

The Economic Contributions of Recreational Visitation at Kīlauea Point National Wildlife Refuge

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This paper establishes the economic contribution baseline for recreational visitation at Kīlauea Point National Wildlife Refuge (Refuge). The paper addresses the levels of Refuge recreational activities and the economic effects of Refuge recreational activities. The analysis is followed by a glossary of terms. For more information regarding the methodology, please refer to “Banking on Nature – The Economic Contributions to Local Communities of National Wildlife Refuge Visitation” at <https://www.fws.gov/economics/divisionpublications/divisionpublications.asp>.

From an economic perspective, Kīlauea Point National Wildlife Refuge provides a variety of environmental and natural resource goods and services used by people either directly or indirectly. The use of these goods and services may result in economic effects to both local and state economies. The various services the Refuge provides can be grouped into five broad categories: (1) maintenance and conservation of environmental resources, services and ecological processes; (2) protection of natural resources such as fish, wildlife, and plants; (3) protection of cultural and historical sites and objects; (4) provision of educational and research opportunities; and (5) outdoor and wildlife-related recreation. A comprehensive economic profile of the Refuge would address all applicable economic effects associated with the use of refuge-produced goods and services. However, some of the major contributions of the Refuge to the natural environment, such as watershed protection, maintenance and stabilization of ecological processes, and the enhancement of biodiversity are beyond the scope of this paper. Therefore, this paper focuses on economic effects associated with recreational visitation. As a result, benefits represent conservative estimates and do not represent the Refuge’s total social impacts.

Refuge Description

The 199-acre Kīlauea Point National Wildlife Refuge, located on the northernmost tip of Kaua‘i, was established in 1985 and is managed by the U.S. Fish & Wildlife Service to protect and enhance migratory seabirds, threatened and endangered species, and other natural resources; preserve and maintain the Daniel K. Inouye Kīlauea Point Lighthouse and lighthouse keepers’ homes built in 1913 and listed on the National Register of Historic Places in 1979; conduct interpretation and environmental education activities; promote fish and wildlife-oriented recreational opportunities; and conserve native coastal strand, riparian habitat and aquatic biological diversity.

In addition to Hanalei and Hulē‘ia NWRs, Kīlauea Point NWR is one of three refuges that make up the Kaua‘i National Wildlife Refuge Complex. The U.S. Fish and Wildlife Service staff work with volunteers and partners to expand and enhance existing habitat for those species the Refuge was established to protect, while combating the primary threats of invasive species and allowing for public uses that are compatible with Refuge purposes and the National Wildlife Refuge System mission. The lighthouse, as well as easy access to wildlife viewing and dramatic ocean and cliff views, makes this Refuge a top attraction on the island. Kīlauea Point NWR is one of most visited refuges within the entire System with over 400,000 people visiting annually. The dynamic and awe-inspiring experiences of Kīlauea Point provide locals and visitors alike a sense of place and lasting interconnectedness with the natural world. Interwoven with cultural heritage, environmental education links the public to the Refuge System mission. Through strong community support, the Kīlauea lighthouse endures, telling its story, and remains a beacon promoting stewardship of the Refuge’s resources for future generations.

Kīlauea Point NWR is one of the few places in the main Hawaiian Islands with an abundant diversity of seabirds, and it provides a high-island refugium for seabird populations potentially affected by climate change (e.g., rising sea levels impacting low-lying nesting areas on the islands and atolls of the Northwestern Hawaiian Islands). ‘Ua‘u kani (wedge-tailed shearwaters) are the most numerous species on the Refuge, the colony of ‘ā (red-footed boobies) is the largest in the main Hawaiian Islands, and mōlī (Laysan albatross) which nest on and near the Refuge are part of the largest colony outside the Northwestern Hawaiian Islands. A remarkable total of 33 seabird species have been observed at Kīlauea Point over the years, including also the ‘iwa (great frigatebird), koa‘e ‘ula (red-tailed tropicbirds), koa‘e kea (white-tailed tropicbirds), threatened ‘a‘o (Newell’s shearwater), and endangered ‘ua‘u (Hawaiian petrel). Additionally, the Refuge provides habitat for one of the largest endangered nēnē (Hawaiian goose) concentrations on the island. The Refuge also supports endangered ‘īlio-holo-i-ka-uaua (Hawaiian monk seal) and native coastal plant communities which include naupaka kahakai, ‘ilima, ‘akoko and others.

Activity Levels

Table 1 shows the recreation visits for the Refuge. The Refuge had about 1.1 million recreational visits in 2017 which contributed to the economic effect of the Refuge. Non-consumptive recreation accounted for nearly all visits with non-residents comprising 94 percent of Refuge visitation. Interpretation consists of Lighthouse Tours, informal interpretation by roving volunteer docents, volunteer training, Road Scholar and other elder programs, cultural access programs, and formal interpretive programs. Other recreational use occurs at Kahili Beach, a portion of which is located on refuge property.

Table 1. Kilauea Point NWR: 2017 Recreation Visits

Activity	Residents	Non-Residents	Total
Non-Consumptive:			
Pedestrian	12,860	415,800	428,660
Auto Tour	-	-	-
Boat Trail/Launch	49	2	50
Bicycle	97	3	100
Photography	9,000	291,000	300,000
Interpretation	19,168	172,513	191,681
Other Recreation	19,656	2,184	21,840
Visitor Center	6,152	198,920	205,072
Hunting:			
Big Game	-	-	-
Small Game	-	-	-
Migratory Birds	-	-	-
Fishing:	97	3	100
Total Visitation	67,079	1,080,424	1,147,503

Source: Refuge Annual Performance Plan 2017 and Refuge Staff

Regional Economic Analysis

The economic area for the Refuge is Kaua'i County, Hawaii. It is assumed that visitor expenditures occur primarily within this county. Visitor recreation expenditures for 2017 are shown in Table 2. Total expenditures were \$23.6 million with non-residents accounting for \$23.4 million or 99 percent of total expenditures. Expenditures on non-consumptive activities accounted for nearly all expenditures.

Spending in the local area generates and supports economic activity within Kaua'i County (Table 3). The contribution of recreational spending in local communities was associated with about 293 jobs, \$10.2 million in employment income, \$3.0 million in total tax revenue, and \$34.2 million in economic output.

Table 2. Kilauea Point NWR: Visitor Recreation Expenditures (2017 \$,000)

Activity	Residents	Non-Residents	Total
Non-Consumptive	\$238.8	\$23,384.8	\$23,623.6
Hunting	-	-	-
Fishing	\$0.7	-	\$0.7
Total Expenditures	\$239.5	\$23,384.9	\$23,624.3

Table 3. Kilauea Point NWR: Local Economic Contributions Associated with Recreation Visits (2017 \$,000)

	Residents	Non-Residents	Total
Economic Output	\$347.1	\$33,903.3	\$34,250.4
Jobs	3	290	293
Job Income	\$114.1	\$10,081.9	\$10,196.0
State and Local Tax Revenue	\$28.4	\$2,979.4	\$3,007.8

Glossary

Economic Contribution: The economic activity generated in a region by residents and non-resident recreation spending.

Expenditures: The spending by recreational visitors when visiting refuges. Expenditure categories include food, lodging, transportation, and other. Expenditure information is based on the 2011 National Survey of Fishing, Hunting and Wildlife Associated Recreation (NSFHWR).

Economic Output: The total spending by final consumers on all goods. The amount reported in this study is the change in spending by final consumers in the region attributable to refuge visitation. Economic output includes spending by people who earn income from refuge visitors' activities as well as spending by refuge visitors themselves.

Impact: The new economic activity generated in a region as a refuge attracts non-residents to the area. This figure represents economic activity that would be lost if the refuge were not there.

IMPLAN: An economic modeling software package that applies input-output analysis techniques to regional economies.

Jobs: Full and part time jobs.

Job Income: Income to households from labor including wages and salaries.

Resident/Non-Resident: People living more than 50 miles from the refuges are considered non-residents for this study.

Tax Revenue: Local, county and state taxes: sales tax, property tax, and income tax

Visitors: A visitor is someone who comes to the refuge and participates in one or more of the activities available at the refuge.

Visits (visitation): A visit is not the same as a visitor. One visitor could be responsible for several visits on a refuge. For example, if a family of four went fishing in the morning and hiked a short nature trail in the afternoon, they would have contributed 8 activity visits to the refuge; yet, they are only four visitors.

References

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