

3Ps Philippines Pilot Project Final Report

Appendix E

InVEST Visitation: Recreation and Tourism Model Methods

[InVEST® software version 3.13.0](#) (Natural Capital Project, 2024)¹ was used to model visitation to the Philippines. This model, [InVEST Visitation: Recreation and Tourism](#), relies on geotagged social media data from the photo-sharing website [Flickr](#) as a proxy for actual visitation. Visitation was modeled nationally and throughout the Philippines' Exclusive Economic Zone (EEZ) at the scale of 10 kilometer maximal diameter gridded hexagons. Visitation was modeled across 11 of the [12 RFI sites in the Philippines](#) at the scale of one kilometer maximal diameter gridded hexagons. Each of these RFI sites was given a one kilometer buffer to avoid exclusion of any areas near site boundaries. Candaba Wetland visitation was not modeled because we were unable to obtain data representing its site boundary. Both national and RFI site modeling covered the time period from 2005 through 2017. Results are provided spatially as average annual photo-user-days (PUDs). One PUD at any given location represents one unique photographer who took at least one photo on a specific day and uploaded it to Flickr.

Input data sources:

- The Philippines' EEZ spatial boundary.²
- Philippines RFI site spatial boundaries were provided via email to Jess Silver by [Dr. Evelyn Piña-Covarrubias](#) of the University of Southampton in July of 2023.
- Visitor expenditure data (average daily expenditures for foreign tourists) from 'Inbound Tourism Update (2023)'.³

¹ Natural Capital Project, 2023. InVEST® 3.13.0. Stanford University, University of Minnesota, Chinese Academy of Sciences, The Nature Conservancy, World Wildlife Fund, Stockholm Resilience Centre and the Royal Swedish Academy of Sciences. <https://naturalcapitalproject.stanford.edu/software/invest>.

² Flanders Marine Institute (2019). Maritime Boundaries Geodatabase: Maritime Boundaries and Exclusive Economic Zones (200 NM), version 11. Available online at <https://www.marineregions.org/>. <https://doi.org/10.14284/386>.

³ Department Of Tourism, Republic Of the Philippines (2018). Regional Distribution of Overnight Travelers in Accommodation Establishments in the Philippines, Tourism Research And Statistics Division, Office Of Tourism Development Planning. http://www.tourism.gov.ph/tourism_dem_sup_pub.aspx