INVESTIGATION OF ANTHROPOGENIC FACTORS CONTRIBUTING TO ELEPHANT DEATHS IN SRI LANKA

Ranasinghe P.R.

Faculty of Graduate Studies, University of Colombo, Sri Lanka

p.r.ranasinghe1@gmail.com

ABSTRACT

As an endangered species, Sri Lankan elephant (*Elephas maximus maximus*) receives special attention on conservation. Acceleration of Human Elephant Conflict (HEC) consider as the major reason of wild elephant deaths in Sri Lanka. Hakkapattas/Jaw blowers, Gunshots and Electrocution are the most prominent mode of wild elephant killing, while natural factors, such as competition, disease, and natural disasters remain relatively low (4:1). For successful in-situ conservation of an endangered species, well understanding of population dynamics such as mortality, age structure and sex ratio are critically important. Among estimated 5879 elephants in the country, 460 elephants were deceased within 24 months of 2016-2017. Analysed elephant mortality data shows: anthropogenic impact (57%), natural deaths (15%), and unspecified reason (28%). Therefore, this study analysed, elephant mortalities (*n*=206) due to three most influenced anthropogenic activities. Age classes and sex category comparisons were conducted among elephant deaths. An average, lifespan of a wild elephant is about 60-70 years. According to the study, significant death specific age class for Hakkapattas was 5-15 yr. (49%), Gunshots 15-25 yr (42%), and electrocution 15-20yr and 25-30yr (50%). Average highest mortality indicated in age class of 15-25yr. Both male and female showed greater mortalities at early to middle Ages. Mortalities showed that male elephants were significantly more likely be killed than females through anthropogenic activities. Male to female Mortality ratio: Hakkapattas 2:1, Gunshot 2:1 and Electrocution 4:1. Age and sex depended elephant behaviours allied with most vulnerable age group and sex category for each killing mode. Better understanding of causes that influence on population dynamic changes and taking necessary actions to reduce the number of elephant deaths by policy implementation on elephant habitat disruption, bear arms, and other killing modes can led to successful long-term elephant conservation in Sri Lanka.

Keywords: Conservation, HEC, Population Dynamics, Elephant Mortality, behaviour