

# Ea So Proposed Nature Reserve

## Alternative site name(s)

Eaka, Ea Kar

## Province(s)

Dak Lak

## Status

Proposed

## Management board established

Yes

## Latitude

12°49' - 13°02'N

## Longitude

108°29' - 108°44'E

## Bio-unit

05b - South Annam



## Conservation status

Prior to 1998, the Ea So area was under the management of Ea Kar Forest Enterprise. A proposal to establish a 22,000 ha nature reserve at Ea So was included on the 2010 list (FPD 1998). This proposal was reiterated by BirdLife and FIPI, following their review of Vietnam's protected areas system (Wege *et al.* 1999).

An investment plan for Ea So was prepared by the Agroforestry Department of Tay Nguyen University in 1998 (Anon. 1998). This investment plan proposed establishing a nature reserve of 27,800 ha, comprising a strict protection area of 15,959 ha, a forest rehabilitation area of 9,816 ha and an administration and services area of 2,025 ha. The investment plan also defined a buffer zone of 34,981 ha. The investment plan was approved by Dak Lak Provincial People's Committee on 25 March 1999, following Decision No. 598/QĐ-UB, although it is yet to be approved by MARD. A nature reserve management board was established on 21 April 1999 by the provincial people's committee. The proposed nature reserve is currently under the management of Dak Lak Provincial DARD (Dak Lak Provincial DARD 2000).

## Topography and hydrology

Ea So is situated in the Central Highlands of Vietnam. The proposed nature reserve is bisected by the Ea Puich stream, which flows from west to east. To the north of this stream lies low mountains; to the south lie lowlands of around 300 m in altitude. The proposed nature reserve ranges in elevation from 140 m in the valley of the Ea Puich stream, to 1,046 m on the north-western side of the Chu Ble Ya mountain range. All rivers and streams within the proposed reserve drain into the Ba river, which flows through Phu Yen province before entering the sea at Tuy Hoa town.

## Biodiversity value

Ea So proposed nature reserve supports a range of natural habitat types, including 11,274 ha of evergreen forest, 4,513 ha of semi-deciduous forest and 144 ha of deciduous forest. Blocks of forest are interspersed with areas of natural grassland, which is an important habitat for large mammals, particularly wild cattle (Anon. 1998). A total of 709 species of plant in 139 families are listed in the investment plan (Anon. 1998) as occurring at Ea So proposed nature reserve. This list includes 14 species listed in the *Red Data Book of Vietnam*.

# Ea So Proposed Nature Reserve

Ea So proposed nature reserve supports populations of several globally threatened large mammal species. Of particular note, the proposed nature reserve supports populations of both Gaur *Bos gaurus* and Banteng *B. javanicus* (Duckworth and Hedges 1998). The investment plan also list Asian Elephant *Elephas maximus* and Tiger *Panthera tigris*. However, Duckworth and Hedges (1998) consider Asian Elephant to be extinct at the site, the last animal being shot in the late 1980s. Furthermore, the authors consider the continued occurrence of Tiger at the site to be unconfirmed. Another mammal record of particular significance is that of Smooth-coated Otter *Lutrogale perspicillata*: six individuals were seen along a remote rocky stretch of the Ea Puich stream in 1997 (Duckworth and Le Xuan Canh 1998).

According to the investment plan (Anon. 1998), Ea So proposed nature reserve supports 158 species of bird, eight of which are listed in the *Red Data Book of Vietnam* and five of which are listed in *Birds to Watch* 2. During a survey in 1998, Brickle *et al.* (1998) recorded two globally threatened species, Green Peafowl *Pavo muticus* and Pale-capped Pigeon *Columba punicea*, at Ea So.

## Conservation issues

According to Dak Lak Provincial DARD (2000), the major threats to biodiversity at Ea So proposed nature reserve are hunting, illegal extraction of forest products and clearance of forest for agriculture. These threats are being intensified by increasing population pressure resulting from migration into Ea So commune of people from northern Vietnam and elsewhere in Dak Lak province. Only 134 people live inside the proposed nature reserve but over 3,700 people live in the buffer zone (Dak Lak Provincial DARD 2000).

Hunting is a particular threat to the large mammals at Ea So. Le Xuan Canh *et al.* (1997) reported that at least four Gaur and two Banteng were shot in the area in 1995-1996. Given the assumed small sizes of remaining large mammal populations, these levels of hunting are unlikely to be sustainable.

The government of Vietnam is currently planning to build a highway through the area of the proposed nature reserve, to provide basic infrastructure to this remote area, and to link Dak Lak and Phu Yen

provinces. This highway will improve access to the forest and grasslands of the proposed nature reserve, and, as a result, levels of human disturbance are likely to increase. Furthermore, the highway is likely to act as a focus for future migration into the area.

The proposed nature reserve has a staff of 44, including 35 forest guards, and it is planned that these staff will operate from a nature reserve headquarters and seven guard stations. However, investment funding to build this and other infrastructure has yet to be provided (Dak Lak Provincial DARD 2000).

## Other documented values

Ea So proposed nature reserve plays a role in protecting the watershed of the Ba river system, the most important river in Tuy Hoa province (Anon. 1998).

## Related projects

No information.

## Literature sources

Anon. (1998) [Investment plan for Ea So Nature Reserve]. Buon Ma Thuot: Department of Agroforestry, Tay Nguyen University. In Vietnamese.

Brickle, N. W., Nguyen Cu, Ha Quy Quynh, Nguyen Thai Tu Cuong and Hoang Van San (1998). [The status and distribution of Green Peafowl \*Pavo muticus\* in Dak Lak province, Vietnam](#). Hanoi: BirdLife International Vietnam Programme and the Institute of Ecology and Biological Resources.

Dak Lak Provincial DARD (2000) [FPD questionnaire]. Buon Me Thuot: Dak Lak Provincial Department of Agriculture and Rural Development. In Vietnamese.

Duckworth, J. W. and Hedges, S. (1998) Tracking tigers: a review of the status of Tiger, Asian Elephant, Gaur and Banteng in Vietnam, Lao, Cambodia and Yunnan province (China) with recommendations for future conservation action. Hanoi: WWF Indochina Programme.

Duckworth, J. W. and Le Xuan Canh (1998) The Smooth-coated Otter *Lutrogale perspicillata* in

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Nguyen Cu (2000) Biodiversity conservation potential of Ea So proposed nature reserve, Dac Lac province. Lam Nghiep [Vietnam Forest Review] June 2000: 21-23. In Vietnamese.