

# Conflict between Local Villagers and Elephants (*Elephas maximus*) at Kuiburi National Park, Thailand

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## Introduction

Kuiburi National Park is a biodiversity-rich protected area of Thailand. It provides critical habitat for the Asian elephant (*Elephas maximus*) and other endangered species. It is estimated that approximately 140 elephants reside within the park boundaries. Within 5 km of the park's boundaries, there are 34 villages where most local villagers have agriculture as their major occupation. Over 39,000 hectares are planted pineapple farms which are a strong attractant for elephants. The disturbance on pineapple farms by elephants has caused serious conflict between local villagers and elephants, and has subsequently extended to a conflict between local villages and the national park authority. This conflict has occurred since 1995 but was elevated by an incident in 1997 during which a herd of 70 elephants destroyed a large pineapple farm, resulting in the death of 2 elephants at the hands of the farm owners. Several measures were employed by national park authorities and local villagers in order to avoid confrontation and to reduce damage on the farm land. This included the construction of electric fences, posting local guards during the night, setting fire to drive the elephant back to the forest etc. The conflict situation, however, remains problematic.

## Methods

In 2004, the WWF Greater Mekong, Thailand Country Programme initiated the project entitled "Strengthening Management for a Key Population

of Elephants at Kuiburi National Park in the Tennasserim Range". The expected end-result of the project was a management plan that can be used as a tool to resolve conflict between local villagers and the elephants while strengthening conservation of elephants in the long run. The project activities included scientific studies to provide necessary information for management planning and employing of several techniques such as public meeting, focus group meeting, key contact, etc. to involve local people in a planning process. The objectives of scientific studies were: 1) To determine territory and home-range of elephants and their behavior; 2) To determine the area impacted by elephant movement and to assess the severity of damage on agricultural land; 3) To determine factor(s) stimulating movement and destructive behavior of elephants on the farms; and 4) To conduct socio-economic studies of local villagers, including a study on their attitudes toward the situation and conflict resolving measures.

## Results

The study found that in the past year, some elephants walked across park boundaries to agricultural lands 905 times or about 2.5 times per day. The disturbance on agricultural lands was more frequent in dry season than in rainy season due to inadequacy of food in natural forest during the dry season. The elephant movement tracks were mapped by WWF's research team in cooperation with staff of the national park and local villagers in order to allocate intensive patrolling zones.

The socio-economic study included 309 households from 10 villages completed. The study found that the majority of villagers or about 92% did not want to move from their current residence despite the high rate of conflict. About 75% of villagers reported impacts from elephant disturbance to some degree and 45% rated the damage as high or moderate. About 64% of villagers believed they had sufficient knowledge about wild elephants. Most people viewed the elephant as a symbol of the area and felt it needed to be conserved. However, almost all villagers said that permanent measures to stop movement of those elephants into farm lands must be intensively implemented and monitored.

Four focus group meetings were completed in 2005. The meeting participants were staff of Kui-buri National Park, staff from the central office in Bangkok of National Park, Plant, and Wildlife Conservation Department (NPWC), staff of WWF-Thailand, local government officers, and local villagers. All parties positively responded to the meetings. The discussion came up with a set of mitigations designed to push the elephants back to the forest and to reduce possibility for human-elephant confrontation. Activities that stimulated aggressive behavior of the elephant such as setting fires were also prohibited. Rehabilitating elephant habitat and food source in natural forest was initiated along with the negotiation with some local villagers to sell their agricultural land to the government for buffer zone development. An environmental education program was initiated to enhance knowledge and build positive attitudes toward the elephant.