



THE ROLE OF INCENTIVES IN POLICY DESIGN

A CASE STUDY FROM BIODIVERSITY FINANCING

Policy Forum on Thailand's Sustainable Green Growth : Embedding Resilience

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Biodiversity

“The variability among living organisms from all sources including, inter alia, terrestrial, marine and other aquatic ecosystems and the ecological complexes of which they are part; this includes diversity within species, between species and of ecosystems”

(Convention on Biological Diversity)



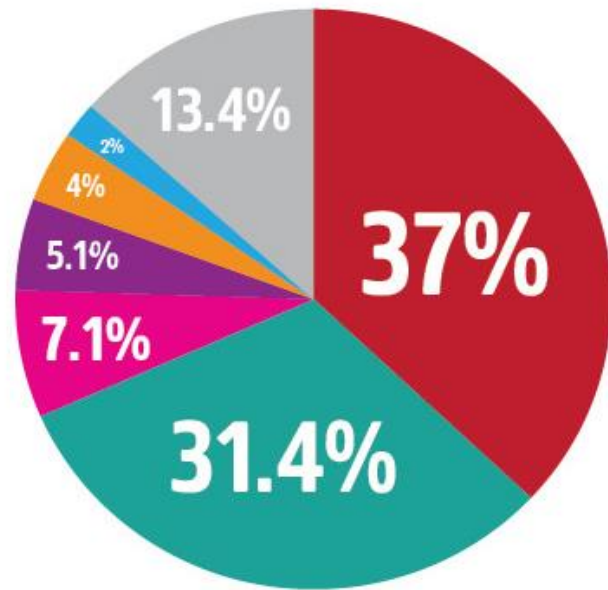
Biodiversity Finance

“[T]he practice of raising and managing capital and using financial incentives to support sustainable biodiversity management. It includes private and public financial resources used to conserve biodiversity, investments in commercial activities that produce positive biodiversity outcomes and the value of the transactions in biodiversity-related markets such as habitat banking.”

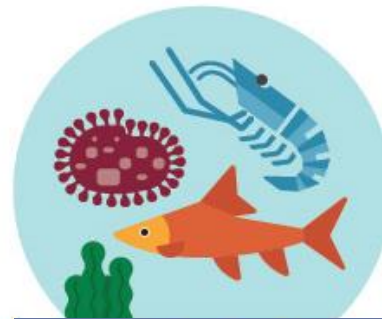
(Biodiversity Finance Initiative - BIOFIN)



Biodiversity is in decline



- Overconsumption
- Habitat loss and degradation
- Climate change
- Invasive species
- Pollution
- Infectious diseases
- Others



Freshwater Ecosystems

↓ 76%



Terrestrial Ecosystems

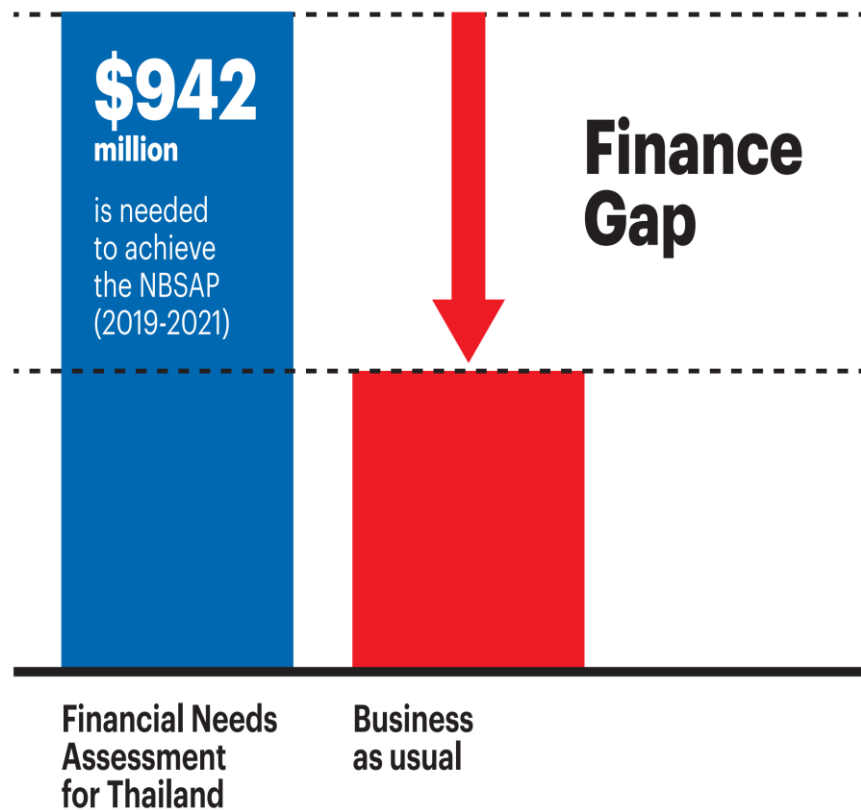
↓ 39%



Marine Ecosystems

↓ 39%

Why finance biodiversity?



- BIOFIN Thailand estimates \$942 million is needed to achieve national biodiversity goals
- Public funds and overseas development assistance make up the bulk of biodiversity-related expenditures
- This gap is unlikely to be closed in the near future
- In addition to stepping up efforts to secure finance for biodiversity, incentives can help by motivating biodiversity-friendly behavior

Incentives



Forest management



Bangkok Post Supreme Court: 5 years prison for elderly mushroom pickers

PUBLISHED: 2 MAY 2017 AT 16:03

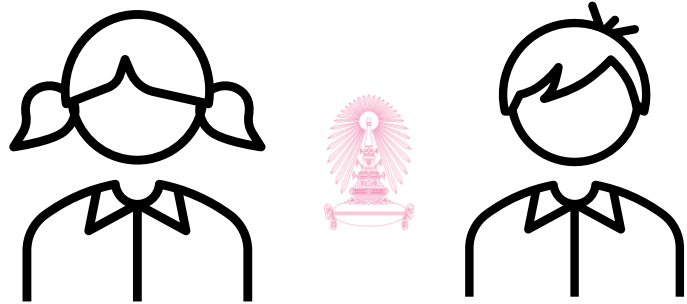
WRITER: JON FERNQUEST
ORIGINAL SOURCE/WRITER: YONGYUTH PHUPHUANGPET

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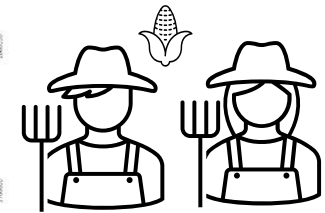
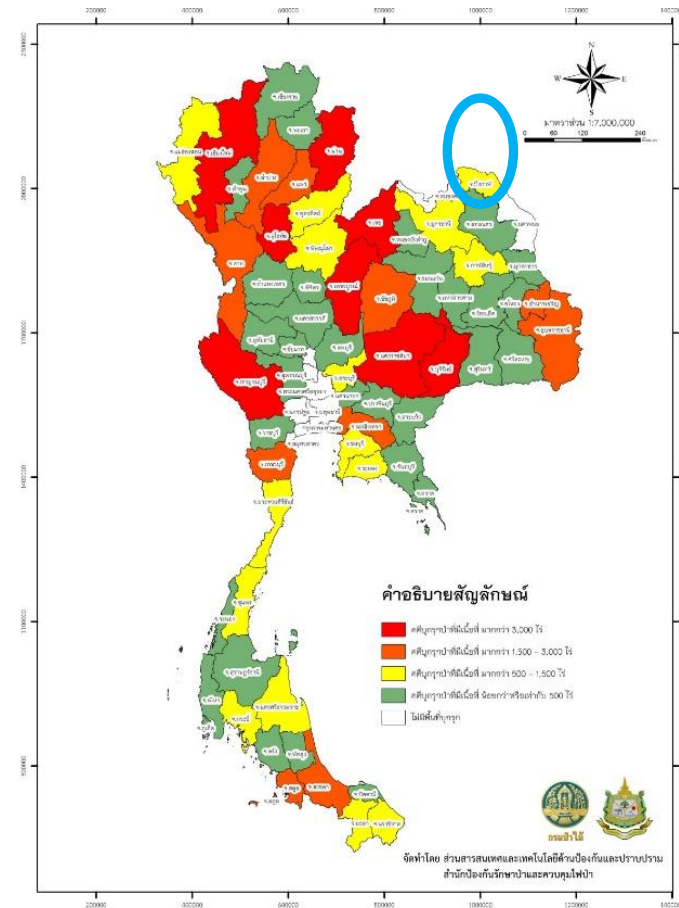
A photograph showing two police officers in uniform escorting two elderly individuals, a woman and a man, outdoors. The woman is wearing a pink and white checkered shirt, and the man is wearing a yellow shirt and a plaid jacket. A camera on a tripod is visible in the background. The scene is outdoors on a grassy area with trees and a building in the distance.

How to incentivize conservation?



Study of students at Chulalongkorn University and people living near the forest in Nan province

Forest encroachment (FY2016)



Findings: similarities and differences

- Both rewards and threat of punishment work
 - Conservation increased following imposition of rules
- The strictest rule may not generate the best outcomes
 - Less stringent rules perform better when using negative incentives
 - With positive incentives, strict rules lead to conservation gains but create more inequalities
- People in the field are more responsive to the rules than students in the lab

Conclusion

- Biodiversity is under threat
- Biodiversity finance is extremely limited and not enough to meet conservation needs
- Well-designed incentives can help promote biodiversity conservation, reducing the needs for rehabilitation expenditures in the future

Additional Information

Tambunlertchai, K. and S. Pongkijvorasin (2020) “The Impacts of Collective Threshold Requirements for Rewards in a CPR Experiment.” *Environmental Economics and Policy Studies* 22:537-554
(<https://doi.org/10.1007/s10018-020-00268-5>)

Tambunlertchai, K. and S. Pongkijvorasin (2021) “Regulatory Stringency and Behavior in a Common Pool Resource Game: Lab and Field Experiments.” *Journal of Asian Economics*, 74.
(<http://dx.doi.org/10.1016/j.asieco.2021.101309>)

BIOFIN Thailand’s Synthesis Report 2019 can be accessed at
<https://biodiversityfinance.net/knowledge-product/synthesis-report-thailand-pir-ber-fna>

Biodiversity finance instruments can be found at <https://www.biodiversityfinance.net/finance-solutions>

Thank You!

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