJAN BISWAS: No, no; they could not see the landing.

DR. JITENDRA SINGH: The whole nation is a witness to that. You can get it replayed.

SHRI ABIR RANJAN BISWAS: Sir, video is there.

DR. JITENDRA SINGH: Yes, the video is there.

SHRI ABIR RANJAN BISWAS: Sir, video is there. It is for all to see. What the truth is, let the nation decide.

DR. JITENDRA SINGH: Just because the PM's face was there does not mean that the landing was not shown.

SHRI ABIR RANJAN BISWAS: Hon. Minister, the video is there. Let the nation decide.

DR. JITENDRA SINGH: Yes.

SHRI ABIR RANJAN BISWAS: It is for the nation to decide. The video is there. It is in public domain.

DR. JITENDRA SINGH: You are stating the half truth. The Prime Minister's face was there, but the landing was also being shown.

SHRI ABIR RANJAN BISWAS: Anyway, Vice-Chairman, Sir, my time is being eaten away.

DR. JITENDRA SINGH: It was being shown simultaneously.

SHRI SAKET GOKHALE (West Bengal): Sir, he is eating away his time.

DR. JITENDRA SINGH: It was being shown simultaneously. You understand that.

SHRI ABIR RANJAN BISWAS: Sir, I am not yielding. I seek your protection, Sir.

DR. JITENDRA SINGH: You are not understanding...

SHRI ABIR RANJAN BISWAS: Mr. Vice-Chairman, Sir, I seek your protection. I am not yielding. Please let me have my chance to speak.

DR. JITENDRA SINGH: I am saying, even before the PM's face came, our faces were also there.

SHRI ABIR RANJAN BISWAS: Mr. Vice-Chairman, Sir, my time is being eaten away....

THE VICE-CHAIRPERSON (DR. SANTANU SEN): You will be given time. Don't worry.

DR. JITENDRA SINGH: Vice-Chairman, Sir, they were showing the team. The ISRO team was there. The Mission team was there. We were watching from one location. We were there. And that slot went to PM.

SHRI ABIR RANJAN BISWAS: Sir, I have not yielded. Please give me my chance to speak.

DR. JITENDRA SINGH: But the landing video was continuing simultaneously.

THE VICE-CHAIRPERSON (DR. SANTANU SEN): Mr. Biswas, please continue.

SHRI ABIR RANJAN BISWAS: Sir, much of my time has been eaten away. Please give me the due time. Firstly, I will say, it is in public domain and it is for all to see and decide. Okay.

Sir, I would like to say, since I laud the scientists, 31 of them, we proudly say, have come from Bengal as part of the Mission. As you know, Anuj Nandi was from Islampur, West Bengal. He also played a very crucial role in this Mission, working as the Chief Designer of the cameras attached to the primary body of Chandrayaan-3. I would also like to say that after meeting the ISRO scientists in Bengaluru, the hon. Prime Minister landed in Delhi and made a bizarre statement. He said, "Use space technology for delivery of services." This statement has not been clarified as yet. Then, we see, the Governor of Bengal writing to ISRO asking for "Help of space technology to curb ragging of students in colleges". It is most astonishing and agonizing also to see the achievements of our scientists being mocked by such illogical statements, which seek to take away their success and seem to undermine them.

Further, I would like to say that during the 2019 Lok Sabha elections, our hon. Prime Minister was suddenly seen addressing the nation on the success of 'Mission Shakti'. The sole purpose was to take credit for the success of our scientists for political and electoral gains. Again, from the speech of the Leader of the House today, it seems that the Government does not want the focus of today's discussion to be celebrated as the success of one of our scientists and our space programme but as a personal credit festival for the PM and only the PM. Let us move past the self-congratulatory and chest-thumping postures and stand up as a nation to congratulate the real heroes, our scientists.

In the end, all I have to say is, while we have our eyes on space, let our feet touch the ground reality, discussing nation-related harsh realities of price rise, unemployment, MSP for farmers, Manipur, recent CAG reports etc., which, seriously, concern the people at large. Let there be a celebration, but also along with that, an introspection if as a nation we want to move forward with much more such achievements and phenomenal successes. Thank you, Sir.

THE VICE-CHAIRPERSON (DR. SANTANU SEN): Shri Sanjay Raut.

SHRI SANJAY RAUT (Maharashtra): Sir we are discussing India's glorious space journey. यह जो जर्नी है, यह बहुत ही गौरवशाली है। सरकारें आती हैं और सरकारें चली जाती हैं, प्रधान मंत्री भी आए और चले गए, लेकिन इंडिया की यह स्पेस जर्नी निरंतर चल रही है और चलती रहेगी। पंडित नेहरू *versus* नरेन्द्र मोदी जैसा झगड़ा नहीं होना चाहिए। आप वहां से मोदी-मोदी कहेंगे, हम यहां नेहरू-नेहरू कहेंगे - यह टीम वर्क है। ...(**व्यवधान**)... 2014 से पहले भी इस देश में बहुत बड़ा काम हुआ है और उसकी बदौलत आज चंद्रयान ऊपर गया है। ...(**व्यवधान**)... प्रधान मंत्री की अपनी-अपनी सोच होती है, कोई विज्ञानवादी होता है, कोई अंध-श्रद्धावादी होता है, कोई अंध भक्त होते हैं, कोई भक्त होते हैं। पंडित नेहरू के जमाने में भी बहुत नालियां और गटर होते थे, लेकिन पंडित नेहरू ने यह नहीं कहा कि गटर से गैस निकालकर चाय बनाओ। लेकिन यह भी विज्ञान है - मैं यह नहीं मानता हूं कि यह विज्ञान नहीं है, यह भी साइंस है। गटर से भी हम गैस निकाल सकते हैं, यह भी सांइस है, लेकिन पंडित नेहरू की सोच ऊपर थी। पंडित नेहरू ने इसरो बनाया था। पंडित नेहरू ने ज्ञान, विज्ञान और तंत्र विज्ञान की नींव रखी थी और आज हम 70 साल में यहां तक पहुंच गए हैं। सर, मिशन चंद्रयान-3 की कामयाबी अद्भुत है। यह यात्रा चंद्रयान-1 से शुरू हुई थी, यह चंद्रयान-2 में भी जारी रही और चंद्रयान-3 ने इतिहास रचा है। यह हमारे 60-70 साल के टीमवर्क का नतीजा है। यह जो हमारा ऐतिहासिक पुराना संसद भवन है, उसमें जो आखिरी संयुक्त बैठक हुई, उसे प्रधान मंत्री जी ने संबोधित किया।

वे सांसदों के साथ यहाँ नए संसद भवन में पैदल चलकर आ गए। 1947 से हमारा सफर, इस देश का सफर इसी तरह से हो रहा है। पंडित जवाहरलाल नेहरु, जो देश के पहले प्रधान मंत्री थे, उस वक्त इस देश में एक सुई तक नहीं बनती थी, कुछ नहीं बनता था, लेकिन आज हम अपना चंद्रयान ऊपर भेज रहे हैं। सर, आर्यभट्ट भारत का पहला उपग्रह था, जिसे 19 अप्रैल, 1975 में कॉसमॉस-3एम नामक लॉंचिंग व्हीकल से लॉंच किया गया था। सर, मैंने कहा कि यह गौरवशाली यात्रा है, आज इसरो भारत का गौरव है। ..(**समय की घंटी**)..

THE VICE-CHAIRPERSON (DR. SANTANU SEN): Please conclude.

**श्री संजय राउत**: इसकी स्थापना 1962 में हुई थी। विक्रम साराभाई जी के बारे में जयराम रमेश जी ने पूरी कहानी सुनाई। विक्रम साराभाई जी उस वक्त इसरो के टीम लीडर थे और उनकी टीम भी बहुत छोटी थी। उनके पास गिने-चुने वैज्ञानिक थे, पैसों की तंगी थी, लेकिन साल भर में भारत ने पहला रॉकेट लॉंच किया और उसके पार्ट्स को साइकिल पर लादकर लॉंचिंग सेंटर तक पहुँचाया गया। वह ऐतिहासिक तस्वीर आज भी हमारे शरीर के रोंगटे खड़े कर देती है। 6 दशक के बाद चाँद पर, मंगल पर, गगनयान पर - जो यह सब देन है, यह हमारे देश के साठ-सत्तर सालों में, पंडित नेहरू से लेकर आज तक के प्रधान मंत्री माननीय मोदी जी की भी देन है। .. (**समय की घंटी**) ..

THE VICE-CHAIRPERSON (DR. SANTANU SEN): Please conclude.

**श्री संजय राउत**: मैं सभी के नाम लेना चाहता हूं। सर, कल प्रधान मंत्री जी ने कहा कि हमें मजबूत भारत बनाना है, बड़ी सोच से ही भव्य और मजबूत भारत का निर्माण होगा, सोच बड़ी होगी, तो बड़े काम हो जाते हैं और साइंस और टेक्नोलॉजी के बिना यह देश आगे नहीं बढ़ेगा। लेकिन हमने कोरोना काल में क्या देखा? पापड़ बेचो, थालियाँ बजाओ, तालियाँ बजाओ, this is not science and technology. यह science and technology नहीं है, यह अंधश्रद्धा है। ...(**व्यवधान**).. यह science and technology नहीं है...(**व्यवधान**)...

THE VICE-CHAIRPERSON (DR. SANTANU SEN): Sanjay Rautji, please conclude. *...(Interruptions)...* Sanjay Rautji, please conclude. *...(Interruptions)... ...(Time-bell)...*

**श्री संजय राउत**: इस देश के वैज्ञानिकों ने वैक्सीन बनाई और वैक्सीन बनने के बाद उस वैक्सीन के कवर पर प्रधान मंत्री ने सिर्फ अपनी फोटो लगाकर प्रचार किया। यह ठीक नहीं है। ...(**व्यवधान**)...

THE VICE-CHAIRPERSON (DR. SANTANU SEN): Sanjay Rautji, please conclude. *...(Interruptions)...* Please conclude. *...(Interruptions)...*

**श्री संजय राउत**: हमें अपने साइंटिस्ट्स का, अपने विज्ञान का और अपनी टेक्नोलॉजी का आदर करना चाहिए।

THE VICE-CHAIRPERSON (DR. SANTANU SEN): Thank you. The next speaker is ...

**श्री संजय राउत**: सर, यह देश बहुत बड़ा है। ...(**व्यवधान**)...

THE VICE-CHAIRPERSON (DR. SANTANU SEN): Please conclude. *...(Interruptions)...* Please conclude. You have taken almost three minutes extra. *...(Interruptions)...*

**श्री संजय राउत**: सर, science and technology राजनीति करने का विषय नहीं है। राजनीति करने के लिए बहुत से विषय हैं, लेकिन कुछ लोग इस विषय में भी राजनीति लेकर आए हैं। ...(**व्यवधान**)...हमें राजनीति नहीं करनी चाहिए। ...(**व्यवधान**)...

THE VICE-CHAIRPERSON (DR. SANTANU SEN): Thank you. ...(Interruptions)... Next speaker is, Dr. Anil Jail. ...*(Interruptions)*... Dr. Anil Jain.

**श्री संजय राउत**: सर, कुछ लोगों ने कहा कि science and technology में तेलंगाना और आंध्र का झगड़ा लगा दिया। यह कब तक चलेगा? ...(**व्यवधान**)...

THE VICE-CHAIRPERSON (DR. SANTANU SEN): Dr. Anil Jain.

**डा. अनिल जैन** (उत्तर प्रदेश): महोदय, आपने मुझे लोकतंत्र के इस नए मंदिर के ऐतिहासिक प्रथम सत्र के दूसरे दिन बोलने का मौका दिया है, इसके लिए आपका बहुत-बहुत धन्यवाद। मैं अपने आपको बहुत गौरवान्वित महसूस करता हूं और मुझे विश्वास है कि लोकतंत्र के इस नए मंदिर से भव्य भारत की एक नई तस्वीर निकलेगी।

महोदय, भारत के लोकतंत्र की जरूरतों को ध्यान में रखते हुए हमारे दूरद्दष्टा प्रधान मंत्री ने आगे आने वाली पीढ़ी के लिए लोकतंत्र का यह भव्य मंदिर प्रस्तुत किया है। यहाँ से भारत की एक नई तस्वीर निकलेगी - इसके लिए मैं माननीय प्रधान मंत्री जी का धन्यवाद करता हूं। हमारे प्रधान मंत्री जी ने कहा है कि अमृत काल की सुबह हमारा भारत नए संसद भवन में भविष्य के संकल्प के साथ आगे बढ़ रहा है। मान्यवर, पहले हम कहते थे - चलो दिलदार चलो, चांद के पार चलो, लेकिन हमारे साइंटिस्ट्स ने कहा - हम हैं तैयार चलो और साइंटिस्ट्स ने चंद्रयान तैयार कर चाँद के पार पहुँचाने का काम किया है। मैं पूरे सदन के माध्यम से और अपनी तरफ से इस देश के साइंटिस्ट्स का तहेदिल से शुक्रिया अदा करता हूं, उनका वंदन और अभिनंदन करता हूं। विक्रम साराभाई जी ने जो परंपरा प्रारंभ की थी, उस परंपरा को तब से लेकर आज तक, एस. सोमनाथ तक, हमारे साइंटिस्ट्स ने कायम रखा है। इसके लिए हम उनका वंदन और अभिनंदन करते हैं। हम उस नेतृत्व का भी वंदन और अभिनंदन करते हैं, जिसने साइंटिस्ट्स के लिए ऐसा करने का माहौल प्रस्तुत किया, व्यवस्थाएं दीं, बजट दिया। महोदय, हम ऐसे प्रधान मंत्री का भी वंदन और अभिनंदन करते हैं। हम चाँद के पार जा चुके हैं। हम ऐसे चाँद के पार गए हैं, जिस पर हिंदुस्तान के साथ अभी तक तीन और देशों ने सॉफ्ट लैंडिंग की थी, लेकिन चाँद के पार जाकर साउथ पोल तक पहुँचने का काम हमारे देश के साइंटिस्ट्स ने चंद्रयान-3 को पहुँचा कर किया है। यह केवल और केवल भारत ने किया है और भारत के लिए यह बहुत गर्व की बात है। हम सभी लोग इस बात से बहुत गौरवान्वित होते हैं।

महोदय, चंद्रयान-3 चंद्रयान-2 के बाद बना। चंद्रयान-2 के समय जब देश ने देखा कि किन्हीं तकनीकी कारणों से वह अंतिम स्थल तक नहीं पहुंच सका, तो उस समय के इसरो के डायरेक्टर, डा. के. सिवन साहब जब आँसुओं से विह्वल हुए थे, तब उनके कंधे पर हाथ रखने का काम इस देश के यशस्वी प्रधान मंत्री ने किया था। उन्होंने साइंटिस्ट्स का हौसला बढ़ाया कि वैज्ञानिकों, हम तुम्हारे साथ हैं और चट्टान की तरह तुम्हारे पीछे खड़े हैं, तुम आगे बढ़ो, हम चंद्रयान की सफलता को भी देखेंगे। चंद्रयान-3 के इस कान्फ़िगरेशन के लिए मिशन प्रोफाइल तैयार की गई। चंद्रयान-3 को प्रॉपल्शन मॉड्यूल, लैंडर और रोवर मॉड्यूल से कान्फ़िगर किया गया है। इसके प्राथमिक उद्देश्य हैं - चंद्रमा की सतह पर सुरक्षित लैंडिंग, चंद्रमा की सतह पर

घूमना और यथास्थान वैज्ञानिक प्रयोगों का दुनिया से परिचय कराना। चंद्रयान-3 की लैंडिंग भारत की स्वदेशी तकनीकी शक्ति का प्रदर्शन करती है, इसकी वैज्ञानिक मनोवृत्ति को नई शक्ति प्रदान करती है। चंद्रमा पर लैंडिंग की सफलता के साथ हमें उम्मीद है कि अंतरिक्ष के क्षेत्र में भारत की कंपनियाँ नए सिरे से आगे बढ़ेंगी। अन्वेषक, घटक, निर्माण, नेविगेशन, मैपिंग, अवलोकन डेटा जैसी अन्य विभिन्न गतिविधियाँ भी इसमें शामिल हैं। चंद्रयान-3 के सफल समापन से भविष्य के सहयोगी मिशनों और अंतरिक्ष अन्वेषणों में लगे अन्य देशों के साथ भारत की साझेदारी के द्वार खुलेंगे और भारत वैश्विक अंतरिक्ष पहलों में सक्रिय रूप से भाग ले सकेगा। भारत दुनिया को भविष्य के गहन अंतरिक्ष अन्वेषणों में योगदान दे सकता है।

महोदय, सितंबर, 2015 में राष्ट्रीय बैठक के बाद अंतरिक्ष प्रौद्योगिकियों का उपयोग साठ मंत्रालयों तक बढ़ाया गया। यह पहले केवल कुछ मंत्रालयों तक ही सीमित था, लेकिन अब औद्योगिक प्रौद्योगिकियों का उपयोग साठ मंत्रालयों तक बढ़ाया गया है। मनरेगा, पीएमजीएसवाई, पीएमकेएसवाई, अमृत, पीएमएफबीवाई, स्वामित्व और यूआईडीआईए आदि सभी जनभागी कार्यक्रम बेहतर प्रशासन के लिए अंतरिक्ष डेटा का उपयोग कर रहे हैं। हमारे सूर्य मिशन, आदित्य एल 1 ने अंतरिक्ष से पहली सेल्फी भेज दी है और वह सूर्यदेव के चक्कर लगा रहा है। आदित्य सूर्य के क्रोमोस्फीयर, कोरोनो और हेलियोस्फीयर में उसके प्रभाव का अध्ययन कर रहा है। यह सौर वायु और ज्वालाओं पर भी नज़र रख रहा है, ताकि हमारी अंतरिक्ष संपत्ति सुरक्षित रह सके। मैं इस सदन के माध्यम से भारतीय अंतरिक्ष अनुसंधान संगठन अर्थात् इसरो को देश के महत्वाकांक्षी मिशन गगनयान के लिए भी शुभकामनाएं देता हूं, जो हमारे देश का पहला मानव मिशन होगा।

हालाँकि वह पहले अन-मैन्ड जाएगा, जिसमें अंतरिक्ष यात्रा करने वाली व्योममित्र नाम की ह्यूमनॉइड महिला रोबोट जाएगी, उसके बाद मानव रहित और अंत में मानव मिशन सफल होगा। ऐसे में भारत की अंतरिक्ष उपलब्धियों पर संसद में बोलना मेरे लिए एक गर्व की बात है, क्योंकि पूरे विश्व में लोग इसी मुद्दे पर बात कर रहे हैं। आज पूरा विश्व यह जानने को बेताब है कि आखिर ऐसी कौन सी जादू की छड़ी हाथ लग गई, जिसका भारत ने उपयोग करके पिछले 9 वर्षों में अंतरिक्ष की ओर इतनी लंबी छलांग लगाई। अगर हम भारत की अंतरिक्ष में लगाई गई इस छलांग का विश्लेषण करें, तो हम देखते हैं कि इसरो की काबिलियत और माननीय प्रधान मंत्री जी के नेतृत्व में मोदी सरकार की राजनीतिक इच्छाशक्ति ने बड़ा काम किया है। आज वर्तमान केन्द्र सरकार के कार्यकाल में पूरा भारत अपने सामर्थ्य के साथ आगे बढ़ रहा है, तो इसलिए कि सरकार ने उसे अपने सामर्थ्य का सदुपयोग करने के लिए उचित माहौल उपलब्ध कराया है। हमारे यहाँ चंद्रयान-3 से पहले की यह बात है,

*"रख कर चाँद के उस पार कदम,*
*आज हम इतिहास बना देंगे,*
*और जिनको शक था हमारी काबिलियत पर,*
*आज उन सबको गवाह बना देंगे।"*

आज चंद्रयान की सफलता के लिए सारा विश्व भारत का गवाह बना हुआ है।

महोदय, वर्तमान केन्द्र सरकार ने 2014 के बाद से स्पेस सेक्टर के बजट में 150 प्रतिशत की वृद्धि की है। वर्तमान केन्द्र सरकार के कार्यकाल में भारत के स्पेस सेक्टर में सफलता की कहानी चंद्रमा पर पहुँचने जितनी ही दिलचस्प और उल्लेखनीय भी है। भारत ने चंद्रमा के दक्षिणी ध्रुव पर उतरने वाला पहला देश बन कर जो इतिहास बनाया है, वह मोदी सरकार द्वारा किए गए कुछ ऐतिहासिक सुधारों और इसरो को केन्द्र से मिलने वाले समर्थन के कारण ही संभव हो पाया है। इसमें उनका यह योगदान है। इसके लिए हमारे प्रधान मंत्री और हमारे महान वैज्ञानिकों को जितना धन्यवाद दिया जाए, उतना कम है।

महोदय, कभी पहले हम, कभी पहले तुम, यह तो चलता ही रहेगा। इसरो ने 2014 से पहले केवल 35 विदेशी उपग्रह लॉन्च किए थे। ध्यान रखिए, 2014 से पहले केवल 35 विदेशी उपग्रह लॉन्च किए गए थे और 2014 के बाद इन 9 सालों में 389, यानी एक कम 390, 389 उपग्रह लॉन्च किए गए हैं। इन उपग्रहों के लॉन्च करने से भारत के इसरो को 3,300 करोड़ रुपए की आमदनी भी हुई है। यह काम 9 सालों में हुआ है। 60 सालों में जो 35 थे, पिछले 9 सालों में 389 हुए हैं।

महोदय, सरकार ने अंतरिक्ष विभाग के लिए बजटीय आवंटन, जो 2013-14 में 5,615 करोड़ रुपए था, उसको बढ़ा कर 2023-24 में 12,543 करोड़ किया है, यानी तीन गुना किया है।

महोदय, अंतरिक्ष में भारत की सफलता की कहानी को समझने के लिए हमें केन्द्र सरकार के उन 6 मार्गदर्शक सिद्धांतों को समझना होगा, जो 6 मार्गदर्शक सिद्धांत सरकार ने रखे। वे मार्गदर्शक सिद्धांत हैं: पहला, निजी उद्यमों को सक्षम बनाना; दूसरा, स्वतंत्र अंतरिक्ष गतिविधियों को बढ़ावा देना; तीसरा, इसरो के बुनियादी ढाँचे और प्रौद्योगिकी को मजबूत करना; चौथा, सार्वजनिक क्षेत्र को अनुसंधान और विकास कार्यों के लिए संसाधन उपलब्ध कराना; पाँचवाँ, अंतरिक्ष संपत्तियों के विकास के लिए माँग संचालित दृष्टिकोण अपनाना और छठा, युवाओं को बड़े सपने देखने के लिए प्रेरित करना। इसके साथ ही, भारतीय अंतरिक्ष नीति, 2023 को मंजूरी देना। 2022 में भारतीय अंतरिक्ष नीति बनी थी, 2023 में इसकी मंजूरी हुई। भारतीय अंतरिक्ष संघ के साथ आईएन-एसपीएसीई का गठन करना, ये कुछ ऐसे कदम हैं। केन्द्र सरकार ने 2019 में न्यू स्पेस इंडिया लिमिटेड का गठन किया। इसका काम भारतीय अंतरिक्ष कार्यक्रमों का प्रचार और वाणिज्यिक दोहन है। न्यू स्पेस इंडिया लिमिटेड का गठन भी एक मील का पत्थर साबित हुआ है।

महोदय, वर्ष 2017 में पीएसएलवी सी-37 द्वारा एक साथ 104 उपग्रह छोड़ कर पूरी दुनिया में भारत ने रिकॉर्ड बनाया है। 2017 में पीएसएलवी सी-37 ने 104 उपग्रह छोड़े और यह विश्व रिकॉर्ड बना, जो भारत के नाम दर्ज है। इस प्रकार भारत की स्पेस यात्रा में इन 9 सालों में ये बड़े काम हुए।

महोदय, सरकार के इन प्रयासों से 2023 तक अंतरिक्ष स्टार्टअप्स की संख्या 140 हो गई है, जो पहले 4 थी। अंतरिक्ष के क्षेत्र में कुल 4 स्टार्टअप्स थे, जबकि इन 9 सालों में 140 स्टार्टअप्स शुरू हुए हैं। आज अंतरिक्ष उद्योग का विस्तार 16 बिलियन डॉलर हो गया है। इस विस्तार के 40 बिलियन डॉलर की बात हुई और अन्य देश के लोग इसके 100 बिलियन डॉलर तक की बात कर रहे हैं। इस प्रकार भारत अपनी अंतरिक्ष यात्रा को माननीय प्रधान मंत्री, नरेन्द्र मोदी जी के नेतृत्व में आगे बढ़ा रहा है।

महोदय, पिछले 9 वर्षों में भारत सरकार ने बड़ी संख्या में युवाओं को अंतरिक्ष जगत से जोड़ा है। हमारे प्रधान मंत्री जी ने देश के युवाओं को हमेशा से बड़े सपने देखने के लिए प्रेरित किया है। जब देश के युवाओं ने अंतरिक्ष के सपने देखने शुरू किए, तो उन्हें उचित संसाधन उपलब्ध करा कर सरकार ने उनके सपनों को पंख दिए। आप सबको जान कर आश्चर्य होगा कि एसएसएलवी डी2 से 3 उपग्रह लॉन्च हुए और इन तीनों की लॉन्चिंग में 750 छात्राओं ने योगदान दिया। यह प्रधान मंत्री जी के युवाओं को प्रोत्साहित करने के कारण हुआ है। महोदय, पिछले वर्षों में अंतरिक्ष विज्ञान से जुड़े देश के अलग-अलग संस्थानों में 603 छात्रों ने एडमिशन लिया और इन छात्रों को 100 परसेंट प्लेसमेंट की गारंटी दी गई। ये संस्थान त्रिवेंद्रम, जम्मू और अगरतला में हैं। भावी अंतरिक्ष वैज्ञानिकों की नई पौध तैयार हो, इस दिशा में यह केन्द्र सरकार का एक बड़ा कदम है। यह है दूरदृष्टि!

महोदय, वर्तमान में भारत वैश्विक अंतरिक्ष अर्थव्यवस्था में 2 से 3 प्रतिशत का योगदान देता है और आगे आने वाले 5-6 साल में अंतरिक्ष अर्थव्यवस्था में भारत एक महाशक्ति बन जाएगा। भारत अब नासा के नेतृत्व वाले समूह से जुड़ गया है। अब नासा और भारत मिल कर एक साथ कई अंतरिक्ष खोजों पर काम कर रहे हैं। इससे एयरोस्पेस और डिफेंस सेक्टर को भी बड़ा लाभ होगा। चंद्रयान-3 की सफलता से ही अंतरिक्ष अनुसंधान, इंजीनियरिंग और संचार के क्षेत्र को बड़ा लाभ मिलने जा रहा है। मेसर्स स्काईरूट एयरोस्पेस प्राइवेट लिमिटेड, हैदराबाद द्वारा एक सब-ऑर्बिटल लॉन्च व्हीकल, विक्रम-एस (प्रारम्भ मिशन) का प्रक्षेपण 18 नवंबर, 2022 को सफलतापूर्वक संपन्न हुआ। विक्रम-एस का प्रक्षेपण भारत और दक्षिण एशिया में लॉन्च किया गया पहला निजी तौर पर निर्मित रॉकेट बन कर भारतीय अंतरिक्ष क्षेत्र के इतिहास में एक महत्वपूर्ण अध्याय है। यह प्राइवेट क्षेत्र से है। भारत ने इसको प्रमोट किया है।

महोदय, अंतरिक्ष में भारत की सफलता का लाभ पूरी मानवता को मिलेगा, ऐसा वादा हमारे माननीय प्रधान मंत्री जी ने किया है। हमारे प्रधान मंत्री जी ने कहा है कि भारत समस्त मानव जाति की भलाई के लिए खोज, सीखना और जानकारी को साझा करना जारी रखेगा। माननीय प्रधान मंत्री जी के मार्गदर्शन में 2015 में राष्ट्रीय बैठक के बाद अंतरिक्ष प्रौद्योगिकियों का उपयोग 60 मंत्रालयों तक बढ़ाया गया है, जबकि यह पहले केवल 20 मंत्रालयों तक ही सीमित था। जैसा स्वयं प्रधान मंत्री जी का मत है कि प्रेरित कार्यबल, स्वदेशी क्षमताएँ और उत्साहजनक माहौल में भारत के अंतरिक्ष क्षेत्र के लिए अवसर असीमित हैं, इसलिए इसमें न केवल घरेलू, बल्कि विश्वव्यापी बाजार में भी तेजी से प्रवेश करने की क्षमता है।

महोदय, अंत में मैं सदन को बड़े ही गर्व के साथ कहता हूँ कि हम दुनिया की तीसरी सबसे बड़ी अर्थव्यवस्था बनने जा रहे हैं और साथ ही हम दुनिया की सबसे बड़ी अंतरिक्ष अर्थव्यवस्थाओं के समूह में भी शामिल होने की दिशा में तेजी से आगे बढ़ रहे हैं। इसलिए मैं सदन के माध्यम से और स्वयं अपनी तरफ से इस देश के वैज्ञानिकों को चंद्रयान-3 की सफल सॉफ्ट लैंडिंग और वैज्ञानिक अनुसंधान के लिए बहुत-बहुत बधाई देता हूँ और देश के प्रधान मंत्री का धन्यवाद करता हूँ कि उन्होंने इस देश में ऐसा वातावरण बनाया। बहुत-बहुत धन्यवाद।

SHRI KANAKAMEDALA RAVINDRA KUMAR (Andhra Pradesh): Hon. Vice-Chairman, Sir, I am very thankful to you for giving me this opportunity to participate in

the discussion on India's glorious space journey marked by the successful soft landing of Chandrayaan-3.

Sir, August 23rd of this year is a remarkable and historic day for India. The scientists of ISRO were successful in making Chandrayaan-3's lander to land on the Moon's Southern Pole. After that, the rover started its journey to undertake research at the designated place.

The successful launch of Chandrayaan-3 made India the fourth country after Russia, USA and China to make successful soft landing on the Moon. Landing of the lander and sending the rover to study the southern region of the planet is a unique achievement that India has made.

The first two missions, namely, Chandrayaan-1 and Chandrayaan-2 did not give desired results. Chandrayaan-2 was almost going to be successful. Unfortunately, we lost communication with the satellite. The visionary scientist, Dr. Vikram Sarabhai, made all-round efforts to make ISRO as a force to reckon with.

Chandrayaan-3 was launched with the Launch Vehicle Mark-III. Whenever there is a mention about launch vehicles, one cannot forget the contribution made by Dr. APJ Abdul Kalam, who had been a rocket scientist in the ISRO and later became the President of India. It was due to his tireless and sustained efforts that India had its own launch vehicles of varying types. He is considered as the pioneer in SLV (Satellite Launch Vehicles). In order to give a befitting recognition to him, he was elected as the President of India. It is also an important point to be noted that our Party leader, Shri N. Chandrababu Naidu, played a pivotal role in suggesting the candidature of late Dr. Abdul Kalam and ensuring his victory in the election.

From its humble beginning to its present status and mammoth launching site at Sriharikota in my native State, Andhra Pradesh, the ISRO has made great leaps. In the recent past, India has become more desired destination for lunch of satellites. Almost all the countries throughout the world are seeing India as a desired destination and the ISRO as their trusted partner. I take this opportunity to congratulate the scientists, the Project Head of Chandrayaan-3 and others for their grand success.

On this occasion, I have to discharge my duty. My friend, Shri V. Vijayasai Reddy, has made irrelevant and irresponsible comments on my leader and TDP President. My friend and his Chief Minister, Shri Jagan Mohan Reddy, †

† Expunged as ordered by the Chair.

THE VICE-CHAIRPERSON (DR. SANTANU SEN): Please stick to the topic. ...*(Interruptions)*...

SHRI KANAKAMEDALA RAVINDRA KUMAR: In view of the CBI and ED cases, †

THE VICE-CHAIRPERSON (DR. SANTANU SEN): Please stick to the topic.

SHRI KANAKAMEDALA RAVINDRA KUMAR: They alleged that as the then Chief Minister of Andhra Pradesh, he sanctioned skill development project and an expenditure of Rs.371 crores was incurred. ...*(Interruptions)*...

THE VICE-CHAIRPERSON (DR. SANTANU SEN): Please stick to the topic. ...*(Interruptions)*...

SHRI KANAKAMEDALA RAVINDRA KUMAR: †

THE VICE-CHAIRPERSON (DR. SANTANU SEN): Mr. Ravindrakumar, please speak on the subject. ...*(Interruptions)*...

SHRI KANAKAMEDALA RAVINDRA KUMAR: Another important issue is that case against Shri Chandrababu Naidu has no relevant documents. ...*(Interruptions)*... CBI and ED are investigating against them and they are accused.*(Time-bell rings.)* †

THE VICE-CHAIRPERSON (DR. SANTANU SEN): Now, Shri G.V.L. Narasimha Rao ...*(Interruptions)*...

SHRI KANAKAMEDALA RAVINDRA KUMAR: In order to divert the attention of the public, a false case has been framed against Shri Chandrababu Naidu. ...*(Interruptions)*...

THE VICE-CHAIRPERSON (DR. SANTANU SEN): Now, Shri G.V.L. Narasimha Rao ...*(Interruptions)*...

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† Expunged as ordered by the Chair.

SHRI G.V.L. NARASIMHA RAO (Uttar Pradesh): Mr. Vice-Chairman, Sir, the whole nation is elated on the success of Chandrayaan-3 and I rise to congratulate the scientists for the success of Chandrayaan-3. I would also like to congratulate the hon. Prime Minister, Shri Narendra Modi, for providing leadership to the success of our space agenda and also for the encouragement to the scientists. I think one statistics, that will surprise everyone is the budget with which we have achieved the success of Chandrayaan-3. We have spent only Rs.600 crores on Chandrayaan-3 Mission, while Russia, which launched their lunar mission around the same time, which did not succeed, had spent Rs.16,000 crores. So, that tells us how cost-effectively we have launched our space mission.

In the speeches of some of our Opposition friends, particularly Shri Jairam Ramesh, rather than elation, I saw a sense of disappointment and *jhalak* of jealousy. I think they seem to somehow not join the whole country in this celebratory mode. They said that the space journey did not begin in 2014. We have never made that claim. This Government has never made the claim that the space journey began only in 2014, but for the Congress Party, the journey begins with one family and ends with one family. I was a little disappointed that Shri Jairam Ramesh*...(Interruptions)...*

THE VICE-CHAIRPERSON (DR. SANTANU SEN): One minute; Shrimati Jaya Bachchan *...(Interruptions)...*

SHRI G.V.L. NARASIMHA RAO: Sir, I am not yielding. *...(Interruptions)...*

**श्रीमती जया बच्चन** (**उत्तर प्रदेश**): सर, मैं जयराम रमेश जी को बधाई देती हूं कि जितनी बार इनकी पार्टी के सदस्यों ने प्रधान मंत्री का नाम लिया, उतनी बार इनका नाम भी ले लिया।...(**व्यवधान**)..

THE VICE-CHAIRPERSON (DR. SANTANU SEN): Narasimha Rao*ji*, please continue.

SHRI G.V.L. NARASIMHA RAO: Sir, I am disappointed that Shri Jairam Ramesh forgot to take the name of Dr. Manmohan Singh, in whose Government he was a Minister. How can anyone be so ungrateful? He even did not take the name of Shri P.V. Narasimha Rao, who was the Prime Minister when Shri Jairam Ramesh made his political debut. *...(Interruptions)...* I think, for the Congress Party, they have a different G-20 slogan. Our G-20 slogan is: 'One Earth; One Family; One Future'. For the Congress Party, their slogan is*...(Interruptions)...* Please, listen. I think you

will be happy to listen to this. The Congress Party's slogan is: 'One Family; One Past; One Future'. ...*(Interruptions)*...

THE VICE-CHAIRPERSON (DR. SANTANU SEN): Please stick to the issue. ...*(Interruptions)*...

SHRI G.V.L. NARASIMHA RAO: The Congress Party's slogan is: 'One Family; One Past; One Future'. It starts with one family and it ends with one family. So, we have to see how our hon. Prime Minister, Shri Narendra Modi, gave a strong impetus to the space programme of this country.

THE VICE-CHAIRPERSON (DR. SANTANU SEN): Mr. Narasimha Rao, please stick to the issue.

SHRI G.V.L. NARASIMHA RAO: He had made it clear on how he gave a huge impetus to the space programme. Look at the transition of this country. The Congress Party claims that it's all a continuum. It is not just a continuum. In 2014, we were one of the five weakest economies in the world. We were amongst the 'fragile five'. ...*(Interruptions)*... We were called one of the five fragile economies of the world, and today, we are the fifth largest economy of the world. So, certainly, on what the Congress claims, I would say that their claims are completely absurd and not based on reality. This country's real journey, the real development, the speed and the scale have started only after 2014.

Sir, we all know the dictum that success has many fathers; failure has none. In today's context, it is even more relevant. The Bill relating to women's reservation was introduced earlier also and we saw the Congress Party claiming, यह हमारा बेबी है। If it was your baby, why did you not nurture the baby between 2010 and 2014? ...*(Interruptions)*... So, the Congress Party has only † claims to make and it does not have the real achievements. ...*(Interruptions)*...

THE VICE-CHAIRPERSON (DR. SANTANU SEN): Hon. Members, it is already 6.00 p.m. If the House approves, we will continue till the debate ends.

SOME HON. MEMBERS: Right, Sir.

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†Expunged as ordered by the Chair.

THE VICE-CHAIRPERSON (DR. SANTANU SEN): Okay. Please continue.

SHRI G.V.L. NARASIMHA RAO: Sir, Modiji is not a politician like the politicians which the country has seen in the past. He is truly a statesman. ...*(Time-bell rings.)*... That is the reason why after the Chandrayaan-2, he motivated the scientists. After the loss of contact of Chandrayaan-2 with lander Vikram, the Prime Minister said, "We are with you; the country is with you. Every obstacle teaches us something new. It inspires us to do more."

THE VICE-CHAIRPERSON (DR. SANTANU SEN): Please conclude.

SHRI G.V.L. NARASIMHA RAO: Hon. Prime Minister further said, "There is no failure in science. There are only experiments and efforts." This is what a true statesman would say.

THE VICE-CHAIRPERSON (DR. SANTANU SEN): Please conclude.

SHRI G.V.L. NARASIMHA RAO: Sir, please give me three more minutes. I have a few more important points to make.

THE VICE-CHAIRPERSON (DR. SANTANU SEN): You have already taken extra time. Please conclude.

SHRI G.V.L. NARASIMHA RAO: As part of Atmanirbhar Vision, the Government came up with the New Space Policy, which allowed participation of the private sector and massive investments. We came up with what is called the Indian Space Policy - भारतीय अंतरिक्ष नीति, 2023. This policy clearly outlined the vision of the country.

THE VICE-CHAIRPERSON (DR. SANTANU SEN): Please conclude.

SHRI G.V.L. NARASIMHA RAO: It created the institutional framework, it provided an ecosystem for the space industry to flourish.

THE VICE-CHAIRPERSON (DR. SANTANU SEN): Next speaker is Shri Binoy Viswam.

SHRI G.V.L. NARASIMHA RAO: Sir, let me conclude by saying that a spurious dichotomy was sought to be drawn between nationalism and development. It is not a dichotomy.

SHRI BINOY VISWAM (Kerala): Sir, on behalf of the Communist Party of India, I salute the scientists, the employees and the workers who shed their tears, blood and sweat for the success of Chandrayaan-3. Sir, Chandrayaan-3, of course, is a great victorious moment for the country and for the whole world, I should say. But before I come to that part, let me make a point and bring it on record. It is regarding the incident that happened day before yesterday, that is, on the last day in the old building. On that day, when the House was discussing the 75-year journey of the Indian Parliament, the Communist Party of India, the TDP and the RLD were not allowed to speak. SP was also denied time and the TMC also was given half of the time. Sir, is this the proper way to run a meaningful Parliament? We talk about great things when it comes to taking action, we forget it. So, with all seriousness, I register my protest in the House.

Sir, I remember the moment when a world-renowned scientist Dr. Vikram Sarabhai went to a Bishop in Trivandrum. His name was Bishop Pereira. Dr. Vikram Sarabhai went to Thumba because of its geographical importance. It is on the equator and it has got some magnitude, which has got some relevance for scientific launching. His plea was to allow him to build a launching base near the church. The Bishop said, "I cannot reply on my own. Please give me some time. Please come tomorrow. I will have a meeting with my people here." Next day in the morning, when he went there, there was a big gathering. To that gathering, Bishop Pereira said, "He is a world-renowned scientist and he has come with a request that he needs some space from our property to have a scientific centre for launching a rocket from here for the country's future." He asked them, "What do you say?" The common people, the fishermen, after one minute silence, said in one voice, 'Amen'!, which means, 'We are for that'. That was the beginning of Thumba rocket launching station. I had the honour and privilege to visit that centre many a times. I know many of them right from Somanath. Taking all the names is not possible. I know many of them very closely. All of them are my friends. They are a very good team of people. They are dedicated and committed for science and the country, and, their contribution is invaluable. They have made a record. That record is the record of human endeavour - collective and dedicated. I am sorry to hear that all those achievements of those people and the scientists to be minimised to the name of a single man. I know our Prime Minister is great but, I do not think that singing glories

for the Prime Minister all the time while talking about Chandrayaan is not a scientific way of dealing with things. So, I register my views with regard to this also.

Sir, science is for what? Science is for progress, for social progress and also for the progress of the mankind. ISRO has proved that it has the ability to help the country in so many ways. I remember, many years ago, when I was the Forest Minister of Kerala, we discussed with them the issue of forest fires. One of their teams came to the forest headquarters and we sat with them for two, three hours. (*Time-bell rings*) Last time also, our Party was denied the opportunity to speak. Today, also I have just started.

THE VICE-CHAIRPERSON (DR. SANTANU SEN): You have already taken your five minutes. Please conclude.

SHRI BINOY VISWAM: I myself experienced that ISRO team helped the forest department of Kerala to find a possible solution to prevent the forest fires. In such a way, in many aspects of human life, science can help us. ISRO is doing that help. In this regard, the issue of funds given to the ISRO has to be considered seriously but that part is being neglected by the Government. I request the Government to please take it up seriously and ensure that the funds provided to ISRO are increased as that great institution has to do a lot for the country and its future.

THE VICE-CHAIRPERSON (DR. SANTANU SEN): Please conclude.

SHRI BINOY VISWAM: India is a country with great advancements but a country of poor people. Its people are poor. Sir, one per cent of the population is still controlling 80 per cent of the wealth of the country. In such a situation, we need the people of the country to be fed properly. They have the right to education and the right to employment, and, for such rights, science can play a great role and that role has to be emphasized. In the name of science, sometimes, we promote superstitions. The Government has come to a conclusion that we can replace science with superstition. I emphatically say, science is science, it is not superstition. If I talk about cow dung, I know its importance but it is not the fuel for the progress of the country. I can tell you one more thing. Science is most important than anything else but what was said today. We are going to the priests to decide the time for launching. It may not be good. Science and not other ways of doing things can help us. We believe that the Government has to learn from ISRO. ISRO will help the

Government to function in a scientific way. Give them the freedom to work scientifically and properly for doing things. Thank you.

THE VICE-CHAIRPERSON (DR. SANTANU SEN): Thank you. Now, Shri Arun Singh.

**श्री अरुण सिंह** (उत्तर प्रदेश): सर, आपने मुझे बोलने के लिए मौका दिया, इसके लिए आपका धन्यवाद।

(**सभापति महोदय** *पीठासीन हुए*।)

सर, सभी देशवासी, छोटे कस्बे से लेकर गली-मुहल्ले तक सभी लोग 23 अगस्त को सायं 6 बजे टीवी पर आँख गड़ा कर यह देख रहे थे कि अब चंद्रयान-3 की सॉफ्ट लैंडिंग होगी। वे मन में यह सोच रहे थे कि इसकी सॉफ्ट लैंडिंग होगी या नहीं होगी या यह कैसे होगी। उस समय सभी के मन में इसको लेकर उत्सुकता थी। यह सभी ने देखा कि जब चंद्रयान-3 की सॉफ्ट लैंडिंग हुई, तो कश्मीर से कन्याकुमारी तक चारों दिशाओं में पटाखे फूटे, लोगों ने मिठाइयाँ बाँटी। सभी देशवासियों ने एकजुटता के साथ, हर्षोल्लास के साथ इस उपलब्धि के लिए साइंटिस्ट्स को भी बधाई दी और प्रधान मंत्री जी का भी इसके लिए अभिनन्दन किया।

सर, यह बहुत अच्छा हुआ कि सरकार ने आज आपके माध्यम से संसद में इसके ऊपर चर्चा करने के लिए एजेंडा रखा। यह इसलिए भी जरूरी था कि देश के कोने-कोने तक लोगों को इसके बारे में जानकारी मिले। चूँकि हमें ध्यान है कि जब इसकी लैंडिंग हुई, तो राजस्थान में काँग्रेस सरकार के एक मंत्री ने यह लिखा कि चंद्रयान-3 की लैंडिंग में जो तीन साइंटिस्ट्स गए थे, उन्होंने सुरक्षित लैंडिंग की। उनको यह भी मालूम नहीं था कि उसमें साइंटिस्ट नहीं गए थे। वे राजस्थान सरकार के मंत्री थे।...(**व्यवधान**)... यह ऑन रिकॉर्ड है। इसलिए आज जब इस पर चर्चा हो रही है, तो देशवासियों को संसद के माध्यम से इसके बारे में अधिक-से-अधिक जानकारी मिलेगी। हम इसके लिए सरकार का अभिनन्दन करते हैं।

मान्यवर, यह वास्तव में गौरवान्वित करने वाली उपलब्धि है, एक ऐतिहासिक उपलब्धि है। यह कोई सामान्य उपलब्धि नहीं है। हमारे पूर्व वक्ताओं ने भी कहा कि अमेरिका, रूस, चीन के साथ हम भी विशिष्ट क्लब में शामिल हो गए। इसके साथ ही भारत साउथ पोल पर जाने वाला पहला देश बना। जहाँ रूस और चीन ने हजारों करोड़ रुपए खर्च करके 'लूना-25' तथा Chang'e 4 lunar mission बनाने का काम किया, वहीं हमारे देश में यह भी ऐतिहासिक ही होगा कि चंद्रयान-3 के लिए 960 करोड़ रुपए का बजट था, लेकिन वह 613 करोड़ रुपए में ही पूरा हो गया। मैं इसके लिए साइंटिस्ट्स को ढेर सारी बधाइयाँ देता हूँ और उनका अभिनन्दन भी करता हूँ। यह इसलिए भी ऐतिहासिक उपलब्धि है क्योंकि हम कहते हैं कि 2047 में भारत विकसित भारत होगा। हमारे प्रधान मंत्री जी ने आह्वान किया है कि 2047 में भारत विकसित भारत होगा। उसके लिए भी यह बहुत बड़ी उपलब्धि है, क्योंकि रिसर्च और डेवलपमेंट के बिना कोई भी देश आगे नहीं बढ़ सकता, चाहे अमेरिका हो, यूके हो या यूरोपियन कंट्रीज हों। अगर उनकी आर्थिक प्रगति हुई है, तो वह रिसर्च और डेवलपमेंट के आधार पर ही हुई है। वे रिसर्च और डेवलपमेंट के

आधार पर ही आगे बढ़ रहे हैं। हमारे देश में काँग्रेस के शासन काल में इसके बारे में ध्यान ही नहीं दिया गया। ये प्रधान मंत्री मोदी जी हैं, जिनकी नीतियों और दूरदर्शिता के कारण, जो भारत 2014 में 10वीं अर्थव्यवस्था था, आज वह पाँचवीं अर्थव्यवस्था है और 2027 तक भारत तीसरी अर्थव्यवस्था बन जाएगा तथा 2047 तक भारत पूर्ण रूप से विकसित भारत हो जाएगा। यह उनके संकल्प को भी सिद्धि में बदलने का काम करेगा।

यह इसलिए भी गौरवशाली और ऐतिहासिक उपलब्धि है, क्योंकि इसके जितने भी पार्ट्स व इक्विपमेंट्स हैं, वे 'मेक इन इंडिया' के तहत भारत में बनाए गए हैं। कुछ पार्ट्स को एचएएल ने बनाया, कुछ को भेल ने बनाया। इस तरह से अलग-अलग कंपनियों ने इसके पार्ट्स बनाए, इसलिए 'मेक इन इंडिया' के माध्यम से यह पूर्ण रूप से स्वदेशी है। चूँकि इसमें नट-बोल्ट्स से लेकर सब कुछ स्वदेशी है, इसलिए भारत के लिए यह बहुत ऐतिहासिक उपलब्धि है। इससे क्या लाभ होगा? मान्यवर, इसके माध्यम से बहुत बड़ा लाभ होगा। ...(**समय की घंटी**)... सर, 15 मिनट का समय है या 5 मिनट का समय है?

**श्री सभापतिः** फाइव मिनट्स।

**श्री अरुण सिंह**: सर, इसके माध्यम से स्पेस रेवेन्यू का लाभ होगा। इसके माध्यम से हमारे डिफेंस सेक्टर का एक्सपोर्ट काफी बढ़ेगा और आयात भी कम होगा। हमें इससे स्टार्टअप्स के माध्यम से 'आर एंड डी' के क्षेत्र में बहुत बेनिफिट्स होने वाले हैं। हमें इससे स्टार्टअप्स, टेक्नोलॉजी और 'मेक इन इंडिया' के लिए बहुत प्रोत्साहन मिलेगा।

अंत में, मैं इतना ही कहना चाहूँगा कि यह तभी संभव होता है, जब ऐसा नेतृत्व हो, जो भरोसेमंद हो, जिस पर लोगों का विश्वास हो, जो लोकप्रिय हो, जो निर्णय लेने वाला हो और त्यागी तथा तपस्वी भी हो। ऐसा नेतृत्व केवल नरेन्द्र मोदी जी में है, इसीलिए यह सब संभव हो रहा है और दिन-प्रतिदिन इतिहास के पन्नों में एक-एक उपलब्धि स्वर्णिम अक्षरों में लिखी जा रही है, बहुत-बहुत धन्यवाद।

MR. CHAIRMAN: Now, Shrimati Vandana Chavan.

SHRIMATI VANDANA CHAVAN (Maharashtra): Thank you, Sir.

MR. CHAIRMAN: Madam, you have three minutes.

SHRIMATI VANDANA CHAVAN: Yes, Sir. I will try.

At the outset, I would like to thank you for having taken up this discussion that marks the successful landing of Chandrayaan on the Moon. As congratulatory messages were coming from far and wide, from different Heads of the States and various space organizations, it was in fitness of things that we discuss this issue here and express our heartfelt kudos to the scientists, experts and all others involved

directly and indirectly, who are responsible for this stellar achievement. On behalf of the NCP, to the entire team, I would like to say, "You have made us immensely proud." And we express our best wishes for more such successes.

Sir, we are all set to pass the Women's Reservation Bill tomorrow. On the eve of this historical day, it would be noteworthy -- Nirmala *ji* has already mentioned it -- to observe, acknowledge and also celebrate the significant involvement of the women scientists and experts in this mission. It is extremely encouraging that not only does the women force in ISRO constitute 20 to 25 per cent of the entire force of 16,000 employees, but as we learn, 54 women played a very important role in this mission. Just to be on the record, which Nirmala ji has already said and I had also noted, I would like to take name of just four scientists -- I am sure that there are many more -- Kalpana K., who is Associate Project Director; Nandini Harinath, Scientist and Operational Specialist; Anuradha T.K., Scientist and Project Director; Ritu Srivastava, Senior Scientist. Tiruchi Siva *ji* has also made an appeal that we make a register and all of us sign it. I second that, Sir. This is a moment of great pride for us. These sisters have not only contributed richly in the success of the mission, but have also instilled a sense of motivation, purpose and hope of fulfillment of aspirations for the young girls of India.

Sir, as we celebrate the success of Chandrayaan and India's glorious space journey into the celestial space, I will be failing in my duty if I do not pay my heartfelt tributes to India's two greatest scientists, Dr. Vikram Sarabhai and Dr. Homi Bhabha, who, in a way, laid the foundation of India's science and technology revolution with their vision and foresight. I will also be failing in my duty if I do not mention the rich contribution of our first Prime Minister, Pandit Jawaharlal Nehru, who, in spite of the glaring challenges in our country, like poverty, unemployment, disease, disaster, enthusiastically supported scientific temper in our country, and over the years, laid the foundation for establishment of several technical and scientific institutes, so also addressing subjects ranging from atomic energy to space science, earth sciences to astrophysics, genomics to nanotechnology, and the list can go on. (*Time-bell rings.*)

My last point has already been voiced by many Members. Sir, my only ask is -- as many Members have also said and you have also seconded or rather voiced that opinion -- that the budgetary allocation for R&D has to be increased, and I am sure that will happen. Today, India has the lowest allocation in the world. U.S. spends 2.9 per cent; Sweden spends 3.2 per cent; Switzerland spends 3.4 per cent. Amongst the BRICS countries, we spend the least. Therefore, Sir, it is very necessary that we address this issue for three reasons -- one is, more innovation will

happen; second, there will be less brain drain; and thirdly, the Make in India will be converted to Made in India.

MR. CHAIRMAN: Thank you.

SHRIMATI VANDANA CHAVAN: Sir, allow me just last one line. There are many songs about the moon. There is one song which is very important and relevant here. I would like to say this and finish my speech.

*"ये चंदा रूस का न ये जापान का,*
*न ये अमेरिकन प्यारे,*
*ये तो है हिन्दुस्तान का।"*

Thank you very much, Sir.

MR. CHAIRMAN: Shri G.K. Vasan. You have three minutes.

SHRI G.K. VASAN (Tamil Nadu): Sir, today, I am very happy to join 140-plus crore Indians in thanking our honourable scientists who have proved themselves. It is their commitment, concentration, hard work and intelligence that brought us name and fame at the international level and that too in the 75th year of our independence.

Sir, India is equipped in the field of education, farming and healthcare. Now we have proved ourselves in the space sector. I would only like to congratulate all the scientists. At the same time, being a proud Indian from Tamil Nadu, I would like to congratulate the Project director and the Mission Managers who have been helping in this success from Tamil Nadu. Thank you very much, Sir.

**प्रो. राम गोपाल यादव** (उत्तर प्रदेश): सर, जब भी वैज्ञानिक कोई बड़ा काम करते हैं, उपलब्धि हासिल करते हैं, तो वह सारी मानवता के कल्याण के लिए ही होती है। उसे देश की सीमाओं के अंदर नहीं बांधा जा सकता है। हमारे वैज्ञानिकों ने अभी जो काम किया है, जो यह उपलब्धि है, कालांतर में इसकी रिसर्च से जो रिजल्ट्स आएंगे, मुझे उम्मीद है कि उनसे सारी दुनिया के लोग लाभांवित होंगे, इसलिए मैं अपनी तरफ से, अपनी पार्टी की तरफ से इसरो के सारे वैज्ञानिकों को हृदय से बधाई देता हूँ और यह कामना करता हूँ कि उनकी ये उपलब्धियाँ आगे भी निरंतर जारी रहें और बढ़ती रहें। इस अवसर पर अगर मैं जितेन्द्र सिंह जी, जो कि संबंधित मंत्री हैं, को बधाई न दूँ, तो यह भी उचित नहीं होगा, क्योंकि लीडरशिप तो कहीं-न-कहीं होती ही है। मैं वैज्ञानिकों को एक और काम के लिए भी बधाई देना चाहता हूँ कि उन्होंने लैंडर का नाम 'विक्रम' रखा।

MR. CHAIRMAN: I am on a point of fact. Hon. Prime Minister is the Cabinet Minister for this Department.

PROF. RAM GOPAL YADAV: That I know, Sir.

MR. CHAIRMAN: I am his student. A student can always put across a situation.

**प्रो. राम गोपाल यादव:** सर, बड़े पेड़ के नीचे वाले पेड़ों को भी छाया मिलती रहनी चाहिए, हवा मिलती रहनी चाहिए।

**श्री सभापति:** यह आपने बहुत ठीक कहा है। When our first Prime Minister, a giant of a person, was there, तब कहा गया था, 'Nothing grows under the banyan tree.' It is heartening to note कि यहाँ banyan tree के नीचे डा. जितेन्द्र सिंह जी भी हैं। Please go ahead.

**प्रो. राम गोपाल यादव:** आप इन लोगों से क्या कहना चाहते हैं? उनके नीचे एक भी नहीं पनपेंगे!

**श्री मल्लिकार्जुन खरगे:** अगर ऐसा होगा, तो चेयरमैन के.. ...(**व्यवधान**)... यह मुश्किल हो जाएगी।

**प्रो. राम गोपाल यादव:** हमारा टाइम ज़ीरो करिए। यह घड़ी वाला टाइम ज़ीरो करिए।

सर, नए सदन में जो चर्चा शुरू हुई है, कार्यवाही शुरू हुई है, यह लंबे अर्से के बाद बहुत अच्छे तरीके से शुरू हुई है। आज जब इस पर बहस शुरू हुई, तो इसे जयराम रमेश जी ने जितना बढ़िया तरीके से रखा और हमें और पूरे सदन को हमारे मंत्री जी की तरफ से जितना ज्ञान मिला, that was a remarkable beginning of the discussion. हालांकि बाद में यह डिरेल हो गया। इसमें बहुत ज्यादा राजनीति घुसेड़ने की जरूरत नहीं थी। वैज्ञानिकों के लिए बात कर रहे हो और कहाँ से कहाँ चले जा रहे हो!

**श्री सभापति:** प्रोफेसर साहब, अब आप राजनीति में जा रहे हैं।

**प्रो. राम गोपाल यादव:** सर, अब आप हमें बीच में डिस्टर्ब मत करिए। ...(**व्यवधान**)... आज मैं पाँच-छः मिनट बोलूँगा, बीच में घंटी मत बजाइगा।

सर, यह बहस जितनी बढ़िया तरीके से शुरू हुई थी, उसका अंत उतना ठीक नहीं था। कुछ लोगों को यह नहीं मालूम है कि हमारे प्रधान मंत्री जी कितने इंटेलिजेंट हैं। वे सब जानते हैं कि क्या बोल रहे हैं, क्यों बोल रहे हैं। मैं एक उदाहरण देना चाहता हूँ। एक बार राज्य सभा में नए सदस्यों की शपथ हो रही थी और हमारे बगल में लालू जी बैठे थे। उनका एक कैंडिडेट शपथ लेने के लिए आया, तो मैंने कहा कि लालू जी, कल इसने पूरा प्लास्टर बांधा हुआ था और कह रहा था कि हम लालू जी की जमानत के वक्त झारखंड गए थे, तो लाठीचार्ज में मेरा पैर टूट गया, लेकिन

आज यह सही चल रहा है। वे बोले कि राज्य सभा में आने के लिए कर रहा था। मैंने कहा कि फिर आपने इसे टिकट क्यों दी, तो इस पर वे बोले कि इसकी जाति का कोई बड़ा आदमी नहीं था, इसलिए देनी ही थी। इसे मजबूरी में लाना पड़ा है। मैं जानता हूँ कि वह बहुत बड़ा † था। मोदी जी सब जानते हैं कि कौन क्या है। आप लोग ऐसी बातें मत किया करो कि आपके नेता को स्वयं लगे कि यह ज्यादा शर्मिंदा कर रहा है। कई बार कुछ लोग ऐसी बातें करते हैं। यह कौन नहीं जानता है? उनके लिए जितना कहना चाहिए, आप लोग उतना कह भी नहीं पाते हैं, इसलिए मैं कहता हूँ कि बहस को बहस तक ही रखिएगा। कई बार कुछ लोग अपने नेता का अनावश्यक नाम लेकर उसे विवाद में ले आते हैं। उसकी कहीं आलोचना ही नहीं होनी चाहिए, लेकिन अगर आप ऐसी बात कहेंगे तो लोग अनावश्यक ही उसका जवाब देने लगेंगे। जो समझदार लोग हैं, वे अपने नेता पर कभी आँच नहीं आने देते हैं। मैं बीजेपी की लीडरशिप से कहना चाहता हूँ कि आपके साथ बहुत अच्छे-अच्छे वक्ता बैठे हुए हैं। हमेशा ठीक लोगों को बोलने का मौका दिया कीजिए। मैं यह राय देना चाहता हूँ। मैं आप लोगों से उम्र में भी बड़ा हूँ और अनुभव में भी बहुत बड़ा हूँ। जब मैं बोलता हूँ, तब मैं कभी राजनीति नहीं लाना चाहता हूँ। मैं कहना चाहता हूँ कि अगर लीडर के पक्ष में हो, तो कभी अपनी बातों से, अपने कर्म से उसके ऊपर लांछन मत लगने देना, लेकिन यहाँ लोग इसी तरीके की बातें करने लगते हैं। बहस का स्टैंडर्ड शुरू में इतना बढ़िया था, लेकिन सब खराब हो गया। मैं केवल वैज्ञानिकों को धन्यवाद देने के लिए खड़ा हुआ हूँ। मैं इस गवर्नमेंट से कहना चाहूँगा कि आप कहते हैं कि इस पर इतने पैसे खर्च हुए हैं, तो इस अभियान के लिए जितने खर्च हुए हैं, उससे दस गुणा ज्यादा भी खर्च हो जाते, तब भी कम थे। यह कोई मामूली उपलब्धि नहीं है। चाहे अमेरिका हो या सोवियत यूनियन हो, सारी दुनिया इससे अचंभित है। भले ही उन्होंने 1969 में नील आर्मस्ट्रांग को चंद्रमा पर उतार दिया हो, भले *Yuri Gagarin*, Valentina Tereshkova और तमाम लोगों को अंतरिक्ष में भेज दिया हो, लेकिन हिन्दुस्तान की यह उपलब्धि सारी दुनिया के वैज्ञानिकों को, राजनेताओं को चकित करने वाली थी। यह कोई मामूली उपलब्धि नहीं थी, इसलिए यह मत कहिए कि यह 600 करोड़ में हुआ है, क्योंकि इतनी बड़ी उपलब्धि के लिए जितना भी खर्च हो जाता, वह कम था।

मैं एक बात और कहना चाहता हूँ, आप उसे पसंद करेंगे। जब चंद्रमा की फोटोज़ भेजी गईं, तब कुछ साहित्यकारों और कुछ लोगों को बहुत दिक्कत हुई और वह दिक्कत स्वाभाविक थी। हमारे यहाँ तो करवाचौथ पर महिलाएं चंद्रमा को देखती हैं और उसे बहुत खूबसूरत माना जाता है। मैं आपको बताना चाहता हूँ कि केशव जी हिन्दी के एक बहुत बड़े कवि हुए। सुधांशु त्रिवेदी जी अभी बैठे थे, अब वे कहाँ गए? यह सब जानते हैं कि उन्हें कठिन काव्य का प्रेत कहा जाता है। एक बार वे यूनिवर्सिटी के गेट पर बैठे हुए थे। कुछ बच्चियाँ आ रही थीं, तो उन्होंने सोचा कि आज तो हमारी तरफ लड़कियाँ आ रही हैं। वे आईं और आकर उन्होंने कहा कि बाबा, लाइब्रेरी किधर है और चली गईं, तो उन्होंने दो लाइनें लिखीं -

*"केशव केसनि असि करी, बैरिहु जस न कराहिं।*
*चंद्रवदन मृगलोचनी बाबा कहि कहि जाहिं।।"*

† Expunged as ordered by the Chair.

केशव के सफेद बाल थे, इसलिए उन्होंने कहा कि इन बालों ने ऐसी दुश्मनी निभाई है कि कोई दुश्मन भी नहीं करता है। चंद्रमा जैसे चेहरे वाली, हिरणी जैसी आँखों वाली लड़कियाँ बाबा कहकह चली जाती हैं। चंद्रवदन, यानी चंद्रमा जैसा बदन। अब एक लड़की का नाम शशि है, तो उसने कहा कि चंद्रमा का चेहरा तो बहुत खराब है और हमारा नाम शशि है और शशि का मतलब चंद्रमा होता है। कोई शशिप्रभा हैं, कोई चंद्रप्रभा हैं और तमाम आदमियों के नामों के पीछे भी चंद लगा हुआ है।

सुभाष चंद, मानिक चंद, तिलक चंद, फलां चंद। यह चन्द्रमा से ही तो लगा हुआ है! हम लोग अनंत काल से चन्द्रमा को बहुत खूबसूरत मानते रहे, इसलिए हम तो अपने वैज्ञानिकों से कहेंगे कि बदसूरत फोटो मत भेजिए, रिसर्च करते रहिए। ...(**व्यवधान**)...

**श्री सभापतिः** आपके six minutes हो गए हैं।

**प्रो. राम गोपाल यादवः** सर, आपने मुझे काफी समय दिया, आपका बहुत-बहुत धन्यवाद। मैं वैज्ञानिकों के साथ-साथ इस सदन के सभी सदस्यों को बधाई देना चाहता हूँ कि आज एक बहुत अच्छे काम में हम लोग यहाँ जुटे। थैंक यू।

MR. CHAIRMAN: Shrimati Mahua Maji; three minutes.

SHRIMATI MAHUA MAJI (Jharkhand): Hon. Chairman, Sir, I thank you कि आपने मुझे इंडिया की ग्लोरियस स्पेस जर्नी चंद्रयान-3 की सॉफ्ट लैंडिंग पर बोलने का अवसर दिया। मैं इसरो और देश का गौरव बढ़ाने वाले तमाम साइंटिस्ट्स को दिल से धन्यवाद देना चाहूँगी। इस उपलब्धि के लिए पूरी दुनिया उनकी आभारी हो गई है और उन्होंने हम सबको गौरवान्वित किया है।

मुझे इस बात का भी गर्व है कि मेरा जन्म एक ऐसे शहर में हुआ, जहाँ पर हेवी इंजीनियरिंग कॉरपोरेशन (एचईसी) है, जिसने इंडिया के स्पेस प्रोग्राम को हमेशा बहुत आगे बढ़ाया। आप सभी जानते होंगे कि चंद्रयान वन, टू एंड थ्री, इन तीनों में जो लाउंचिंग पैड है, उसके साथ-साथ बहुत सारे उपकरण एचईसी में बने हुए हैं। यह 1952 में बना था और इसे हमारे पंडित नेहरू जी ने बनाया था। यह एशिया की सबसे बड़ी इंडस्ट्री है और यह मदर इंडस्ट्री मानी जाती है। लेकिन मुझे यह कहते हुए बहुत दुःख हो रहा है कि मैं कई वर्षों से लगातार यह देख रही हूँ कि 2014 के पहले तक उसकी स्थिति लगभग ठीक थी, लेकिन 2014 के बाद से वह लगातार deteriorate कर रही है और पिछले 18 महीने से वहाँ के कर्मचारियों और अफसरों को सैलरी नहीं मिली है। वे लोग सुबह में चाय बेचते हैं, फिर ऑफिस जाते हैं। मैं आपको बता दूँ कि उनके पास अभी कोई परमानेंट सीएमडी भी नहीं है। वहाँ पर भेल के सीएमडी को तीन साल से रखा गया है, जो वहाँ पर तीन साल के अंदर 5 से 6 बार ही आए हैं। वहाँ पहले कोई डायरेक्टर भी नहीं था, अभी किसी तरह से वहाँ पर टेम्पररी डायरेक्टर रखा गया है।

मैं आपको बता दूँ कि वहाँ के जो कर्मचारी और जनप्रतिनिधि हैं, उनका आंदोलन के समय में यह कहना होता है कि नीति आयोग ने प्राइवेट हाथों को बेचने के लिए जिन 48 पब्लिक सेक्टर्स की लिस्ट बनाई, उनमें हेवी इंजीनियरिंग कॉरपोरेशन का नाम भी है। ...(**व्यवधान**)...

MR. CHAIRMAN: Hon. Member, you have raised a very important issue and you should be grateful that the hon. Minister wants to react to it.

**श्रीमती महुआ माजी:** प्लीज़, मुझे बोलने दिया जाए।

MR. CHAIRMAN: One minute, please.

**श्रीमती महुआ माजी:** मैं उनको बोलने दूँगी, लेकिन पहले मुझे बोलने दिया जाए, क्योंकि मेरा समय बहुत कम है। ...(**व्यवधान**)...

MR. CHAIRMAN: I will add to it.

**श्रीमती महुआ माजी:** वहाँ लगातार आंदोलन हो रहा है। ...(**व्यवधान**)... मैं उनको सुनूँगी, लेकिन पहले मुझे बोलने दिया जाए।

MR. CHAIRMAN: Hon. Member, you have raised a very good issue, a humane issue, and your success lies in the fact that the hon. Minister is ready to respond.

**श्रीमती महुआ माजी:** लेकिन सर, इसको पूरा तो करने दीजिए! ...(**व्यवधान**)...मैं यह बोलना चाहूँगी कि ...(**व्यवधान**)...

MR. CHAIRMAN: Allow him to respond. You will resume after he responds.

**श्रीमती महुआ माजी:** ठीक है, सर।

**श्री पीयूष गोयल:** चेयरमैन सर, मैं समझता हूँ कि यह बहुत ही सार्थक चर्चा रही है। इसमें सभी ने बहुत अच्छे तरीके से हमारे साइंटिस्ट्स की अचीवमेंट्स के बारे में चर्चा की, पूरे 60 वर्षों के परिश्रम की चर्चा की। अगर कोई इस प्रकार का आरोप तथ्यों के साथ टेबल करे, तब तो मैं समझ सकता हूँ। मुझे लगता है कि माननीय मंत्री, डा. जितेन्द्र सिंह जी ने इसके ऊपर पूरे विस्तार से जानकारियाँ दी हैं। शायद आपने डा. जितेन्द्र सिंह जी के भाषण को सुना नहीं होगा। आप जिन विषयों के बारे में बात कर रही हैं, उन्हें आपको substantiate करना चाहिए। अगर हम इतनी अहम संस्था, खास तौर पर इसरो जैसी इम्पॉर्टेंट संस्था के ऊपर ऐसे आरोप लगाएँ, तो यह ठीक

नहीं है। जयराम जी ने ठीक बताया कि इसका 60 वर्षों का इतिहास इस देश को गौरवान्वित करता है।

MR. CHAIRMAN: Okay. Hon. Minister, you have made your point. Please conclude.

**श्री पीयूष गोयल:** आप मेहरबानी करके इस विषय को डायवर्ट न करें, बल्कि आज उनकी उपलब्धियों के ऊपर ही चर्चा करें।

MR. CHAIRMAN: I can tell you that no one can divert the issue. Anyone who makes a statement is under obligation to prove it. We will take steps. Hon. Member, you please go ahead and conclude.

**श्रीमती महुआ माजी:** सर, मैं यह कहना चाहती हूँ कि एचईसी के पास बहुत बड़ी लैंड थी, जहाँ पर स्मार्ट सिटी बनायी गयी। उन्हीं की लैंड को लेकर अभी उनकी स्थिति बहुत खराब है। उनके पास वर्क ऑर्डर है, लेकिन उसके लिए उनके पास पूँजी बिल्कुल नहीं है। मैं आपको बता दूँ कि वहाँ पर काम करने वाले कर्मचारियों के जो बच्चे हैं, उनके नाम स्कूल से कट रहे हैं, क्योंकि वे अपने बच्चों की फीस नहीं दे पा रहे हैं। उनके बच्चे अखबार बेच रहे हैं। एचईसी से पहले जो टैलेंटेड बच्चे निकलते थे, वे आज पूरी दुनिया में साइंटिस्ट्स हैं, डॉक्टर्स हैं, इंजीनियर्स हैं और बड़े-बड़े पदों पर हैं, लेकिन आज वहाँ की स्थिति इतनी खराब है कि हम लोगों से देखा नहीं जाता। इससे करीब 2,500 कर्मचारी affected हैं। मैं रिक्वेस्ट करना चाहती हूँ कि एचईसी के लिए कुछ किया जाए। कल वे लोग यहाँ जंतर-मंतर पर धरना देने के लिए आ रहे हैं। अगर मैं फेक कह रही हूँ तो आप लोग वहाँ से पता कर लीजिए, वहाँ के कर्मचारी धरना देने आ रहे हैं। इस तरह से वे लगातार परेशान हैं। ...(**समय की घंटी**)... केवल अभी ही नहीं, बल्कि मैंने राज्य सभा में यह मुद्दा पहले भी उठाया था, लेकिन उस पर अभी तक कुछ भी नहीं किया गया है। जिस तरह से भारतीय रेल, इंडियन एयरलाइंस, एयरपोर्ट्स तथा बंदरगाह जैसे सरकारी उपक्रम लगातार बेचे जा रहे हैं, उन्हें ऐसा लगता है कि शायद उसको भी बेचने के लिए उसे सिक इंडस्ट्री घोषित करने की कोशिश हो रही है, ताकि उसे प्राइवेट हाथों को बेचा जा सके।

MR. CHAIRMAN: Thank you.

**श्रीमती महुआ माजी**: सर, मेरा केन्द्र सरकार से अनुरोध है कि कृपया इस पर ध्यान दिया जाए। वहाँ एक पूर्णकालिक सीएमडी मिले और वहाँ के लोगों को पिछले 18 महीनों से जो वेतन नहीं मिल रहा है, वह उनको मिले। थैंक यू।

MR. CHAIRMAN: Thank you. You are gifted 100 per cent. I would request the hon. Member; she has given, I am sure, very thoughtfully, after verification, certain factual assertions. The hon. Minister has a different opinion on that. I would urge you to put

the relevant record on the Table of the House during the course of the day. Now, Shri Sandosh Kumar P. ...(*Interruptions*)... Okay. I think it is a very valid and reasonable point. You do it by tomorrow till the end of the Session. Now, Shri Sandosh Kumar P.

SHRI SANDOSH KUMAR P (Kerala): Mr. Chairman, Sir, I thank you for allowing me to take part in this important discussion. I join with the hon. Members of this august House to congratulate those scientists and workers who made this spectacular achievement possible. There is no point in making a lengthy speech. Jairam Rameshji made an absolutely brilliant speech on how mesmerizing is the history of the Indian space science. It all started with the leadership of Jawaharlal Nehru, who had friendship with Albert Einstein and many other scientists. I would like to take this opportunity to point out one thing. I am from Kerala, a State which introduced science policy in the year 1972 for the first time in the history of India. But I am sorry to say that when I asked a question to the Minister concerned about the Indian State which introduced the science policy for the first time, the answer was really shocking. The answer is that it is Gujarat in the year 2018. This shows how the ruling dispensation is creating new history. They are absolutely disconnected with history and reality. In their mad rush to praise Mr. Modi, they even forget Mr. Vajpayee. So, this is what is happening. I request the Chairman to take care of these things. Kindly correct that answer because it was Mr. C. Achutha Menon, one of the great statesmen of this country, who introduced the first science policy in the country, and not in Gujarat in 2018. It is absolutely contrary to the facts.

Sir, it is important to note that our country is moving forward and in the coming years, we will achieve more and more things. Science and technology is not the monopoly of anyone. Science and technology will continue to improve. There is no point in comparing the speeds of Lunar Mission, Aditya and Chandrayaan. The Minister was comparing the speeds of Lunar Mission, Aditya and Chandrayaan. Time has changed; technology has changed. Obviously, new technology will help us to move forward with more pace. That reality has to be accepted. It is not because of the political leadership. Political leadership has an important role to play but don't undermine history, don't try to eclipse the contributions of others. This is what I would like to say. Thank you very much.

SHRI JAYANT CHAUDHARY (Uttar Pradesh): Sir, I stand to express my deepest admiration and gratitude to the scientific community, to the institution of ISRO and, of course, to the leadership which the Government of today has, whether it is the

Minister in charge or as you rightly pointed out that the Cabinet Minister is the Prime Minister of the country himself. Undoubtedly, credit goes to him, to the entire Cabinet, to the Government and to the institutions that in one swoop, we landed on the dark side of the Moon. I think we have lit a fire of imagination. We have illuminated the possibilities that exist for the youth of our country when apply ourselves, when we put our entire focus and resources, when we take our scientific ideas forward.

So, again, a great discussion today from Jairam Ramesh*ji,* who made very forceful points. Of course, we appreciated the intervention of Nirmala*ji*, hon. Finance Minister, who brought out many facets and information that were, perhaps, not there in the public domain. Sir, at the same time, we give credit to the leadership of this Government and, of course, to the visionary leadership of Governments in the past, because, as another Member said, it's a baton race, it's not a singular race. It is the team effort. We must also recognize that if Indian cricket team wins the World Cup tomorrow, our spectators are not going to thank the Chief of the B.C.C.I. A large part of the credit will go to the team India, to the players, to the coaches and to the management. Similarly, largest effort should be made to provide more courage, more resources to foster an open learning environment for our youth, our students and open the minds of the generations to come. Noble Laureate Shri Ramakrishnan has said that science flourishes when real freedom exists in terms of ideas and opinions and minimal ideological interference. I remind this august House of our constitutional mandate. I remind the citizens of this country of our constitutional mandate, our Fundamental Duty to build our scientific temper. But, what is happening? We are also seeing mob temper. We are seeing deaths at the hands of mobs. We are seeing more incitement for hate using religious identities, using caste identities, using biases that have existed for thousands of years in our society. We must rid ourselves of these things. And, here, I remember the rationalists -- Shri Narendra Dabholkar, Kalburgi. No civilized society can tolerate such murders. Whoever was responsible, the ideology that was responsible, should be brought to book. We talk about scientific temper. हम यहां क्यों बैठे हैं? यह समय, यह तारीख कैसे चुनी गई और क्यों चुनी गई? अगर सरकार शुभ अवसर की तलाश में, शुभ तारीख की तलाश में फैसले लेगी और टालेगी, तो ठीक नहीं है। यह सदन तैयार था, इसका उद्घाटन हो गया था और हम सब लोग अंतर्मन में ही जानते हैं कि यह तारीख चुनी गई, क्योंकि एक त्योहार है, सबको लगा कि शुभ अवसर है। ज्योतिष के जो विद्वान हैं या कोई पर्ची निकालने वाला बाबा है, उनके इशारे पर और उनके कहने पर आप फैसला मत लीजिए। जब जो सही है, जहां आप सक्षम हैं, आप फैसला लीजिए, पूरा देश आपके साथ है। Sir, talking about resources, our Minister for Science, Jitendra*ji*, is very well aware of the facts. He asserted that we have

increased the Budget for I.S.R.O., whereas our eminent Member of Parliament pointed out and I reiterate that if you look at the last Budget, compare it with the Budget Estimates of the current year, the Budget of 2023-24, look at the Department of Science, you have actually cut the Budget by 8 per cent! I.S.R.O. is achieving so much and they need so much more. We have spent paltry amount on this mission which is a great achievement, but look at this grand environment in which we are sitting and debating. We are spending thousands of crores on convention centres, on facilities for ourselves. So, I think, we must stand and salute our scientists and provide them more resources. I will close my thing. I am aware of the shortage of time. I will quote two eminent people, two eminent thinkers. One is Isaac Asimov. He said: "The saddest aspect of life right now is that science gathers knowledge faster than society gathers wisdom." Science will not wait for us. Scientists cannot be stopped. They will continue their work but society must continue to evolve and assimilate those ideas at the earliest. In the end, इसरो की बात हुई है, आखिर में खुसरो की बात कर लें तो कोई बुरा नहीं मानेगा। छोटी सी कहावत है, जो बताती है कि हम अलग-अलग बात करते हैं, आखिरकार तो प्यार की बात हावी होगी, एक बात चलेगी,

*'छाप तिलक सब छीनी रे मोसे नैना मिलाइके।'*

धन्यवाद।

MR. CHAIRMAN: Hon. Members, we have had real great participation and every Member has had the occasion to contribute effectively. We must now have someone who can contribute to it in a poetic manner. I now call upon Shri Ramdas Athawale as the last speaker on this issue.

**सामाजिक न्याय और अधिकारिता मंत्रालय में राज्य मंत्री (श्री रामदास अठावले):** सभापति महोदय, आज बहुत ही महत्वपूर्ण विषय पर चर्चा हो रही है। सभी पार्टीज़ के जो मेम्बर्स ऑफ पार्लियामेंट हैं, ये साइंटिस्ट्स की तारीफ कर रहे हैं। अभी मैं 4 दिन के लिए लंदन में था, वहां मुझे बहुत सारे लोग मिले, उन्होंने मेरा अभिनंदन किया कि भारत के साइंटिस्ट्स ने बहुत बड़ा काम किया है। जयराम रमेश जी हमारे पुराने मित्र भी हैं, वे बहुत क्लेवर आदमी भी हैं। कांग्रेस को बढ़ाने में उनका बहुत बड़ा योगदान है। मैं इतना ही बताना चाहता हूं कि :

*कांग्रेस के बड़े नेता हैं रमेश जयराम, कांग्रेस के बड़े नेता हैं रमेश जयराम।*
*सभी का आपने नाम लिया, लेकिन आपने नहीं लिया नरेन्द्र मोदी जी का नाम।।*
*आज की बहुत ही सुंदर है शाम, आज की बहुत ही सुंदर है शाम।*
*अब तो नरेन्द्र मोदी जी को याद करो रमेश जयराम।।*

हम जानते हैं कि इसमें साइंटिस्ट्स का बहुत बड़ा योगदान है। आदरणीय जवाहर लाल नेहरू जी ने इसरो की स्थापना की, यह इतिहास है। साइंटिस्ट्स ने बहुत बड़ी कोशिश की,

लेकिन हमें चांद पर जाने की सफलता नहीं मिली थी। आदरणीय नरेन्द्र मोदी जी के नेतृत्व में जब देश काम कर रहा है, तब हम सबने देखा कि चंद्रयान-2 के चांद पर उतरते समय थोड़ी गलती के कारण चंद्रयान वहां नहीं पहुंच सका, लेकिन एक साल बाद ही - हमारे साइंटिस्ट्स ने प्रतिज्ञा की कि इस वक्त भारत का चंद्रयान चांद पर ज़रूर पहुंचेगा। जब हम चंद्रयान-2 में सफल नहीं हुए थे, तब माननीय नरेन्द्र मोदी जी ने बेंगलुरु में जाकर उनका अभिनंदन किया था और कहा कि आप डरिए नहीं, मैं आपके साथ हूं। आप चंद्रयान-3 की तैयारी कीजिए। इसीलिए चंद्रयान-3 सफल हुआ है। आज दुनिया भर में भारत का नाम है - पहले भी नाम था, लेकिन अब और ज्यादा बढ़ गया है। इसीलिए मुझे लगता है कि इसमें राजनीति करने की आवश्यकता नहीं है।

सभापति महोदय, जो भी काम होता है, उसमें सब लोगों को सहयोग करना चाहिए। नरेन्द्र मोदी जी के कार्यकाल में इतनी बड़ी उपलब्धि हुई है। उन्होंने इस चंद्रयान के लिए साढ़े तेरह हज़ार करोड़ रुपये दे दिए थे, तो नाम लेने में क्या दिक्कत है! जयराम रमेश जी तो आदरणीय नेता हैं। आपने मोदी साहब का नाम नहीं लिया। आप मत लीजिए, लेकिन हम लोग उनका नाम लेते हैं और जनता उनका नाम ले रही है। जयराम रमेश जी ने बहुत अच्छा इतिहास बताया। उन्होंने वर्ष 1952 से लेकर अब तक का इतिहास बताया। हम चंद्रयान-3 में सफल हुए हैं। हमें जी-20 की अध्यक्षता भी मिली। हम डेवलपमेंट की दिशा में आगे बढ़ रहे हैं।

सभापति महोदय, हम यह नहीं बोलते कि हमने ही पूरा काम किया है, आप लोगों ने भी किया है, लेकिन आपने जो नहीं किया, वह करने के लिए हम आए हैं। आप अगर कर देते तो हम नहीं आते। जनता हमें आने ही नहीं देती। इसीलिए जनता जो तय करती है, वह होता है। भारतीय जनता पार्टी के 1982 में 2 एम.पीज़ थे, अटल जी के समय में 182 लोग चुन कर आए, नरेन्द्र मोदी जी के समय में वर्ष 2014 में 282 लोग चुन कर आए और वर्ष 2019 में 303 लोग चुनकर आए।

जयराम रमेश जी 2024 ,में कितनी आएंगी ,यह पूछिए। ...(**व्यवधान**)... आप भी 2024 की तैयारी करिए। आपको जितने लोगों को इकट्ठा करना है ,वह करिए। आप नेताओं को इकट्ठा करिए, हम जनता को इकट्ठा कर रहे हैं। ...(**समय की घंटी**)...

MR. CHAIRMAN: Thank you, hon. Minister.

**श्री रामदास अठावले**: उनको भी सत्ता में आने का अधिकार है। आप 60 वर्षों तक सत्ता में रहे और मैं भी आपके साथ रहा हूं। इसीलिए मुझे लगता है कि लोकतंत्र में जनता जिनके साथ जाती है ,उनको सत्ता मिलती है। आप कई नेताओं को एक साथ लाए हैं। हमें ज्यादा नेताओं को साथ लाने की जरूरत नहीं है। अगर और भी ज्यादा पार्टियों को ले लेंगे, तो टिकट देना मुश्किल हो जाएगा।

MR. CHAIRMAN: Thank you.

**श्री रामदास अठावले**: हमें ज्यादा पार्टियों की जरूरत नहीं है। हमारी ताकत है, बीजेपी के साथ मेरी आरपीआई, जो बाबा साहेब अम्बेडकर जी की पार्टी है। गांव-गांव में मेरी पार्टी की शाखाएं हैं। मेरी पार्टी के कितने एमपीज़ हैं, यह मत पूछिए। मेरी पार्टी का एक भी एमपी नहीं है। मैं लोक

सभा में चुनकर आता था। मैं जब 2014 में मोदी साहब के साथ आया, तब अगर मैं आग्रह करता कि मुझे लोक सभा के लिए लड़ना है - मैं तीन बार लोक सभा में चुनकर आया था और चौथी बार मैं इसलिए नहीं जा रहा था ,क्योंकि मैंने सोचा कि और पांच साल के बाद क्षेत्र बदलना ठीक नहीं है, इसीलिए मैंने बीजेपी से राज्य सभा की सीट मांगी और बीजेपी ने मुझे राज्य सभा में भेजा, नहीं तो मैं लोक सभा से आता था। राज्य सभा में आने के बावजूद भी माननीय नरेन्द्र मोदी जी ने मुझे उनके मंत्रिमंडल में ले लिया है और मुझे सामाजिक न्याय और अधिकारिता मंत्रालय की जिम्मेदारी दी है।

MR. CHAIRMAN: Thank you.

**श्री रामदास अठावले:** हमारी 2024 की तैयारी चल रही है और हम आगे बढ़ते रहेंगे।

MR. CHAIRMAN: Thank you, hon. Minister.

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## OBSERVATION BY THE CHAIR

Hon. Members, we now come to the end of a very fruitful and constructive discussion on the nation's glorious journey in space exploration. I heard the hon. Members' views, in the House and outside, observations and assessment with rapt attention. One common thread was evident in the speeches - national interest and that it is glorious, concerted effort. There was resonance of a shared sense of pride and accomplishment in our space odyssey, made possible by the brilliant minds of our scientists and technicians and visionary leadership on appropriate occasions.

The vast expanse of space has enchanted humanity since time immemorial. Members have reflected on that in terms of poem also. Bharat, one of the oldest civilizations in the world, has nurtured a strong tradition of space science and astronomy. There are contributions of our earliest scholars like Aryabhatta, Varahamihira, Brahmagupta, Bhaskara among others are recognized not just by Bharat, but by the world at large! In recognition of their contribution, the very first Indian spacecraft named after the mathematician and astronomer of Gupta era about 1500 years old, Aryabhatta, was launched in 1975.

The spirit of exploration, built upon our scientific heritage, fuelled by courage and innovation, has propelled us to explore the uncharted territories of space with renewed vigour! While doing so, on the one hand, we are showcasing our technological prowess. On the other hand, we remain firmly dedicated towards reaping its benefit for social good, and to enhance the lives of our countrymen.