

# Mom Ray Nature Reserve

## Alternative site name(s)

Chu Mom Ray, Mom Ray-Ngoc Vin

## Province(s)

Kon Tum

## Status

Decreed

## Management board established

Yes

## Latitude

14°22' - 14°36'N

## Longitude

107°30' - 107°47'E

## Bio-unit

Ma - Central Annam Mountains



## Conservation status

Mom Ray was included on Decision No. 65/HDBT of the Council of Ministers, dated 7 April 1982, which decreed the establishment of a 10,000 ha nature reserve, called Mom Ray-Ngoc Vin (MARD 1997). In 1995, an investment plan for Mom Ray Nature Reserve was prepared by FIPI. This investment plan gave the total area of the nature reserve as 48,658 ha, comprising a strict protection area of 43,005 ha and a forest rehabilitation area of 5,653 ha (Anon. 1995). This investment plan was approved by Decision No. 12 of Kon Tum Provincial People's Committee, dated 27 January 1996, by Decision No. 3051 of MARD, dated 11 September 1996, and by governmental Decision No. 693, dated 27 August 1997. A nature reserve management board was established by the provincial people's committee on 19 October 1998 (Kon Tum Provincial People's Committee 2000).

The World Bank-funded *Forest Protection and Rural Development (FRPD) Project* intends to propose extending Mom Ray Nature Reserve by about 45,000 ha. Such an extension would incorporate significant areas to the south of the current nature reserve, and smaller areas to the north, and would bring the total area of the nature reserve up to around 90,000 ha.

Mom Ray is included on the 2010 list as a 48,658 ha nature reserve (FPD 1998).

## Topography and hydrology

Mom Ray Nature Reserve is situated in the Central Highlands, close to the point where Vietnam, Cambodia and Laos meet. The nature reserve is located in Ro Koi, Sa Son, Sa Nhon and Mo Rai communes, Sa Thay district and Sa Loong commune, Ngoc Hoi district. To the west, the nature reserve borders Cambodia.

The nature reserve is situated in an area of medium-high mountains, the highest of which is Mount Chu Mom Ray at 1,773 m, from which the nature reserve gets its name. The lowest elevation in the nature reserve is c.200 m. The nature reserve is drained by the Dak Hodrai and Krong Po Ko rivers and their tributaries. These two rivers feed the Se San river, which flows across north-eastern Cambodia to join the Mekong river.

## Biodiversity value

The two main forest types at Mom Ray Nature Reserve are lowland evergreen forest, which is distributed below 1,000 m, and lower montane evergreen forest, which is distributed above this

elevation. In addition, there are smaller areas of lowland semi-deciduous forest, distributed at elevations below 700 m. The remainder of the nature reserve supports a range of secondary vegetation types (Anon. 1995).

According to the investment plan, 508 species of vascular plants have been recorded at Mom Ray Nature Reserve. These species include the globally endangered cycad, *Cycas micholitzii* (Anon. 1995). In addition, 76 species of mammal, 208 species of bird, 51 species of reptile and 17 species of amphibian have been recorded at the nature reserve to date (Do Tuoc and Ngo Tu 1995).

According to Duckworth and Hedges (1998), Mom Ray Nature Reserve may be one of the best remaining areas for Tiger *Panthera tigris* in Vietnam, with a population estimated at 10 to 15 individuals in 1997. Duckworth and Hedges (1998) also report that the occurrence of Asian Elephant *Elephas maximus* has been confirmed at Mom Ray, although the population has declined in size significantly since 1980, and is now fragmented into two small groups. Finally, the authors present provisional evidence for the continued occurrence of Gaur *Bos gaurus* at the site.

During a field survey in 1992, two sub-species of douc langur, Red-shanked Douc Langur *Pygathrix nemaeus nemaeus* and Black-shanked Douc Langur *P. n. nigripes*, were recorded at Mom Ray (Le Trong Trai pers. comm.).

## Conservation issues

The buffer zone of Mom Ray Nature Reserve covers c.51,000 ha in eight communes. The total population of the buffer zone is 27,411 people, who belong to the Kinh, Gia Rai, Muong, Xe Dang, Thai and Ro-mam ethnic groups. There are currently no people living inside the nature reserve (Kon Tum Provincial FPD 2000).

Many of the threats to biodiversity at the site come from the inhabitants of the buffer zone. Kon Tum Provincial FPD (2000) identify these threats as forest fire, hunting and clearance of forest for shifting cultivation.

According to the FPRD project, the most important conservation issues at Mom Ray Nature Reserve are

that: the boundary of the nature reserve is not clearly demarcated; there is encroachment from villages bordering the nature reserve; hunting is taking place within the nature reserve; timber and non-timber forest products are extracted from the nature reserve; there are plans to upgrade the main road that cuts through the middle of the nature reserve for use by local rubber plantations; and the area was sprayed heavily with defoliants during the Second Indochina War.

The management board of Mom Ray Nature Reserve currently has 39 members of staff, based at the headquarters and three guard stations. The management board are equipped with three cars and two motorbikes, as well as computing and communications equipment (Kon Tum Provincial FPD 2000).

## Other documented values

Mom Ray Nature Reserve has an important role in protecting the upstream water catchment of the Se San river. The Se San is the site of a number of planned hydro-electric dams, as well as one that has already been built, the Ya Ly dam.

The forest in the area is an important source of forest products for local communities, who experience, on average, two months of food shortages per year (Kon Tum Provincial FPD 2000). Forest products exploited by local people include fuelwood, bamboo, rattans, honey, resin and some medicinal plants (Thai Truyen 1997).

## Related projects

With World Bank funding, the FPRD project began implementation at Mom Ray Nature Reserve in 1999. The objectives of this project are to develop a revised management plan for the nature reserve; promote socio-economic development in the buffer zone to diminish pressure and dependence on the natural resources of the nature reserve; and to develop institutional capacity for nature reserve and buffer zone management.

The revision of the management plan aims to formulate an agreed management direction for the nature reserve, covering management zoning, ecosystem management, institutional development,

community relations and livelihoods, conservation awareness and education, tourism and visitor management, and ecological research and monitoring.

In addition to the FPRD project, Mom Ray Nature Reserve is included within a tiger conservation programme currently being implemented by the WWF Indochina Programme.

submitted to School of Resource Management and Environmental Studies, Australian National University.

### Literature sources

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