

Coastal Preparedness and Response in India

India has the longest coastline among all the countries in South Asia. The country's 7,517 kms of coastline gives it unparalleled access to the seas, it also makes India highly prone to coastal disasters such as cyclones, storm surges and tsunamis. The coastal areas and coastal communities of India that bear a major brunt of these disasters must appear more often in the disaster management plans of various states and districts. Oddly enough, this is not the case.

As mentioned earlier, the coastal areas face an increasing risk of cyclones, floods and salinity ingress in addition to tsunamis. The delta areas, such as the Sundarbans, are especially vulnerable.

Recent cyclone Okhi in November and December, 2017 caused severe damages to structures and property claiming the lives of 218 lives in the Southern parts of Tamilnadu and Kerala in India.

The Government of Gujarat has decided to establish a satellite-based tracking and warning system on about 12,000 fishing boats at a cost of 95 crore INR.

Maharashtra has begun colour-coding fishing boats district-wise rather than assigning a common colour to all boats registered in the state. Since 2015, the Mumbai police have been using 18 boats to patrol Mumbai's coastline every day.

Kerala had set up a coastal police force to add an extra layer of protection and prevent the intrusion of any anti-national elements or illicit items through the sea. (PwC, 2017)

India is investing public money to develop ports and harbours. Private corporations—Indian and others—are investing in coastal ports and

harbours as they have the potential to become the hub of economic activity in the country in the next 3 to 5 years.

An estimated US\$ 18.6 billion will be invested in major ports and US\$ 28.5 billion in non-major ports by 2020. Under the Sagarmala Programme, the Government of India has envisioned a total of 189 projects for modernisation of ports involving an investment of INR 1.42 trillion (US\$ 22 billion) by the year 2035. (IBEF, 2017)

One of the key areas for coastal preparedness and response is mobility and connectedness after a disaster. In the aftermath of a disaster, the citizens often get cut from land and sea both, and have to wait for days or over weeks for basic heavy supply of food, water and health inputs. Seaplanes offer one more choice to deliver relief and rescue on land and in sea to Indian citizens.

Seaplanes, planes that land and take-off from sea (or large suitable water body) may be a step in the direction of coastal preparedness and response in India.

The Transport Ministry as well as Civil Aviation Ministry have shown interest in developing seaplanes as an additional measure to connect citizens and growing trade and commerce within India and abroad.

The interest in widespread use of seaplanes is also shown by private sector organizations such as Spice Jet in India, which has announced a plan to buy 100 seaplanes from Setouchi Holdings, Japan.

Spice Jet is a private airline in India recovering, from an economic loss with vitality and vision.

Setouchi Holdings of Japan is a

leading actor in seaplane making and related investments.

In many ways seaplanes offer connectivity for disaster response and preparedness in coastal areas.

Last month, China unveiled its domestically developed AG600, a massive four-engined amphibian plane that can carry 50 people and suck in upto 12 tonnes of water in 20 seconds for firefighting operations. Such crafts can deliver a wide range of relief supplies in coastal areas and ports.

Russia has the Beriev Be-200, a twinjet amphibian that's mainly used for firefighting operations. It also manufactures ekranoplans, which skim a short distance over water at great speed. They are distinct from hovercraft in not requiring a cushion of air. Be-200 remain close to sea water.

As a follow up to National Disaster Management Plan, India is developing a national community development road map. This road map will include, special roles for coastal states such as Andhra Pradesh on the east and Gujarat on the west coast.

The ongoing World Bank program in coastal India titled Integrated Coastal Zone Management has so far depended only on existing modes of transport. It has not explored the potential use of seaplanes in both, preparedness and response in coastal areas such as Andhra Pradesh and Odisha.

Perhaps the most important need is to initiate a scoping study that not only reviews the existing needs but also looks at emerging transportation needs from the point of view of the National Disaster Response Force in coastal locations. ■

— AIDMI Team