

SAVING THE LIVES - OUR MISSION

**Keynote address by Mr. Bishnupada Sethi, IAS, Commissioner-cum-Secretary and Managing Director, Odisha State Disaster Management Authority, India
at the Opening of the ESCAP Disaster Resilience Week 2019
United Nations Conference Centre (UNCC), Bangkok, Thailand
26 August 2019**

Twenty years after the disastrous cyclone had hit the coasts of Odisha in 1999, cyclone Fani made another history for its successful management. With the 20 years of foresight we have decreased the casualties by an astounding amount.

We have received wide appreciation for the management of Extremely Severe Cyclonic Storm 'Fani' from various quarters including the United Nations. Local, national and international media had followed up the disaster right from the formation of a low-pressure zone in the Indian Ocean to the time of landfall and all that followed afterwards.

I would like to draw your attention to one article published in the New York Times dated May 3, 2019 titled "How Do You Save a Million People From a Cyclone? Ask a Poor State in India" and the second article titled "Why did India's devastating Cyclone Fani kill only 40 people - not 10,000? Thank democracy and technology" published in the Washington Post. These articles were very widely circulated, quoted and posted on social media, re-tweeted and appreciated by many. We were quoted on the process that the government has followed over a period of 20 years to build up the capacities. The achievement did not happen due to few tasks carried out over a period of few hours or days, it was 20 long years of preparedness.

In fact in the year 1999, Odisha was hit by a super cyclone on the 29th of October. It was probably the greatest cyclonic disaster ever recorded in the last century. The cyclone centered over coastal Odisha for three days with a torrential downpour and a tidal surge of about 6 metre swept the coastal low-lying areas for a distance of 40 to 50 km inland. The last recorded wind speed was 260 kmph. The peak speed of the wind was beyond the limits of the anemometers of Bhubaneswar or Paradip to record. The violent wind was accompanied by incessant rainfall ranging from 45 to 95 centimetres in a continuous spell of three days. The storm surges entered through the creeks, river mouths and low-lying areas sweeping many villages on that fateful night. The super cyclone affected about 2 crore people in 14 districts including the two major cities i.e., Bhubaneswar and Cuttack. More than 10000 human lives, 4.5 lakh livestock, crops in more than 18 lakh hectare area were damaged. And all we were left with in the aftermath was to look at the wrath and trail of destruction it had left behind.

For me, to manage disasters is a very personally satisfying challenge. I recollect how as a child I saw the cyclone disrupt village life and left people in ruins. Those were the seventies and eighties, times when we received no warning from the government. Unaware of the disaster that cyclone would hit a few mins from now, people used to go on about their normal lives. And when it does hit abruptly thousands would face the cyclone and hundreds would die. Food scarcities, lack of essential services, other disruptions used to last for months together and it was just the fact of life. The people blamed their fate for suffering on account of cyclone, flood, drought and other calamities. The unaffected people would come to know little about the disasters as there was hardly any media coverage. Then, disaster management was never the subject of governance.

Odisha has always been a very disaster-prone area. We did not have a proper cyclone forecast system prior to 1999. There have been previous instances when cyclones have brought about great devastation as the people were never warned. Historical records show that in the year 1831, cyclone caused about 50,000 casualties. In the following years of 1967, 1971 and 1985, thousands of people died due to cyclones.

Our part of the world used to be ravaged by not just cyclones but also frequent drought and famine. The great Bengal famine in year 1770 resulted in human casualties of about 10 million. The famine of 1866 in Odisha took away lives of another 4 million people. In the famine of 1943, 3 million people died.

The rulers and earlier governments never thought saving human lives was their responsibility and people were left to fend for themselves, with not enough resources nor help from unaffected areas. Such was fate of the people in earlier times.

It is not possible to imagine such things happening today. This is because democracy has come a long tedious way. It flourished and the aspirational level of voters has risen. Democracy has led to development of newer technologies and adoption in a competitive manner that has led to an overall improvement in governance and serving the people.

We have made long strides in the domain of disaster management since the year 1999. All out preparedness and mitigation measures have been taken for augmenting resilience of the community for disaster management. In the past 20 years, we have constructed many multipurpose cyclone and flood shelters in different parts of the state to provide safe shelters to the vulnerable community during such disasters. These shelters can withstand a wind speed of 350 kms and provide support to

community even in case of high floods. All the shelters are connected with excellent roads enabling faster evacuation.

Several embankments in the state have been strengthened to protect from the storm surge and saline ingress due to cyclones.

Twenty units of Odisha Disaster Response Force (ODRAF) units have been created in the state for disaster response. Earlier we used to take the help of army and navy for such activities. The ODRAF units have been fully equipped and trained with multiple skills to tackle any eventuality. These forces are immediately deployed in the event of a disaster. We have 335 Fire Service Units which have excellent capabilities to face any disaster as the first responder.

Thousands of disaster resilient houses with facilities like Toilet, Piped water supply and Electricity have been constructed in the cyclone prone coastal areas of Ganjam and Khurda. These include concrete houses built under various government programs thus reduced the vulnerability of the people and our people remain safe during cyclonic situations.

The state of art early warning dissemination system has been established in the state emergency operations centre. Technologies like Satellite Based Mobile Data Voice Terminals (SBMDVT), Digital Mobile Radio (DMR), Mass Messaging System, Alert Siren System and Universal Communication Interface (UCI) for interoperability among different communication technologies have been provided under the system. Our aim has been to establish a fool-proof communication system to address the existing gap in disseminating disaster warnings up to the community

level. Significant improvement in building resilient infrastructure in all sectors also contributed to the success immensely.

Today, we get a near precise information from the Indian Meteorological Department. We cross check the information with forecasts from the Joint Typhoon Warning Center of the US Navy, ECMWF and others. We have an active collaboration with other scientific organisations like RIMES Bangkok. We undertake a lot of analysis on the likely impact of extreme weather events like cyclone giving due attention to secondary risks like inundation caused by storm surge, flooding in low lying areas and different kinds of risks for various sections of community situated in different conditions. For example, the people staying very close to coast in kutcha houses would carry maximum risk on account of a cyclone. During the cyclone Fani, we plotted the track of cyclone on a GIS map and listed out nearly 10000 villages and 51 towns which needed specific attention. We used location based alerting system to forewarn the people on the path of the cyclone. About 1.8 crore messages were sent to the vulnerable people to take safety measures. 122 cyclone towers along the coast were blown round the clock warning people to remain safe. We had a perfect coordination with different departments such as police, Fire, ODRAF, NDRF, Fishery department etc. The officers moved to the identified villages, used megaphones and evacuated them. Not a single fisherman was found to be out in the sea or in the Chilika lake. All the fishing vessels were towed away from the seashore. 25,000 tourists were evacuated from the town of Puri which was likely to be hit very badly.

Appeal was made by the Honourable Chief Minister to the people to remain in the safe buildings. Schools, colleges, business and commercial establishments were all closed. The vehicular movement was completely stopped. The trains were cancelled.

The air traffic was also shut down. Everyone was aware of a great cyclone and took safe measures. Electronic media played a vital role by broadcasting the messages round the clock. TV spots were played in the TV channels and radio on safety precautions. Social Media platforms were effectively used not only for dissemination of warnings but also for sending vital information to the general public for safety and survival.

As a result of massive drive, more than 15.5 lakh people were evacuated to almost 9000 safe shelters including cyclone and flood shelter buildings. Special care was taken to shift the old, differently abled, women and children to shelters much before the cyclone approached.

Our shelters have 50 volunteers each. Similarly, Apada Mitra volunteers have been trained in Puri and Jagatsinghpur districts. Community Level Volunteers and Task Force Team members of Multipurpose Cyclone/ Flood Shelters were engaged for public meetings and for ensuring preparedness, warning dissemination and expediting evacuation. The political representatives played a very crucial role. The cyclone shelters are managed by a committee headed by the local Sarpanch. They made proper arrangement of food, lighting and sanitation and other measures.

Odisha let out a sigh of relief after the landfall because no one died or had attained severe injury on the coast due to Fani. As many as 64 people died due to negligence, being out in the open and having exposed themselves to the cyclonic wind. Our focus has been to remain prepared for all the times. Death due to any disaster is a painful experience and we are committed to reduce our vulnerabilities.

Our jobs are never done. We are working on several programs to reduce the

sufferings of people due to flood, drought, other local disasters like lightning & thunderstorm, drowning and thunderstorms.

We value every human life. Through teamwork, technology and transparency the disaster management is done in the state. The achievement has been made possible due to a government machinery and participation of community, well prepared over a period of about two decades.

Beyond just weathering the storm, Odisha has poised to raise the ambition of its cyclone policy from zero casualty to zero disruptions and damage. Considering lessons from past disasters as well as the evolving dynamics of risks and societal vulnerabilities, the state is transforming its disaster risk management and development approaches to reduce damages and disruptions. These transformations will be powered by forecast technological advances and ICT innovations.

In early 2019, the State Government has established an impact-based early warning system called SATARK (System for Assessing, Tracking and Alerting Disaster Risk Information based on Dynamic Risk Knowledge) on an experimental basis to guide both short and long-term cyclone preparedness strategies. Enabled by cutting-edge ICT and data storage technology, the system will analyse short and medium range weather forecast (5 to 7 days) vis-à-vis social and economic data to inform the design and implementation of contingency plans. This will help the authorities restore normalcy much more rapidly. For example, requirements for restoring basic services, such as power, transport and communications, can be anticipated and secured in advance based on information generated from SATARK.

SATARK can also guide long-term planning and decision making by producing

periodic assessments of vulnerabilities to and risks of primary hazards (the cyclone itself), as well as the secondary (e.g. storm surges, flooding, landslides) and tertiary impacts (e.g. cholera outbreak) in both coastal and non-coastal districts. This is a data-intensive undertaking which requires pooling data and information from several state agencies. It is also an ambitious one; but without a doubt the present leaders of Odisha are well-positioned to bring yet another major transformation in disaster risk management.

We are focusing on community disaster management plans and consolidating those at higher administrative levels and preparing state plans. The plans are executed in a decentralised manner in terms of evacuation, giving due preference to disabled people, elderly population, children, women and pregnant mothers, shelter management, relief management, faster recovery processes. Use of space technology, computing knowledge, historical data have helped us in the process.

We have extremely hard working and coordinated people who use their impeccable skills to use the excellent technology we are provided with to avert a disaster of the level of extremely severe cyclone Fani, which is no normal feat. And we shall continue to do our duties as part of our responsibility to the government and most importantly it's people.

At the end I must say that our DEMORACY provides an enabling environment and DETERMINATION to save lives AND LEVERAGE TECHNOLOGY TO DELIVER. This is quite evident from the disaster management practices of India.
