## **Introduction**

Poaching is the illegal hunting, capturing, and often killing of wild animals. Wild animals are being poached on a massive scale, with millions of individual animals of thousands of species over worldwide are killed or captured from their native habitat. Many animals like elephants, tigers, and rhinos are poached for their ivory skin and horns. Effects of which is 100000 African elephants were killed between 2014 to 2017 and 10000 Rhinos were killed between 2014to 2016 for its horn in South Africa alone. Moreover, an elephant is currently killed every 20 min each day. Between the year 1900 and today, roughly 90% of African elephants disappeared. The elephant population is currently rapidly shrinking with 8% per year continent-wide. In 2018 a few rangers were murdered by poachers at Kruger national park in South Africa. Since 2009 some 871 rangers have been killed while protecting wild life according to the report of the International Ranger Federation (IRF). The risk that is involved with poaching is relatively low when compared to drug trafficking, yet high profits can be generated. Therefore, the trade of ivory and rhinoceros horn unfortunately remains a lucrative business for criminal syndicates. Ultimately, the best solution to poaching is the eradication of demand for rhino horn, ivory, and other wildlife products.

But this solution takes more time to implement. Hence we needed automated system to save animals as well as humans from the threat. A lot of organizations have come up with devices equipped with cameras to be placed in various locations. But it will not be feasible to actually implement it on the widespread land of the reserved areas. Hence a more reliable method is needed. Hence by using UAVs, which are unmanned aerial vehicles also known as drones can be used to monitor these poachers. These drones will be flown over high altitudes of reserved areas. These reserved areas are restricted for humans from entering. When any such unusual activity is detected data can be sent to the work station where they will be notified when a poacher is detected.

## **Problem Statement**

The problem statement of proposed system are mentioned below :-

* Illegal Poachers kill animals like elephants for their precious tusks and Rhinoceros for their horns, and sell at very high rates in the international markets.
* However ranger are there for defense against illegal poaching, but they are struggling to prevent poaching due to lack of the proper infrastructures like technology.
* Rangers should not only protect the animals from the people, but also the people from animals. They are in risk from both animals and poachers.
* Monitoring a 1,000,000 hectare area, including dense forests, cliffs, and other natural obstacles, at all hours is a difficult task for small crews of rangers.

## **Objectives**

The main objectives of this project is not only to protect the wildlife animals from being poaching but also to protect rangers. Some of them are as follows:-

* To protect wildlife animals from illegal poaching activities.
* To protect rangers from risking their lives from illegal armed rangers.
* To automated the system by making use of Artificial Intelligence.
* To improved the accuracy of existing system by making use of enhanced algorithm.
* To cover a large area of forest.

## **Proposed System**

Our proposed method is how AI can help in controlling such unlawful actions without much human intervention. AI with drones and night vision cameras can identify poachers on the ground and report the forest officials quickly, and take action against poachers before they kill any animal. Unusual Humans activities with weapons can be easily spotted by the AI-enabled cameras.