

Role of Census and its Geo-spatial Data in Disaster damage assessment

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Abstract

Role of Census & Its Geo-Spatial Data in Disaster Damage Assessment (An Example of Phailin Cyclone in Odisha & Andhra Pradesh) Dr. A.P. Singh Dy. Registrar General Office of Registrar General & Census Commissioner, India India, being vast in terms of its geographical area, has very diversified topography, climate and geological setting which makes it vulnerable to all kinds of natural hazards such as earthquake, cyclone, flood, drought, landslide and avalanche etc. The floods occur almost every year in one or other part of the country. Majority of floods occur during four months of monsoon. Sometimes, disasters like cyclone and earthquake leave the masses unaware resulting in heavy losses. These natural calamities occur all of a sudden and cannot be stopped but with proper and effective monitoring system, the damage/loss can be minimized. These disasters (natural or man-made) affect the human lives in various ways. Apart from the loss of lives and resources, human settlements are also affected. Assessment of all these for rescue operations and rehabilitation programmes is possible when a complete pre & post disaster database is available. The geo-spatial data created for conducting Census can help a lot in assessing all the damages of life and property. Census data can also be quite helpful in making the evacuation plans before the disaster and managing the disaster mitigation activities after the disaster.

Recently, a Cyclone named Phailin hit the Coastal areas of Odisha and Andhra Pradesh on dated 12th October, 2013 at about 9 pm which originated in Bay of Bengal (approx. 350 kms. away). The rivers overflowed due to high sea waves/cyclone winds. Lakhs of people and thousands of houses /buildings were damaged. After the rescue operation, the issues like assessing the loss of human lives, bovine population, housing structures, communication network and roads were on priority of the Disaster Managers followed by the rehabilitation and compensation to the victims. As reported, more than one crore people were affected and approx. thirty five thousand houses were damaged.

India has a glorious tradition of conducting decennial Census dating back to 1872. Census 2011 is fifteenth since beginning, seventh after independence and second in 21st century without any break. Census data is termed as most credible source of information about demography, housing condition, standard of living, urbanisation and various other socio-economic aspects of the country. Apart from the demographic data, the information about the quality of life of the people is also collected. Various developmental programmes like provision of food, housing, drinking water, sanitation, medical, education and other necessities depend upon the data collected by the Census. Thus, Census is the main source of primary data at all administrative hierarchy i.e. State, District, Sub-district (tehsil/taluk/CD block/PS/ circle etc.), Village, Town and Ward.