resolution video and multi media services in addition to voice, fax and conventional data services. These capabilities in the 3G network technology provide the applications like e-health, e-education and mobile banking, although other Broadband access networks are also capable of providing these applications.

SHRI K.N. BALAGOPAL: Sir, Wimax system is connected with the 3G. Sir, the Wimax system can augment the telecommunication facilities and the E-governance initiative in India. What is the present position of licensing of Wimax facility?

SHRI SACHIN PILOT: Sir, I would like to inform the hon. Member that Wimax is a technology which is being deployed in India primarily in the rural areas. It is the endeavour of the UPA Government to make sure that technology, and information Technology especially, as also communication technologies do not remain limited to the city centres and large city centres. Therefore, to proliferate the use of IT and of technology, we have been using many technologies, including Broadband and Wimax to benefit the 6.5 lakh villages where a lot of our citizens reside. Sir, Wimax technology is one of the latest technologies, and it is going to be used in the rural India to deliver many services for education, for health etc. It is also going to be used a bring in services like mobile to ensure that there is a true financial inclusion taking place, and the IT Revolution and the Telecom Revolution does not remain limited just to a few urban cit centres but expands to all parts of our country.

MR. CHAIRMAN: Now, Question No. 367, the hon. Member is absent. Any supplementary on this? Yes, Mr. R.C. Singh.

\*367 [The Questioner (Shri B.S. Gnanadesikan) was absent]

## Early warning system for Tsunami

\*367. SHRI B.S. GNANADESIKAN: Will the Minister of EARTH SCIENCES be pleased to state:

(a) whether the early warning system for Tsunami was installed at a cost of RS.120 crore nearly three years after the tidal waves struck killing some 12,000 people and leaving thousands homeless;

- (b) whether it is a fact that four out of six buoys installed for the purpose to not seem to be working and Chennai based National Institute of Ocean Technology (NIOT) has displaced some of the damaged sensors in the buoys with cheap ones;
  - (c) if so, the details thereof; and
  - (d) the details of steps taken by Government to install quality sensors in these places?

THE MINISTER OF STATE OF THE MINISTRY OF EARTH SCIENCES, (SHRI PRITHVIRAJ CHAVAN): (a) to (d) A statement is laid on the Table of the House.

## Statement

- (a) Yes, Sir.
- (b) to (d) No Sir. Five out of six moored buoys are working satisfactorily. The sixth mooring will become operational after the current monsoon season. All the sensors installed on these moorings are of good quality.

The operational sustenance of the deployed moorings over the open seas is highly vulnerable to vandalism, theft, inadvertent damage by passing vessels etc. The non-functional moorings are attended by a maintenance support team with necessary spares and the sensors are replaced/serviced in open seas using the research vessels at the earliest opportunity. Due to the rough open sea conditions, most of the service activities involving research vessels are scheduled during the non-monsoon seasons.

National Institute of Ocean Technology (NIOT) has now catered for a few spare moorings and totally non-serviceable mooring can be replaced by a spare mooring in the open seas so that operational sustenance potential of the moored buoy network is maintained.

श्री आर.सी. सिंह: सर, प्रश्न के जवाब में मंत्री महोदय ने कहा है कि मानसून के season में अधिकांश सेवाएं कार्यरत नहीं रह पाती हैं। अगर मानसून के season में वे buoys काम नहीं कर रहे हैं, तो उनको repair करने के लिए क्या step लिया जा सकता है, जिससे सूनामी की information immediately मिल सके?

SHRI PRITHVIRAJ CHAVAN: Sir, we have six buoys in the Bay of Bengal region between Andaman Island and coast of India, mainland India. These buoys are working round the clock. One of the buoys has not been working. Sir, we go and repair these buoys through our research vessels which go and service them, change the batteries and all that. So, these five buoys are working perfectly well. One buoy will be repaired when the sea becomes calm and our research vessel goes and repairs and also changes batteries. But I would like to assure the House that our tsunami warning system is working very efficiently. When the last earthquake happened if gave the alarm immediately and also warned the people that it was not a tsunami.

श्रीमती विष्ठव ठाकुर: सर, थेंक्यू वैरी मच, मैं मंत्री जी से जानना चाहती हूं क्योंकि हमारा सी-कोस्ट बहुत ज्यादा है, तो किस-किस सी-कोस्ट पर जैसे मुम्बई है, चेन्नई है, कोलकाता है और बाकी एरियाज हैं, कहां-कहां ये इंस्ट्रूमेंट लगाए हुए हैं? चूंकि इनके लगाने के बावजूद भी इंसीडेंट हो जाते हैं, तो उसको रोकने के लिए कितने घंटे पहले ये लोगों को वार्निंग देते हैं? इसके अलावा जैसे क्लाउड बर्स्ट आ रहे हैं, जैसे अभी लद्दाख में हुआ है, हिमाचल में हुआ है। क्या इसके लिए भी वहां वार्निंग के लिए ये कोई इंस्ट्रूमेंट लगाने जा रहे हैं, यह मैं जानना चाहती हूं?

SHRI PRITHVIRAJ CHAVAN: Sir, India is very proud of its tsunami systems. ... (Interruptions)... Sir, tsunami cannot be predicted. Only when an earthquake happens, whether that earthquake will result in tsunami, which is nothing but huge sea waves, as we witnessed some time back, it gives us an early warning because if an earthquake happens in the Indonesian region, the waves that come take few hours to reach our Indian coast. Our attempt is to determine whether earthquake will cause a tsunami or not and that is the whole tsunami warning system. The main question is about the buoys and the hon. Member has asked where they are deployed. All other countries have also buoys and we share data with them. As I said earlier, the Indian six buoys are in the Bay of Bengal between the Andaman Island and the mainland of India and they are placed approximately at a distance of about 400 kilometers. They give additional information besides the information that we get from other sources and other centres.

DR. N. JANARDHANA REDDY: Sir, tsunami and cyclone are the two natural calamities that affect the eastern part in the Bay of Bengal, and Andhra mainly, and Tamil Nadu. As far as I know, from the beginning the Government of India is going on telling that early cyclone warning system will

be established in Andhra. But in these so many years nothing has happened. Tsunami is a new natural calamity. The Government of India is telling that an early warning system is going to be established. It has been established but it has not been working effectively, as the Minister if telling. So, it is a very serious natural calamity which can affect people. So, the Government of India has to seriously think about establishing an early warning system but not in this way, but it should be a perfect thing. Otherwise, it will be limited only to a Parliament question.

SHRI PRITHIVRAJ CHAVAN: Sir, I would like to inform the House that tsunami and cyclone are two different natural calamity phenomena. We have Q. No.372 later on Cyclone Laila. I would be happy to take question on cyclone when that question is called. Otherwise, on tsunami let me assure the hon. Member that we have tsunami warning centre right in his State in Hyderabad. It is a world-class system. It is able to immediately warn people whether the earthquake, we can only start predicting after the earthquake happens, will cause tsunami or not. That system is working very well, Sir. I will answer question on cyclone when that question comes.

\*368 - The Questioner (Shri Tariq Anwar) was absent

## Shortage of houses in Bihar

\*368. SHRI TARIQ ANWAR: WIII the Minister of HOUSING AND URBAN POVERTY ALLEVIATION be pleased to state:

- (a) whether Government is aware that there is acute shortage of houses for people living Below Poverty Line in the country, particularly in Bihar;
  - (b) if so, the effective measures Government is taking to resolve this problem;
  - (c) the total number of houses required for this category, particularly in Bihar;
  - (d) whether Government has formulated any scheme in this regard; and
  - (e) if so, the details thereof?