

# Eight new recommendations for wild meat management research

 **Minh-Hoang Nguyen**, Phenikaa University (Hanoi, Vietnam)

<https://orcid.org/0000-0002-7520-3844>

September 12, 2022

The tropical areas – covering 40% of the Earth’s surface – hold an [excessive quantity of global biological diversity](#): 91% of terrestrial birds and over 75% of amphibians, terrestrial mammals, freshwater fish, ants, flowering plants, and marine fish [1]. However, those regions’ biodiversity level is threatened by multiple stressors. One of such is the persisting and [rising wild meat \(or bushmeat\) consumption demands](#) [2,3].

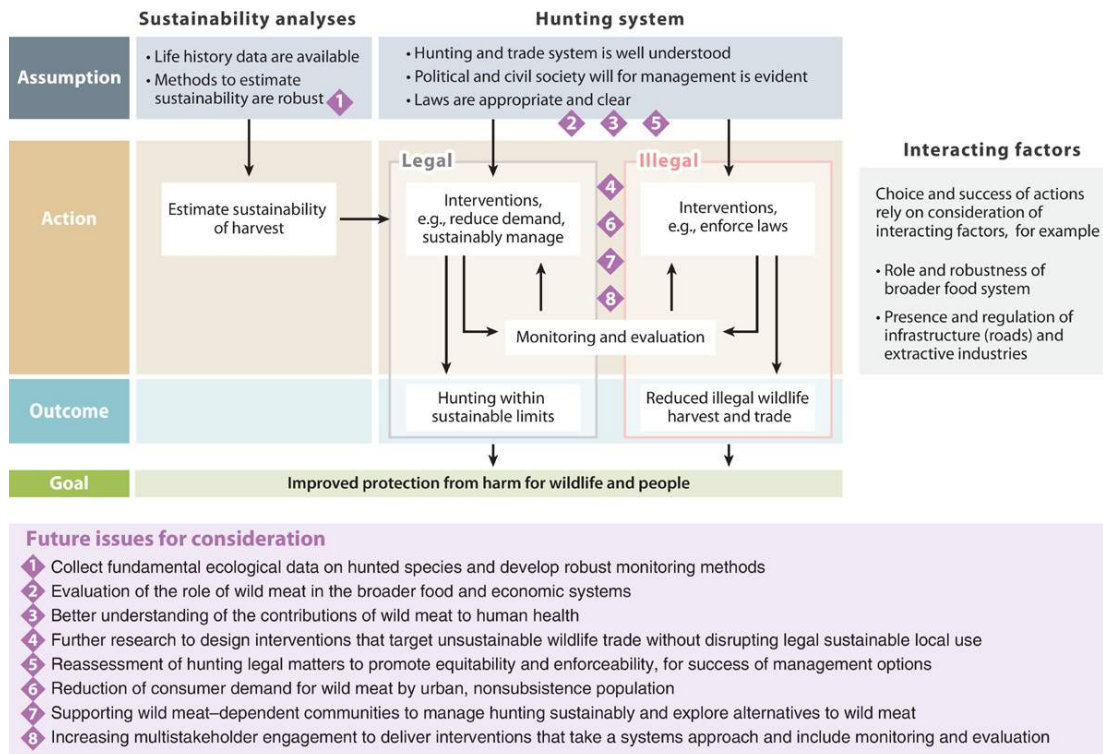
At the 2002 Annual Meeting of the Society for Conservation Biology (SCB), a group of specialists on wild meat proposed 11 urgent recommendations for research and action to harmonize the conservation needs and social development concerns to prevent the massive overhunting of wildlife for meat in the tropics. The meeting, co-hosted by the Durrell Institute of Conservation Ecology and the British Ecological Society, marked an [important milestone in the research and actions](#) related to bushmeat management [4]. Since then, these recommendations have not provided directions for hundreds of following conservation studies but also for policymakers in their actions.

Recently, a group of researchers, led by Daniel J. Ingram (University of Stirling), has conducted a critical review of the literature and experts’ evaluations of the on-the-ground progress to gauge the progress toward 11 recommended research needs and actions in approximately the last two decades [5]. According to the review, most areas of wild meat research and management showed limited progress toward sustainability. The most progressive aspect is understanding the drivers behind hunting and the demand for wild meat. Meanwhile, three major challenges existed:

- practical difficulties of implementing solutions where local capacity, good governance,

and political will are limited;

- a lack of understanding of the role of wild meat in the broader food system;
- a lack of cross-sectoral collaboration in providing long-term solutions and resources.



Ingram DJ, et al. 2021  
Annu. Rev. Environ. Resour. 46:221–54

**Figure:** Eight new recommendations for wild meat management research and actions, retrieved from [5] (CC-BY-4.0); <https://www.annualreviews.org/doi/10.1146/annurev-environ-041020-063132>

Based on the insights from the review, the authors also suggest eight new recommendations for wild meat management research and implementation, classified into two main types: recommendations for further research and recommendations for urgent actions. Specifically, the former type includes four future issues for consideration:

1. Collect fundamental ecological data on hunted species and develop robust monitoring methods
2. Evaluation of the role of wild meat in the broader food and economic systems
3. A better understanding of the contributions of wild meat to human health
4. Further research to design interventions that target unsustainable wildlife trade without disrupting legal, sustainable local use

Meanwhile, four issues for consideration of the latter type are:

5. Reassessment of hunting legal matters to promote equitability and enforceability for the success of management options
6. Reduction of consumer demand for wild meat by urban, non-subsistence population
7. Supporting wild meat–dependent communities to manage hunting sustainably and explore alternatives to wild meat
8. Increasing multistakeholder engagement to deliver interventions that take a systems approach and include monitoring and evaluation

The new eight recommendations are expected to contribute to sustainable wild meat use and further facilitate the accomplishment of the United Nations Sustainable Development Goals.

From the information-processing perspective [6,7], if these recommendations are effectively implemented, they will benefit the natural information processing systems (e.g., biodiversity) and the social information processing systems (e.g., local communities and governments). In particular, the natural systems will be maintained at equilibrium due to lower population decline and extinction rates of species caught for meat, while the social systems can still meet the information demands (e.g., food, nutrition, and income) for development resiliently.

## References

- [1] Barlow J, et al. (2018). The future of hyperdiverse tropical ecosystems. *Nature*, 559(7715), 517-526. <https://www.nature.com/articles/s41586-018-0301-1>
- [2] Cawthorn DM & Hoffman LC. (2015). The bushmeat and food security nexus: A global account of the contributions, conundrums and ethical collisions. *Food Research International*, 76(4), 906-925. <https://www.sciencedirect.com/science/article/pii/S0963996915001301>
- [3] Coad L, et al. (2019). *Towards a sustainable, participatory and inclusive wild meat sector*. CIFOR. <https://books.google.com.vn/books?id=77SFDwAAQBAJ>
- [4] Milner-Gulland EJ, Bennett EL, & the SCB 2002 Annual Meeting Wild Meat Group. (2003). Wild meat: the bigger picture. *Trends in Ecology and Evolution*, 18(7), 351-357. <https://www.sciencedirect.com/science/article/abs/pii/S016953470300123X>

[5] Ingram DJ, et al. (2021). Wild Meat Is Still on the Menu: Progress in Wild Meat Research, Policy, and Practice from 2002 to 2020. *Annual Review of Environment and Resources*, 46, 221-254. <https://www.annualreviews.org/doi/10.1146/annurev-environ-041020-063132>

[6] Vuong QH. (2022). *Mindsponge theory*. AISDL. <https://books.google.com/books?id=OSiGEAAAQBAJ>

[7] Vuong QH, Nguyen MH, La VP. (2022). *The mindsponge and BMF analytics for innovative thinking in social sciences and humanities*. De Gruyter. <https://books.google.com/books?id=EGeEEAAAQBAJ>

