

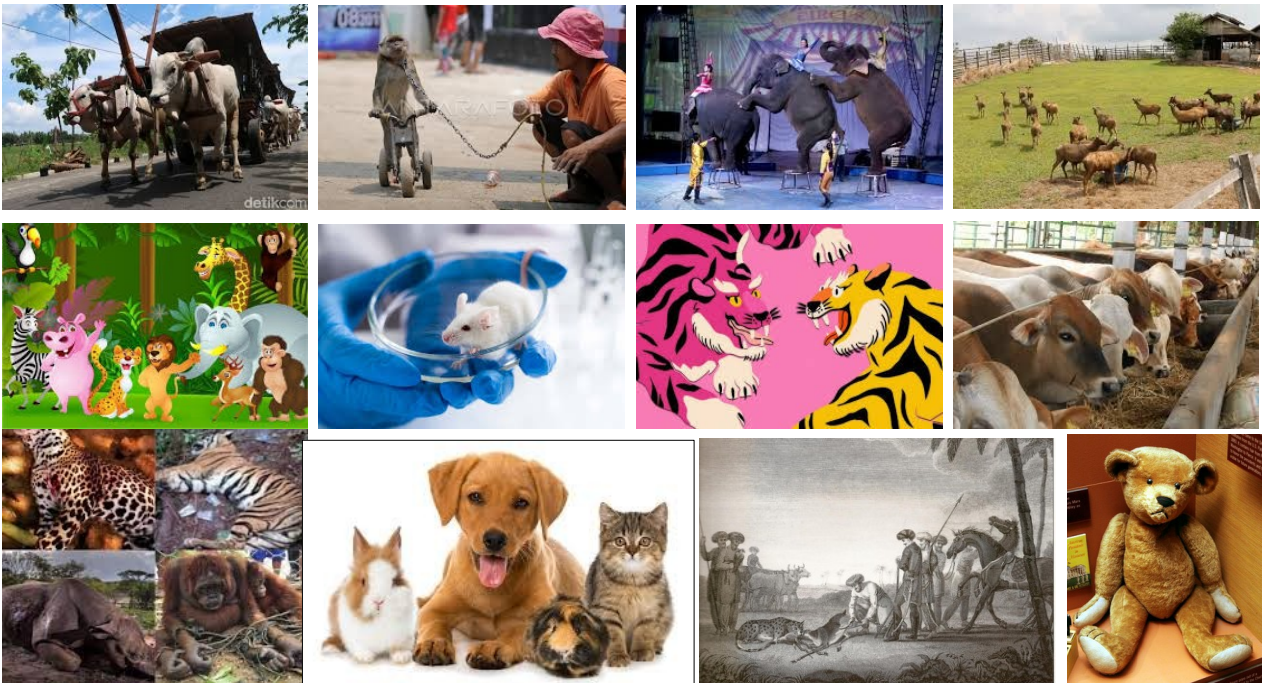


HUBUNGAN MANUSIA – MAMALIA (NON – HUMAN)

Tujuan Pembelajaran

1. Memahami berbagai bentuk interaksi antara manusia dan mamalia non-human.
2. Mengidentifikasi manfaat dan tantangan yang muncul dari hubungan ini.
3. Menjelaskan dampak eksploitasi mamalia terhadap ekosistem dan keberlanjutan populasi.
4. Merancang strategi konservasi dan pengelolaan yang lebih etis dan lestari

Apa contoh bentuk hubungan manusia - mamalia



Deskripsi Singkat Materi

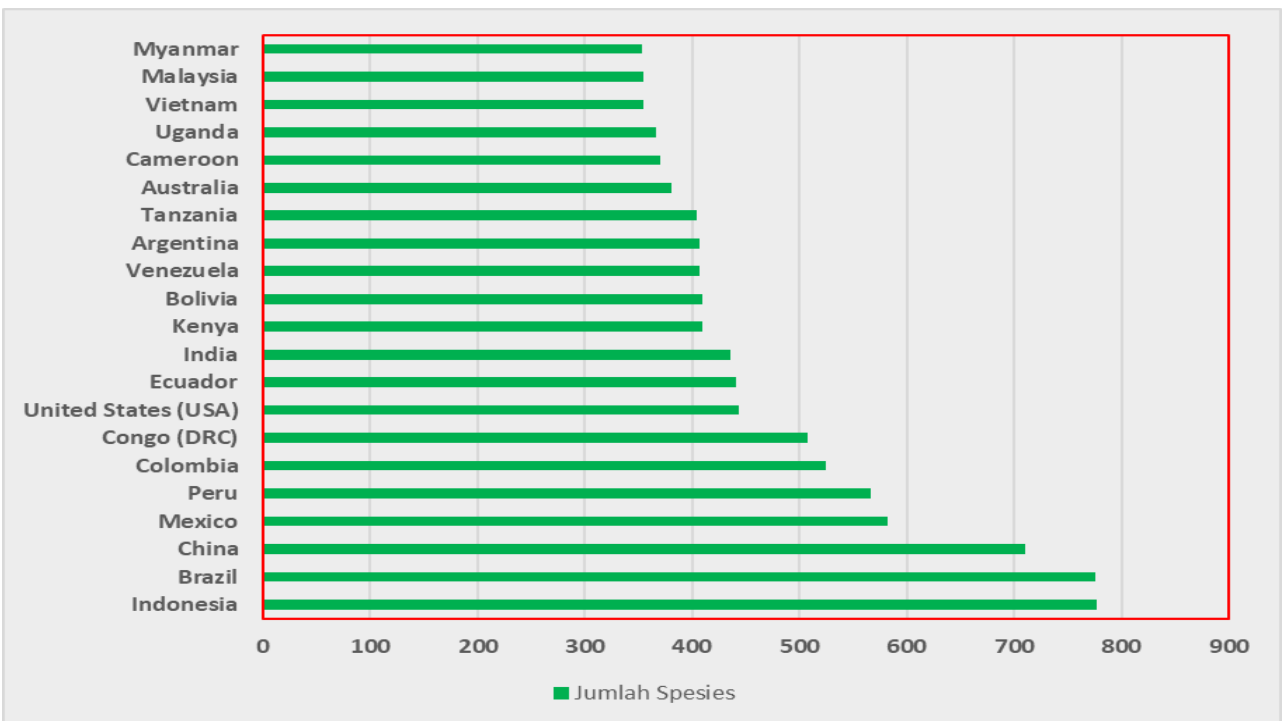
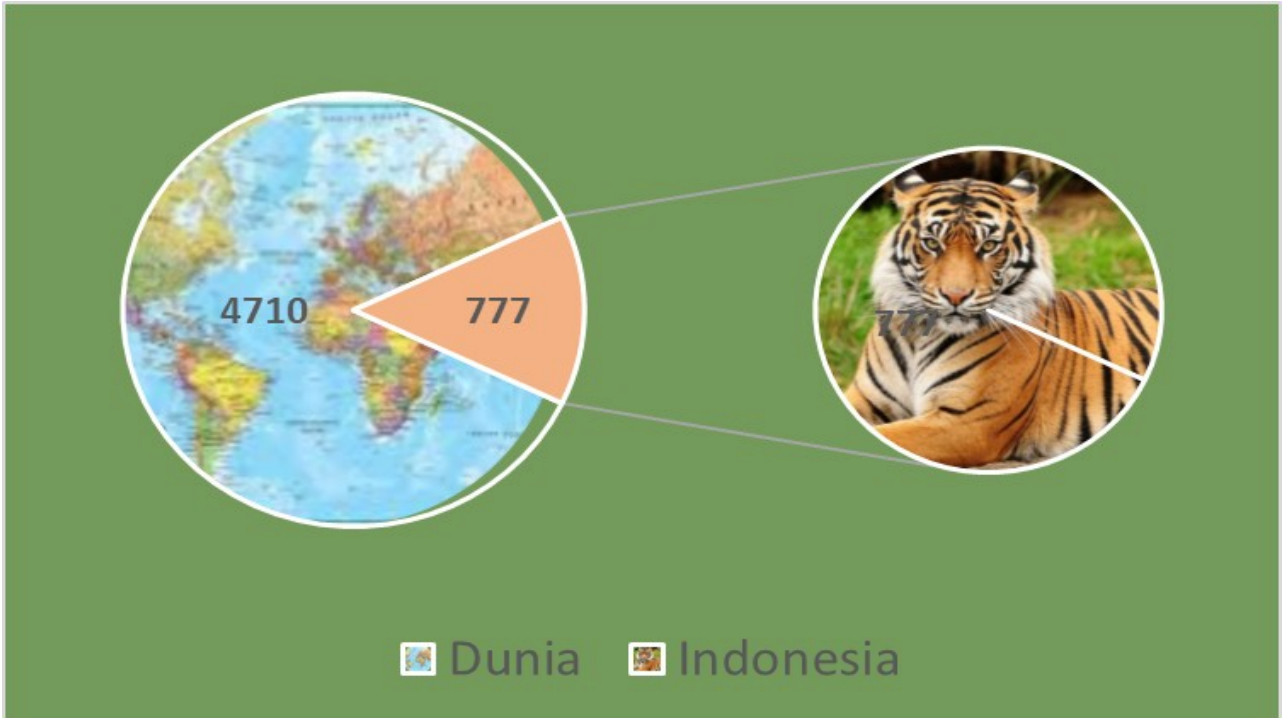
Mamalia berperan penting dalam kehidupan manusia, **sebagai sumber ekonomi, budaya, maupun dalam konteks ekologi.**

Interaksi manusia dengan mamalia non-human telah berlangsung selama ribuan tahun, yang mencakup **domestikasi, eksploitasi, konservasi, hingga konflik.** Pemahaman mengenai hubungan ini penting untuk menciptakan strategi yang berkelanjutan dalam pengelolaan dan konservasi mamalia.

Keragaman Mamalia

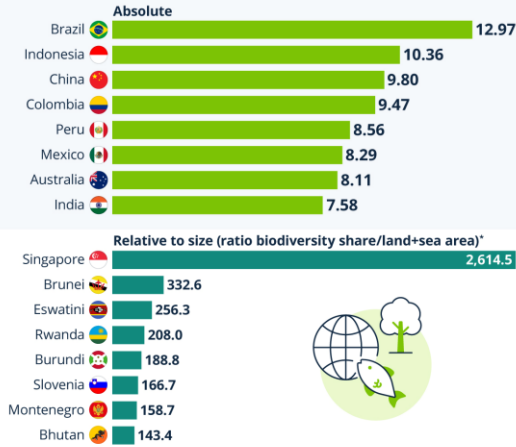
The new study to assess the world's mammals shows at least **1,141 of the 5,487** mammals on Earth are known to be threatened with extinction. At least 76 mammals have become extinct since 1500. But the results also show conservation can bring species back from the brink of extinction, with five percent of currently threatened mammals showing signs of recovery in the wild





The World's Most Biodiverse Countries

Countries home to the largest shares of the world's animal and plant species (in percent)

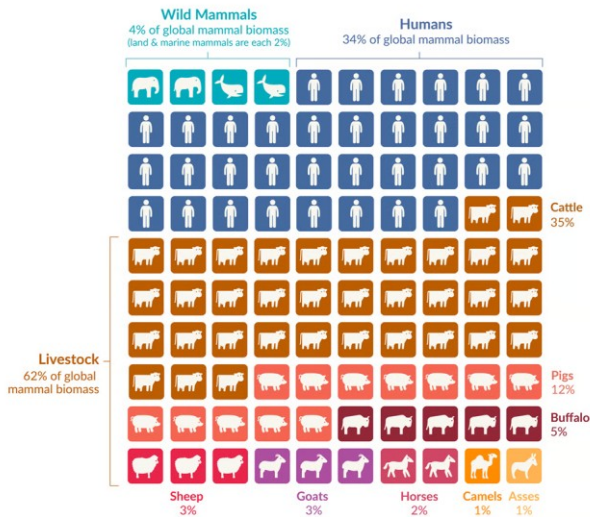


* Only includes countries with at least 1 percent of global species
As of Dec. 2023. Does not include insects, invertebrates, non-vascular plants, microorganisms
Source: World Rainforests



Distribution of mammals on Earth

Mammal biomass is measured in tonnes of carbon, and is shown for the year 2015. Each square corresponds to 1% of global mammal biomass.



Livestock make up 62% of the world's mammal biomass; humans account for 34%; and wild mammals are just 4%.



Note: An estimate for pets has been included in the total biomass figures, but is not shown on the visualization because it makes up less than 1% of the total.

OurWorldinData.org — Research and data to make progress against the world's largest problems.

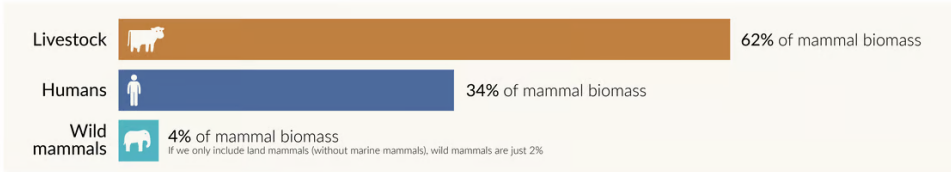
Licensed under CC-BY by the authors Hannah Ritchie and Klara Auerbach.

Wild mammals and birds are just a fraction of humans and our livestock

Animals are compared in terms of biomass, measured in tonnes of carbon.

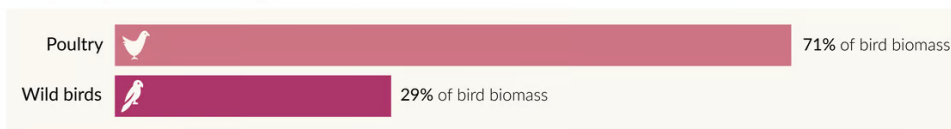
Mammals

All mammals – including land and marine – have a combined biomass of around **174 million tonnes of carbon**. Wild mammals are just 4% of global mammal biomass



Birds

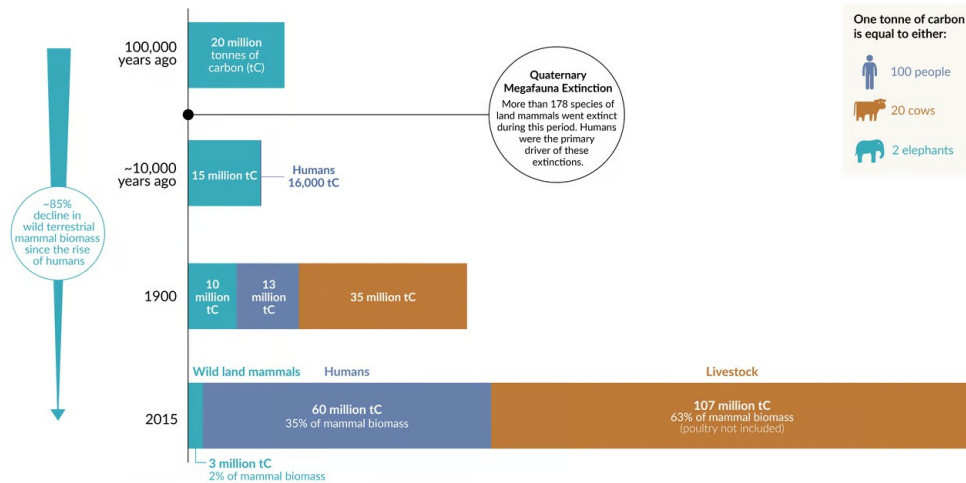
All birds have a combined biomass of around **7 million tonnes of carbon**. Poultry – mostly chickens – biomass weigh more than twice that of wild birds.



Source: Bar-On et al. (2018). The biomass distribution on Earth. *Proceedings of the National Academy of Sciences*.
 OurWorldinData.org – Research and data to make progress against the world's largest problems. Licensed under CC-BY by the authors Hannah Ritchie and Klara Auerbach.

Changing distribution of the world's land mammals

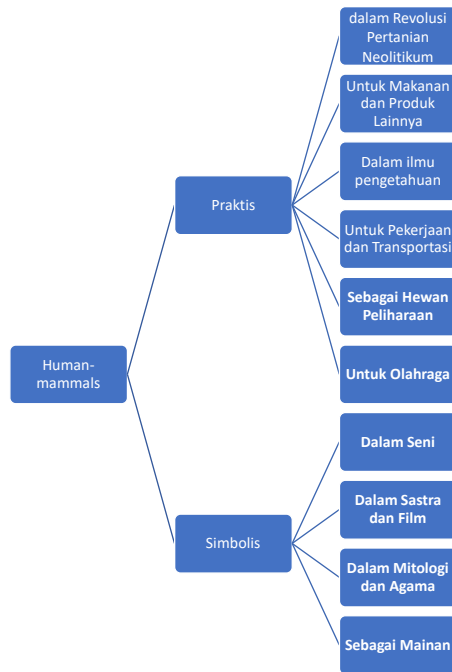
Mammals are compared in terms of biomass, measured in tonnes of carbon.



Note: Estimates of long-term biomass come with significant uncertainty, especially for wild mammals 100,000 and 10,000 years ago.
 Sources: Barnosky (2008); Smil (2011); and Bar-On et al. (2018).
 OurWorldinData.org – Research and data to make progress against the world's largest problems. Licensed under CC-BY by the authors Hannah Ritchie and Klara Auerbach.

Budaya terdiri dari perilaku dan norma sosial yang ditemukan dalam masyarakat manusia dan ditularkan melalui pembelajaran sosial. Universalitas budaya dalam semua masyarakat manusia mencakup bentuk ekspresif seperti seni, musik, tari, ritual, agama, dan teknologi seperti penggunaan alat, memasak, tempat tinggal, dan pakaian. Konsep budaya material mencakup ekspresi fisik seperti teknologi, arsitektur, dan seni, sedangkan budaya immaterial mencakup prinsip-prinsip organisasi sosial, mitologi, filsafat, sastra, dan sains. Artikel ini menjelaskan peran yang dimainkan oleh mamalia dalam budaya manusia, sebagaimana didefinisikan.

Hubungan manusia – mamalia?



- Charles Darwin, Jared Diamond, dan yang lainnya telah mencatat pentingnya mamalia peliharaan dalam perkembangan pertanian dan peradaban neolitik, yang menyebabkan petani menggantikan pemburu-pengumpul di seluruh dunia.
- Transisi dari berburu dan meramu ke menggembalakan ternak dan menanam tanaman merupakan langkah besar dalam sejarah manusia.
- Ekonomi pertanian baru, yang didasarkan pada mamalia peliharaan, menyebabkan "restrukturisasi radikal masyarakat manusia, perubahan keanekaragaman hayati di seluruh dunia, dan perubahan signifikan pada bentuk lahan Bumi dan atmosfernya... hasil yang sangat penting"

Anjing dan domba termasuk hewan pertama yang dijinakkan, dan masih digunakan secara luas hingga saat ini. <https://handwiki.org/wiki/index.php?curid=1077087>

Untuk Pekerjaan dan Transportasi



Hewan Percobaan





Hewan
peliharaan



Mamalia Simbolik



Mamalia mulai dari tikus, rubah hingga gajah memainkan berbagai peran dalam literatur dan media termasuk fotografi dan film

Mamalia termasuk sapi, [33] rusa, [34] kuda, [35] singa [36] dan serigala, beserta makhluk yang berasal dari hewan tersebut, seperti manusia serigala, [37] muncul dalam mitologi dan agama.

Dalam Sastra dan Film

In Mythology and Religion



Simbol kekuatan, kecepatan, kewibawaan, keindahan

Mamalia telah menjadi **subjek seni** sejak zaman dahulu, baik yang historis, seperti di Mesir Kuno, maupun prasejarah, seperti pada lukisan gua di Lascaux dan situs lainnya di Dordogne, Prancis, dan tempat lainnya. Lukisan hewan yang utama termasuk *The Rhinoceros* karya Albrecht Dürer tahun 1515, potret kuda *Whistlejacket* karya George Stubbs tahun 1762, *The Monarch of the Glen* karya Edwin Landseer tahun 1851, dan *Tiger in an imaginary landscape* karya Henri Rousseau tahun 1891, *Surprised*



As Toys



An original 1903 teddy bear, made by Benjamin Michtom.
<https://handwiki.org/wiki/index.php?curid=1537369>

Sikap terhadap Hewan

Antropomorfisme, kecenderungan psikologis bawaan untuk mengaitkan sifat-sifat seperti manusia kepada hewan, paling umum kepada mamalia, merupakan bagian penting dari cara manusia berhubungan dengan mamalia. Sikap dan perilaku terhadap hewan berkisar dari yang kejam hingga sentimental

Dalam Budaya Populer dan Seni



Hewan berpakaian seperti manusia dalam "Kura-kura dan Kelinci", dari edisi *Fabel Aesop* yang diilustrasikan oleh Arthur Rackham, 1912.
<https://handwiki.org/wiki/index.php?curid=1372859>

Konflik Manusia-Mamalia

- Serangan satwa liar terhadap manusia dan sebaliknya.
- Fragmentasi habitat dan konflik dengan peternakan



Bagi harimau sumatera, fragmentasi dan penurunan kualitas habitat yang diiringi aktivitas manusia [antropogenik] di wilayah jelajah mereka [Paiman et al., 2018; Pratama & Danoedoro, 2023], membuat kemungkinan kontak atau interaksinya dengan manusia semakin tinggi.

Hal ini didukung dengan fakta bahwa sekitar [60-70 persen](#) kantong habitat harimau sumatera berada di luar kawasan konservasi [Wibisono & Pusparini, 2010].

Apa yang harus kita lakukan, bila bertemu harimau sumatera di alam liar? Apakah kita berdiam diri, mundur perlahan, atau segera lari?



HUMAN-WILDLIFE CONFLICT



When encounters between humans and wildlife lead to negative results, such as loss of property, livelihoods, and even life

Causes of HWC

- Agricultural Expansion
- Urbanization
- Infrastructure Development
- Climate Change
- Wildlife Populations Growth and Range Expansion

Impacts of HWC

- Grave injuries, Loss of life
- Damage to farms and crops
- ↑ violence against animals

WWF, India during 2003-2004 developed the Sampur Model by which community members were connected with Assam Forest Dept and given training on how to drive elephants away from crop fields and human habitations safely.

In 2020, the SC upheld Madras HC's decision on the Nagar elephant corridor, affirming the right of passage of the animals and closure of resorts in the area.

Data on HWC

- Tigers killed 125 humans between 2019 and 2021
- Death of 329 tigers due to poaching, natural and unnatural causes.
- Elephants killed 1,579 humans in three years
- Death of 307 elephants due to poaching, electrocution, poisoning and train accidents

Advisory for HWC Management (Standing Committee of the National Board of Wildlife)

- Gram Panchayats empowered to deal with problematic wild animals (WPA 1972)
- Compensation against crop damage due to HWC (PM Fasal Bima Yojna)
- Local/State depts. to adopt early warning systems and create barriers
- Paying a part of ex-gratia as interim relief within 24 hours of the incident to the victim/family

State - Specific Initiatives

- **UP** - Man-animal conflict under **listed disasters** (in State Disaster Response Fund)
- **Uttarakhand** - **Bio-fencing** carried out by growing various species of plants in areas
- **Odisha** - Casting **seed balls** inside different forests to **enrich food stock for wild elephants**



7

PRINCIPLES for ETHICAL WILDLIFE CONTROL

Wildlife control – the lethal or non-lethal management of wild animals to restrict their activities – is often controversial because inhumane and ineffective strategies are used.

Following these international consensus principles ensures wildlife control programs are evidence-based and fully consider ethical concerns.

1 BEGIN BY MODIFYING HUMAN PRACTICES

Human actions like feeding or approaching wildlife may be the root cause of conflict. Long-term education or prevention efforts may reduce or eliminate the need for other control methods.

2 JUSTIFY WITH EVIDENCE

Harm to people, property, livelihoods, or ecosystems should be demonstrated with evidence. Nuisance behaviour may be found tolerable to a community through education and preventive measures.

3 ENSURE OBJECTIVES ARE CLEAR AND ACHIEVABLE

Objectives of wildlife control should be specific, measurable, and outcome-based. Failure to achieve poorly-defined objectives can be costly and erode public support of control programs.

4 PRIORITIZE ANIMAL WELFARE

Methods that cause the least harm should be preferred, and best practices should be updated as new control methods are developed. Non-lethal methods are not always the least harmful, as not all animals tolerate relocation.

5 MAINTAIN SOCIAL ACCEPTABILITY

Community values are key to the decision-making process, which should use scientific information to inform how best to meet those values. A collaborative community effort informed by scientific and practical information is more likely to result in a program that is supported in the long-term.

6 CONDUCT SYSTEMATIC PLANNING

Wildlife control should always be part of a program of long-term systematic management. This includes long-term monitoring of objectives and using a process of continual learning that prioritizes less harmful methods.


















7 MAKE DECISIONS BASED ON SPECIFICS, NOT LABELS

When animals are negatively labeled as introduced, abundant, or pest, control methods may be applied without proper justification. Control programs should ensure that a negative label has not reduced the consideration for animal welfare.

Dubois et al. (2017) doi:10.1111/cobi.12896

Konservasi dan Keberlanjutan

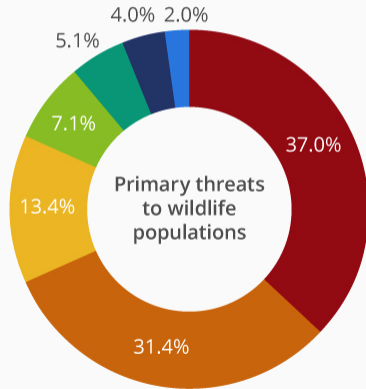
Program konservasi spesies terancam.

(IUCN, 2010)	Mengapa populasi Felidae menurun ?
 <p>Harimau sumatra</p>  <p>Kucing pesek</p> <p>Kritis</p>	    
 <p>Macan dahan</p>  <p>Kucing batu</p> <p>Rentan</p>	     
 <p>Kucing emas</p> <p>Mendekati Terancam</p>	
 <p>Kucing congkok</p> <p>Resiko Rendah</p>	

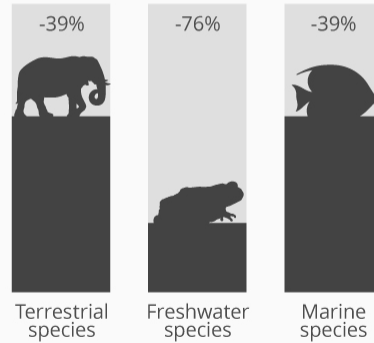
Wildlife Populations Worldwide Have Plummeted

Threats to wildlife and population decline from 1970-2010

- Exploitation
- Habitat degradation/change
- Habitat loss
- Climate change
- Invasive species/genes
- Pollution
- Disease



Species population decline from 1970-2010

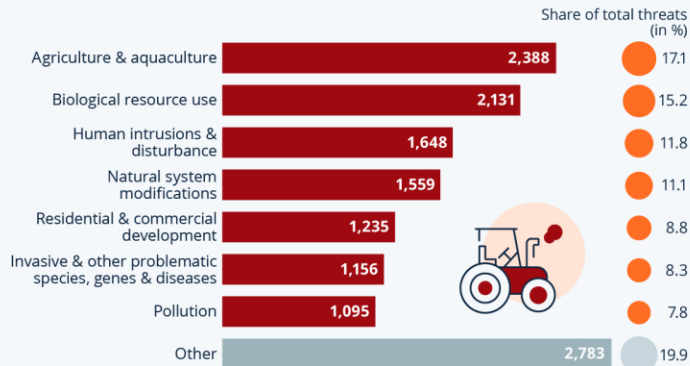


@StatistaCharts Source: World Wildlife Fund



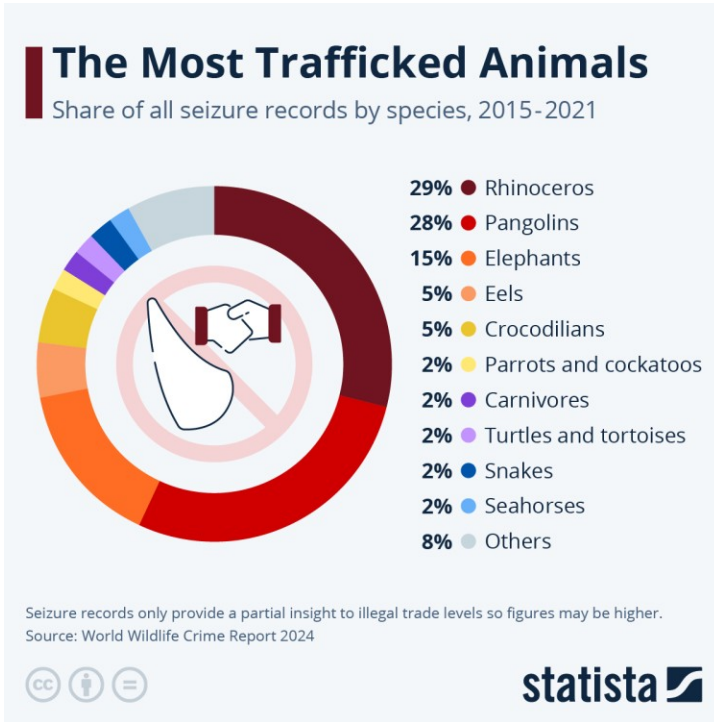
The Biggest Threats to Biodiversity on Earth

Number of key biodiversity areas identified as experiencing the following threats* worldwide as of Sep. 2024



* Categorized by the IUCN as top-level threats to biodiversity and ecosystems
Source: World Database of Key Biodiversity Areas





THE IUCN RED LIST OF THREATENED SPECIES™

[About](#)
[Assessment process](#)
[Resources & Publications](#)

More than 46,300 species are threatened with extinction

That is still 28% of all assessed species.

AMPHIBIANS 41%	MAMMALS 26%	CONIFERS 34%	BIRDS 12%	SHARKS & RAYS 37%
REEF CORALS 44%	SELECTED CRUSTACEANS 28%	REPTILES 21%	CYCADS 71%	

Etika dalam perlindungan mamalia liar.

- Setiap spesies mempunyai hak hidup
- Semua spesies saling tergantung
- Manusia seharusnya hidup dalam batasan ekologis yang sama dengan spesies lain
- Manusia mempunyai tanggung jawab menjaga bumi
- Menghargai hidup manusia dan keragaman selaras dengan menghargai biodiversitas
- Alam mempunyai nilai estetika yang dapat tercermin pada nilai ekonomisnya
- Biodiversitas diperlukan untuk menentukan asal muasal alam

Langkah Antisipasi

1. Stabilisasi kebutuhan ruang dan sumber daya
2. Pemanfaatan lahan alami harus dikelola untuk hidupan liar
3. Penurunan eksploitasi oleh manusia
4. Pemahaman yang luas tentang arti interaksi biotik seperti predasi harus ditekankan untuk mempertahankan keseimbangan fauna
5. Penggunaan satwa yang mengancam tanaman budidaya dan ternak dilakukan secara lokal
6. Penggunaan biosida harus dipantau dengan hati-hati
7. Manusia harus menerima kerugian ekonomi dan ketidaknyamanan yang disebabkan oleh satwa liar dan harus mempertimbangkan kompensasi kenyamanan kekayaan dan keseimbangan biota

Mamalia - Manusia

**kemampuan bertahan hidup hidupan liar di dunia
juga merupakan kemampuan bertahan hidup
manusia itu sendiri → keberadaan dan
keseimbangan biotis di permukaan bumi berada
di tangan manusia**

Homo sapiens, yang berarti bijaksana, maka diharapkan manusia akan membawa keseimbangan biotik di alam

