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Short Summary Survey Meroq/ East Kalimantan

Surveyteam:

Indonesian Conservation Organisations

Indonesian Government Organisations

Yayasan Hutan Masa Depan





Meroq is a primary rainforest reserve in East Kalimantan designated by the Indonesian government.

The following is a summary of the survey carried out in Meroq about the uniqueness of the rainforest area in relation to [Nature, Animals and Humans](#).

NATURE



The Meroq rainforest conservation is part of the Sangkulirang-Mangkalihat landscape, which is part of the Essential Ecosystem Area in East Kalimantan, Indonesia.

45.000 ha primary forest landscape with historical karst mountains, caves, high diversity of tree species, water sources - habitat for protected and vulnerable birds and mammals.

Karst Mountains

The Sangkulirang-Mangkalihat karst landscape, a global center for plant biodiversity, is one of the top 10 endangered ecosystems.

The East Kalimantan government is working to conserve and protect this 1.8 million hectare area, including 403.151.89 ha of geological reserve, and the 45.000 ha Meroq Conservation Forest.



Karst Mountains

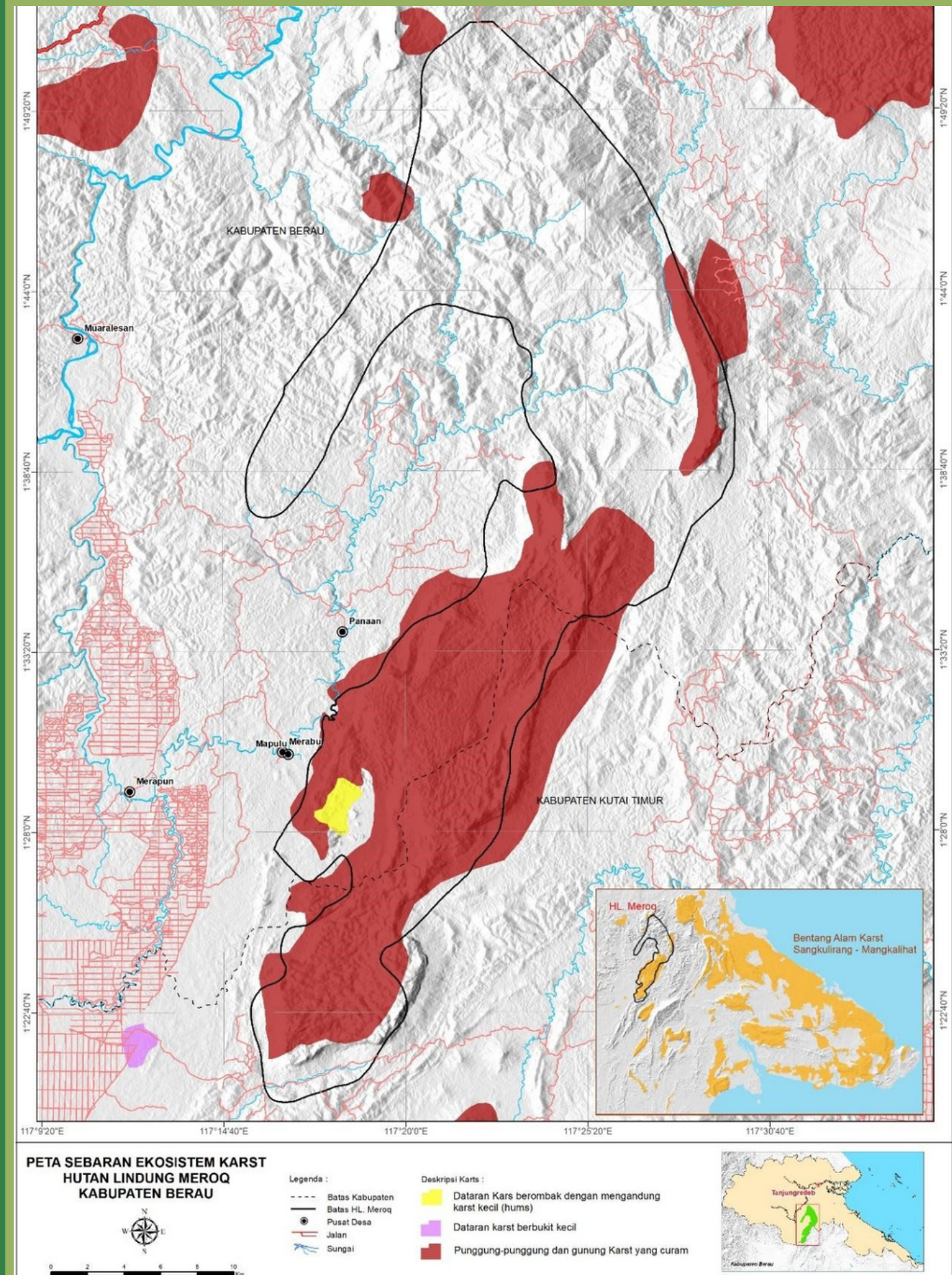
The karst area of approx. 27.800 ha in Meroq absorbs approx. 5.55 million tons of carbon, making it crucial for the global and local community.

Currently, the Sangkulirang Makalihat karst is being proposed as a cultural preserve that is recognized by UNESCO.



Karst Mountains

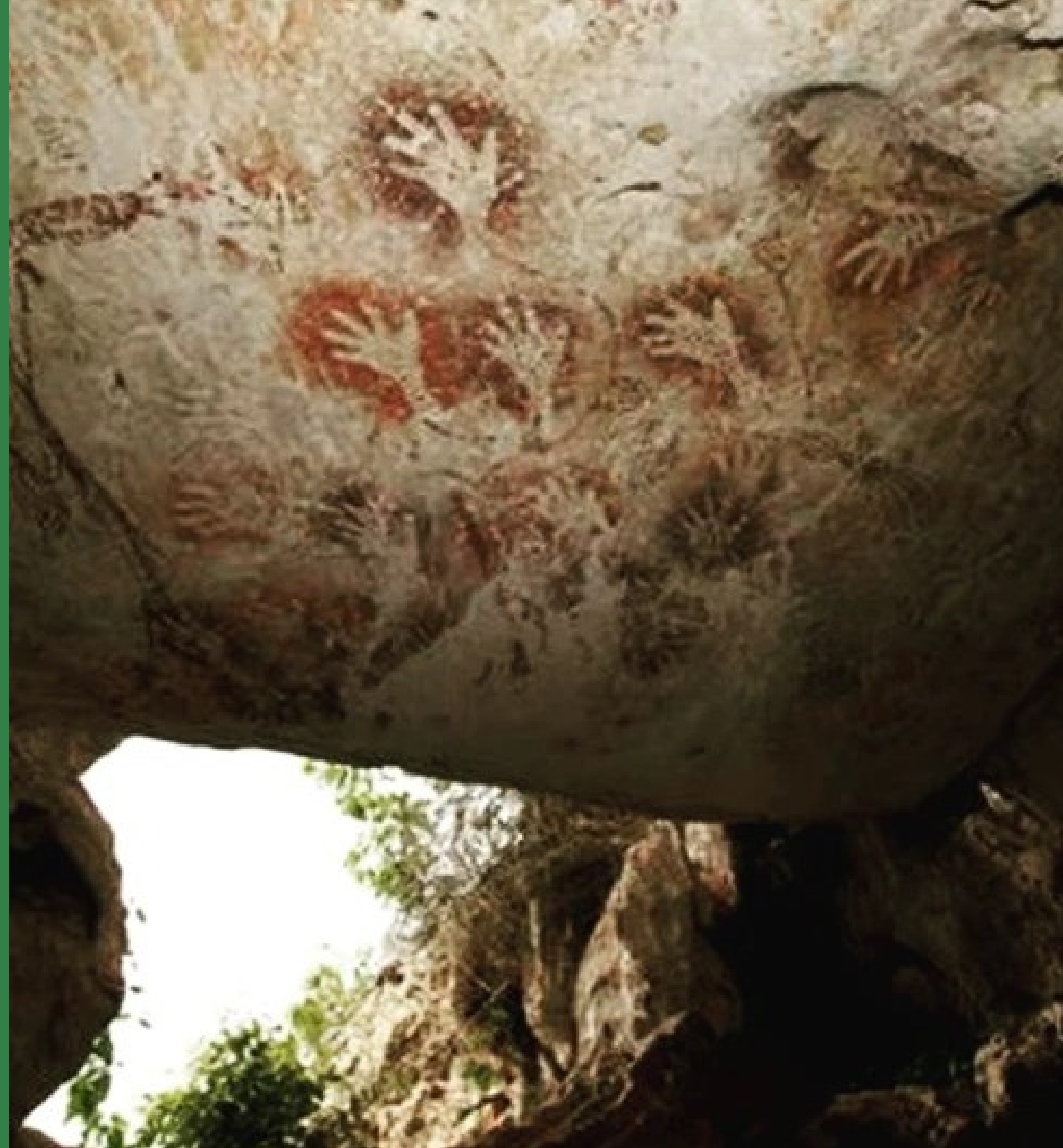
Based on the Karst Ecosystem Distribution Map, the Meroq area consists of: Choppy Karst Plain containing small karst covering 415.55 ha (0.67%), Steep Karst ridges and mountains covering 27.344.99 ha (44.31%), Mineral Land covering 33.967.19 ha (55.02%).



Caves

Meroq houses 240 rock art pieces in 240 underground caves, including 30 prehistoric sites.

A 40.000-year-old cave, called Tewet, was found by the survey team, showcases hunter-gatherer societies' traditions.



Trees

Meroq Conservation is a lowland forest, dominated by the Tree-Tribe Dipterocarpaceae (see picture) and it has been studied for tree diversity, identifying 45 species.

These species are widespread due to their high tolerance to soil moisture and other environmental factors. Soil moisture is the most influential factor in the spread of plants in the Meroq area.



Trees

Strong and fast-growing species receive more light, resulting in thicker, better-distributed food and roots.

This leads to a greater food supply, deeper penetration and wider root distribution, enabling them to obtain their life needs (water, light and nutrients) better than their competitors.



Tree-Tribe: Shorea Leprosula



The survey reveals Shorea Leprosula has the highest relative density of 20.63% due to its tolerance and competition, resulting in more trees per unit area. Shorea leprosulaMiq. has the highest relative density of 14.375% at pole level. According to the IUCN Red List this species is 'Near Threatened'.

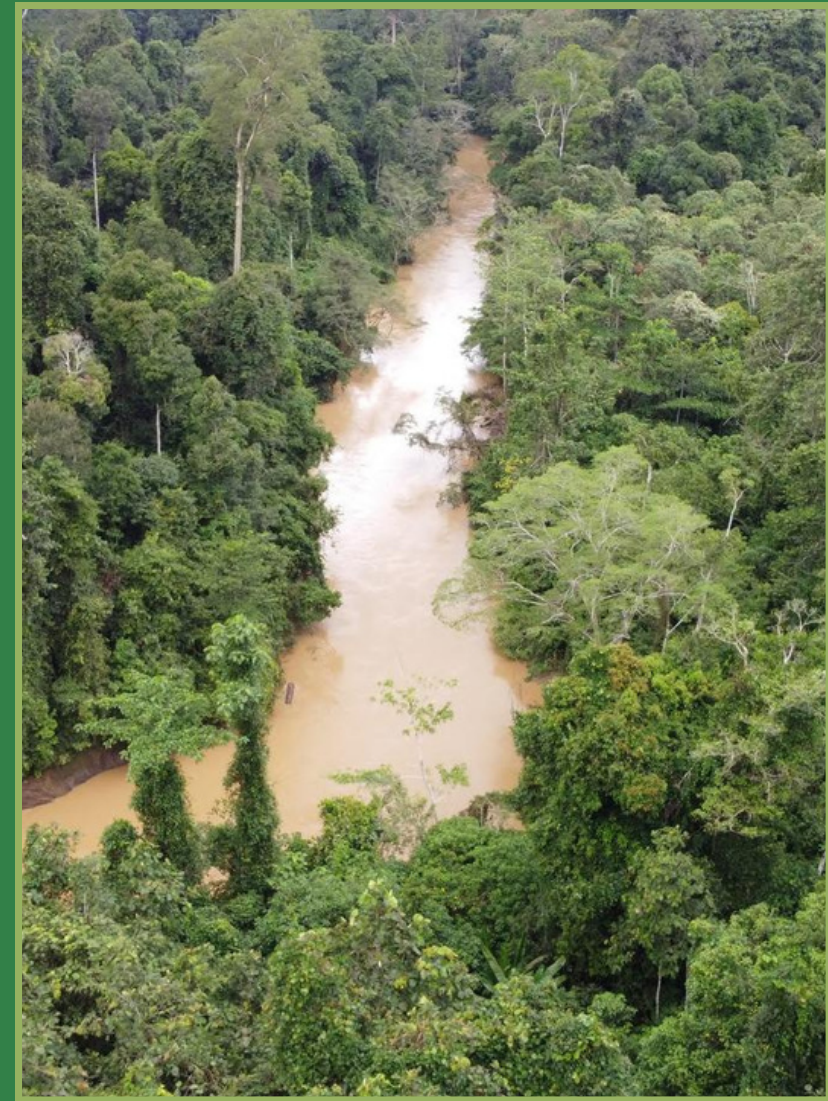
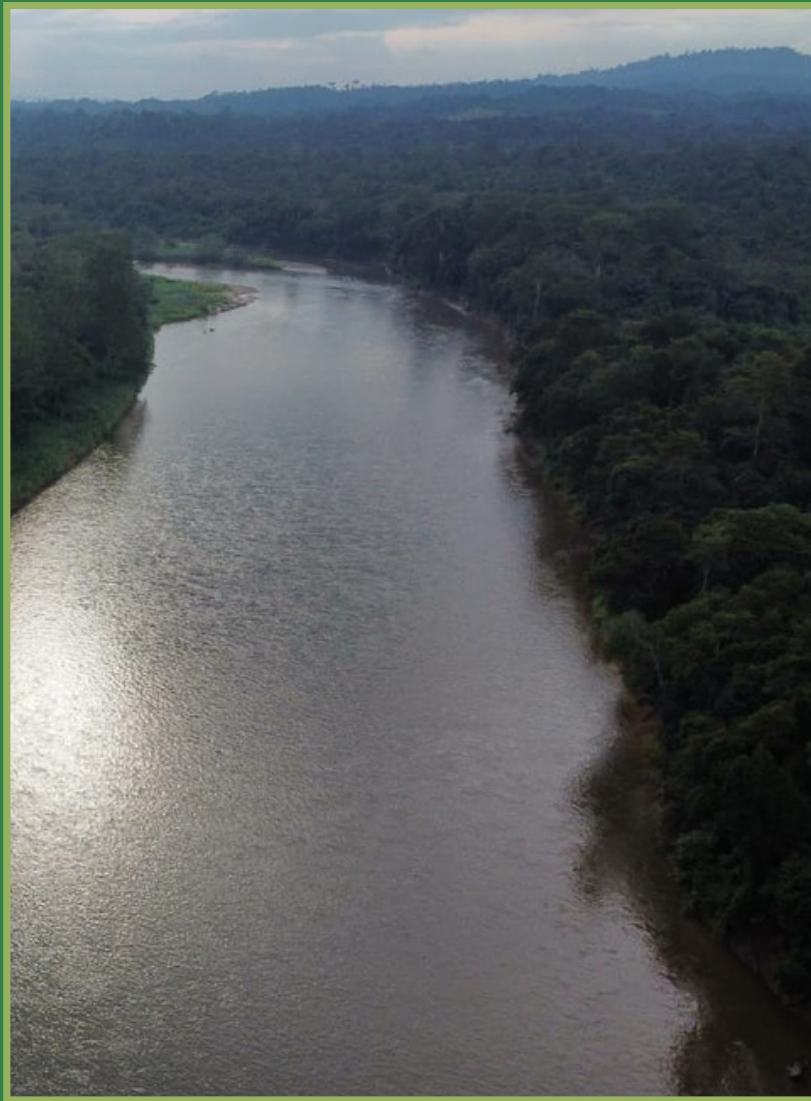
Water

Meroq Protection Forest is named after the Meroq River, a river in the protected forest area. Its upstream and tributaries originate entirely from the forest - the Meroq River Basin.

Other rivers with headwaters in the protected forest include Meroq River are Nyapa River and Tikam River.



Meroq Rivers



The Meroq River Basin, with numerous rivers and tributaries, provides habitat for insectivore/ piscivore bird groups, including pekaka emas, fire shrimp, king blue necklace shrimp, river kingfisher, buffalo egret, and Asian cormorant snake, all dependent on wetlands for food and all contributing to biodiversity.

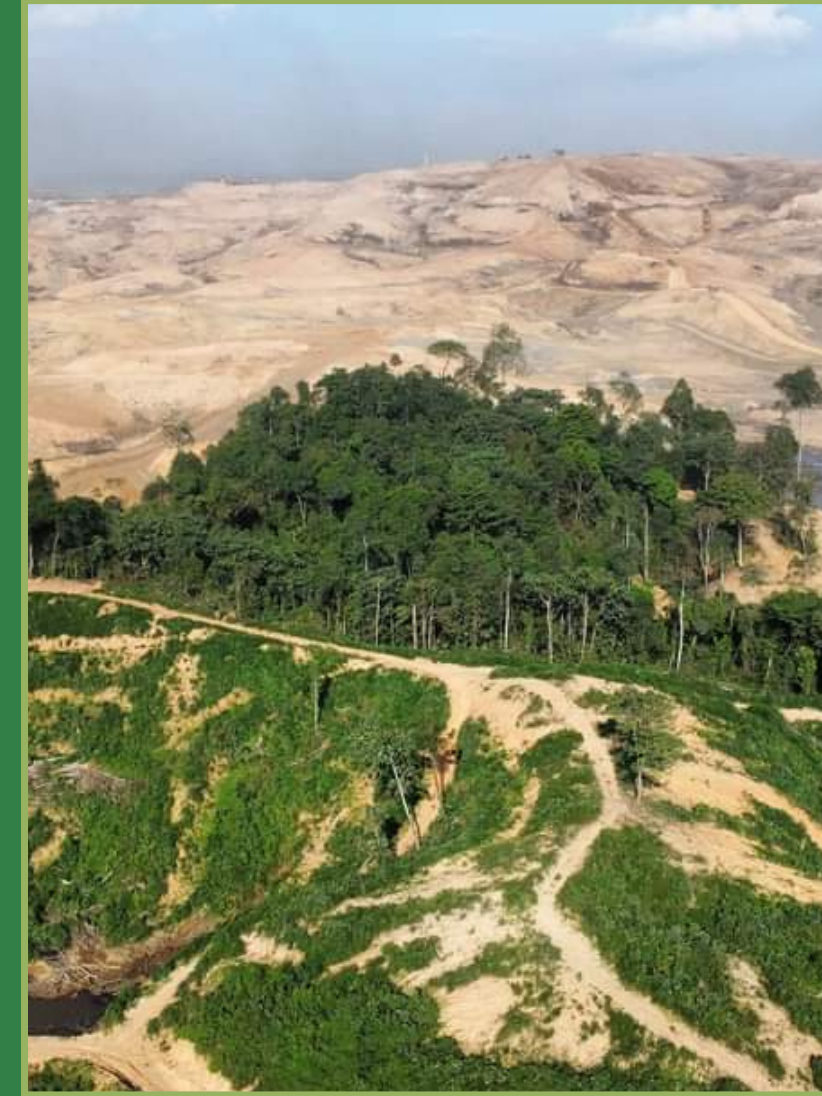
Meroq and Lesan Rivers

The upper Lesan River forest is severely damaged, causing significant water changes due to inadequate forest filtering.

This condition will worsen if the Lesan and Meroq forests are not properly maintained, necessitating the support of community, government, NGOs and all stakeholders for its sustainability.



Threats



The area, despite its ecological, scientific, socio-cultural and economic value, is constantly threatened by degradation due to factors like forest fires, illegal logging, treasure hunting and conversion into farms, timber plantations and mines.

Animals



BIRDS

The Meroq Forest Reserve is home to 84 bird species, provides a diverse habitat for six hornbill species, including the rhinoceros hornbill, the black hornbill and the golden hornbill.

They are all listed as 'Vulnerable' in the IUCN Red List. (International Union for Conservation of Nature



Hornbills



Rhinoceros Hornbill, Black Hornbill, and Golden Hornbill are threatened by poaching, forest loss and habitat loss. (from left to right) They spread plant seeds and eat Ficus, but their populations are expected to decline.

Mammals

The study assessed animal diversity in Meroq through direct and indirect observations, field observations, sounds and tracks, interviews with local people and nest density calculations.

Excluding the Karst areas, which need to be studied separately, 10.2 orangutans were estimated on 29,160 hectares.



Orangutan nests in the PT UDIT concession area, 900 m from the Meroq bufferzone

Mammals Traces

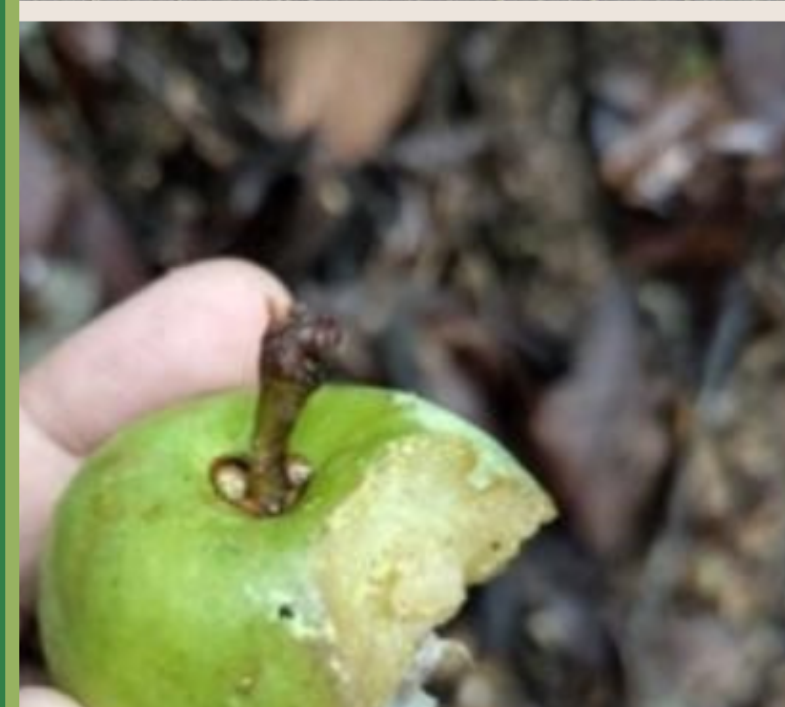
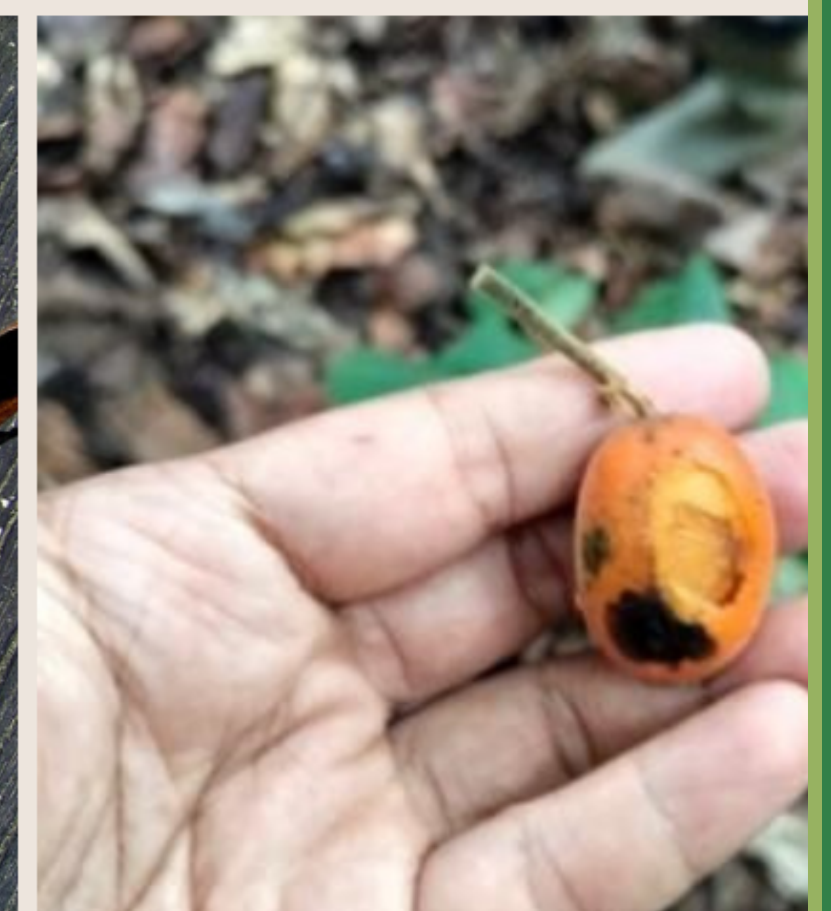
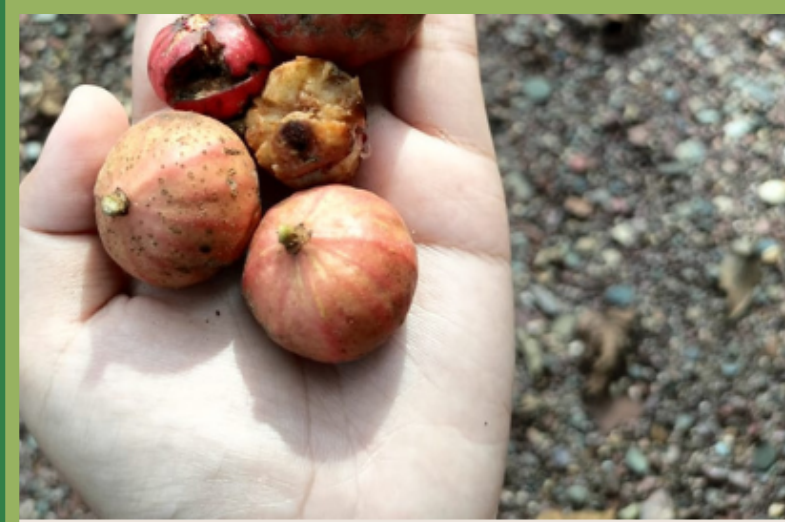


Weasel group dominates carnivore species in Meroq Forest Reserve, while binturongs and sun bears traces are found too. Binturong droppings, Sun Bears extract honey from breaking open kelulut nests and wild boar bones were found during survey as well as Pangolin nests. (from left to right)

Food Sources

Food sources are crucial for wild animals' survival, with herbivorous animals being first-level consumers and predators controlling herbivore populations. Wild animals maintain ecological balance in forests and a loss of a food chain component can disrupt other animal populations. Wildlife also aids in spreading plant seeds and tree regeneration.

Meroq Forest Reserve hosts diverse plant species, fruits and bee colonies that feed wild animals.

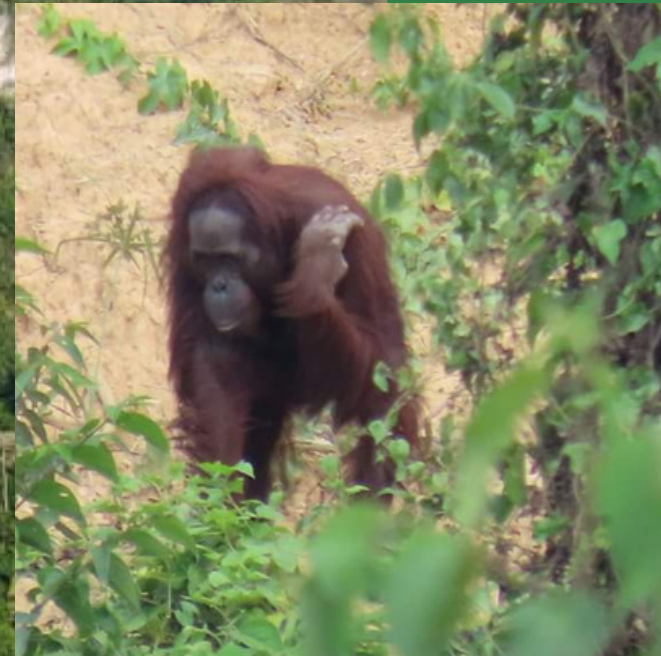


Conservation Status

Pangolin is critically endangered



Bornean Orang Utan is threatened with extinction



Kelawat Gibbon is threatened with extinction



Humans

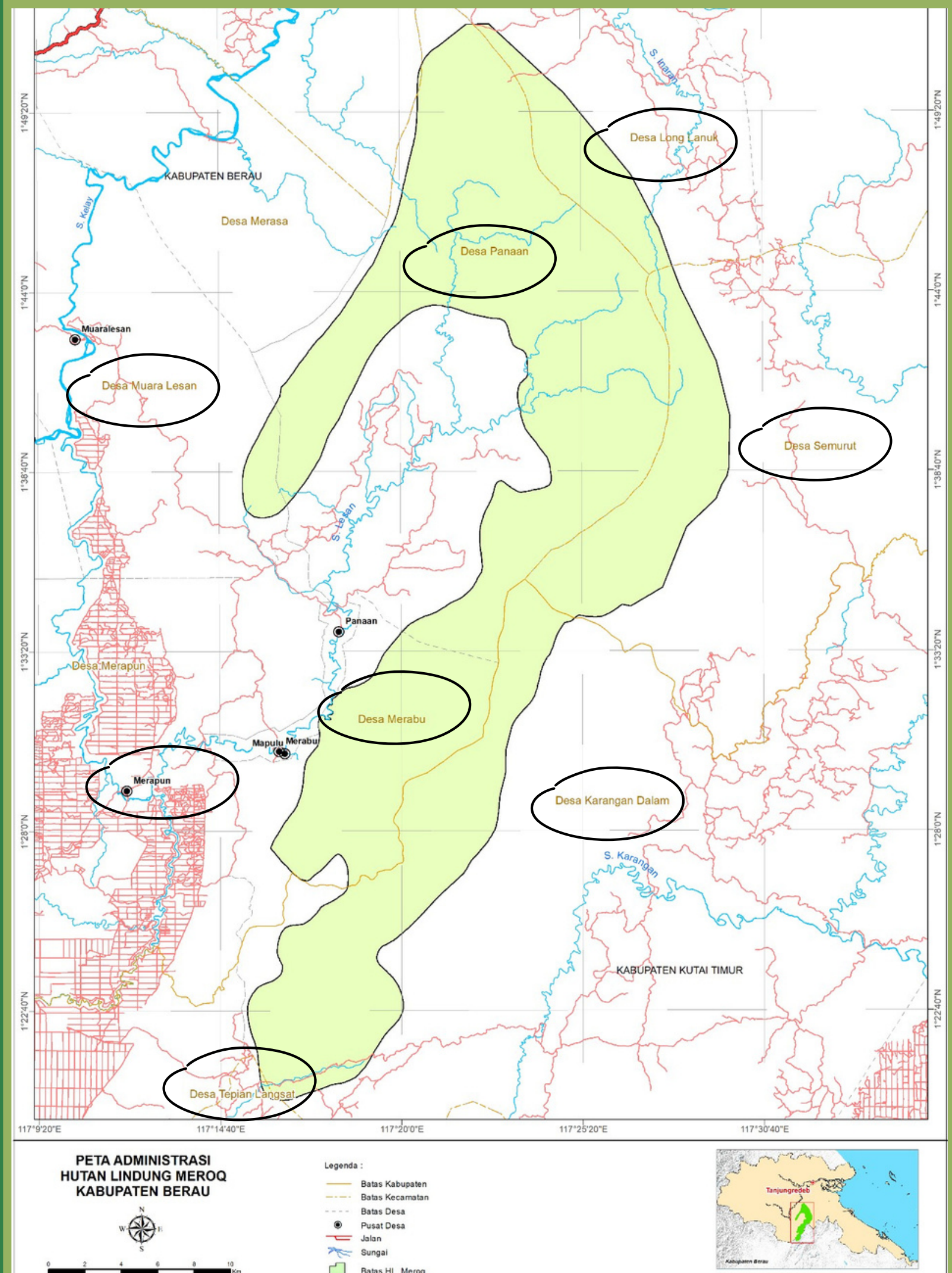
The project aims to improve the economy of the surrounding villages, a community with high expectations residents, who have been struggling with stagnant or declining economies due to declining tourism income and comparisons to neighboring villages for prosperity.

Yayasan Bersama Satu Lagi assistance is crucial.



Villages surrounding Meroq

The Administration Map shows that the Meroq area is primarily located in Panaan Village with 45.5%, Karangan Dalam covering 20.75%, Long Lanuk covering 6.05%, Merabu covering 13.97%, Merapun covering 0.12%, Muara Lesan covering 1.47%, Semurut covering 12.12%, and Tepian Langsung covering 0.09%.



Challenges



Low Education



Infrastructure



Economic Benefit

Meroq Protection is a Climate Action Project supported by chanceforchange e.V. and executed by our legal Indonesian dependence Yayasan Bersama Satu Lagi.

We need supporters, like-minded people and impulses to protect the harmony of **Nature, Animals and Humans** in Meroq sustainably. We guarantee 100% of every donation goes to the project.

The project is based on the Long Sam Program initiated by Fans for Nature e.V.

THANK YOU

