options. The project has initiated negotiations to win more space for the growing elephant population in the South Rift area.

## THE SABAH RHINO PROJECT – CAPTIVE BREEDING, HABITAT PROTECTION AND HABITAT REFORESTATION

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The Sabah rhino (*Dicerorhinus sumatrensis harrissonii*) is a subspecies of the Sumatra rhino (Fig.1). It once occurred all over Borneo but habitat destruction and poaching led to a drastic reduction of the population within the last 15 years. Currently less than 50 individuals of the subspecies still exist. These few individuals occur in the northern tip of Borneo, in the East Malaysian state Sabah. Sabah is characterised by a high diversity in flora and fauna. Its rainforests are among the oldest rainforest of the world. But the majority of the forest areas in Sabah, especially the lowland forests, have been selectively logged in the past. The increasing demand for palm oil on the international market, has led to a high pressure on the remaining forest areas. Forest areas with a very low protection status, such as secondary forest, are therefore at a high risk to be converted into agricultural land. These areas are however very important for the animals such as the rhino and the elephant. They are buffer zones between agricultural land and primary forest and they are corridors for large animals connecting the fragmented landscapes.

The remaining Sabah rhinos are isolated from each other in small pockets of rainforest surrounded by plantations; here they are facing a high risk of inbreeding. Therefore breeding management of this highly endangered species becomes essential. In July 2007 the government of Sabah together with local and international Non Governmental Organisations (NGO) decided to start a rescue and breeding project for isolated individuals.

In the past, the captive breeding of the species has not been a story of success. Basic information from free ranging animals was lacking due to its elusive character, its rarity and the inhospitable nature of its habitat. This resulted in management problems as its basic requirements in terms of food, health and breeding were unknown. In recent years more data has been collected and captive breeding methods have fast developed. Non-invasive hormone analysis, ultrasound techniques and assisted reproductive techniques have been successfully applied for the reproductive assessment in a number of species, including the Sabah rhino. The Leibniz Institute for Zoo and Wildlife Research (IZW) and the Zoo Leipzig support the local government and NGOs with its proven scientific and captive breeding expertise ensuring the preservation of the Sabah rhino. An eventual viable population will largely depend on an intact forest. Afforestation and reforestation efforts are therefore needed to increase the carrying capacity of

the potential habitat. The Rhino and Forest Fund, a German NGO was founded to rise funding for saving the Sabah rhino and its vanishing habitat.

## ASCERTAINING THE CAUSES AND PROPOSED MITIGATORY ACTION FOR THE HUMAN - ELEPHANT CONFLICT IN SELECTED AREAS

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Even though Sri Lanka is a small island of 65,000 km² land and a large human population of 22 million, the second largest mammal of the world is still living here without extinction. But the human-elephant conflict in Sri Lanka has grown rapidly in the past three decades.

When analyzing the data of Department of Wildlife Conservation (DWC) for the past 5 years (2006-2010); 353 lives, 1031 elephants and a large area of cultivated land has been destroyed and lost. If this trend persists, there will be loss of a large number of people, and pose a higher risk of extinction for the elephants. A sustainable solution is needed and for to initiate this process data was collected on the more affected people, the nature of the conflict and the period in which elephants mostly come to villages, location and the number of elephants in 10 Districts and 36 Divisional Secretariats.

Furthermore, mapping and the studying of these particular maps has been done with the data collected from the DWC zonal offices, field visits to locations that are extremely vulnerable from the sub offices of these areas.

The main task and the research was done to map the traditional elephant corridors ,locations under DWC, where electric fencing has not been done or fences that are inactive and the isolated forests areas with wild elephants.

Findings from this research showed that a lot of traditional elephant corridors have been blocked by illegal establishment of villages and developments and cultivations, and blocked by electric fencing. This has led the elephants to take alternative routes through villages and has been a reason for the escalation of the human-elephant conflict. Further, establishing of electric fences inside the forest and not on the outskirts of the forest and the difficulty in maintaining them, plus the villagers sending their cattle to graze on the grass and vegetation through the fences has immensely contributed to the scarcity of availability of food sources for the elephants.

Large areas of land have been cleared and extensively planted with crops that are palatable for elephants such as sugar cane and plantain.

In this research the main objective was to identify natural corridors, corridors that have been blocked and to open these pathways by reducing the activities of people that contribute to the blocking of the natural trails. Identifying correct locations for development projects that doesn't block the natural trails, doesn't harm the natural food sources of the elephants were other tasks of the research. Cultivating of crops, changing the possibility of the periods and make chena cultivation more methodical so that an extra food source will be there for the elephants. Through this was looked into to reduce the number of deaths to both humans and elephants. It is