

= 1990 Andhra Pradesh cyclone =

The 1990 Andhra Pradesh cyclone or the 1990 Machilipatnam Cyclone was the worst disaster to affect Southern India since the 1977 Andhra Pradesh cyclone . The system was first noted as a depression on May 4 , 1990 , while it was located over the Bay of Bengal about 600 km ( 375 mi ) to the southeast of Chennai , India . During the next day the depression intensified into a cyclonic storm and started to intensify rapidly , becoming a super cyclonic storm early on May 8 . The cyclone weakened slightly before it made landfall on India about 300 km ( 190 mi ) to the north of Madras in the Andhra Pradesh state as a very severe cyclonic storm with winds of 165 km / h ( 105 mph ) . While over land the cyclone gradually dissipated . The cyclone had a severe impact on India , with over 967 people reported to have been killed . Over 100 @, @ 000 animals also died in the cyclone with the total cost of damages to crops estimated at over \$ 600 million ( 1990 USD ) .

= = Meteorological history = =

On May 4 , 1990 the India Meteorological Department ( IMD ) reported that a depression had developed over the Bay of Bengal about 600 km ( 375 mi ) to the southeast of Chennai , India . During that day the system gradually developed further and became the subject of a tropical cyclone formation alert , by the Joint Typhoon Warning Center as it moved westwards under the influence of the subtropical ridge of high pressure . The depression subsequently intensified into a cyclonic storm early the next day , before the JTWC initiated advisories on the system and designated it as Tropical Cyclone 02B later that day . At this stage the JTWC only expected the cyclone to intensify marginally , before it weakened as it made landfall in Southern India within 72 hours . During May 6 , the system started to move more towards the north @-@ west because of a weakness in the subtropical ridge , as it continued to intensify and became a Very Severe Cyclonic Storm . This turn towards the northwest turned out to be more northerly than had been expected , which as a result allowed the system to stay offshore for longer than had been expected by the JTWC .

Over the next couple of days the system rapidly intensified before the JTWC reported early on May 8 , that the system had peaked with 1 @-@ minute sustained windspeeds of 230 km / h ( 145 mph ) , which made the system equivalent to a category 4 hurricane on the Saffir ? Simpson hurricane wind scale . At around the same time the IMD also reported that the cyclone had peaked as a Super Cyclonic Storm , with 3 @-@ minute sustained wind speeds of 235 km / h ( 145 mph ) and an estimated central pressure of 920 hPa ( 27 @. @ 17 inHg ) . By this time the system was located about 150 km ( 95 mi ) to the northeast of Madras and was moving northwards slowly . Later that day as the ship Visvamohini moved through the systems eye region , it measured a central pressure of 912 hPa ( 26 @. @ 93 inHg ) , which the IMD reported would be one of the lowest central pressures ever measured in the Bay of Bengal if it was correct . The system subsequently started to weaken and had become a Very Severe Cyclonic Storm by the time it made landfall during May 9 , near the mouth of the Krishna River in southern Andhra Pradesh . The system subsequently moved north @-@ westwards and gradually weakened further , before it was last noted during May 11 , by both the IMD and JTWC .

= = Preparations , impact and aftermath = =

= = = Preparations = = =

As a result of timely warnings issued by the IMD , the Indian government was able to launch an evacuation campaign and order that all fisherman return to shore . This led to more than 150 @, @ 000 people being evacuated to relief camps which had been set up on higher ground . Due to the thorough preparations , there was fewer deaths than in the 1977 Andhra Pradesh cyclone .

= = = Impact = = =

On Edurumandi Island over 7 @, @ 000 people were left stranded after they refused to evacuate . The island itself was reported to have experienced the full brunt of the system . However , all of the residents reportedly sought protection within a shelter provided by the government . The cyclone had a significant effect on India , with storm surge tides as high as 4 @. @ 9 meters ( 16 ft ) above normal . Consequently , over 100 villages were submerged in water and destroyed . At least 967 people were killed by the cyclone ; most of the deaths occurred when houses made mostly out of mud and straw collapsed . Other people were killed when electrical wires were knocked down and while some people were carried away by flooded rivers . The storm left at least 3 million people homeless , while over 100 @, @ 000 farm animals were killed . At least 435 @, @ 000 acres ( 1 @, @ 760 km2 ) of rice paddies were destroyed along with huge tracts of mango and banana trees . The total damage to crops and property was estimated at over \$ 600 million ( 1990 USD ) . The cyclone was described as the worst disaster in southern India since the 1977 storm . Sea water contaminated fresh drinking wells , prompting warnings about outbreaks of Cholera and Typhoid as many people were drinking and cooking with water from the drains which was causing stomach disorders .

= = = = Tamil Nadu = = = =

Overall the cyclone only caused minor damage to Tamil Nadu with the worst affected area being the district of Chingleput , where one of the old shrines of Kasiviswanather Temple collapsed as high waves hit the coast . A large number of huts were also washed away by the waves , while six deaths were reported in the state .

= = = = Andhra Pradesh = = = =

= = = Aftermath = = =

On May 11 , two days after the cyclone had hit , the Indian Government launched a massive relief and rescue operation . The Indian Army and Naval helicopters took surveys of areas affected by the cyclone , and also dropped food packets . Although the Indian Government did not request international assistance , the Red Cross provided food , oil , medicines and water tanks for the affected families ; the wcc / cicarws issued an appeal for \$ 262 thousand ( 1990 USD ) so they could provide immediate needs with World Vision providing \$ 160 thousand ( 1990 USD ) for food blankets and utensils .