The March 11, 2011 Tohoku earthquake tsunami disaster devastated the Pacific coast of northeastern part of Japan. The large number of casualties more than 27,000 and several types of tsunami impact such as inundation in a large area, destructive force destroying houses, buildings, infrastructures, road, and railways, and change of topography due to the erosion and deposition are reported. The photo, videos and witness to record and report the tsunami attacking the coastal area, which should be compiled to know its feature. Although the observation system of tsunami were heavily damaged along the coast, some available data recorded by the tidal gages, GPS buoy one, and deep sea pressure sensors. The extent of affected area is quite large and still limitations and difficulties of ground survey exist. The author reports the results of field surveys as well as satellite image analysis with ground truth data, to obtain the data of the tsunami and its disaster, and identify extent of tsunami inundation and land use change. The distribution of tsunami runup heights measured along the coast are ranging the 7-15 m in Sendai and Fukushima with the simple beach geometry and the 10-30 m in Sanriku with the complex one of Rias coast.