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Comment

Elephant (*Elephas maximus*): a keystone species for ecological balance

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Elephants are known as one of the most intelligent creatures on the Earth. They provide a healthy environment and ecology by removing the old growth trees, trampling grasses and creating water holes to provide a source of water for themselves and other animals. They are important in soil conditioning. Elephants play a major role in seed dispersal. The dung of elephant is packed with seeds of many different plants. Many species of plants regenerate exclusively through such process of dispersal. Therefore Elephants are also known as a natural gardener for maintaining a healthy forest. According to the census report of 2017, population of elephant in India is 27,312 out of which 1,976 is from Odisha. The highest number was reported from Similipal Biosphere Reserve (SBR), Odisha, India. In a data published by Wildlife Society of Odisha in collaboration with Wildlife Protection Society of India, approximately 1400 elephants loss their lives since 1990 due to the human animal conflict resulting to uncontrolled death of such a valuable species on earth. This has been increasing since the last eight years. Some recent incidents threatening the lives of elephants are

discussed in this comment. In April 2018, 4 elephants were killed by train accident in Jharsuguda district. In October 2018, in the district of Dhenkanal, 7 out of 13 elephants were killed with 11-kv electric line while passing through the village in Sudan Forest Range. In the same month, when cyclone "Titli" hits the state Odisha, 5 elephants were swept away in Mahanadi River in Mundali area. In November 2018, many different cases were reported from different parts of the country. Some cases for killing elephants were for its tusk. Human-animal conflict seems to increase as many cases were reported for elephants attacking human causing lives of both human and elephants as angry villagers in turn killed the animals. Such cases were reported from Nagaland and Assam. The on-going process of killing of elephants in spite of the awareness provided indicates the lack of delivering the knowledge of its importance and conservation to every individual in the society. Repetition of the similar and unaltered ways of dying elephants shows there is a huge gap within the management of wildlife and its habitat creating havoc to lives of both animal and human. Proper management not

only from forest department but also from expert scientists of different fields are required to observe the problem from different perspective and integrate its scientifically in its managerial plans. Unchanged human greediness will finally turn its face towards itself with a devastating loss. It is high time people should understand the possible consequences of its wreckful actions. Disappearance of mammals from earth would have a tremendous change in the landscape, vegetation and diversity of both flora and fauna. Recent studies mentioned that productivity in tundra region in Alaska turned into an unproductive region with the loss of mammals like mammoths, native horses and other large animals. Ecological studies have also shows that removal of a top predator or key herbivore could bring about a devastating change in the ecosystem. Elephant is an important keystone species. Key stone species are those species that

play a crucial role to maintain a healthy ecological functions .Without such species the ecosystem would drastically change leading to disfunctioning of the normal ecological system. Hence before the year of extinction of all mammals, human, being the shape maker of this earth should understand this crucial time and need for its conservation. This crucial time is to integrate learned scientist ,ecologist, biologist or people from different sections of the society with the forest departments and scientific institutions throughout the world to form a huge community specifically to save the environment by forming a very effective long term plan, laws, awareness programmes, educating people on huge scale, providing livelihoods to people specifically around the forest for conservation of forest and wildlife .Such laws and rules should be implemented timely and must not be delayed.