

GOVERNMENT OF INDIA
MINISTRY OF EARTH SCIENCES
RAJYA SABHA
STARRED QUESTION No. *367
TO BE ANSWERED ON 19th AUGUST, 2010

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 do 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?

ANSWER

THE MINISTER OF STATE (INDEPENDENT CHARGE)
MINISTRY OF SCIENCE AND TECHNOLOGY, MINISTRY OF EARTH SCIENCES,
MINISTER OF STATE IN THE PRIME MINISTER'S OFFICE, MINISTER OF STATE IN
THE MINISTRY OF PERSONNEL, PUBLIC GRIEVANCES & PENSIONS AND
MINISTER OF STATE IN THE MINISTRY OF PARLIAMENTARY AFFAIRS
(SHRI PRITHVIRAJ CHAVAN)

(a) – (d) A statement is laid on the Table of the House.

**STATEMENT REFERRED TO IN REPLY TO PARTS (a) to (d) OF THE RAJYA
SABHA STARRED QUESTION No. *367 ASKED BY SHRI B. S. GNANADESIKAN
FOR ANSWER ON THURSDAY, AUGUST 19, 2010**

ANSWER

- (a) Yes Sir.
- (b) - (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.

GOVERNMENT OF INDIA
MINISTRY OF EARTH SCIENCES
RAJYA SABHA
STARRED QUESTION No. *372
TO BE ANSWERED ON 19th AUGUST, 2010

LAILA CYCLONE

***372. SHRI RAJKUMAR DHOOT:**

Will the Minister of EARTH SCIENCES be pleased to state:

- (a) whether it is a fact that Laila Cyclone hit the coastal areas of Andhra Pradesh, Tamil Nadu, etc. on 21st May 2010;
- (b) if so, the details thereof;
- (c) the danger caused to marine life and life and property in coastal areas;
- (d) how effective was the prior warning and rescue operations; and
- (e) what preventive steps Government proposes to take to protect coastal areas from such natural calamities?

ANSWER

THE MINISTER OF STATE (INDEPENDENT CHARGE)
MINISTRY OF SCIENCE AND TECHNOLOGY, MINISTRY OF EARTH SCIENCES,
MINISTER OF STATE IN THE PRIME MINISTER'S OFFICE, MINISTER OF STATE IN
THE MINISTRY OF PERSONNEL, PUBLIC GRIEVANCES & PENSIONS AND MINISTER
OF STATE IN THE MINISTRY OF PARLIAMENTARY AFFAIRS
(SHRI PRITHVIRAJ CHAVAN)

(a) – (e) A statement is laid on the Table of the House.

**STATEMENT REFERRED TO IN REPLY TO PARTS (a) to (e) OF THE RAJYA
SABHA STARRED QUESTION No. *372 ASKED BY SHRI RAJKUMAR DHOOT
FOR ANSWER ON 19th August, 2010**

ANSWER

- (a)-(c) LAILA Cyclone developed over Bay of Bengal on 17th May, 2010 and crossed Andhra Pradesh coast near Bapatla (about 50 km southwest of Machilipatnam) on 20th May 2010 evening between 1630 and 1730 hrs IST. Later, it moved north-north-eastwards and weakened gradually.

It caused wide spread rainfall with scattered heavy to very heavy falls and isolated extremely heavy falls over coastal Andhra Pradesh leading to rain induced flooding in low lying areas. Gale winds speed reaching 90-100kmph were reported by the meteorological observatories in the coastal regions of Andhra Pradesh. The storm surge of 2-3 meters inundated the low lying areas of Guntur, Prakasham, West and East Godavari districts. The system also caused heavy to very heavy rainfall over north Tamilnadu and Orissa.

Life and property of Coastal Communities may be exposed to danger during a Cyclone depending upon its intensity and path. Cyclone does not pose danger to marine life. Details of damage caused to life and property in the coastal areas of Andhra Pradesh are presented in Enclosure-I.

- (d) The landfall of Laila Cyclone near Machilipatnam was predicted by India Meteorological Department (IMD) well in advance (about 72 hrs before landfall), which helped the concerned state and other agencies to take appropriate preventive actions to protect lives.

IMD issued 3-hourly warning/advisory bulletins to National Disaster Management Control Room of Ministry of Home Affairs (MHA) and various agencies including central, state and district authorities indicating the likely areas under cyclone threat. As a whole, 31 bulletins were issued for Indian coast during the life cycle of LAILA Cyclone. MHA and Crisis Management Group at the Central level effectively coordinated all activities related to relocation of the people from vulnerable areas to safer shelters/camps, relief and rescue operations with the Government of Andhra Pradesh. Disaster Management Commissioner of the Government of Andhra Pradesh was in constant contact with the Meteorological Centre, Hyderabad in effectively planning appropriate relocation/rescue actions.

- (e) The existing early warning system of tropical cyclones will be further strengthened with the completion of the ongoing modernization programme which would enhance capabilities in terms of effective observations, monitoring, early warning of Tropical Cyclones.

Details of Damage Caused to Life and Property in the Coastal Areas

Followings are the damages due to cyclone, according to sources of Andhra Pradesh Government.

- Number of human deaths : 06

Damages to public and private properties

Agriculture department

- 11,351 Ha of agricultural crop are damaged so far as per the preliminary reports.
 - Prakasam 6320
 - Krishna 4000
 - Prakasam – 800
 - Kadapa – 396
 - Nellore – 347
 - East Godavari - 288

Horticulture department

- 7949 Ha of horticulture crop are damaged so far as per the preliminary reports.
 - Nellore 3383
 - Prakasam – 2220
 - Kadapa – 830
 - Guntur 604
 - Krishna 560
 - West Godavari -315
 - Ananthapur – 32
 - East Godavari – 4

Fisheries department

- 2 Fishermen missing in Krishna district.

Boats lost

- 416 **boats lost** worth Rs 87.25 lakhs.
 - 260 in Prakasham
 - 155 Krishna
 - 1 Vizianagaram

Boats damaged

Total 1643 **boats damaged** worth Rs 139.59 lakhs

- 679 in Krishna
- 355 in Nellore
- 540 Prakasham
- 30 Guntur
- 20 Visakhapatnam

- 16 srikakulam
- 3 Vizianagarm

Nets lost

Total 3648 **nets lost** worth Rs 297.83 lakhs.

- 1545 Krishna
 - 1200 Prakasham
 - 615 Guntur
 - 245 Nellore
 - 23 Vizianagaram
 - 17 Visakhapatnam
 - 3 Srikakulam
- 762 Ha of brackish water culture ponds inundated worth Rs 547 lakhs.
 - 181.20 Ha of fresh water culture ponds inundated worth Rs 28.50 lakhs.

Energy department

- 58 electric substations (33 KV) affected. Electricity is affected in 692 villages.

Irrigation department

- 5 Minor Irrigation tanks damaged (3 in Prakasham, 1 in Nellore, 1 Chittoor).
- In East Godavari, Chagalnadu lift irrigation project canal is breached for 7 meters.

Housing department

- 172 houses damaged fully and 265 partly damaged so far.

Roads & Buildings department

National Highways

- 16 trees fallen and 16 trees are removed.
- 3 overflows. Traffic restored at one location at KM 253/0 of D-O section of NH 214 A. Traffic interruption is still there at two other locations i.e. 209/6 and 226/0 of D-O section of NH-214 A as overflow is yet to recede.

State roads

- One R & B road breached at Prakasham district.
- 2 roads damaged (9.7 KM) in West Godavari.
- 300 meters of R&B road is damaged in Nellore district.

Animal husbandry department

- 367 domestic animals including 60 cows, 302 sheep and goat worth Rs 24.65 lakhs died.
- 57 Veterinary buildings damaged worth Rs 285 lakhs.
- 475 Metric Tonnes of fodder damaged in Krishna worth Rs 11.87 lakhs.