## BIOLOGICAL CONSERVATION IN MYANMAR

## by Indraneil Das

The Union of Myanmar (formerly the Socialist Republic of the Union of Burma), the largest country in mainland Southeast Asia (657,740 km²), has a total forest cover of over 27 million ha, representing slightly over 41% of the total land area. Its 42 million human inhabitants are primarily rural and heavily dependent on the forests.

The history of exploitation of forests in Myanmar is long. The delta region of the Ayeyarwady (formerly Irrawaddy) River was a source of hardwoods to the navies of several European nations as early as the 15th century, and the country became a leading rice-exporting nation, with most of the agricultural activities taking place in the lowland areas. By around the middle of the 19th century, the deltaic forests of the country had been completely cleared. In 1866, the main rice zone in the country was only 7,000 km<sup>2</sup>, but by 1950 it had increased to at least 40,000 km<sup>2</sup>. Deforestation also resulted from the logging concessions granted by the government, as well as from the logging for profit by ethnic separatist groups to fund their campaigns. The Forest Department of Myanmar is one of the oldest in Asia and manages wildlife conservation as well.

In 1981, the government initiated a project for the establishment of a protected areas system, with assistance from the Food and Agriculture Organization (FAO) under the United Nations Development Programme (UNDP). There are at present 14 protected areas, together constituting only 4,583 km² (or less than 1% of the land area), which is clearly insufficient for effective conservation of the country's rich plant and animal life. Although the official annual rate of deforestation is 1,050 km² (or 0.3%), independent estimates are as high as 8,000 km².

The available knowledge about the biological diversity of Myanmar is mainly found in literature from the 19th century and early part of the 20th century, and primarily on big game hunting. Information on Burmese populations of several species of animals that are globally recognized as threatened is woefully scarce. Little new information has appeared in the recent literature on biological conservation in general. Data on current forestry practices that includes the increased supply of timber to other rapidly developing Southeast Asian country (e.g. Thailand and Malaysia) are urgently required to calculate rates of deforestation and their effects on rainforest endemics.

Trade in wildlife and wildlife products from the country is exceptionally high and ranges from tigers to turtles. Lack of law enforcement is often blamed for the large volume of trade in protected species, although alternate income generating schemes for forest dwellers have not been suggested, nor any significant effort made to educate the people about habitat protection or species conservation. On the other hand, many indigenous human communities in Myanmar have special relationships with wild species of plants and animals, and local beliefs and practices can be woven into an effective conservation programme benefitting both the landowners, wildlife and wilderness areas of Myanmar.

Myanmar has a monsoon climate with a distinct rainy season associated with the southwest monsoons (May to October), followed by a cold and dry season (November to February), and a hot and dry season (March to May), during the end of which are some pre-monsoonal showers. The winter is more distinct away from the coast, and the higher reaches at the border with China and India receive some snowfall between