

Title : Introduction of the Atomic Energy (Amendment) Bill, 2015.

THE MINISTER OF STATE OF THE MINISTRY OF DEVELOPMENT OF NORTH EASTERN REGION, MINISTER OF STATE IN THE PRIME MINISTER'S OFFICE, MINISTER OF STATE IN THE MINISTRY OF PERSONNEL, PUBLIC GRIEVANCES AND PENSIONS, MINISTER OF STATE IN THE DEPARTMENT OF ATOMIC ENERGY AND MINISTER OF STATE IN THE DEPARTMENT OF SPACE (DR. JITENDRA SINGH): Mr. Deputy Speaker, Sir, I beg to move:

"That the Bill further to amend the Atomic Energy Act, 1962, be taken into consideration."

Sir, with your permission, I would just like to make a few observations. आदरणीय सदस्यों के ध्यान में होगा कि जब से इस सरकार ने सत्ता संभाली है, प्रधान मंत्री आदरणीय नरेन्द्र मोदी जी के नेतृत्व में पिछले अठारह मास में एटॉमिक इनर्जी विभाग में और एटॉमिक इनर्जी के क्षेत्र में बड़ी तेजी से प्रगति हुई है। वर्तमान में हमारे पास न केवल 21 रिएक्टर हैं, बल्कि बहुत जल्द छः और रिएक्टर उसमें जोड़ने की एक योजना है। इसके अतिरिक्त जहां-जहां भी प्रधानमंत्री जी की यात्रायें विदेश में रही हैं, एटॉमिक एनर्जी के संबंध में कोई न कोई नए एग्जामेंट भी होते रहे, एमओयू भी होते रहे। अभी दो ही दिन पहले शनिवार को जब जापान के प्रधानमंत्री भारत में आए थे, तो एक एमओयू फाइनाइज किया गया, जिसके अंतर्गत न्यूक्लियर एनर्जी और यूरेनियम के क्षेत्र में दोनों देशों के बीच में सहयोग रहेगा। कहने का तात्पर्य यह है कि जितनी भी विदेश यात्रायें प्रधानमंत्री जी की हुई हैं या विदेशी नेताओं का यहां आना हुआ है, प्रधानमंत्री जी ने भारत के न्यूक्लियर प्रोग्राम जो कि शांतिपूर्ण तत्वों के लिए है, उसको प्राथमिकता देते हुए, कहीं यूरेनियम का प्रावधान, कहीं दोनों देशों के बीच कोलैबरेशन के प्रावधान को लेकर कहीं न कहीं एग्जामेंट किया है। इस परिस्थिति में हमारे ऊपर यह दायित्व आ जाता है कि हम अपने न्यूक्लियर प्रोग्राम की एक्सपेंशन की योजनाएं बनाएं। Now the stage has come when we have to plan how best to expand our nuclear programme for two reasons. Firstly, we are already now in one of the frontline nations as far as the nuclear energy is concerned. Secondly, in the years to come, nuclear power in India is set to become one of the major sources of energy and also electricity. परन्तु इस प्रकार की एक्सपेंशन की योजनाओं में जो बाधाएँ या अड़चने सामने आती थीं, उनका किस प्रकार से समाधान हो, इसको लेकर इस बिल और अमेंडमेंट को लाने का विचार हुआ है।

As you would recall, the Atomic Energy Act of India was enacted in 1962. Ever since then, for the last 50 years or so, there has been no amendment or no change. But now, as I submitted before you, with the rapid expansion of our nuclear programme, we have two main constraints coming forward. Firstly, we have just two Government-controlled corporations in the Department of Atomic Energy: the Nuclear Power Corporation of India Ltd. and the BHAVINI. The Act makes it binding on us that all the future reactors or future establishments have to be set up by these corporations. Secondly, the financial constraint on the part of these corporations also makes it difficult to proceed forward. Therefore, keeping these two considerations, जैसा मैंने अभी आपके समक्ष रखा कि जिस तीव्र गति से आदरणीय प्रधानमंत्री जी के नेतृत्व में इस क्षेत्र में एक्सपेंशन हो रही है, उसको किस तरह से संभव बनाया जाए, उसको लेकर दो विचार आए हैं। उनमें एक यह है कि we can have a provision of joint ventures with other Government establishments including PSUs. हम यह मानते हैं कि हम प्राइवेट संस्थाओं के साथ या प्राइवेट अदार्से के साथ या प्राइवेट यूनिट्स के साथ, because of the reasons of confidentiality, we will not allow this. But, at least, we can have some joint ventures with the Government sector units. यह विचार इसलिए भी थोड़ा अर्जेन्सी पकड़ गया कि very recently, we had an offer from the Indian Oil Corporation and also the National Thermal Power Corporation, two of the Government sector units, who came forward to have joint ventures with our Nuclear Power Corporation of India Limited (NPCIL). But the Atomic Energy Act of 1962 debar us from entering into any kind of a joint venture. So, one of the amendments is pertaining to that.

The second is due to the fact that in the 1962 Act, the Government Company is defined as the one which has a share of not less than 51 per cent. When we enter into a joint venture, we might sometimes have a company which may not be having that much of a share because, as I submitted before you, it would be always a Government company or a Government sector unit. Therefore, we have tried to bring in an amendment so as to make a provision that this will be 51 per cent jointly.

If I just read it before you it will be very clear. The purpose of the present amendment is to provide an enabling legal basis for the Nuclear Power Corporation of India Ltd. to form a joint venture with other Government units and PSUs for nuclear power generation. The need for this has arisen to meet the immediate requirement of equity infusion to augment country's nuclear power generation capacity. हमारे विचार में आर्थिक योजना बनाने के लिए या आर्थिक संसाधन उपयुक्त करने के लिए, उपलब्ध करने के लिए यह सबसे सरल विकल्प है। The present constraint is that currently the Atomic Energy Act narrowly defines the category of companies eligible for licence to produce nuclear power. The definition of the Government company is: 'The one not less than 51 per cent of paid-up share in the capital held by the Central Government.' So, that is the constraint. NPCIL for that matter fits into that category. जो ऑलरेडी हमारी है। परन्तु जब हम ज्वाइंट वेन्चर में आयेगे तो हमें यह दिक्कत आयेगी। इसलिए मुख्यतौर पर दो किस्म के अमेंडमेंट्स लाये जा रहे हैं। The solution, hon. Deputy Speaker, Sir, is that a proposal to modify the definition of Government company in the Atomic Act of 1962 in order to, (a) bring joint ventures with PSUs and other Government units under the definition of 'Government company' in the Atomic Energy Act mainly to have a joint venture, and (b) to extend the control of the Central Government over such joint ventures in which otherwise the Central Government is not a direct shareholder and, therefore, may not be able to exercise direct control in the normal course. ज्वाइंट वेन्चर्स को संभव बनाने के लिए ही ये सभी योजनाएँ बनाने का विचार आया है। अब हम यह प्रोजेक्ट रख रहे हैं कि the Government company would mean not less than 51 per cent of the paid-up share capital is held by the Central Government same as earlier or the whole of the paid-up share capital is held by one or more of the companies specified under the same Clause and which by its Articles of Association empowers the Central Government to constitute its Board of Directors. इस प्रकार से 51 प्रतिशत वाला प्रावधान भी इसमें पूरा हो जायेगा और ज्वाइंट वेन्चर्स की भी संभावना बन जायेगी। इसके अतिरिक्त एक कॉन्फिडेंशियल अमेंडमेंट जरूर रहेगी, क्योंकि हम नहीं चाहेंगे कि सरकार का अधिकार कम रहे, because of the reasons very well known to you. Therefore, the amendment consequent to Section 4 would enable the Central Government to licence the joint venture companies. It is because they also have to obtain the licence from the Government and we are not entering into any kind of a joint venture of a joint mechanism in the private company. It also enables the Central Government to take measures for safe operation of these nuclear plants and ensure disposal of nuclear material in the event a company licensed under the Act ceases to be a Government company. यदि उनमें से कोई भी कंपनी, कल ऐसी कोई भी संभावना उत्पन्न होती है, परिस्थिति ऐसी बनती है कि वह सरकारी अधिकार क्षेत्र में नहीं रहती है, तो उसका लाइसेंस बिट्टू करने का, रद्द करने का भी अधिकार सरकार को रहेगा। साथ ही साथ आदरणीय सदस्यों के ध्यान में यह भी लाना उचित रहेगा कि ये मुख्य अमेंडमेंट्स लाने के उपरान्त, जो बाकी के प्रावधान हैं, उन पर कोई असर नहीं पड़ेगा। उदाहरण के तौर, सिविल न्यूक्लियर लाइसेंसिंग का जो एक्ट वर्ष 2011 का है, उसके प्रावधान पर इसका कोई प्रभाव नहीं पड़ेगा। यदि हम इसमें सफल रहते हैं, जो आज प्रयास किया जा रहा है तो आने वाले समय में एक यह भी विचार आयेगा कि there is a strong section of opinion in this country for the last few years which is proposing a comprehensive re-look and a comprehensive amendment to the Act as such which was enacted in 1962 which can be taken up later with the cognizance of the hon. Members of the House. But as of now, with your kind permission, I am moving this Bill for these two main amendments to the Atomic Energy Act, 1962.

Thank you.

HON. DEPUTY SPEAKER: Motion moved:

"That the Bill further to amend the Atomic Energy Act, 1962, be taken into consideration."

श्री पृथ्वी सिंह पटेल (दमोह) : उपाध्यक्ष महोदय, परमाणु ऊर्जा संशोधन विधेयक, 2015 के समर्थन में अपनी बात कहने के लिए मैं यहां पर खड़ा हुआ हूँ। मंत्री जी बड़ी स्पष्टता के साथ अपनी बात यहां पर रख दी हैं, लेकिन मैं एक बात जरूर सदन को बताना चाहता हूँ कि जो परमाणु ऊर्जा का उपयोग केवल बिजली के लिए नहीं है, बल्कि रक्षा तकनीक, अस्तु-शस्त्र, विकिरण प्रौद्योगिकी का विकास, बेहतर फसल, किरमों, फसलों की सुरक्षा, इनके अलावा, कटाई, रेडियो निदान, कैंसर, पीने के पानी की प्रौद्योगिकी के लिए भी है, कई बार ऐसा लगता है कि हम सिर्फ बिजली पर बात कर रहे हैं। परमाणु ऊर्जा जिन क्षेत्रों में उपयोगी है, उन बातों के लिए यह जरूरी था कि हमें इस काम को बहुत पहले ही कर लेना चाहिए था। मंत्री जी ने एक बात का उल्लेख किया है, लेकिन मैं 'भावनी' की एक रिपोर्ट से यह कहना चाहता हूँ कि जब एक बार उनसे पूछा गया कि आपके इस नुकसान का क्या कारण है, यह वर्ष 2003-2004 की बात है, उन्होंने कहा था कि हमारे पास कच्चा इंधन नहीं है। इसलिए इंधन की कमी के कारण हम अपने विस्तार को भी नहीं बढ़ा पाये और दूसरी तरफ हमें नुकसान भी उठाना पड़ा। इस संशोधन के बाद ईंधन की पूर्ति से लेकर तकनीक में आने वाली कमियों को दूर कर पाएँगे, मैंने एक न्यूक्लियर डैमेज एक्ट, 2010 का उल्लेख किया था, इसकी सिविल देयता संबंधी जो धाराएं थीं उस कारण से जितने भी अंतर्राष्ट्रीय विवेकता से उस पर आपत्ति व्यक्त की थी। इस संशोधन से हम उसकी भरपाई कर पाएँगे। हमारे जितने भी पीएसयू हैं चाहे वह रॉ मटेरियल पैदा करते हों, चाहे तकनीक में शामिल होते हों, अब आगे आने वाले समय में इन उपक्रमों कीमतना बेहतर सहयोग कर सकते हैं यह इस संशोधन के बगैर ऐसा संभव नहीं था। दुनिया में अगर कोई छोटी-मोटी भी तकनीक हमें देता है और उसमें खराबी आने के बाद जब सरकार कहती है कि इसे बदलिए जब वह इस बात के लिए तैयार नहीं होती है और वे कहते हैं कि आप इसे अपने स्तर पर कीजिए, इस तरह से हमारी गति को रोकने का काम किया जाता है, इस बाधा को दूर कर हमारी सरकार ने सही काम किया है, मैं मोदी जी और डॉ. साहब को धन्यवाद देता हूँ। यह काम 10-20 वर्ष पहले हो जाना चाहिए था। भावनी के अलावा दो सेक्टर हैं, जो ऊर्जा और बिजली उत्पादन के क्षेत्र में काम करते हैं, उनके बाय-प्रोडक्ट से हम सुरक्षा के संसाधन तैयार करते हैं। आपने दो बातों को बहुत स्पष्टता के साथ बताई है कि उसमें पब्लिक अंडरटेकिंग्स होंगे, जिसमें 51औं से ज्यादा भारत सरकार का निवेश होगा, कोई कंपनी इसे अकेले करे या दो मिलकर कर सकते हैं। आपने रूल बनाया कि किसी भी कंपनी का लाइसेंस निरस्त करना या देना, मैं इस बात के लिए आपको बधाई देता हूँ। मैं भावनी के सेट-अप को देख रहा था, उसमें जो स्वतंत्र निर्देशक हैं उनकी नियुक्तियां नहीं हुई हैं। हम सब जानते हैं कि जब कम्पनी बन जाती है और उसमें निर्देशक होते हैं, उनके फैसले लेने के अधिकार सुरक्षित रहते हैं। दूसरी तरफ जो समझौते होते हैं, उनकी कुछ खामियों को एक वलोज के माध्यम से रोक दिया गया है। उनके वयन की प्रक्रिया के बारे में मुझे कुछ नहीं कहना है, मैं यह भी अपेक्षा करता हूँ कि यहां जो भी डायरेक्टर हों, उन्हें संसद की समिति हो, सदन हो या सरकार हो, नियमों में ऐसे प्रावधान होने चाहिए, अगर कोई अंतर्राष्ट्रीय समझौता होता है तो इसे तत्काल सदन या सरकार की जानकारी में इसे तुरंत लाया जाना चाहिए। नियमों के प्रावधान में सावधानी बरतने की जरूरत है। जिस प्रकार से पिछली सरकार ने थोरियम नीति के बारे में गलत फैसले किए, ऐसी कोई गलती हमसे न हो सके, इस पर भी विचार किया जाना चाहिए। भारत इलेक्ट्रॉनिक्स लिमिटेड ने पीपीपी मॉडल में तीन बड़ी परियोजनाओं को पूरा किया, भारतीय वायु सेना के लिए आकाश शस्त्र प्रणाली, जिसमें बीएएल के साथ बीडीएल, ईसीआईएल, एल एंडटी और टाटा ने पूरा किया। मैं जानता हूँ कि यहां पर प्राइवेट कंपनी की इंटी नहीं है लेकिन एक भारत सरकार का ही पीएसयू है जो उनके सहयोग के बाद अपनी सफलता के मुकाम तक पहुंचाता है।

15.24 hours

(Dr. Ratna De (Nag) in the Chair)

रोहिणी में रडार प्रणाली को भारतीय कंपनी ने डेवलप किया है, वह भारतीय कंपनी है, उन्हीं के सहयोग से आने बड़ी है। हमने यहां पर किसी प्राइवेट कंपनी को अनुमति नहीं दी है। ईडब्ल्यू प्रणाली हैदराबाद के पास 40 केन्द्र चलाती है। मैंने तीन बातों का इसलिए उल्लेख किया है क्योंकि जब हम संशोधन लेकर आते हैं तो वह संशोधन देश के लिए बेहद महत्वपूर्ण है। अपनी बात के शुरू में मैंने कहा था कि परमाणु ऊर्जा सिर्फ बिजली पैदा नहीं करती, हमारे सुरक्षा के संस्थान, हमारी चिकित्सा पद्धति, आज जिस प्रकार से खेती में परिवर्तन आ रहे हैं उनके बोनी और कटनी से लेकर बीजों के संरक्षण तक की प्रणाली में परमाणु ऊर्जा का उपयोग है। मैंने आपको एक बार सदन में रेयर गिनरल्स के बारे में पूछा था। मैं बड़ी विनम्रता के साथ कहूंगा कि तमिलनाडु की कोई सरकारी कम्पनी, जिसके पास 50 परसेंट शेयर हैं, वह चाहे तो इसमें हिस्सेदार बन सकती है। लेकिन परिस्थितियां ऐसी बनी हैं कि वर्ष 2003 में भावनी जैसा इतना अच्छा प्रोजेक्ट कहता है कि हमारे पास तूँकि कच्चा सामान नहीं था, इस कारण हमने घाटा उठाया और बिजली बनाने में असफल हुए। हमारे दो प्लांट्स आज उसी तमिलनाडु और आंध्र प्रदेश के बार्डर पर अट्टरे पड़े हुए हैं। उसके बाद भी सरकारें दस-बारह सालों तक जागती नहीं हैं। मैं आपको इसलिए धन्यवाद दूंगा कि हम सब इन बातों पर भी चिंता कर रहे हैं।

सभापति महोदय, मैंने यह बात भी कही थी कि रॉ मटेरियल, यानी कच्चे ईंधन की कमी नहीं है। हमें उस कच्चे ईंधन को कैसे अपने पास सुरक्षित रखना है, यह देखना होगा। मैं दावा कर सकता हूँ कि हिन्दुस्तान के पास परमाणु ऊर्जा के लिए थोरियम की मात्रा इतनी है कि हम उसे आधी दुनिया को दे सकते हैं। हम अपने हित को तो स्वावलंबी बना ही सकते हैं, पूरी दुनिया को भी दे सकते हैं। उसके बाद भी वर्ष 2003-04 की रिपोर्ट में कहा जाये की भावनी में बिजली के उत्पादन के लिए ईंधन की कमी थी, तो मैं समझता हूँ कि यह गलत नीतियों का परिणाम है। सरकारों की जो पोलिटिकल विल होनी चाहिए, वह न होने का कारण है। इसलिए मैं मानता हूँ कि बिल में तकनीकी रूप से दो संशोधन दिखे, लेकिन देश के भविष्य के लिए चाहे हमारी रक्षा प्रणाली हो, बिजली के प्रति हमारा स्वावलंबन हो या फसलों पर आया हुआ संकट हो। मुझे यह कहते हुए खुशी होती है कि किसानों के बीज के संरक्षण भर की बात नहीं है, कटाई से लेकर बाकी जो दुष्परिणाम हैं, उसमें भी परमाणु ऊर्जा का उपयोग है। शायद किसानों को यह पता नहीं है, क्योंकि यह अनुसंधान का क्षेत्र है। इसलिए मुझे लगता है कि यह बिल बेहद महत्वपूर्ण है। जो संशोधन बताये गये हैं, वे बेहद जरूरी हैं।

सभापति महोदय, सरकार ने लाइसेंस देने और कैंसिल करने का जो अधिकार सुरक्षित रखा है, उसके लिए मैं सरकार को बधाई देना चाहूंगा। नियमों को बनाने समय जो अंतर्राष्ट्रीय समझौते हैं, जो डायरेक्टर लैबल पर होते हैं, उन पर भी कोई ऐसा प्रतिबंधात्मक प्रावधान रखना चाहिए, ताकि दोबारा ऐसी गलती न हो, जो थोरियम नीति के बारे में कुछ लोग कर बैठे हैं। उन गलतियों को भी रोकने का काम सरकार करेगी।

मैं मोदी जी के नेतृत्व वाली सरकार के मंत्री आदरणीय डॉ. साहब का हृदय से धन्यवाद करते हुए इस बिल का समर्थन करता हूँ। बहुत-बहुत धन्यवाद।

PROF. SAUGATA ROY (DUM DUM): Madam Chairperson, I rise to support the Atomic Energy (Amendment) Bill, 2015. As the hon. Minister has himself pointed out that these are minor amendments. He was referring it mistakenly as the National Power Corporation. It is the Nuclear Power Corporation of India. He has mentioned it as National Power Corporation. The Amendment Bill allows the Nuclear Power Corporation to tie up with the public undertakings to form new energy producing units.

He has already mentioned two companies – the Indian Oil Corporation (IOC), a giant public sector undertaking and the National Thermal Power Corporation (NTPC) -- who have expressed willingness to go into and join such undertakings. I think, to that extent, it is a welcome step. Having said that, let me raise some basic matters about nuclear power in the country as a whole.

Madam, as you know that the story of nuclear power starts in 1939 when two German scientists, Hahn and Fritz, discovered nuclear fission. They discovered that if a heavy nucleus splits, it will release tremendous energy accordingly to Einstein's Formula of $E=mc^2$. After fission was discovered, the American scientists working under Enrico Fermi first built the controlled reactor below a football field in Chicago University. How terrible nuclear energy can become, was demonstrated first in Las Alamos where Robert Oppenheimer, the Chief of the project, called it brighter than a thousand Suns.

The atomic bombs were exploded on Hiroshima and Nagasaki on 6th August, 1945 and 9th August, 1945 leading to surrender of Japan in the 2nd World War. After the two nuclear explosions, we have discovered thermo nuclear bombs also. But there has been no open explosion of nuclear bombs because now humanity knows that we have the capacity to destroy this earth many times. But, whether you use it first or later, it is total annihilation. So, the attention has gone into peaceful uses of nuclear energy.

Now I must pay my regards, tributes to Pandit Jawaharlal Nehru, our first Prime Minister who envisaged that nuclear energy can be used for peaceful purposes. So, soon after we became independent, he set up the Atomic Energy Commission under Dr. Homi Jehangir Bhabha with the first unit at Trombay. There, controlled reaction was tried out in our first swimming pool reactor called, Apsara, and secondly in a zero energy reactor called 'Zerlina'. The thought of having nuclear power plants came much later in the late 50s' and early 60s' and then it was thought, when we were going to set up the first nuclear plant in Tarapur, that there should be a separate public sector organisation for manufacturing nuclear energy. Then, the Nuclear Power Corporation was established in 1962.

One by one, there have been many nuclear power plants which have been set up, starting with Tarapur in Maharashtra, going to Rana Pratap Sagar in Rajasthan, Kalpakkam in Tamil Nadu, Narora in Uttar Pradesh and Kaiga in Karnataka. Now there are a number of nuclear power plants throughout the country. Now this was not good enough. I remember when I was in Parliament in the 70s', every week we used to raise Call Attention Motion on whether the Americans supply us with enriched uranium because the fuel of the Tarapur nuclear plant was enriched uranium and the Americans used it as political leverage. Slowly, we have come out of that position where we do not have to depend on enriched uranium imported from America.

Madam, even you would be aware that now we have gone to the next stage. We have built a fast breeder reactor, called BHAVINI near Mahabalipuram temples. As Members of the Public Undertakings Committee, we went to see. It is almost ready. I do not know if it has started commercial production yet. But it is almost, entirely fabricated by Indians. Fast breeder reactor has the advantage that we produce our own fuel. The breeder itself creates plutonium. So, we will be less dependent on imported fuels.

SHRI VARAPRASAD RAO VELAGAPALLI (TIRUPATI): It has started commercial production. It has reached the criticality long back.

PROF. SAUGATA ROY: Last year we went to see it on behalf of the Committee.

The next step we have to take is to manufacture nuclear energy from thorium because we have large deposits. We do not have enough uranium in the small mines in Jharsuguda and in one or two other mines but we have enough thorium on the monazite sands of Kerala. If we can have a nuclear reactor based on thorium, then the problem of nuclear fuel would be solved for ever. Now that work is on. The scientists of the Atomic Energy Commission have proved extremely capable and they are a pride of the country. So, at this stage, we must pay our tribute to Pandit Jawaharlal Nehru and Dr. Homi Jehangir Bhabha.

Now we should discuss nuclear power. What are the advantages? The advantage is that it is clean energy. It spews nothing into the atmosphere. It is small and compact. There is a reactor core and there are cadmium rods to temper the fission reaction which takes place within. Its biggest advantage is that it is clean. But two problems remain. One is disposal of spent fuel. Whatever radioactive mass remains in the core, the problem is how to remove it and where to put it. They normally put it in lead containers and submerge them deep into the sea. So, there remains the problem of radioactivity spreading. But the biggest problem is with regard to accidents.

Madam, you would know that there have been three major nuclear power accidents in the world. The first accident took place at the Three Mile Island near New York. The second and the most horrible accident took place at a place called Chernobyl in Belarus which was under the Soviet Union and nobody knows how many people died. The latest one was in Japan when the tsunami entered into the nuclear power plant at Fukushima. Japan was totally dependent on nuclear power. Japan and France are two countries which are advanced in nuclear power. After the Fukushima accident, Japan closed down all its nuclear power plants and has not started all of them again.

Safety considerations are very important as far as nuclear power plants are concerned. The Minister must keep all these things in mind – secrecy of our technology and safety of the nuclear plants.

Madam, you would remember that in 2008, Dr. Manmohan Singh signed the Indo-US Nuclear Treaty. After Pokhran-II in 1998, there was a ban on countries to supply nuclear fuel to India. Dr. Manmohan Singh, in order to break that blanket ban, went in for that Indo-US Nuclear Treaty, but the problem remained that to enter into nuclear commerce – to buy nuclear reactors and nuclear materials from other countries – we had to have a Civil Nuclear Liabilities Act to clearly mention that in case of accident, who will take the liability. Such an Act was enacted in 2011.

If I may say, we have had some trading with Russians. Tarapore plant was built with American help. The Russians have built the power plant at Kudankulam in Tamil Nadu, near the southern tip of India at Kanyakumari. Now, Kudankulam has reached the critical mass and is producing electricity. All my friends from Tamil Nadu are very happy about it.

DR. JITENDRA SINGH: It is in Tirunelveli District.

PROF. SAUGATA ROY: Madam, still we are not getting the sort of nuclear trade that we had expected. One of the impediments is the Civil Nuclear Liabilities Act. According to our Act, the main liability for the accident will have to be borne by the supplier, those who are supplying the equipment. They say that there are primary suppliers and secondary suppliers and unless we amend this Act, they shall not come and invest in nuclear technology in the country. I would like to know from the hon. Minister what progress our country has made in nuclear trade and commerce, and in enacting an amended version of the Civil Nuclear Liabilities Act.

Madam, the Minister is taking one further step. It was said that the Department of Atomic Energy controls all nuclear power, Nuclear Power Corporation Limited and BHAVINI – Bharatiya Nabhikiya Vidyut Nigam Limited which has the fast breeder reactor near Mahabalipuram. Now, he is trying to open it up to others so that Indian Oil Corporation which has a big surplus can invest in nuclear field, so that NPTC which is already into

power generation can also participate. There is nothing wrong, but I would like to know this from him. How much confident he is that there they will be able to offer maybe capital, but what expertise can NTPC or IOC offer to nuclear power? How are we going to do nuclear power in the future? Where would we buy our reactors? Where would we buy our nuclear raw materials? How would we ensure the safety of the new power plants, which are being built?

Madam, as I said, this is the 70th year of the destruction of Hiroshima and Nagasaki in a nuclear bomb. The country and the world have made long strides since then. Nuclear energy has seen its ups and downs. Now, after the Paris Summit where we have all promised that we will not let the temperature rise by more than 2°C, fresh thought is coming into non-coal ways of energy production. Definitely, nuclear energy can provide a big fillip to that. I would like to hear from the hon. Minister about the fresh steps that they are taking.

With this, I support the Bill along with my small amendments that I shall push later. Thank you, Madam.

SHRI TATHAGATA SATPATHY (DHENKANAL): Thank you, Madam. The National Atomic Energy (Amendment) Bill 2015 is a small Bill and it seems innocuous enough, but it is actually very serious and needs a lot of thinking if one goes a little deeper, that is, beyond the one and a half or two pages that the Bill contains.

What I understand from it is that the Government is planning to allow only Government-owned companies, in other words, you have said that companies where the articles of association says that Government will appoint the complete Board of Directors. This means a company controlled by only the Central Government can invest in nuclear projects. This also implies that you will be investing vast sums of tax-payers money into production of energy through this source.

India is an energy-starved country and we are very aware of that. We are also aware that production of energy in a green manner is of prime importance. The sad part here is that you are going to invest these huge sums of money in a system where the developed world is moving away from that system and is moving away from production of atomic energy and we are moving into it. Even when the earlier UPA I & II Governments were there, especially, UPA – I towards the end, the BJP was one of the biggest opponents of the Indo-US Nuclear Treaty and we had also voted against it. It is interesting how fast and swiftly people make volte-face when they come to power. This is the magic of the seat. It has nothing to do with ideologies and it has nothing to do with national good or any beliefs. It is that side *versus* this side. We people, with sense and sensibilities, are left in the middle wondering what to do because where goes the country where do you go.

SHRI BHARTRUHARI MAHTAB (CUTTACK): We are consistent.

SHRI TATHAGATA SATPATHY : Yes, absolutely, we are still consistent.

My earlier speaker, the hon. MP from West Bengal, mentioned that the western world is moving away from atomic energy. Germany, by the end of 2012, has already shut down 11 nuclear power plants. France, Germany and even the US have not brought into effect any new nuclear plant in the last 20 years, and they are all stepping down from the production of nuclear energy. Therefore, we come into play because they want to hive off all their unused or under-used or non-usable nuclear power plants to certain other countries, where India becomes the prime mover.

The major problem that all these countries face, which we are going to face in a short while, is the disposal of radioactive material. This industry in India is non-transparent, unaccountable, and it works under a veil of secrecy. Funnily, it works directly under the directions of the Prime Minister's Office and it stonewalls any public or parliamentary over watch. And all this is done under the guise of national security, for which you do not even bring it under the gambit of the RTI Act.

For example, in the case of Kudankulam Power Plant in Tamil Nadu when certain people moved for data, the Department of Atomic Energy refused to send basic information, material such as Site Selection Report and Safety Assessment Reports, whereas these are publicly available in other countries. So, it is actually not a national security issue but you want to keep it stonewalled, you want to keep it under shrouds because you have doubts on your own ability.

As we know Madam, when it is government controlled safety regulations are the first thing that go for a toss. The issue in India is that the nuclear regulator, the Atomic Energy Regulatory Board, monitors the Commission. But the interesting part is that the Board is dependent on the Commission for both its funds and for its manpower. So, you can imagine the police being paid their salary by the robbers, the dacoits. What kind of policing will they do? Here the situation is exactly like that. And this obviously undermines the Board's authority since they are dependent on the same people they are required to supervise.

India has commissioned six European pressurised reactors to be established in the State of Maharashtra with the assistance of the French Government. However, these archaic designs have come under scrutiny from the French regulators themselves in France. But we are going to implement them here and our regulators are incapable of even understanding what is happening. The Government has not thoroughly planned or trained the people on how to act during a crisis. Drills are conducted as a formality and the public is not educated on the threats of a nuclear crisis that could unfurl at any time.

One of the most serious nuclear accidents in India was the one in Narora in Uttar Pradesh on 31 March, 1993. It was a very simple incident but a very interesting incident that highlights how things happen here. Two blades of the turbine broke off because of fatigue. The proper maintenance was not being done. Through a chain of rapid events, this led to a major fire that engulfed the entire turbine building.

Among the systems that got burnt in this fire were four cables, simply four cables. And these cables carried wires and electricity to the secondary cooling unit which is very essential in case of the failure of the first cooling unit. And when the cables were burnt, obviously the second unit did not work. And then it was a huge accident and the rest is known to all of us.

Here, Madam, I will read a little bit from the book called *India's Risks* by Rafael Moore and M.V. Rajiv Gowda. The book talks about democratising the management of threats to environment, health and values. "A related and disturbing indication of the lacunae in India's risk management process is the frequent failure of safety devices. There are the mechanisms that seek to control the reactors under unanticipated circumstances. Therefore, if these do not work as expected, then it is more likely that a small event could cascade into a major accident".

Here, they narrate a very interesting story:

"Once in a while the callousness of the authorities come back to bite them as it were. On one occasion in the mid 1960s, an underground tank at the Trombay reprocessing plant which was used to store irradiated fuel rods became severely contaminated. The water was pumped out into the sea and a very high level of radiation built up close to the shore. What happened after that is best described by someone who was part of the DAE at that point (this is quoting from that person):

"The next day the canteen waiters of the plutonium plant who usually used the shore for ablutions, were severely contaminated. Unaware of this, they served in the canteen and passed on the contamination to the technicians who carried it into the labs. Radiation monitors in the labs went haywire due to the very high levels of nuclear radiation they were exposed to. It was only after a great deal of effort that the problem was traced back to the plutonium plant. Thereafter, Health Physics safeguards inside, outside and around the plutonium plant were stepped up sharply. But [Homi] Sethna [who succeeded Bhabha as AEC Chairman] opposed this continuously. As a result, one of the last office orders [first AEC Chairman Homi] Bhabha wrote to A.S. Rao (who was in charge of the Health and Safety Division in BARC) directed him to reassign a certain engineer from the plutonium plant as the latter was being too tough about strict compliance."

So, this shows that even our officials are unwilling to take risks and are unwilling to take care of the basic safeguards.

To sum up, the NDA Government had planned a transparent process but even now the sector comes under the shroud of secrecy. The NDA Government had promised a higher cap on liability and non-dilution of supplier liability. However, this has been turned in favour of the corporations by having a lower amount cap and a five year limited period liability.

In September, 2013, one of their senior Ministers Shri Arun Jaitley in a statement on diluting nuclear suppliers' liability had very clearly stated on record under Civil Liability For Nuclear Damages how the UPA led Government step would prove detrimental to the country in case of a nuclear disaster. So, when their own Ministers agree that giving over this sort of a thing to exclusively government-run agencies could be detrimental to the interests of the people of this country, I wonder why the Government is going ahead with this small but very dangerous Bill. Handing over the ownership and operations exclusively to government-controlled companies may help in keeping things under a shroud but history tells us that government operators function in a fashion that behoves a normal department which is behaving like a *tehsildar*, BDO or Collector whereas nuclear energy requires a kind of strict vigil which our government companies are incapable of. So, I would suggest the Government that they should take a rethink not only on this particular Bill but also on nuclear energy to be produced in this country in the future. We have to have a rethink on a national level and have a debate with experts and involve every quarter and rethink whether this is going to be good for India or it will be bad for India in the long run.

Thank you.

श्री विनायक भाऊराव सऊत (स्नानिगिरी-सिंधुदुर्ग) : सभापति महोदया, मैं परमाणु ऊर्जा संशोधन विधेयक, 2015 पर अपने विचार व्यक्त करने के लिए खड़ा हुआ हूँ।

महोदया, इस देश में बिजली का जितना उत्पादन है, उसमें न्युक्लियर एनर्जी के माध्यम से जो उत्पादन हो रहा है, वह बहुत ही मामूली है। खास कर सस्ती बिजली प्राप्त होने के लिए अणुऊर्जा को स्वीकार करने का एक कारण है। ऐसे ही सरकार के माध्यम से कई बार कहा जाता है। इसीलिए इस विधेयक के माध्यम से भविष्य में स्वदेश और परदेश के माध्यम से इस देश में कई जगहों पर अणु ऊर्जा का निर्माण करने का प्रयास सरकार के माध्यम से हो रहा है। इस बिल में स्पष्ट किया है, जो बिल के ऑब्जेक्ट्स और रिज़ंस हैं, उनमें सरकार ने लिखा है कि

"Formation of joint venture companies by NPCIL with other PSUs of India for civil nuclear power projects is under consideration."

यानि एनपीसीआईएल और पीएसयूज़ के जो ज्वाइंट वेंचर करने वाले हैं, तो जो-जो, जहां-जहां इस न्युक्लियर पावर प्रोजेक्ट का निर्माण करने वाले हैं, वहां के प्रोजेक्ट के लिए एडिशनल फंडिंग, requirements for expanding nuclear power programme and augmenting the nuclear power generation capacity of India. इसलिए इस ज्वाइंट वेंचर कंपनी का निर्माण करने के लिए सरकार ने सोचा है।

महोदया, न्युक्लियर पावर के बारे में आज कई भ्रम हैं। कई लोगों को शंका है, कई लोगों ने पूछा निर्माण किए हैं, कई जनों ने न्युक्लियर पावर प्रोजेक्ट का समर्थन किया है लेकिन बहुत से लोगों ने यह आशंका व्यक्त की है कि न्युक्लियर पावर मानवीय जीवन के लिए घोषादायक निर्माण हो सकता है, ऐसे बार-बार कहा है। लेकिन दुर्भाग्य से सरकार ने आज तक जनता के दिल में न्युक्लियर पावर प्रोजेक्ट के बारे में जो डर है, उस एरिया में डर जैसा जो वातावरण निर्माण हुआ है, उसके बारे में लोगों के समाधान कैसे हो सकते हैं, ऐसी अपनी भूमिका स्पष्ट करने में आज तक सरकार नाकामयाब हो चुकी है। यह दुर्भाग्य से मैं कह सकता हूँ। महोदया, ग्लोबल वॉर्मिंग का तो अभी क्या हालत हो रहा है, यह सब लोग जानते हैं, लेकिन जिस न्युक्लियर पावर प्रोजेक्ट के बारे में, यानि सस्ती बिजली तैयार करने के लिए, जिस तरीके से भारत ने दुनिया के कई देशों के साथ अभी जो एग्रीमेंट किए हैं, करार किए हैं, उनके साथ समझौते किए हैं, उससे साबित हो रहा है कि भविष्य में इस न्युक्लियर पावर प्रोजेक्ट में, ज्वाइंट वेंचर के माध्यम से कई अन्य देश वाले हैं। आने दो, लेकिन दुर्भाग्य से कई देशों की जो कंपनियां हैं, उनके बारे में कई पूछा निर्माण हो चुके हैं। जैसा कि हमारे महाराष्ट्र के जैतापुर में फ्रांस के माध्यम से न्युक्लियर पावर प्लांट लगाने के लिए शासन सोच रहा है। लेकिन फ्रांस की जो अरेवा कंपनी है, उसके बारे में कई पूछा अभी निर्माण हो चुके हैं। एक तो यह ब्लैकलिस्टिड कंपनी है। उसके जो ऑपरेशन हैं, उसके बारे में दुनिया के सारे लोगों ने कई पूछा निर्माण किए हैं। जहां-जहां अरेवा कंपनी गई है, असुरक्षित काम हुआ है, यह उस कंपनी की खासियत है। जैसा कि मंत्री महोदय ने कहा है, माननीय तथान्त जी ने अभी सही वरीयज्ञ खड़ी की है कि खास कर के न्युक्लियर पावर प्रोजेक्ट में सुरक्षा एक मेन प्रावधान होना चाहिए। जिस कंपनी ने सुरक्षा के बारे में कुछ सही तरीके से ध्यान नहीं दिया है, दो-दो यूनिट के बारे में जिस तरीके से ध्यान रख कर उसका ऑपरेशन सही तरीके से करने के लिए, जो कंपनी असफल हो चुकी है, उस कंपनी के माध्यम से वहां के लोगों के जीवन पर बुरा असर हो चुका है। मैं मंत्री जी से विनती करना चाहता हूँ कि महाराष्ट्र के जैतापुर में, जहां आप न्युक्लियर पावर प्रोजेक्ट लगाना चाहते हैं, न्युक्लियर पावर प्रोजेक्ट पर हमारा विरोध नहीं है, लेकिन जिस जगह पर आप लाना चाहते हैं और जिस कंपनी के माध्यम से आप लाना चाहते हैं, उसके लिए हमारा विरोध जरूर है।

16.00 hours

वर्षों के जैतापुर जैसा एरिया, आज भी वहाँ अर्थवैक उसके आजू-बाजू में होते रहते हैं। अर्थवैक जोन 4 में जैतापुर एरिया है, ऐसी जगह पर न्यूक्लियर प्रोजेक्ट ताना, यानी सस्ती बिजली और भविष्य में उसका महंगा परिणाम हो सकता है। आज शिवसेना ने जैतापुर का विशेष इर्सीलिए किया है। जैतापुर का माडबन हो, रत्नागिरि हो या राजापुर हो, वहाँ के लोग पूरा उठाते हैं, परसों 12 तारीख को लोगों ने विशेष भी किया। पहले तो लोगों को 70 हजार रूपए दे रहे थे, बाद में कई लोगों ने, शिवसेना ने भी आंदोलन किया, कई लोगों की जान गई, उसके बाद सरकार ने डायरेक्ट साढ़े 22 लाख रूपए देना शुरू किया, एक जान जाने के बाद, कई लोगों के जेल जाने के बाद, तो मेरा सवाल यह है कि अगर एक जान जाने के बाद अगर साढ़े 22 लाख रूपए वहाँ के लोगों को देने के लिए शासन तैयार हुआ तो शुरूआत में ही यह योजना क्यों सामने नहीं आ गई, वहाँ 70 हजार रूपए क्यों दे रहे थे? वहाँ के लोग अभी बोल रहे हैं कि जिनकी जमीन है, उसको आप पैसा देते हैं, लेकिन जिनका व्यवहार पूरे समुद्र के ऊपर चलता है, वहाँ हजारों की संख्या में जो मछुआरे हैं, उनका तो पूरा व्यवहार समुद्र के ऊपर है, उनके लिए आप क्या करने वाले हैं? यह बात तो कई साथियों ने रखी है कि न्यूक्लियर पावर प्रोजेक्ट के बाद जो पानी आप समुद्र में फेंकने वाले हैं, उससे समुद्र का टेम्परेचर तो बहुत बढ़ाई होने वाला है। उस टेम्परेचर के बढ़ने के बाद समुद्री जीवों के ऊपर विपरीत परिणाम होगा। ऐसे में जो मछुआरे वहाँ लाखों की संख्या में हैं, जिनके ऊपर उनके जीवन का व्यवहार चलता है, वह उनसे दूर हो जाएगा, ऐसे लोगों के लिए, ऐसे मछुआरों के लिए आपने क्या सोचा है, क्या प्रवधान उसमें किया है, यह भी आज तक स्पष्ट नहीं हुआ है। मेरी जो सबसे पहली बात थी कि रत्नागिरि जैसे एरिया में आज भी 17 अलग-अलग विद्युत प्रोजेक्ट वहाँ काम कर रहे हैं। उसकी वजह से वहाँ के समुद्री जीवों के ऊपर परिणाम पड़ चुका है। वहाँ के आम उत्पादक जो किसान हैं, उनके प्रोडक्शन के ऊपर परिणाम हो चुका है। वहाँ के अन्य जो-जो फल हैं, उनके ऊपर परिणाम हो चुका है। जैतापुर में आप दस हजार मेगावाट का पावर प्रोजेक्ट जब खड़ा करेंगे, हम वहाँ के जनप्रतिनिधि हैं, जैसे हमारे सत्पथी साहब ने कहा कि अगर सुरक्षा के बारे में कम्पनी ने कोई ध्यान नहीं दिया, आखिर यह फ़ॉस की अरेवा कम्पनी है, अगर इस अरेवा कम्पनी के डायरेक्ट बोर्ड में या कम्पनी के आपरेशन में अगर उनकी गलती हुई और गलती के कारण विपरीत परिणाम हुए तो उसके लिए जिम्मेदार कौन हो सकता है? मंत्री महोदय जी ने अपने निवेदन में कहा है अगर कम्पनी के माध्यम से कोई सही तरीके से सस्ता नहीं अपनाया गया तो सरकार ने अपना अधिकार रखा है, उनका लाइसेंस रद्द करने का प्रवधान उसमें रखा है, लेकिन उससे साफ नहीं हो रहा है। जो कम्पनी है, जैसे मैंने बताया कि फ़ॉस की अरेवा कम्पनी, जो अच्छी कम्पनियाँ हैं, जिनका अच्छी तरह से व्यवहार चलता है, वह तो समझ सकते हैं, उनके साथ ज्वाइंट वेंचर कम्पनी करके न्यूक्लियर पावर प्रोजेक्ट आप कर सकते हैं, लेकिन ब्लैक लिस्टेड हुई अरेवा कम्पनी के साथ अग्रीमेंट करके, ऐसी ब्लैक लिस्टेड कम्पनी के एक घोसा निर्माण करने के कारण भारत में, महाराष्ट्र में, जैतापुर में सरकार देती है तो मुझे लगता है कि सरकार को उसके ऊपर सोचने की जरूरत है।

महोदय, जैतापुर के अणु ऊर्जा के बारे में दो-तीन शास्त्रविज्ञों को छोड़कर बाकी के कई जाने-माने शास्त्रविज्ञों ने उसके विपरीत परिणाम सरकार के सामने रखे हैं और सरकार को कहा है कि इस जगह पर अणु ऊर्जा प्रकल्प ताना, जैसा मैंने पहले कहा कि अभी चार महीने पहले साढ़े पाँच रिफ़क्टर स्केल का भूकम्प सतारा में आया, गोवा में आया और उसके 100 किलोमीटर की परिधि में आ चुका है। यानि भविष्य में इस जैतापुर अणु ऊर्जा प्रकल्प ताने के पहले सरकार को एक बार और सोचना चाहिए, बार-बार सोचना चाहिए, लोगों के दिल में जो डर पैदा हुआ, उसके बारे में सोचना चाहिए। अनेक शास्त्रज्ञों ने जो जैतापुर के बारे में सरकार के सामने रिपोर्ट रखी है, उसके बारे में सोचना चाहिए। किसी भी हालत में अणु ऊर्जा निर्माण न करें, ऐसी हमारी भावना नहीं है, लेकिन रत्नागिरि के जैतापुर जैसे डेंजरस जोन में घोसादायक स्थिति में जो भाग है, वहाँ अणु ऊर्जा नहीं होनी चाहिए, यह हमारी मांग है।

यही मांग मैं यहाँ रख कर मैं अपना विचार समाप्त करता हूँ। धन्यवाद।

SHRI JAYADEV GALLA (GUNTUR): Madam, I thank you for permitting me to speak on this Bill which will pave the way for meeting the energy mismatch in the country which is very crucial for inclusive growth and also helps in taking the country forward.

We all know that nuclear power has been the exclusive domain and monopoly of NPCIL since we became independent but this Bill breaks that shackle and permits other PSUs, particularly power PSUs such as the NTPC, NHPC and POWERGRID which are not subsidiaries of the Department of Atomic Energy, to invest in nuclear energy production in the country.

16.07 hours (Shri Hukmdeo Narayan Yadav *in the Chair*)

I think, the genesis of this Bill emanates after the Government turned down the proposal worth Rs. 12,000 crore from NALCO which wants to be a partner of NPCIL in the construction and operation of one nuclear reactor. After the refusal, the situation has become ridiculous that even the Government itself cannot invest in its own company. It is all because of the highly restrictive laws surrounding the nuclear activity in the country.

Now, with the passage of this Bill, the Department of Atomic Energy achieves the twin objectives of not only opening doors for our PSUs to invest in atomic energy production but also gets investment for which it is screaming over the years.

But here, I have a question to ask. Why is the country still clinging to an archaic notion of secrecy on its nuclear activities? I feel that it will only dampen the entrepreneurial skills and spirit of private entrepreneurs who want to venture into this sector and contribute whatever little they can to boost an important component of infrastructure in particular and economy in general. Even after the passage of this Bill, the private sector is not permitted because the Government wants that all the talents of the country should come under its umbrella which, to my mind, stifles the growth needed in clean and safe nuclear technology that we need. The 'umbrella' of the Government is so small and limited that it cannot accommodate India's nuclear talent in its fold. I am saying this because now the private sector is permitted to supply only components for nuclear reactors thereby putting brakes on opportunities, innovation, investment which, I think, is done with the sole objective to eliminate competition in this sector. It is happening only in India.

If you look at other countries, you may find that there are many private companies which are involved from Uranium mining, processing and enrichment to actual operation of nuclear plants and its waste disposal.

I can give you some examples. You have Energy Resources of Australia. It produces 11 per cent of the world's Uranium production. Cameco from Canada produces 19 per cent of the world's Uranium production. You have Skoda Praha of Czech Republic which is working in EPC, nuclear engineering and construction of plants. Then, we have Areva from France and a host of companies in Germany, US, Russia, etc. This august House will be surprised to know that even Reliance Industries's Chief, Shri Mukesh Ambani, has a stake in Bill Gate's Terra Power and is a part of the Board of Directors. This was announced in the recent Paris Climate Conference and Terra Power has also gone on record to say that renewable energy like sun and wind cannot be the total solution for clean energy in this world because the world needs energy even when the sun does not shine and even when the wind does not blow.

So, nuclear energy cannot be wished away and it is the only other form, other than renewable energy, to derive at clean and relatively safe energy. Safety has been discussed a lot by many Member of this House till now. But I would like to just use an analogy between air travel and road travel. It is because if you take coal-based power plants and nuclear-based power plants, even on per unit basis, I would say that the number of lives lost due to nuclear energy is far lower than the number of lives lost due to coal-based power plants. It is something like air travel and road travel. Yes, we have air accidents. But the number of travellers that die because of air accidents is far fewer, even as percentage, than that of the

road accidents. We must remember that and we should not condemn nuclear energy just like that. It is a very important part of the energy security of this country.

The point that I am trying to drive at is the private sector in the country is interested to enter into this new and challenging sector. It can be permitted with appropriate regulatory framework which stimulates competition and harnesses large pool of capital which will help to achieve the goal set by the hon. Prime Minister for this sector. I would request the Government of India to revisit this whole approach and take a positive view on this.

Our nuclear power accounts for just 3.5 per cent of our current electricity generation. The present generation is about 5,800 megawatt. And even if we achieve the Prime Minister's goal of tripling nuclear power by 2024, nuclear power generation to the total power generation would be only around five per cent. If we look at some of the other major economies in the world, 16 per cent of Canada's power is nuclear; 73 per cent of France's power is nuclear; for Korea it is 27 per cent; for Russia it is 17 per cent; for Spain it is 19 per cent; for Sweden it is 42 per cent; and for Switzerland it is 36 per cent. If we look at U.S and Russia, where two of the major accidents have occurred, Russia accounts for 17.5 per cent and United States accounts for 19.4 per cent. So, I think it would be more pragmatic to look at a target of 20 per cent for nuclear power for India. I think that would be a practical approach and I would urge the Government to look at 20 per cent of total power coming from nuclear power as a target.

The next point that I wish to make is about nuclear liability. This very House passed the Nuclear Liability Bill in 2010. But due to some of its provisions relating to liability of the supplier, we are not getting the foreign reactors as we expected. We are given to understand that during the last year's visit of the US President to India, there was some agreement between India and the US. But, even after nearly one year, we do not know what transpired between the two Heads of States. I would like to know from the hon. Minister what is going on and what we are going to do with the liability clauses in the Act.

I have one or two small points to make and then I am done.

Uranium is the primary source for nuclear power. Countries like Canada, Kazakhstan, Argentina, Namibia, Australia and Mongolia are the main suppliers of uranium. Recently the hon. Prime Minister has also visited Mongolia. We have entered into agreements with Canada, Kazakhstan and Australia. But no tangible quantity of uranium is coming from these countries. So, I want to know what the Government of India is doing to get uranium from these countries.

The next point is, domestically Andhra Pradesh is having the highest amount of uranium deposits in the country as per the Uranium Corporation of India. As per the preliminary estimates, there are deposits to the tune of 5,000 tonnes at Koppunuru in my Guntur District and nearly two lakh tonnes at Tummalapalle in Kadappa District. So, I would like to know from the hon. Minister what Atomic Minerals Directorate for Exploration is doing to explore uranium and how you are trying to allay the apprehensions in the minds of the local people about the health hazards that are attached to uranium exploration.

Finally I would like to know about the progress that is being made in setting up of Kovvada 3,000 megawatt nuclear power plant in Srikakulam, Andhra Pradesh. It has been five to six years since the plant has been announced. Much efforts have been made to convince the local people and everyone else about the safety and the necessity for such a plant. But no progress has been made and no information is available in terms of what is expected to be done here. Please explain whether the Ministry is going to set up the plant or not or it is going to be shelved.

With these words, I thank you once again for giving me this opportunity. Thank you.

SHRI KONDA VISHWESHWAR REDDY (CHEVELLA): Mr. Chairman, thank you for this opportunity.

In Paris, the International Atomic Energy Agency presented a case, recently concluded at CoP 21 that atomic energy must be considered as a sustainable energy. Like my friend, Shri Jayadev Galla said, it is not only sustainable but it is also very safe energy.

The International Atomic Energy Agency expressed its willingness to promote nuclear energy in developing countries in Africa and Asia to improve energy efficiency and accessibility in these regions. Yes, Sir, we are an energy deficit nation and we cannot afford not to have nuclear energy. We welcome this Bill and we support this Bill.

The amendment of section (2) of the 1962 Act states that the 51 per cent of the paid up share capital of the company operating the power plant can be held by one or more Government agencies. Now, Sir, I seek some clarifications and put some questions also. Within this 51 per cent, all the 51 per cent or how much can the PSUs own or how much can the Central Government own directly? That is one question.

Secondly, since we are privatising the PSUs, can the private companies invest in the PSUs? Can foreign companies invest in the PSUs up to a limit of 49 per cent? Or, does it mean that we are limiting foreign and private investment to 49 per cent? Or is it 49 per cent direct investment and 49 per cent of 51 per cent indirect investment taking the overall private or foreign investment to 73 per cent? So, that is something on which we need clarification from the Ministry. We definitely need to facilitate investment. We need to facilitate even foreign investment but definitely, Sir, we should not facilitate foreign influence.

There are many reasons. It is very import to know this. In the backdrop of the Thorium-Uranium debate, India has much more Thorium than most of the countries and much more Thorium than Uranium. We feel there has been some influence on us. While our scientists are promoting Thorium and we have the capacity for R&D, we feel we are being slowly nudged to Uranium based ones. The entire nuclear fuel for the country is produced in Hyderabad. We produce twice as much as what the country requires. Yet, we import Uranium probably because their reactors cannot use our fuel. It baffles me why we are buying Uranium from Australia, Belarus and so many other countries? It also assumes significance in the backdrop of our "Make in India" campaign. Why are we importing Uranium? More importantly, why are we being nudged in a direction where we

have to import our power plants?

Dr. Homi J. Bhabha then itself predicted that we would have all the technology and expertise to make all the nuclear power plants whether it is fission or fusion or Fast Breeder or Thorium-Uranium. We do have the technologies. But they are different models. Some models use that type of fuel and some models use this type of fuel. So, we should accept foreign investment but we should not accept foreign influence.

Telangana and Andhra Pradesh both stand to gain, particularly Telangana. I say this because 50 per cent of the Uranium in this country is in two districts – Nalgonda and Cuddapah in Andhra Pradesh and, of course, some in Guntur. So, both the States stand to gain but Telangana will stand to gain much more because we are a power-deficit State and we need the power. We are in a seismically stable region. We have no tsunami or floods. We really look forward to the day when nuclear power plants come up and solve all the power problems of the country.

It was planned that there would be 62 mostly Thorium reactors by the year 2025. But, once again, as I said earlier, we are importing mostly Uranium. We made deals with Australia, Canada, France, Kazakhstan and Uzbekistan. But more surprisingly I have the WikiLeaks information which shows that we have the Nuclear Non-Proliferation Treaty in the past and getting nuclear fuel was very much difficult because Uranium can be enriched and converted to weapons grade and so on. But strangely, the very same people, according to WikiLeaks, who opposed this which is the United States, are now secretly promoting and facilitating the deal between India and Australia. So, the eagerness of the United States seems to be more than our own Government! That eagerness raises certain suspicions and those suspicions are really these. We become fully dependent on them for nuclear technology, for nuclear fuel and our R & D is being compromised. Definitely, in the backdrop of 'Make in India' we know what is good for India.

Sir, I want to have one important clarification from the hon. Minister as to whether it is 49 per cent direct investment. I do not think any PSU, in the recent future, will sell 49 per cent of the stake. But theoretically, can they indirectly own 73 per cent? Now, the Board of Directors are appointed by the Central Government. Definitely whoever has the authority will be influenced by people who invest money. If I invest 49 per cent, I pressurize for a Board seat and if the Central Government approves, I also get a Board seat with the stamp and approval of the Central Government.

With these words, we support the Bill. But these are some of the things which we need to look into in detail. Thank you.

SHRI M.B. RAJESH (PALAKKAD): Mr. Chairman, Sir, I thank you for allowing me to speak on this important Bill. This Bill proposes to amend the Atomic Energy Act, 1962. It seems that the Government wants to promote nuclear plants and nuclear industry and it appears that the Government wants speedy clearances to nuclear power plants.

This Bill allows the formation of joint ventures between the Nuclear Power Corporation and other Government companies. The Minister has stated that the nuclear industry will continue to be in the domain of the Government. We insist that this should continue to remain in the domain of the Government and there should not be entry of private capital and FDI into this sector. That will compromise our national interest.

Sir, under this Act, a licence is required for acquisition, production, use, export and import of any plant design for the production and development of atomic energy or research. As explained by the hon. Minister, the Bill makes a consequential amendment to state that such licences will only be granted to entities such as a Government company or a department of Central Government. We expect that it will be an adequate safeguard. The Bill further states that any licence granted for matters such as producing atomic energy and acquiring and using substances or minerals from which atomic energy can be obtained will be cancelled if a licensee ceases to be a Government company. That means, there is a provision for cancellation of a licence in case the licensee ceases to be a Government company. These provisions are acceptable and, on behalf of our party CPI (M), I would welcome these provisions.

I would like to make it clear that we are not opposed to nuclear energy. Even when we oppose the Civil Nuclear Agreement between India and USA and even when we continue to oppose the new Civil Nuclear Agreement between India and Japan, we would like to make it clear that we are not opposing nuclear energy. We had opposed the 123 Agreement and the experience has shown that our opposition was correct. The arguments which we had raised at the time of nuclear agreement with the United States, all those arguments have proved to be true. Our opposition was due to some political and economic reasons that have already been explained several times. I do not want to go into the details why we opposed the nuclear deal with the United States. But the issue is this. That does not mean that we are opposed to nuclear energy. As Communists, our position is that the advances of science and technology should be utilized to the common good of our society. That is our position. We should not turn a blind eye towards the advances of science and technology.

Sir, at the same time, we should acknowledge and recognize the global trends especially in the field of nuclear energy. Of course, we cannot avoid or we cannot completely ignore the potential of nuclear energy. But, at the same time, we should not be under the illusion that this can be the main source, the major source of our energy. Nuclear energy cannot be India's major source of energy and it should not be.

At the end of March, 2014, share of nuclear energy in India's total energy generation was only 1.68 per cent or 14.78 GW. This is the share of nuclear energy in India's total energy generation.

We should not ignore the world-wide trend. The World Nuclear Energy Status Report released on 15th July, 2015 states how Japan went without nuclear electricity for a full year. That Report states that for the first time in 50 years, since the first nuclear power plant started in the country 50 years ago, Japan was without nuclear electricity and no lights went out and, indeed, without any operating industrial nuclear facility or even research reactor. This is the experience of Japan. In 2010, Japan had 15 reactors. Now, in 2014, it has come down to just three. I am quoting this from the World Nuclear Energy Status Report, 2015. What is the French experience? The French draft Energy Bill, passed by the French National Assembly, stipulates reduction of the nuclear share from three quarters to about half by 2025. Share of nuclear power in global electricity is less than 11 per cent for a third year in a row. So, these are clear indications.

Eight countries which include three of the world's four largest economies, China, Japan and Germany, generate more electricity from non-hydro renewables than from nuclear power. Three of the four major economies in the world produce more electricity from non-hydro renewables than from nuclear sources. UK's power generation from renewables overtook output from nuclear sources. After reaching peak production in 2007 in the United States, the US nuclear capacity has been undergoing constant reduction. This was the experience of the United States.

Compared to 1997, when the Kyoto Protocol was signed, in 2014 both wind and solar power exceeded the power added by nuclear sources. All these are clear indications of nuclear energy becoming a much lesser source of energy throughout the world. This was the experience of Japan, France, Germany, Spain, U.K. and even the United States.

Sweden started the initiative in 1980s to shift from nuclear sources to other sources and it was followed by Italy, Belgium, Germany, Austria and Spain. So, this was the global experience. So, we should not turn a blind eye towards this global experience of shifting from nuclear sources to other sources.

In such circumstances, the Government of India, I think, is investing heavily on nuclear energy and want to promote nuclear energy as a major source of our energy. That is a flawed policy, and I do not think that it is acceptable. We are not against nuclear energy and we do not want that we should completely ignore and neglect the potential of nuclear energy. That is not our position but the major source should not be nuclear energy. We should explore other sources especially in a country like India, where untapped hydro potential is enormous. So, we should explore such untapped hydro potential more.

I would like to insist again that this should continue to be in the domain of the Government, and there should not be FDI and private capital.

With these words, I conclude my speech. Thank you very much.

SHRI Y.V. SUBBA REDDY (ONGOLE): Hon. Chairperson, Sir, I would like to thank you for giving me this opportunity.

The Bill proposes to amend the Atomic Energy Act, 1962, which empowers the Central Government to produce, develop, control and use atomic energy.

Hitherto, a Government company was a company in which 51 per cent of the total paid-up share capital is held by the Union Government.

The first amendment proposes to expand the said definition to mean a company in which the whole of paid-up capital is held by one or more Government companies and whose Articles of Association empower the Central Government to constitute its Board of Directors.

I believe, this provision will allow for the formation of joint ventures between the Nuclear Power Corporation of India Limited and other Government companies.

The second amendment makes consequential amendments to provide that such licence will only be granted to a Government company or a Department of the Central Government, which effectively implies that only Government companies can enter the field of atomic energy.

With all the tall talk over the last fifty years, India hardly has reached 5,000 MW of nuclear power installed capacity, which is a pittance compared to our growing requirements. Even according to forecasts, we are going to, at best, add another 5,000 MW in the next five to six years. Well, there could be genuine reasons such as sanctions for over three decades. This was overcome with the signing of 123 Nuclear Agreement with the US in the year 2009.

However, the fundamental incompatibility between India's civil liability law and international conventions has been slowing down our efforts. The sooner we find a solution to this the better.

Sir, because of growing safety concerns, the capital cost per Mega Watt of installed capacity has been going up phenomenally. It is, if my information is correct, going to be Rs. 15 crore to Rs. 20 crore per MW for all upcoming power projects. The fuel charges are, of course, lower than that of coal and gas. It is time that the country took stock of where we stand vis-à-vis the nuclear power.

What is not understood, however, is the reason for not encouraging private sector in this field. India is one of the leaders of the thorium revolution. An international magazine has recently observed, and I quote:

"Given the importance climate change has assumed on the Indian agenda, it would be foolhardy not to find synergies between Indian interests and the several promising international private ventures. Collaboration on various research projects can improve upon India's existing technology, save time developing proficiency in some aspects, and hasten the launch of India's thorium reactor fleet."

Clearly, there is interest among Indian big business leaders to enter into the new and challenging sector that holds a lot of opportunities. With appropriate regulatory framework, private participation in nuclear energy can stimulate completion and harness large pools of capital in service of national development goals. The first step, however, would be to stop the step-motherly treatment of private players in the nuclear sector.

Another area where the country has not fully exploited the potential is in nuclear medicine. We should encourage research in this important medical specialty involving application of radioactive substances in the diagnosis and treatment of many diseases like cancer.

I thank you, Mr. Chairman, Sir, for giving me this opportunity as it helps me to raise an important issue concerning my Constituency. I am saying this because I had written a letter to the hon. Minister as to why the Government of India and the Government of Andhra Pradesh

are deciding to shift 6000 MW of nuclear power plant from Haripur in West Bengal to an area in Prakasam-Nellore Districts in Andhra Pradesh. They are doing this in view of the West Bengal Government's outright rejection of the nuclear plant there. The plant is proposed to be set up in collaboration with Russia's Rosatom in Andhra Pradesh. It was reported in the media that the Director of the Nuclear Power Corporation of India Limited and the Chief Engineer of the Nuclear Power Corporation of India Limited have inspected the site and the Nuclear Power Corporation of India is in the process of setting up of the Site Selection Committee also, which will inspect the proposed site and submit a Report to the Government. I had written a letter about this to the hon. Minister. Sir, kindly look into this and give some further information about this project.

With these few words, we support this Bill. Thank you.

श्री विन्तामन नावाशा वांगा (पालघर): सभापति महोदय, मैं प्रधानमंत्री और ऊर्जा मंत्री जीतेन्द्र सिंह जी के प्रति आभार व्यक्त करता हूँ कि देश के हिसाब से अति महत्वपूर्ण बिल को सदन में प्रस्तुत किया है। सदन में कहा गया कि यह छोटा अमेंडमेंट है लेकिन मुझे लगता है कि this is a very important Amendment as far as this country is concerned. तारापुर अणु शक्ति ऊर्जा केंद्र देश का पहला ऊर्जा केंद्र है और वह मेरे क्षेत्र में है।

16.39 hours (Hon. Deputy-Speaker in the Chair)

वर्ष 1971 में स्वर्गीय इंदिरा गांधी जी के हाथों से इसकी ओपनिंग हुई थी। इस एटोमिक पावर स्टेशन के बारे में कहा जाता है कि अगर यह हमारे गांव में शुरू होगा और अगर लीकेज हो गई या कुछ और दुर्घटना घट गई तो हमारा क्या होगा। मैं एमपी होने के नाते, मैं पहले एमएलए भी था, कई बार तारापुर एटोमिक पावर स्टेशन पर विजिट किया। जब से यह संयत्न लगा है तब से अभी तक एक भी एक भी कर्मचारी को किसी तरह का नुकसान नहीं हुआ है। वहां आस-पास रहने वाले लोगों में से भी किसी को आज तक नुकसान नहीं पहुंचा है। इससे डरने की बात नहीं है। स्वतंत्रता के बाद 1953 में एटोमिक एनर्जी डिपार्टमेंट का निर्माण करना पड़ा। देश में कानून भी लाना पड़ा लेकिन देश में एटोमिक पावर से बिजली का उत्पादन वर्ष 1970 में शुरू करना पड़ा। आज भी हम देखते हैं तो देश में 21 एटोमिक पावर स्टेशन के रिपेटर सेंटर्स हैं। अभी तक 7580 मेगावाट बिजली की पैदावार इनसे हो रही है। बिजली इतनी कम पैदा हो रही है, इसका अगर हम हिसाब देखेंगे तो देश में जो एटोमिक पावर स्टेशंस हैं जैसे काकरापार है इसकी टोटल एस्टीमेटेड कॉस्ट 12 हजार करोड़ रूपयों के ऊपर है और कुलोंदो एटोमिक पावर स्टेशन की प्राइज 17 हजार करोड़ रूपए से ज्यादा है। राजस्थान के एटोमिक पावर स्टेशन की एस्टीमेटेड कॉस्ट 12 हजार करोड़ रूपए से ऊपर है।

अभी यह कानून इसलिए लाना पड़ा क्योंकि एटोमिक पावर स्टेशन शुरू करना है, इसके लिए इन्वेस्टमेंट की बड़ी जरूरत है। इसमें नाम तो रहेगा गवर्नमेंट कंपनी, लेकिन इसमें सरकार का इन्वेस्टमेंट 51 पैसेट रहेगा और 49 पैसेट, जो इसमें इन्वेस्टमेंट करना चाहता है, उसका रहेगा। हमें बिजली तो चाहिए, लेकिन इसके लिए एटोमिक पावर स्टेशन बढ़ाने की जरूरत है। इसके लिए इसमें इन्वेस्टमेंट की जरूरत है और यह पूरी हो जाएगी, ऐसा मुझे लगता है।

आज मुझे याद आता है कि एटोमिक एनर्जी के गॉड फादर डॉ. होमी भाभा जी हैं, जिनका एक्सीडेंट के कारण निधन हो गया। यदि ये आज होते तो आज एटोमिक पावर के बारे में तस्वीर कुछ और होती, इसमें बहुत प्रोग्रेस होता। मैंने श्री काकोदकर जी के साथ तारापुर पावर स्टेशन में कई बार विजिट किया है। इसे अभी हम नये ढंग से शुरू करना चाहते हैं, इसलिए इसमें अनुसंधान होना चाहिए, ऐसा मुझे लगता है। इसमें बिजली का उत्पादन बढ़ाने के लिए ज्यादा से ज्यादा इन्वेस्टमेंट करने के लिए इस ओर कई कंपनियों आएंगे, इसके लिए प्रोत्साहन भी दिया जाना चाहिए। लोगों को जो डर लगता है कि हमारे यहाँ एटोमिक पावर स्टेशन शुरू होगा, तो हमारा क्या होगा। मैं अपने नागरिकों से रिवेस्ट करूँगा कि यदि उनको डर लगता है, तो आप तारापुर में आकर देखिए। वहाँ के लोगों का जो एक्सपीरियंस है, वह भी लोगों को जानना चाहिए, ऐसा मुझे लगता है।

तारापुर एटोमिक पावर स्टेशन देश के लिए एक एग्जाम्पल है। देश के लोगों को दिखाने के लिए यहाँ का जो एक्सपीरियंस है, उसे भी देखना चाहिए।

***SHRI P.R. SUNDARAM (NAMAKKAL):** Hon. Deputy Speaker Sir, Vanakkam. I pay my regards and thank Hon. Chief Minister of Tamil Nadu Dr. Puratchithalaivi Amma for allowing me to take part in this discussion on "The Atomic Energy (Amendment) Bill, 2015".

Ancient Tamil Poet Avvaiyar praised the importance of Thirukkural several centuries ago. She said, "*Thirukkural is so compact with rich wisdom penetrating even the minute particle called atom and wide knowledge that can spread to seven seas.*" It is worthwhile to mention that even ancient Tamil poets had thorough knowledge of fission and fusion of atoms.

The government has brought several clauses for setting up of nuclear plants and entering into agreements relating to nuclear reactor in this Amendment Bill. The present Amendment Bill provides for financing mega nuclear power projects and allows joint venture projects between the Department of Atomic Energy and other Public Sector Undertakings aimed to carry forward the nuclear energy accomplishments. Most importantly huge investments are needed for these nuclear power projects. This Amendment Bill will help in implementing nuclear projects with investments from Public Sector Undertakings.

Hon. Deputy Speaker, Sir, In the year 1998, during the regime of former Prime Minister of India Shri Atal Bihari Vajpayee, after Pokhran II nuclear bomb test explosion, India got a unique place in the comity of nations which have conducted such nuclear bomb tests. Nations like America imposed economic sanctions against India. It is history filled with prideful moments carving India's glorious path to growth after overcoming all those economic sanctions. The developed countries were affected so much due to the economic sanctions imposed on India.

The credit for this spectacular achievement by India goes to none other than the Hon. former President of India Dr.A.P.J.Abdul Kalam, who always remained as an inspiration to the youth of our great country. India has made giant strides in the field of nuclear power generation. India had signed Civil Nuclear agreements with more than 10 countries including Vietnam, Australia, America and Russia. Besides power generation, there are ample opportunities for nuclear energy for extensive research in the field of medicine, food, agriculture and fertilizer production in India. Under the influence of foreign forces, some anti-national elements got involved in creating unnecessary obstacles to India's advancements in the field on nuclear energy. But the nation is aware of the fact that it was only because of the unwavering efforts of Hon. Chief Minister of Tamil Nadu

Dr. *Puratchithalaivi* Amma, Koodankulam Nuclear power plant started its operation in Tamil Nadu. Out of the 1000 MW of power generated from Koodankulam Nuclear power plant, only 562.50 MW is provided to Tamil Nadu. Karnataka gets 221 MW, Kerala gets 133 MW, Andhra Pradesh gets 50 MW and Puducherry gets 33.5 MW of power from Koodankulam. As demanded by Hon. *Puratchithalaivi* Amma, all the power generated through nuclear power stations in Tamil Nadu should be provided to Tamil Nadu. Besides, the power generated from Kalpakkam Plant is shared with Andhra Pradesh and Karnataka. But the neighbouring States do not follow similar consideration while sharing water with Tamil Nadu. Due to non-release of water for irrigation to Tamil Nadu by these neighbouring States, several lakhs of farmers of Tamil Nadu are affected. Their livelihood is at stake. Therefore, I urge upon the Union Government to immediately ensure sharing of water from neighbouring States to Tamil Nadu similar to the sharing of power generated from Tamil Nadu to its neighbouring States.

In Tamil Nadu there is a total power generation of 2940 MW through nuclear energy which includes 440 MW from Madras Atomic Production Station (MAPS) in Kalpakkam near Chennai; 1000 MW from Koodankulam nuclear power plant; 500 MW from BHAVINI of Kalpakkam and 1000 MW from Koodankulam Unit II. Besides, FRFCF (Fast Reactor Fuel Cycle Facility) – a modern facility first of its kind in the world -is being setup in Kalpakkam, Tamil Nadu. Nuclear material to be produced through this facility will be utilized in all the three nuclear power projects on rotational basis. This can pave way for production of more power with less atomic fuel. Tamil Nadu remains a progressive State in the forefront in the field of renewable energy and atomic energy in India. Between 2001 to 2006 during the tenure of Hon. Chief Minister Tamil Nadu Dr. *Puratchithalaivi* Amma, several power projects were started in Tamil Nadu with a view to lead the State for self-sufficiency in power sector. But during the period 2006-2011, when the minority DMK Government was in power in Tamil Nadu, almost all the power projects commenced by Hon. *Puratchithalaivi* Amma were stalled. As a result of this, Tamil Nadu faced severe power crisis and the then Minister of Power in the DMK government in Tamil Nadu had even admitted this startling fact. When Hon. *Puratchithalaivi* Amma once again became the Chief Minister of Tamil Nadu in the year 2011, these power projects were fast-tracked leading to self-sufficiency in Tamil Nadu as regards power generation. During the Global Investors Meet held in Chennai on 9th and 10th September 2015, as many as 98 Memorandums of Understanding (MoUs) to the tune of Rs. 2,42,160 Crore were signed in the presence of Hon. *Puratchithalaivi* Amma. This is a world record during the Hon. Amma's regime. Hon. Deputy Speaker Sir. During the visit of Hon. Prime Minister to France on 10th and 11th April 2015 a Pre-Engineering agreement was signed between NPCIL and AREVA which is a developmental initiative.

I welcome the Memorandum of Understanding (MoU) on Civil Nuclear sector signed between India and Japan after the summit level meetings between Hon. Prime Ministers of both the countries. There is a similar civil nuclear agreement between India and Russia besides India and America. India has entered into an agreement with Australia for supply of nuclear material. This is a spectacular achievement. Koodankulam Unit I has been shut down for maintenance since June due to which there is power shortage in Tamil Nadu. At the 26th Southern Zonal Council Meet held recently in Vijayawada, Andhra Pradesh, Hon. Chief Minister of Tamil Nadu Dr. *Puratchithalaivi* Amma has stressed a need for the Union Government to issue orders to Indian Atomic Energy Commission to recommence power generation in Koodankulam Unit I as soon as possible. I therefore urge that the power generation in Koodankulam Unit I should soon be recommenced since it remained shut down for the last six months. Hon. *Puratchithalaivi* Amma has requested the Union Government to intervene in this regard and make Atomic Energy Regulatory Commission to grant its approval. I urge that the Union Government should fulfill this genuine demand immediately. This Bill ensures joint ventures between Public Sector Undertakings and Nuclear Power Corporation of India Limited (NPCIL). The Union government should come forward to implement pilot schemes in Tamil Nadu which was devastated by incessant rains and heavy floods recently. The State should be provided with facilities for environment-friendly, safe and clean energy. Moreover, besides the present quota, additional power should be distributed to Tamil Nadu by the Union Government. This is very much necessary for the industrial development and expansion in the State of Tamil Nadu. I also request the Union Government to come forward to start the first Joint Venture project in the nuclear energy sector in Tamil Nadu. The paid up share capital of these Joint Venture projects should be with the Government Organizations and Public Sector Undertakings.

The private players shall never be given a role to play in the field of nuclear energy. As there is no threat to national security, we wholeheartedly support this Bill.

Hon. Deputy Speaker Sir,

"There cannot be any movement without **God**-Saying of the past.

There cannot be any movement without **Atom**- Saying of the present.

There cannot be any movement without **Atom** and **Amma**;

Koodankulam is a testimony to prove this fact."

With this let me conclude. Thank you.

श्री राजेश रंजन (मधेपुरा) : उपाध्यक्ष महोदय, सरकार द्वारा लाए गए परमाणु ऊर्जा संशोधन बिल, 2015 के पक्ष में बोलने के लिए मैं खड़ा हुआ हूँ। मैं जितेन्द्र बाबू से कहना चाहूँगा कि नैतिकतावादियों का अधिनायकवाद, आप इस बात को जानते हैं कि एक हमारे देश के वैज्ञानिक थे डॉ. अब्दुल कलाम जो कि हाई मोरल पर्सन थे और एक वैज्ञानिक अब्दुल कलाम पाकिस्तान में थे, जिन पर कितना बड़ा आरोप लगा और बहुत सारे देशों में जहां ऊंचे मोरल वाले लोगों के हाथों में परमाणु ऊर्जा नहीं गयी, वहां उसकी क्या दुर्गति हुई है। मैं बहुत सारी चीजें यहां नहीं कहना चाहूँगा, लेकिन मैं आपसे आग्रह करना चाहूँगा कि हमारे सभी साथियों ने अपनी बात यहां रखी है, लेकिन मैं उनसे अलग कहना चाहूँगा। हमारे प्रधानमंत्री जी हाल ही में अमेरिका की सिलीकॉन वैली गए थे। वहां तीन हिस्सा भारत के लोग रहते हैं और तीन हिस्सा वैज्ञानिक भारत के हैं। दुनिया की पांच कंट्रीज का परमाणु ऊर्जा पर अधिपत्य था और हम आदरणीय पंडित नेहरू जी, इंदिरा जी, अटल बिहारी वाजपेयी के साथ-साथ भाभा, अब्दुल कलाम और जेम्स की बात हो, हम देश के अतीत और वर्तमान को सामने रख कर ही किसी बात को कर सकते हैं। मानव सभ्यता का भौतिक, अधिभौतिक और आध्यात्मिक संभावनाओं का जो अधिनियम है, इस विचार को कैसे सामने रखा जाए? बिना इन विचारों को सामने रखे, आप परमाणु ऊर्जा को किसी भी तरीके से आम आदमी के लिए नहीं बना सकते हैं। जीन डिमसन, जुलअन, प्रोफेसर हसर, पीटर हस्कोस, नॉस्टेदमस, जॉन सेवेज, प्रो. कीरो और एंडर्सन के साथ-साथ हजस्त शाह नियामत अली, गुरू नानक देव जी, मालिका की रचना करने वाले प्रसिद्ध भक्त श्री चैतन्य महाप्रभु, मिस्र के पिरामिडों की भविष्यवाणी, महात्मा सूरदास, मोहम्मद साहब और बाइबिल में सन् 2000 ईस्वी के बाद युग परिवर्तन और महात्मा अरविंद घोष की वह भविष्यवाणी वर्ष 1836 के 175 वर्ष बाद विश्व गुरू स्तर पर युग परिवर्तन और भारत को विश्व गुरू की कल्पना। उस विश्व गुरू की परिकल्पना के प्रयास में आप दो कदम आगे बढ़ने जा रहे हैं। मेरा इस संबंध में सबसे पहला आग्रह यह है, वैज्ञानिकों पर या न्युक्लियर एनर्जी पर नहीं, आखिर क्या कारण है कि एजुकेशन और रिसर्च पर सबसे बाद में ध्यान दिया जाता है। एक करोड़ रुपये आईआईटीएन पर खर्च के भी हम यहां उनको नहीं रख पाते हैं। लेकिन दुनिया में आप जहां जाएं भारत के लोगों को आप अपार संभावनाओं के साथ देखेंगे, लेकिन भारत में आईआईटीएन और अन्य

रिसर्व सेन्टर्स की स्थिति इतनी बुरी है कि जिसके बारे में अगर मैं कहूँ तो आपको सुनकर बहुत आश्चर्य होगा। मोरल एजुकेशन और रिसर्व को हिन्दुस्तान में किस प्रकार से प्राथमिकता दी जाए और कैसे इसको डेवलप किया जाए।

17.00 hours

महोदय, मैं सिर्फ दो-तीन बातें मंत्री जी से कहना चाहूँगा, अगर करना चाहूँगा कि यह जो 235, जहां पर यूरेनियम और इथोरियम जहां पर पाए जाएं, मेरा आग्रह होगा, जितेंद्र बाबू, कि आप परमाणु ऊर्जा के अत्यधिक स्ट्रोत वहीं पर ढूंढें, जहां पर स्ट्रोत अत्यधिक हैं। झारखण्ड के पास यूरेनियम है, उड़ीसा के पास यूरेनियम है और आप स्ट्रोत ढूंढ रहे हैं, पंजाब में तो यह शायद आपके लिए और किसी के लिए सही नहीं होगा। आप सस्ती बिजली उत्पादन या किसी भी चीज को कर के मंहदे दामों पर बेचना चाहेंगे तो इसी का सबसे कारण है, हम आपसे 235 यूरेनियम और 238, 99.03 प्रतिशत, 238 और 235.7, जो 0.7 प्रतिशत यूरेनियम है, उसको कैसे आप आगे बढ़ाएं, एक तो यह बिंदु सबसे बड़ा है और 238, जिसकी मात्रा 99.03 प्रतिशत है, उसको कैसे घटाएं, यह सबसे बड़ी बात है। इसको आप किस ओर ले जाएंगे? मैं दो-तीन सब्मिशन थे, एक था रिसर्व और एजुकेशन और दूसरा था कि उसकी पूरी संभावना इस मानव सभ्यता से हो। आज के अखबारों में है, पूरी दुनिया ग्लोबल वार्मिंग की बात कर रही है, लेकिन परमाणु ऊर्जा के बारे में मेरा आपसे आग्रह है कि मोरल वैल्यु को सामने रख कर के, व्यक्ति का मोरल कैसे निर्माण होगा, जब तक व्यक्ति का मोरल निर्माण नहीं होगा, परमाणु ऊर्जा या अधिनियम आप करते रहें, तब तक आप किसी भी चीज में प्रगतिशील भाव नहीं ला सकते हैं। मेरा आग्रह है कि रिसर्व सेंटर पर, अत्यधिक खर्च हो, मोरल एजुकेशन को प्राथमिकता दी जाए, मोरल व्यक्ति का निर्माण हो और साथ-साथ हम चाहेंगे कि दुनिया का सबसे ज्यादा स्ट्रोत भारत के पास है, इथोरियम हो या यूरेनियम हो, जो भी चीजें हैं। लेकिन वे जहां पर हैं, वहीं, उसी जगह से उस पर आप ज्यादा ध्यान दें। ऐसा नहीं हो कि उड़ीसा के पास संसाधन हैं, झारखण्ड के पास संसाधन हैं और हम पंजाब में करें, ऐसा नहीं होना चाहिए।

श्री भगवंत मान (संगरूर): उपाध्यक्ष महोदय, परमाणु ऊर्जा के इस विधेयक पर बहस चल रही है। कहा यह जा रहा है कि इसमें 49औ एफडीआई है, विदेशी कंपनियों का हिस्सा होगा और 51औ भारतीय सरकारी कंपनियों का हिस्सा रहेगा। हम मानते हैं कि न्यूक्लियर पावर प्लान्ट की एनर्जी है, प्लान्ट की पावर है। हम इसका विरोध नहीं कर रहे हैं लेकिन सुरक्षा के बारे में एक-दो बातें हम माननीय मंत्री जी के सामने रखना चाहते हैं। पिछले दिनों इंदिरा गांधी इंटरनेशनल एयरपोर्ट पर जो घटना हुई थी, जहां बाहर से मैनिकल यूज के लिए न्यूक्लियर आ रहा था, वह तीक हुआ तो उसके बाद जो जांच हुई, उसमें जो अधिकारी थे, उन्होंने यह कहा कि हमें इनको रखने और लीकेज को रोकने के तरीके नहीं पता हैं तो मैं माननीय मंत्री जी से बार-बार आग्रह करूंगा कि आप इतने बड़े-बड़े प्रोजेक्ट ला रहे हैं तो हमें स्पेशियलिस्ट और साइंटिस्टों को वहां सुरक्षा में रखना होगा। अगर सरकारी अधिकारियों को हम रखेंगे तो कलैक्टर, बी.डी.ओ., तहसीलदार तो आपको पता ही है कि वे तो इसको स्पेशियलिस्ट नहीं हो सकते हैं। सबसे बड़ी बात यह है कि भोपाल गैस की त्रासदी भी अभी हम भूलें नहीं हैं। इतने बड़े-बड़े प्रोजेक्ट्स आ रहे हैं, तो भारतीय कंपनी, मैं यह नहीं कहता कि जो भारतीय हिस्सा है 51औ उसका प्राइवेटेशन कर दो, लेकिन कम से कम सुरक्षा पर, उनके रख-रखाव पर स्पेशियलिस्ट रखने चाहिए, साइंटिस्ट रखने चाहिए। मुझसे पहले बोलते हुए कई वक्ताओं ने कहा है कि हमारे पास साइंसदानों की कमी नहीं है। लेकिन दिवकता यह है कि ब्रेन ड्रेन की समस्या बहुत बड़ी है। अमरीका जाओ तो पता चलता है कि जितने भी डॉक्टर हैं, उनमें से 50 फीसदी से ज्यादा भारतीय हैं, जितने भी साइंटिस्ट हैं, इतने प्रतिशत से ज्यादा भारतीय हैं, क्योंकि उनको यहां शायद उतना स्कोप नहीं लगता है। उनको लगता है कि हमारी जो डिग्रियां हैं, उनको यहां इतनी वैल्यु नहीं मिलेगी, वे बाहर जाते हैं। ब्रेन ड्रेन को भी रोक कर हम वही दिमाग हमारे देश की तरफकी में हिस्सा डालें।

मैं एक-दो बातें और कहूँगा कि जो भूकम्प का एरिया है या जैसे दृढ़दृढ़ आया था, अगर वहां कोई न्यूक्लियर प्लांट होता तो शायद आज ओडिशा और आंध्र प्रदेश में बहुत रेडिएशन होती। हमें यह देखना होगा कि जहां ऐसी प्राकृतिक आपदायें नहीं आतीं, वहां इनका निर्माण हो। जैसे कांगड़ा, हिमाचल, यह भूकम्प के खतरे का जोन माना जाता है। ऐसी चीजों को प्रायोरिटी पर रखें। जहां नेचुरल डिजास्टर होते हैं, वहां न्यूक्लियर प्लांट न लगाए जाएं। देश के नागरिकों की सुरक्षा और उनकी जानमाल की सुरक्षा को प्रायोरिटी

पर रखें। हमें तस्वकी भी करनी है, लेकिन तस्वकी करते-करते हम नेचर के साथ इतनी छेड़छाड़ न कर दें कि यह धरती हमारे जीवन के लिए और रहने के लायक न रहे।

मैं आपसे आग्रह करता हूँ कि सुरक्षा, एजुकेशन और रिसर्व को सबसे ज्यादा प्रायोरिटी मिलनी चाहिए। आपने मुझे बोलने का अवसर दिया, इसके लिए धन्यवाद।

डॉ. अरुण कुमार (जहानाबाद) : महोदय, 1962 का जो न्यूक्लियर एनर्जी का प्रावधान हमारे यहाँ है, इसमें संशोधन के लिए यह बिल लाया गया है। निश्चित तौर पर आज दुनिया एक गांव के समान है और दुनिया की जो प्रगति हुई है, उसमें न्यूक्लियर एनर्जी की बड़ी भूमिका है। आजादी के तबे समय के बाद हमें न्यूक्लियर के क्षेत्र में जितनी प्रगति करनी चाहिए, उसके मुकाबले में हम नगण्य स्थान पर हैं और हमें इसे स्वीकार करना चाहिए।

न्यूक्लियर एनर्जी आज सिर्फ बिजली के लिए नहीं है, बल्कि मानव जीवन के लिए भी यह आवश्यक है। स्वास्थ्य के क्षेत्र में इसकी बहुत अहमियत है। एंटीकैंसर के क्षेत्र में, एंथ्रो प्रोडक्ट के क्षेत्र में भी आज इसकी बड़ी भूमिका है। कल जो हमने देखा है, एनडीए फर्ट, अटल बिहारी वाजपेयी जी के नेतृत्व में, जार्ज फर्नांडीज जी के नेतृत्व में, अब्दुल कलाम जी के नेतृत्व में जो पोखरण परीक्षण हुआ और दुनिया की तमाम शक्तियां हमारे इस परीक्षण को दबाने में लगीं, लेकिन उसका सामने हमने किया। आज जो एक फंड क्वच है, उसको मुख्य रूप से तोड़ने के लिए यह प्रावधान किया गया है। निश्चित तौर से हमारी जो पब्लिक सेक्टर की कंपनीज हैं, वे इसमें शेयर होल्डर बनें और इसमें प्रगति हो। इसकी प्रगति में कुछ एक जो अवरोधक कानून हैं, उसमें सुधार के लिए यह बिल लाया गया है। हम इसका समर्थन करते हैं।

इसके साथ ही हम अनुरोध करना चाहेंगे कि बिहार के नवादा में दस साल पहले राजौली में चिनिहट हुआ, बगल में झारखंड में यूरेनियम का शॉ मैटेरियल है। उस जगह पर काम क्यों नहीं हुआ? माननीय मंत्री जी उस ओर भी ध्यान देंगे। वह बहुत ही सुरक्षित जगह है। बिहार में बिजली उत्पादन का एक बड़ा स्कोप वहां बनता है। इनहीं शब्दों के साथ सरकार के इस प्रगतिशील डायनमिक कदम का हम समर्थन करते हैं।

श्री दुष्यंत चौटाला (हिसार) : महोदय, आपने मुझे एटमिक एनर्जी अमेंडमेंट बिल पर बोलने का मौका दिया, इसके लिए मैं आपको धन्यवाद देता हूँ। मेरी लोकसभा से टविंग गोरखपुर के अन्दर एक न्यूक्लियर पावर प्लांट आ रहा है। मैं माननीय मंत्री जी से दो ही सवालों के जवाब चाहूँगा। वया न्यूक्लियर पावर सेफ है और वया न्यूक्लियर पावर कॉन्स्ट इफेक्टिव है? आज अगर हम दुनिया की बात करें तो शायद न्यूक्लियर पावर प्लांट के अन्दर कहीं डिफेक्ट के कारण या जिस तरफ फुकुशिमा के अन्दर इंसीडेंट हुआ। बड़ी संक्षिप्त सी हमारे पास ऐसी जानकारी है, जहाँ पर ऐसे इंसीडेंट हुए, जहाँ हम सेफ्टी के ऊपर चर्चा कर सकते हैं। मगर चरनोबल जो यू.एस.एस.आर. का जब एक पार्ट था, उसके इंसीडेंट की बात करें तो लगभग सवा पाँच लाख से ऊपर लोग उस समय प्रभावित हुए थे और ओवर दी पीरियड चार हजार लोगों की वहाँ पर मौत हुई, जिसका ल्यूकेमिया और कैंसर एक बड़ा कारण था। आज जब हम सेफ्टी की बात करते हैं तो हमें यह एस्पेक्ट देखने पड़ेंगे कि वया न्यूक्लियर पावर प्लांट हम ऐसी जगह पर लगा रहे हैं, जहाँ पॉपुलैटिड एरिया हो या न्यूक्लियर पावर प्लांट हम ऐसी जगह पर ला रहे हैं, जो नेचुरल डिजास्टर से प्रोन हो।

गोरखपुर का न्यूक्लियर पावर प्लांट, जो हमारे देश की सबसे बड़ी अर्थवैक प्रोन बेल्ट है कांगड़ा की, उससे 100 किलोमीटर की रेडियस के अन्दर है। अगर किसी समय भी कांगड़ा में अर्थवैक आएगा, क्योंकि एक एक्टिव अर्थवैक बेल्ट है तो सबसे पहले अगर उसका कहीं इफैक्ट देखने को मिलेगा तो वह गोरखपुर की धरती पर बनने वाले न्यूक्लियर पावर प्लाण्ट पर देखने को मिलेगा। मैं माननीय मंत्री जी से निवेदन करूंगा कि इस पर भी आप स्टडी करवाइये कि वया प्लूटार में जब हम वह पावर प्लाण्ट बनाएंगे तो वया वह सेफ रहेगा। जहां हम फुकुशिमा की बात करते हैं, 2011 में सुनामी आई, पर आज तक वहां पर न्यूक्लियर रेडिएशन के हमें आस्पैक्ट्स दिख रहे हैं और चेरनोबिल में भी अब लोग जाते हैं तो वहां भी आज तक हमें न्यूक्लियर पावर प्लाण्ट के, जो उस समय ब्लास्ट हुआ था, उसका रेडिएशन हमें देखने को मिलता है। जहां हम इस बिल के माध्यम से बात कर रहे हैं तो मैं स्वागत करता हूँ कि आपने टाइ-अप की बात की, जोइंट वैंचर्स की बात की कि जो 51 परसेंट गवर्नमेंट ऑफ इंडिया का शेयर रहेगा, वहां पैसे की कमी के कारण हमें जोइंट वैंचर करने पड़ेंगे। पर उपाध्यक्ष महोदय, मैं आपके माध्यम से पूछना चाहूँगा कि वया जो न्यूक्लियर पावर कार्पोरेशन इंडिया लि. है, वया मारुति के साथ टाइ अप करके सिर्फ पैसे के लिए हम न्यूक्लियर पावर को बढ़ावा दे पाएंगे? इससे अच्छा जो प्रोफेशनल कम्पनीज़ हैं, जो न्यूक्लियर पर स्टडी करती हैं, जैसे फ्रांस है, आज 73 परसेंट उनकी पावर जैनेरेशन न्यूक्लियर पर है, वया हम वहां से प्रोफेशनल हैटप नहीं ला सकते? कैलिफोर्निया में जब मैं पढ़ता था, वहां अनेकों न्यूक्लियर पावर

प्लाण्ट्स थे, मगर दुःख के साथ बताना पड़ता है कि 33 परसेंट लोग उन न्यूक्लियर पावर प्लाण्ट्स में भारतीय ओरिजिन के थे। वया हम ऐसे प्रोफेशनल लोगों को लेकर हमारे देश के अन्दर न्यूक्लियर पावर को और सेफ बनाने के लिए और अच्छी तरह यूटीलाइज़ करने के लिए उन लोगों को हम अपने देश में नहीं ला सकते? जहां आज हमारे माननीय प्रधानमंत्री पेरिस में जाकर रिन्युएबल एनर्जी पर बात करके आये हैं, वया हम न्यूक्लियर से ज्यादा रिन्युएबल एनर्जी की ओर नहीं देख सकते? हमें एक एशिया बांधना पड़ेगा, एक परसेंटेज बांधनी पड़ेगी, उससे ज्यादा हमारे देश में न्यूक्लियर पावर प्रोडक्शन न हो और सबसे बड़ा जो आस्पैक्ट न्यूक्लियर पावर प्रोडक्शन का है, हम विदेशों से यूरेनियम को इम्पोर्ट करेंगे। जैसे मेरे से पूर्व मेरे साथी जयदेव गाला जी ने बोला कि थोरियम हमारे देश में अबर्डेंस में है। जब हम न्यूक्लियर रिसर्च की बात करते हैं तो वया हम थोरियम के ऊपर भी रिसर्च कर रहे हैं? वया हम आस्पैक्ट देख रहे हैं कि थोरियम को हम यूटीलाइज़ कर पायें कि हमें विदेशों के ऊपर निर्भर न होना पड़े। इंडिया इंडीपेंडेंटली अपने देश के अन्दर एनर्जी को प्रोड्यूस करे, मैं तो इतना ही बोलना चाहूंगा, क्योंकि गोरखपुर हरियाणा प्रदेश का एक अहम हिस्सा है, उसके पड़ोस में हिसार भी है और फतेहबाद भी है और दोनों बहुत पोपुलेटिड सिटीज़ हैं। मैं माननीय मंत्री जी से निवेदन भी करूंगा कि उसकी साइट रिवीज़न की भी चर्चा की जाये। आज हमारे देश के अन्दर...(व्यवधान) उपाध्यक्ष महोदय, एक मिनट में मैं समाप्त कर रहा हूं। हमारे देश के अन्दर गुजरात और राजस्थान जैसे इलाके हैं, माननीय अटल बिहारी वाजपेयी जी ने पोकरण के अन्दर एक ब्लास्ट किया था तो विदेशों ने हम पर उंगली उठाई थी, पर वह पोपुलेटिड एरिया नहीं था। अगर हमें हमारे देश के अन्दर कहीं न्यूक्लियर पावर प्लाण्ट बनाने भी हैं तो हमें उनकी लोकेशन को महत्वपूर्ण और लोगों की सेफ्टी को प्राइम फोकस रखकर बनाना पड़ेगा।

आपने मुझे बोलने का मौका दिया, इसके लिए मैं आपका आभार प्रकट करता हूं। धन्यवाद।

श्री गोपाल शेट्टी (मुम्बई उत्तर) : उपाध्यक्ष जी, परमाणु ऊर्जा (संशोधन) विधेयक, 2015 पर मैं समर्थन देने के लिए खड़ा हूं। मैं मंत्री जी को धन्यवाद देना चाहूंगा, बहुत ही स्पष्टता से उन्होंने इस बिल के बारे में संसद् को, संसद् के सदस्यों को जानकारी दी है। मैं मानता हूं कि न्यूक्लियर एनर्जी ऊर्जा निर्मिति के क्षेत्र में बहुत बड़ा एक योगदान देश को आने वाले दिनों में मिलेगा।

जैसे किसी भी व्यक्ति को जीने के लिए हवा और पानी की आवश्यकता है, वैसे ही आने वाले दिनों ऊर्जा भी अनिवार्य होने वाली है। हमारे देश में 40 से भी अधिक प्रतिशत बच्चे जब पढ़कर तैयार होंगे तो हमको उनको आने वाले दिनों में काम देने के लिए तैयारी करनी पड़ेगी। अगर हमें उनको काम देना है तो इण्डस्ट्री डैवलप करनी पड़ेगी और कोई भी इण्डस्ट्री एनर्जी के बगैर चलेगी नहीं। मैं विपक्ष के सदस्यों को भी धन्यवाद देना चाहूंगा कि लगभग सभी लोगों ने इस बिल को समर्थन दिया है। इससे देश को यह भी संकेत प्राप्त होता है कि जी.एस.टी. बिल को भी कांग्रेस के अलावा बाकी सभी राजनीतिक दल के लोगों का समर्थन है। यह भी हमें इस बिल के माध्यम से जानकारी प्राप्त होती है। देश में ऊर्जा निर्मिति की जब हम बात करते हैं, किसी भी क्षेत्र में डैवलपमेंट के जितने भी प्रोजेक्ट्स होते हैं, उन सारे प्रोजेक्ट्स का विरोध सो कॉलड एक्टिविस्ट्स के माध्यम से होता है। सभी राजनीतिक दलों के माध्यम से विरोध होता है और राजनीतिक दलों में भी राज्य और विभिन्न संघों को ध्यान में रखकर विरोध किया जाता है। यह आज देश की मानसिकता है। जब हम विकास की बात करते हैं, तो आने आने वाले दिनों में हमें इस मानसिकता को बदलना पड़ेगा। विपक्ष इसका विरोध संसद् में करते हैं, और मुझे लगता है कि यह जो विरोध है, यह कुछ प्रोग्रेसिव देशों से भी आता है, क्योंकि कोई भी देश यह नहीं चाहेगा कि भारत देश आने वाले दिनों में आगे बढ़े। भारत देश एक शक्तिमान देश बने, यह कोई भी देश नहीं चाहेगा। इसलिए हमें आने आने वाले दिनों में इस क्षेत्र में काफी ध्यान देना पड़ेगा। हमारे देश के सभी लोगों में एक विश्वास के वातावरण का निर्माण करते हुए अगर हम सभी राजनीतिक पार्टियों के लोगों को भी साथ में लेंगे, तो मुझे लगता है कि आने वाले दिनों में हम सभी क्षेत्रों में विकास कर पाएंगे।

उपाध्यक्ष जी, जब हम ऊर्जा की बात करते हैं, तो फिर वह चाहे पानी के माध्यम से हो, चाहे ग्रीन इनर्जी हो, सौर ऊर्जा हो, या फिर वह यूरेनियम के माध्यम से हो, जहां पर भी हमें स्कोप मिलता है, वहां पर हमें इस क्षेत्र में बहुत तेजी से काम करना होगा। इस क्षेत्र में वया होना चाहिए और वया नहीं होना चाहिए, इसे तय कौन करेगा? वया सभी राजनीतिक पार्टियों के लोग उसे तय करेंगे? वया उस राजनीतिक पार्टी के पढ़े-लिखे लोग उसे तय करेंगे या फिर हम रिसर्च के माध्यम से, चाहे वह डॉ. होमी भाभा जी हों, डॉ. कलाम साहब हों, या डॉ. काकोडकर जैसे जो स्पेशलिस्ट हैं, इनकी बात हम सुनेंगे? आने आने वाले दिनों में देश के लोगों को इसके लिए भी मानस बनाकर इसे तय करना पड़ेगा, अन्यथा देश को एक बहुत बड़ा खामियाजा भुगताना पड़ेगा।

उपाध्यक्ष जी, तारापुर संयंत्र के बारे में हमारे विन्तामन वांछा जी यहां पर बात कर रहे थे। वहां पर एटॉमिक इनर्जी के बारे में बहुत बड़ा विरोध खड़ा हुआ था। लेकिन, वे आज यहां भाषण दे रहे थे कि वहां पर बहुत अच्छी तरह से एटॉमिक इनर्जी संयंत्र चल रहा है और किसी का भी कोई विरोध नहीं है। लेकिन, मैं आपके ध्यान में एक बात लाना चाहूंगा कि जो लोग उसके कारण विस्थापित हुए हैं, वे आज भी दुःखी हैं, वे आज भी हैशन-पेशान हैं। जिस लोक सभा संसदीय क्षेत्र का मैं नेतृत्व करता हूं, वहां के हमारे राम नाइक जी इस विषय को लेकर बहुत लड़ाई लड़े। जो विस्थापित हुए हैं, उनको घर मिलना चाहिए। उनकी जो ज़मीनें गयी हैं, इसके लिए उन्हें पैसा मिलना चाहिए। इसके लिए वे स्वयं कोर्ट में वकील के तौर पर उनका केस लड़ते थे। आज उनके गवर्नर बनने के बाद उस केस को अन्य लोग लड़ेंगे। लेकिन, वहां के लोगों को आज भी न्याय नहीं मिल पाया है। मैं चाहूंगा कि जो विस्थापित लोग हैं, उनकी जान-माल की रक्षा सरकार को करनी चाहिए। वहां के लोगों को हमें विश्वास में लेना पड़ेगा। जब हम किसी लार्जर इंटैरेस्ट में काम करते हैं, तो वहां के जो थोड़े-से पीड़ित लोग हैं, उन्हें हमें आने वाले दिनों में थोड़ा इंसेंटिव देना पड़ेगा। अगर हम यह वातावरण देश में तैयार करते हैं, तो मुझे नहीं लगता कि कोई भी किसी डेवलपमेंट प्रोजेक्ट का विरोध करेगा...(व्यवधान)

उपाध्यक्ष जी, मैं आपसे निवेदन करना चाहूंगा कि आने वाले दिनों में हमारा देश सुपरपावर तो बनेगा ही, लेकिन हमें अपने देश के नौजवानों को नौकरी देने के लिए, उन्हें काम-काज देने के लिए ऊर्जा एक बहुत ही बड़ी अहमियत रखता है। इसलिए हमें ऊर्जा के क्षेत्र में बहुत ही तेजी के साथ काम करना पड़ेगा। मैं माननीय मंत्री महोदय को इसके लिए एक बार फिर धन्यवाद देना चाहूंगा।

उपाध्यक्ष जी, इसका नॉन पॉलिटीकल तो विरोध होता ही है, लेकिन पॉलिटीकली किस तरह से विरोध होता है, उसे हम लोगों ने नर्मदा के विषय में देखा कि एक्टिविस्ट लोगों ने कितने दिनों तक उस प्रोजेक्ट को स्टॉल किया था। उस प्रोजेक्ट के बनने के बाद सिर्फ उस डैम की ऊंचाई बढ़ाने की परमिशन देने में आठ साल लग गए। उस डैम की ऊंचाई बढ़ाने के लिए भी वहां की सरकार को बदलना पड़ा और फिर सरकार के बदलते ही मातृ आठ दिनों में उस डैम की ऊंचाई बढ़ाने की मंजूरी मिली। यह देश की वास्तविकता है। इसलिए इस वास्तविकता को समझते हुए हमें आगे बढ़ने के लिए एक अच्छा वातावरण तैयार करना पड़ेगा। इस बिल के माध्यम से यही भावना मैं यहां पर प्रस्तुत करता हूं।

DR. JITENDRA SINGH: Hon. Deputy-Speaker, Sir, with your kind permission, I would like to reply to the discussion on the Bill.

The discussion started from Prof. Saugata Roy. He gave a very elaborate presentation and very rightly, he began with a tribute to late Homi Bhabha. Rightly so, a lot of much which is being witnessed in the form of achievements in the nuclear programme of India is ode to the vision and also the original aptitude of Dr. Homi Bhabha. Sometimes, it also makes me wonder as to how daring it would have been for him and his colleagues to have envisaged a nuclear programme as Prof. Saugata Roy was saying. Hiroshima had just happened. When he was talking that, it occurred to me that when Homi Bhabha set out to establish the Bhabha Atomic Centre, Hiroshima had just happened, about seven or eight years ago, in 1955.

The BARC was set up in 1955 and the Hiroshima incident happened in 1945. Therefore, the gap is ten years. ...(*Interruptions*) I am coming to that. Not only that, he also had the courage to say – I am saying this because there was a lot of prejudice against any nuclear programme being initiated anywhere in the world at that time – that he was going to set out a nuclear programme for peaceful purposes.

I am glad that in this 60th year, this happens to be the diamond jubilee year of the establishment of the Bhabha Atomic Research Centre, we have adequately vindicated Homi Bhabha's commitment to the nation of having achieved a nuclear programme which has been essentially dedicated

to peaceful purposes.

Prof. Saugata Roy was also referring to the other Prime Minister, Pandit Jawaharlal Nehru. He thought I would shirk away from naming him. Certainly 2015 would not have happened if 1955 had not happened. Therefore, this is an on-going process over the last sixty years. But I think this is a matter of great satisfaction that the nuclear programme has progressively been on the ascent. We have, to a large extent, succeeded in achieving the goals that we have set out for ourselves.

As was rightly mentioned by Prof. Saugata Roy, this NPCIL was set up in 1962 and, that was also the year when the Atomic Energy Act was enacted. You would appreciate that over the last few years there has been a very fast paced development in the nuclear programme. You would allow me to say that in the last 17 or 18 months, under the leadership of the present Prime Minister, Shri Narendra Modi ji, there have been a number of agreements and MoUs with a number of countries. In fact, whichever he has visited abroad, he has always come back with something related to nuclear energy so much so that even day before yesterday, on the 12th, when the Japanese Prime Minister was here, there was an MoU signed in atomic energy.

You would also realize that to keep pace with this fast track, we need to have certain modifications which would facilitate the desire to move faster, and as you rightly said, move in the direction of India becoming a world power in every sphere, including the production of nuclear energy. Also because in the years to come, we hope to and we plan to use nuclear energy as one of the major sources of electricity and not only as nuclear power but also as nuclear energy.

You referred to thorium. You would be reassured to say that, yes India is the major store-house of thorium today. In fact, it is the world's biggest store-house of thorium. I would also agree with you that we still need to exploit the fullest potential of thorium in India. We are certainly moving in that direction. Thorium Programme III Stage will progress on the basis of the II Stage, which we are into it. I am sure very soon we would be into an era of Fast Breeders using thorium. When that happens, as you rightly mentioned, we would be on the top of the world.

You mentioned about the apprehensions about the accidents. Fukushima disaster, that happened in Japan in the year 2011, is the latest and the most dreadful one. I would just like to put the records straight. Fukushima was, of course, dreadful. But there were certain inherent defects in that plant when it happened. It was, at the first place, wrongly located in seismic zone. When the earthquake took place, there was a huge inflow of water into the plant and this water choked everything else, even the outlets. That consequentially led to disaster. But we in India, under the leadership of eminent scientists, like Homi Bhabha, Satish Dhawan, and their successors up to this date, have had some of the best scientific teams, who have taken care of this part also. Most of our plants are located or set up after taking care of all these possible risk factors. Also the seismic zone close to India is located in Indonesia which is more than about 300 kms. away. So, we do not actually suffer that kind of a risk magnitude.

The Civil Nuclear Liability Damage Act of 2010 was mentioned by Prof. Saugata Roy. Yes, the Act was accomplished. But, let me use this opportunity to share with this august House that there are three or four major points which would sum up all the concerns as far as this Act is concerned. First, there is absolutely no compromise on the priority given to the victim. So, the victim's interest is not compromised by any chance. Second, the liability of the operator to the supplier has been kept in tact so that the operator can also claim it. Third, we have now instituted the National Nuclear Insurance Pool which was coming in the way of compensation. So, the maximum liability payable is about Rs.2600 crore or so. The NPCIL has a limit of about Rs.1100 crore and the remaining amount is put by the Government. If you go beyond that, then since we are also the member of the Civil Nuclear Commission, an international body, we can also claim that. There is also the time-line left. You can claim property damages up to 10 years; personal injury damages up to 20 years. So, what I am trying to say is that part has actually been adequately taken care of. At the same time, I do admit and appreciate your concern. It is well taken.

The disposal of spent fuel was referred to. Of course, it is a major concern. But, in the area of atomic energy, that is something which is done in a very scientific way. It is a great ceremony doing it. You have to store it under the ground for several years. Even after 100 years it comes out. So, it is not so simple a thing that you throw it into the sea and you allow fish and fishermen to bear the damage of it. There is a proper scientific methodology of dealing with the spent fuel.

पूढलाद सिंह पटेल जी ने बिल का समर्थन भी किया है और एक-दो बिन्दु हमारे ध्यान में लाये हैं. As I said, in order to meet this expansion, we are now entering into a phase of joint venture in atomic energy which was earlier confined only to NPCIL, Bhabha Atomic Energy units.

उन्होंने एक और बात की ओर ध्यान दिलाया है कि शायद इससे यह भी होगा। उदाहरण के तौर पर तमिलनाडु का कोई कारपोरेशन है, कल यह भी संभावना बन सकती है कि वह भी इसमें आ सकता है। जिस प्रकार एआईडीएमके के आदर्शनीय सदस्यों ने कहा है कि the manner in which Amma is taking keen interest in the establishment of nuclear programme in Tamil Nadu, tomorrow this will pave the way to participate even by the public sector units there. साथ ही साथ, पूढलाद जी ने डायरेक्टर्स के सेलेक्शन की बात कही है, जो भी इस तरह का होगा, certainly that is a procedure which is followed in letter and spirit and there is no compromise. The other properties of the nuclear energy like medicine, therapeutic value have been referred to.

पूढलाद जी का कहना था कि उसकी ओर भी पर्याप्त ध्यान दिया जाना चाहिए। मैं उनको आश्चर्य करता हूँ कि ऐसा होता है। ऐसा नहीं है कि इसको केवल न्यूक्लीयर प्लांट्स के ही उपयोग में लाया जा रहा है। आज भी भाभा एटॉमिक सेन्टर में मेडिसिन न्यूक्लीयर साइंस को लेकर शोध करने वाले, पीएचडी करने वाले अनेक छात्र हैं। We have in place proper Ph.D Degrees and also proper research courses also. In fact, many years ago, when this has just started, I myself had used the isotopes procured from the Bhabha Atomic Energy Centre somewhere in the 1980s. I used to tag red blood cells and find out the life of red blood cells in different diseases. So, that was chromium. It was lifted from the airport with a big fanfare because everybody ran out of the airport thinking that they would get exposed. I am coming to that also. That is not the hazard, that is the hazard fear which is there. It is the hazard fear which is actually to be taken care of through the awareness programme and other programmes...(Interruptions)

PROF. SAUGATA ROY: You can also use it in thyroid treatment.

DR. JITENDRA SINGH: That is done by using iodine. That is one of the procedures in treating thyroid cases. I appreciate his versatile knowledge.

That is one of the treatments for thyroid but that is only when you have actually developed it on account of radiation. Anyway, Mr. Satpathy has made a very interesting political observation that when this side was opposing, sometimes this side was not happy and when the sides changed, there is a *volte face*. But I think Mr. Satpathy has the advantage of sitting in the middle. He was saying that he has been witnessing some *volte face*. So, from a position of advantage he can give us good advice.

Regarding RTI, I wish to bring a small fact to your notice. Although, by and large, the atomic energy programmes are kept out of the purview of RTI for reasons known to all of us, that is, for security and other reasons. But even then the Nuclear Power Corporation of India Limited is under the purview of RTI. The most important unit of the atomic energy programme is covered by RTI and in fact all the data is also put on the website.

He has rightly expressed apprehensions about the Atomic Energy Regulatory Board being dependent on the Commission and, therefore, its authority is likely to get undermined. I would just beg to differ with him because I felt that the Atomic Energy Regulatory Board has been given full autonomy. It is an autonomous board. For reasons of salary and other things it has to be linked to somebody. So it has been linked to the Government and so that is for obvious reasons. All the autonomous units in the country have to draw their salary from some exchequer. Therefore, it does not necessarily mean that they are subjected to the Government's whims and fancies.

As far as the risk of accident is concerned, a reactor is designed after full technical and cost viability tests. As regards hazard, I think it is more an apprehension of the hazard about which we need to create awareness through public awareness programmes rather than the hazard *per se*. If it was actually hazardous, you would agree with me that over the last 60 years not a single scientist has been affected by nuclear radiation. Many scientists have spent most of their lifetime inside the Bhabha Atomic Research Centre, but nothing happened to them. In fact, I was checking the data. There have been hardly about 20 and odd unnatural deaths and most of them have happened because of accidents, suicides, poisoning etc., but none of them due to nuclear radiation. In fact, in some foreign countries, now-a-days they have got into the practice of bringing up nuclear plants even in the residential areas. So, what I am trying to say is that with each passing day there is an improvement even in the safety safeguards and, therefore, that is being adequately taken care of. There has not been single evidence – and we live in an evidence-based era – of any hazard having taken place to the residents around or to those working inside the plants.

विनायक यजुत जी ने जैतापुर की बात की, उन्होंने कहा कि शायद साइट सुरक्षित नहीं है। मैं आपको वैज्ञानिक आधार पर आश्वस्त करना चाहता हूँ कि it does not fall in the seismic zone. इस तरह के सारे परीक्षण के उपरान्त ही इस प्रकार का निष्कर्ष निकाला गया था कि यह सैफ साइट है। चूंकि आप उस क्षेत्र से आते हैं, इसलिए आपसे भी आग्रह है कि जागरूकता के कार्यक्रम आयोजित करके लोगों को समझाने का प्रयास करें कि इससे कितना अधिक लाभ होने वाला है। So, apprehensions, sometimes, occurring spontaneously and sometimes motivated by extraneous considerations can be overcome by the collective effort of all of us.

Sir, Mr. Jayadev Galla from TDP gave an elaborate presentation. He said that the NALCO's proposal had come. Certainly one of the reasons which have inspired us to go in for this joint venture initiative is that we had actually offers from some of the public sector units and some of the Government companies, including NALCO, Indian Oil Corporation Limited which wanted to enter into a joint venture with the Nuclear Power Corporation of India Limited. But the Atomic Energy Act, 1962 came in the way and, therefore, we have brought in this amendment.

As far as entry of the private sector is concerned, that has not yet been granted for reasons known to all of us. Mr. Jayadev wanted to know about the uranium coming in from the other countries. We have regular import of uranium happening from a number of countries including Canada, Kazakhstan and Russia. As I said, even day before yesterday, when the Japanese Prime Minister was here, the Prime Minister entered into an MoU with regard to uranium. Wherever the Prime Minister has been in the last 18 months, there has been some or the other kind of agreement or understanding as far as the uranium or the nuclear programme supplementation is concerned.

Mr. Reddy was referring to the break-up of 51 per cent. Yes, earlier, regarding the Government company, the Act, by definition, placed an embargo of 51 per cent. Now, when we enter into the joint venture, we would have the other company also. We are not going to have any private company or foreign company.

I would just like to clarify Mr. M.B. Rajesh that there is certainly no FDI clause included in this amendment. I do not know how it transpired. The nuclear power generation which he was a little pessimistic about, I would like to clarify that the nuclear power generation quantum is progressively on the increase. By 2020, we would be having as much as 13,500 MW of nuclear power which would become a major source of electricity and energy in this country. In West Bengal, the Haripur site is already well placed.

About nuclear medicine, thorium, I have already talked. So, I would not like to repeat; I would just sum up in two minutes.

One word of gratitude and acknowledgement to Mr. P.R. Sundaram of AIADMK. He referred to the hon. Chief Minister Amma taking keen interest in the nuclear power establishments in Tamil Nadu. I must admit that of course Tamil Nadu is one of our most precious storehouses of nuclear programme. He also made a query which needs to be responded. Yes, Kudankulam Phase I has two units. You rightly mentioned that the first unit is under shutdown. It is under shutdown on regular basis for checks and other things, but we are sure by January we will start it. So, you can convey this good news to hon. Amma as well. As far as the second unit of Phase II is concerned, that also would be made functional by March or April of 2016. Of course, with the repeated reminders from hon. Amma and our efforts, we have tried to live up to her expectations.

You asked for a greater share of energy. That is another issue which is bothering many of the hon. Members because the policy, as it exists, enables us to allow 50 per cent of the energy share for the State. Tamil Nadu is asking for a larger share because 35 per cent goes to the surrounding region and 15 per cent to the Central Pool. I would just beg to bring to your notice, and you can take it up accordingly, that this is not within the purview of the Department of Atomic Energy. Basically, this is called Gadgil Formula which was originated from the Ministry of Power. So, it is the Power Ministry actually which is determining how much share to go somewhere, and we follow the same. So, accordingly, it can be taken.

HON. DEPUTY SPEAKER: Hon. Minister, that is not the point. Some States are not willing to have the atomic energy. Then, what is the condition? If you are giving share from here to that State, those States having atomic energy electricity generation, let them share.

DR. JITENDRA SINGH: Sir, that is well taken. That can be a mutual arrangement. That is also right. But, what I was telling is the general which is followed and some of the States have some reservations about that. But, of course, what you are referring to, Sir, is a general rule.

Bhagwant Mann ji talked about safety of scientists. But, there is no FDI. He also expressed concern about brain drain which is lightly out of this. I have to sum up because I have been asked to do that.

दुष्यंत जी ने कहा कि क्या मारुति के साथ टाईअप होगा? I must confess with all the honesty at my command that this amendment will not debar Maruti from entering into a joint venture, if it does so, just as the Indian Oil Corporation has done. But, I think that was not the major concern. The major concern was that it would ultimately lead to a win-win situation for both the sides. They would also make some equity because, otherwise, we do not have enough means and we also suffer from financial constraints in our expansion programme. Maybe the equity which is generated for them would be put to use by them for their own purposes.

As far as expertise is concerted – it is well taken – NPCIL will make up for that. For example, if NPCIL is a partner for Maruti or any other concern which, of course, as you rightly said, may not be having the kind of expertise in atomic energy which is required, then NPCIL will be the main leader.

So, they would be rather the investors and would be the beneficiaries by way of equity. We will not allow them to make cars in the atomic energy plant. So, we will not do that. ...(*Interruptions*)

SHRI DUSHYANT CHAUTALA: You please address Gorakhpur ...(*Interruptions*)

DR. JITENDRA SINGH: The work has already started. All the adequate precautions have been taken. I think, it is a matter of pride that we are getting the first nuclear installation in this part of the country. ...(*Interruptions*)

HON. DEPUTY SPEAKER: Please take your seat. He has not yet completed his speech.

DR. JITENDRA SINGH: Sir, there are two amendments to Clause 2 – one by Prof. Saugata Roy and another by Shri N.K. Premachandran and one amendment to Clause 2 by Prof. Saugata Roy. I would request them to reconsider whether we can ask them to take those back. ...(*Interruptions*)

PROF. SAUGATA ROY: Sir, I am not moving my amendments. ...(*Interruptions*)

DR. JITENDRA SINGH: All right. Your advice is well taken and we have considered it.

Shri N.K. Premachandran is not here now. His concern has already been incorporated; maybe it was not adequately conveyed to him by us and, therefore, he has given this amendment.

Sir, with these words, I would request the House to pass this Bill.

HON. DEPUTY SPEAKER: The question is:

"That the Bill further to amend the Atomic Energy Act, 1962, be taken into consideration."

The motion was adopted.

HON. DEPUTY SPEAKER: The House shall now take up clause by clause consideration of the Bill.

Clause 2 Amendment of Section 2

HON. DEPUTY SPEAKER: Prof. Saugata Roy, you have already said that you are not moving your amendment.

Shri N.K. Premachandran. He is not present now.

The question is:

"That clause 2 stand part of the Bill."

The motion was adopted.

Clause 2 was added to the Bill.

Clause 3 Amendment of Section 14

HON. DEPUTY SPEAKER: Prof. Saugata Roy, you have already said that you are not moving your amendment.

The question is:

"That clause 3 stand part of the Bill."

The motion was adopted.

Clause 3 was added to the Bill.

Clause 1, the Enacting Formula and the Long Title were added to the Bill.

HON. DEPUTY SPEAKER: The hon. Minister may now move that the Bill be passed.

DR. JITENDRA SINGH: I beg to move:

"That the Bill be passed."

HON. DEPUTY SPEAKER: Motion moved.

"That the Bill be passed."

SHRI TATHAGATA SATPATHY (DHENKANAL): Sir, please allow me to speak for half a minute. I would request the hon. Minister to tell one thing. Is there any proposal to separate the both from the Commission? ...(*Interruptions*)

श्री दुष्यंत चौटाला : उपाध्यक्ष महोदय, अभी मंत्री जी ने कहा कि जहाँ पर भी न्यूक्लीयर टैस्टिंग लैब्स हैं, वहाँ पर रेडिएशन के कारण कोई अन-नैचुरल डेथ नहीं हुई है। पीएमओ का रिप्लाय है कि 70 पर्सेंट डेथ, जो इन सेक्टर्स पर हुए हैं, उनकी संख्या 3,887 है, जो कैंसर से हुई हैं और न्यूक्लीयर रेडिएशन के कारण होने वाला कैंसर एक पार्ट है। मेरे दूसरी वयेरी है कि आपने गोरखपुर की लोकेशन पर चर्चा की। ...(*व्यवधान*)

HON. DEPUTY SPEAKER: Mr. Minister, you reply to only one of his queries.

...(*Interruptions*)

DR. JITENDRA SINGH: Sir, in half a minute I will give answer to both. ...(*Interruptions*)

As far as the first query by the hon. Member, Shri Satpathy, is concerned, as of now there is no plan or proposal to separate the two. But, as I said, it is absolutely an autonomous body, and there is no control exercised extraneously on it.

As far as the query by the hon. Member, Shri Dushyant Chautala, is concerned, एक्जुअली दोनों ही सच हैं। होता यह है कि, cancer and radiation have a prospective effect, may not have a retrospective effect. In other words, all the cancers are not caused because of radiation but all the radiations do not lead to cancer. So, the hon. Member is right that these deaths or these figures of cancer happening among the staff of the Atomic Centre are true but they are not related to nuclear radiation as such because there are certain categories of cancer which are directly related to it.

HON. DEPUTY SPEAKER: The question is:

"That the Bill be passed."

The motion was adopted.

17.45 hours