

# Research on human behaviour to balance conservation and sustainable use of the natural environment

Takahiro Kubo (Biodiversity division, National Institute for Environmental Studies, Japan)

kubo.takahiro@nies.go.jp

Biodiversity has declined at an alarming rate in recent years. The main reason for this is that the social benefits gained from biodiversity are not fully recognized and are not reflected in the market. This may be preventing the development of the sustainable industries and biodiversity from being compatible.

Based on the above awareness of the problem, a series of the studies applied economics, behavioral science and marketing science to visualize the conservation value of biodiversity in natural and has clarified the synergy and trade-offs between industries and biodiversity conservation (Kubo et al. 2019). In addition, by directly analyzing people's behavior through big data and social experiments, we have contributed to the establishment of a system that promotes people's behavior (Kubo et al. 2020, Kubo et al. 2023).

For example, in Kubo et al. (2023), we conducted a real-donation field experiment to purchase a forest on Amami Oshima Island, where the endangered Amami rabbit lives, in collaboration with the NGO and an IT company. We examined how to effectively obtain donations by changing the method of appeal and the fundraising platform. The results of the analysis showed that providing information on the seed money, which shows the amount of money currently being collected, when calling for donations increased the number of donors compared to the control group (Simple), while calls that focused on 'endangered species' (Ecological) showed a decrease.

In addition, while the amount of donations exceeded the cost of traditional mail appeals, the cost exceeded the amount of donations for online advertising. The contribution of this research is that it has obtained scientific knowledge about behavioral change among people who contribute to the acquisition of conservation funds through collaboration between diverse entities. As the issue of insufficient funds for biodiversity conservation becomes more pressing, it is hoped that diverse entities will continue to collaborate organically to effectively promote conservation activities.

A series of research focusing on human behavior can contribute to mainstreaming the value of biodiversity and to the coexistence of the conservation and sustainable use of the natural environment.

## References

1. **Kubo, T.**, Mieno, T., & Kuriyama, K. (2019). Wildlife viewing: The impact of money-back guarantees. *Tourism Management*, 70, 49-55.
2. **Kubo, T.**, Uryu, S., Yamano, H., Tsuge, T., Yamakita, T., & Shirayama, Y. (2020). Mobile phone network data reveal nationwide economic value of coastal tourism under climate change. *Tourism Management*, 77, 104010.

3. **Kubo, T., Yokoo, H. F., & Veríssimo, D. (2023).** Conservation fundraising: Evidence from social media and traditional mail field experiments. *Conservation Letters*, 16(1), e12931.