



TIDE

Transformation by Innovation in Distance Education



Discussion task

Question 1

Look at the map entitled 'Protected areas – Myanmar'. Do you think the protected areas are well designed? Why or why not?

Question 2

Now compare it to the map entitled 'Key biodiversity areas – Myanmar' and 'Vegetation types – Myanmar'. Key biodiversity areas are places that contain high amounts of biodiversity or are particularly important for important species or ecosystem services. Do you think any important biodiversity areas are not being well protected? What habitat/vegetations types are missing from the protected areas? Which ones and why?

Question 3

If you were going to create a new protected area in Myanmar where would you put it? Why? Look at the map called 'Economic activity and land use – Myanmar'. Will the opportunity cost of this new protected area be large or small? Will it interfere with economic activity?

Lecture references

Joppa, L.N. and Pfaff, A., 2009. High and far: biases in the location of protected areas. *PLoS one*, 4(12), p.e8273.

Watson et al. (2014) The performance and potential of protected areas. *Nature*

Broadbent, et al. 2008. Forest fragmentation and edge effects from deforestation and selective logging in the Brazilian Amazon. *Biological conservation*

Copeland, A., 2015. The Governor Laffan's Fern Recovery Project. *Sustaining Partnerships*, p.170.

McFarland B.J. (2018) Tropical Rainforest Ecology. In: Conservation of Tropical Rainforests. Palgrave Studies in Environmental Policy and Regulation. Palgrave Macmillan, Cham.
https://doi.org/10.1007/978-3-319-63236-0_3

Simberloff, D. and Cox, J., 1987. Consequences and costs of conservation corridors. *Conservation biology*, 1(1), pp.63-71.

Riggio J, Caro T (2017) Structural connectivity at a national scale: Wildlife corridors in Tanzania. *PLoS ONE* 12(11): e0187407. [https://doi.org/10.1371/journal.pone.0187407\(1\)](https://doi.org/10.1371/journal.pone.0187407(1)), pp.63-71.

Dupuis-Desormeaux, M., Kaaria, T.N., Mwololo, M., Davidson, Z. and MacDonald, S.E., 2018. A ghost fence-gap: surprising wildlife usage of an obsolete fence crossing. *PeerJ*, 6, p.e5950.

Joppa, L.N., Loarie, S.R., Pimm, S.L., 2008. On the protection of "protected areas". *Proc. Natl. Acad. Sci. U. S. A.* 105, 6673–8. <https://doi.org/10.1073/pnas.0802471105>

Geldman, J., Barnes, M., Coad, L., Craigie, I., Hockings, M., Burgess, N., 2013. Effectiveness of terrestrial protected areas in reducing habitat loss and population declines. *Biol. Conserv.* 161, 230–238.

Bruner, A.G., Gullison, R.E., Rice, R.E., da Fonseca, G.A., 2001. Effectiveness of parks in protecting tropical biodiversity. *Science* 291, 125–8. <https://doi.org/10.1126/science.291.5501.125>

Ferraro, P.J., Hanauer, M.M., Miteva, D.A., Canavire-Bacarreza, G.J., Pattanayak, S.K., Sims, K.R.E., 2013. More strictly protected areas are not necessarily more protective: evidence from Bolivia, Costa Rica, Indonesia, and Thailand. *Environ. Res. Lett.* 8, 025011. <https://doi.org/10.1088/1748-9326/8/2/025011>

Barnes, M.D., Glew, L., Wyborn, C., Craigie, I.D., 2018. Prevent perverse outcomes from global protected area policy. *Nat. Ecol. Evol.* 2, 759–762. <https://doi.org/10.1038/s41559-018-0501-y>

Craigie, I.D., Baillie, J.E., Balmford, A., Carbone, C., Collen, B., Green, R.E. and Hutton, J.M., 2010. Large mammal population declines in Africa's protected areas. *Biological Conservation*, 143(9), pp.2221-2228.