

SECTION 7

✓ LAND USE AND OWNERSHIP

General statistics on the use, ownership, and tenure of land appear in this section. Information on specific use or ownership categories, such as farms, forests, parks, or military land, is given elsewhere.

Out of 4,050,176 acres on the six largest islands of the State, only 155,705 are in urban use. The largest uses are grazing (1,150,534 acres), forest reserve (1,190,954), and *pali* or other barren land (503,308). Approximately half of the 55,000 acres in Honolulu were unused open space when last surveyed in 1969; the second largest category at that time was residential use, with over 8,300 acres. For the State as a whole, the Land Use Commission has zoned 147,500 acres as "urban," 1,986,400 as "conservation," 1,968,700 as "agricultural," and 8,900 as "rural." Approximately 9 percent of the land in the State is owned by the Federal government, 38 percent by State government, 46 percent by major private owners (those with 1,000 or more acres), and less than 7 percent by small landowners.

Considerable caution is necessary in comparing statistics from different sources on land use, ownership, or tenure. Variations in definitions and survey dates seriously affect comparability in many instances, even where terminology is relatively unambiguous and misinterpretation seems unlikely. An example of such difficulties is the wide range in estimates of Federal land, with State totals ranging from 355,800 acres to 396,500. Recent statistics on military land use are likewise confusing, going as high as 175,000 acres and as low as 56,000.

Reports of the Hawaii State Department of Land and Natural Resources, Department of Taxation, Department of Transportation, and Land Use Commission, the Land Study Bureau of the University of Hawaii, and the Congressional Committee on Government Operations provided the data for this section. Greater detail appears in DPED Statistical Report 98, *Land Use and Ownership Trends in Hawaii*, issued December 28, 1973. Statistics for the nation as a whole are available in Sections 7 and 23 of the *Statistical Abstract of the United States: 1973*.

Table 87.—LAND USE, FOR THE STATE AND OAHU: 1930, 1960, AND 1968
(In acres)

Year and land use	State total ¹	Oahu ²	Year and land use	State total ¹	Oahu ²
1930, all uses	4,118,400	386,560	1968, all uses	4,050,176	388,928
Sugar cane	252,128	43,366	Sugar cane	262,377	40,852
Pineapple	78,750	35,500	Pineapple	69,276	18,987
Coffee	5,498	—	Nonplantation agric.	1,197,688	51,741
Other cult. land ³	15,353	4,773	Vegetable	6,708	2,102
Pasture	2,076,347	106,889	Orchard	24,294	1,670
Forest reserve ³	1,021,814	119,483	Grazing	1,150,534	38,608
Roads and urban	42,144	17,813	Other agric. ³	16,152	9,361
Military	24,556	23,924	Forest	289,039	30,033
Waste land and unaccounted for	601,810	34,812	Forest reserve	1,190,954	118,766
1960, all uses	4,044,200	386,600	Recreation	17,248	5,184
Sugar cane	287,400	40,100	Game management	87,585	—
Pineapple	96,500	35,900	National park	229,423	—
Grazing	2,100,300	55,600	Military	38,048	35,055
Timber trees	61,400	—	Urban	155,705	56,850
Other agriculture ³	40,700	8,100	Undev. subdiv.	76,814	2,385
Urban	62,600	31,100	Military	17,658	17,508
Military	55,500	51,700	Civilian	61,233	36,957
Miscell. public uses	229,500	7,400	Pali and barren	503,308	23,799
Forest reserve	928,000	112,400	Quarry ³	1,462	1,077
Game management	65,600	—	Water	8,063	6,584
Unused; steep slopes	114,900	43,100			
Lakes	1,800	1,200			

¹Data for 1960 and 1968 exclude Kahoolawe (28,800 acres in 1930, all in pasture or waste land) and Niihau (46,080 acres in 1930, almost all in pasture and waste land). For data by island, see source.

²For 1956, 1964 and 1969, see the following table.

³Shown in greater detail in source.

Source: John Wesley Coulter, *Land Utilization in the Hawaiian Islands* (University of Hawaii, Research Publications, No. 8, c. 1933), pp. 50-52; University of Hawaii, Land Study Bureau, *Land Use on the Six Major Islands of Hawaii, 1960* (L.S.B. Report No. 3, November 1960), p. 3; and A. Y. Ching and T. Sahara, *Land Use and Productivity Rating, State of Hawaii, 1968* (University of Hawaii, Land Study Bureau, L.S.B. Circular No. 15, July 1969), pp. 18-19; Hawaii State Department of Planning and Economic Development, *Land Use and Ownership Trends in Hawaii* (Statistical Report 98, December 28, 1973), p. 15.

Table 88.—LAND USE, FOR OAHU: 1956, 1964 AND 1969
(In acres. For 1930, 1960 and 1968, see table 87.)

Land use ¹	1956	Land use	1964	1969
All uses ²	372,028	All uses ²	381,310	381,935
Cities and villages	35,891	Residential ³	22,157	22,676
Federal, incl. military	54,571	Industrial	6,352	6,305
Public, semi-public	6,496	Commercial	1,450	1,645
Sugar cane	35,125	Hotel	73	98
Pineapple	23,833	Public buildings	4,741	5,226
Grazing	42,879	Public open spaces	7,861	7,795
Other agriculture	13,243	Highways and streets	7,405	8,495
Forest reserve	116,999	Agriculture	94,474	88,740
Unimproved	29,919	Military	48,633	47,650
Waste land	14,328	Unused open space ³	188,164	193,304

¹For greater detail, see first source, Appendix B, p. 99.

²Totals differ somewhat from figures in other tables.

³In 1969 (but not 1964), large parcels containing both residential and vacant areas were divided and reported separately.

Source: Harland Bartholomew and Associates, *An Inventory of Available Information on Land Use in Hawaii*, Vol. 1, *Evaluation and Recommendations* (Hawaii Economic Planning and Coordination Authority, January 1957), p. 64; State of Hawaii and City and County of Honolulu, *Oahu Transportation Study, 1967*, Vol. 1, *Economic, Population, and Land Use* (c. 1967), p. IV-A-1; Hawaii State Department of Transportation, Advance Transportation Planning Office, 1969 land use files; Hawaii State Department of Planning and Economic Development, *Land Use and Ownership Trends in Hawaii* (Statistical Report 98, December 28, 1973), p. 16.

✓ **Table 89.—LAND USE FOR THE NEIGHBOR ISLANDS: 1971-1972**
(In acres)

Land use	All Neighbor Islands	Hawaii County (Dec. 1971)	Maui County (Spring 1972)			Kauai County (May 1972)	
			Maui and Kahoolawe	Lanai	Molokai	Kauai	Niihau
All uses ¹	3,653,759	2,501,132	490,234	89,071	168,256	357,978	47,088
Residential	40,814	14,326	17,292	256	2,963	5,968	9
Manufacturing	2,246	538	774	—	754	177	3
Mfg. services and warehousing ²	7,799	1,147	657	54	54	5,880	7
Commercial ³	784	387	233	13	38	113	—
Services ⁴	64,559	29,962	30,986	80	810	2,336	385
Social and cultural ⁵	2,711	935	1,302	15	93	361	5
Recreation ⁶	89,003	64,878	18,778	89	34	5,224	—
Agriculture	1,144,195	683,045	197,900	15,020	37,199	167,650	43,381
Transportation ⁷	14,570	12,332	776	165	24	1,273	—
Unused open spaces ⁸	2,287,079	1,693,582	221,534	73,380	126,289	168,996	3,298

¹Data differ somewhat from corresponding figures in table 68. Totals independently rounded.

²Includes construction services and public utilities.

³Retail and wholesale trade.

⁴Includes commercial amusement and recreation, hotels, military installations, government offices, parking, cemeteries, personal services, business and repair services, professional services, and finance, insurance, and real estate.

⁵Educational, cultural, and religious.

⁶Excludes commercial amusement and recreation services.

⁷Includes airports, docks, and land transportation facilities.

⁸Includes vacant land, forest reserve, lakes, steep land, beaches, and streets.

Source: County of Hawaii, Planning Department, *Land Use Report*, Vol. II (December 1971), p. 86, and Hawaii Urban Planning Information Center, special tabulations of data from Kauai and Maui County land use surveys, November 1973, as cited in the Hawaii State Department of Planning and Economic Development, *Land Use and Ownership Trends in Hawaii* (Statistical Report 98, December 28, 1973), p. 17.

100 89 "a" Acreage of Land Use Classes, by County: 4/75

Table 90.—LAND USE, FOR THE CITY OF HONOLULU: 1939 TO 1969

Year and use category	Acres	Year and use category	Acres
1939, all uses	52,600	1960, zone area ¹	28,490
Urban	15,600	Single-family	6,544
Forest	15,600	Hotel and apartment	880
Pastoral	10,000	Commercial	770
Forest-pastoral	6,000	Heavy industrial	784
Agriculture	2,900	Light industrial	81
Waste	2,500	Farming	1,600
1953, all uses	52,990	Public and semi-public	3,028
Single-family residence	6,140	Public parks and playgrounds	1,895
Hotel and apartment	600	Public schools	772
Business	440	Military reservations	6,460
Semi-industrial	60	Streets and alleys	2,767
General industrial	660	Vacant	2,339
Noxious industrial	80	Golf course	570
Public and semi-public	3,200	1969, all uses	54,738
Public parks and playgrounds	1,800	Residential	8,309
Public schools	490	Industrial	2,623
Military reservations	6,460	Commercial	1,025
Farming	1,760	Hotel	91
Streets and alleys	2,330	Public buildings	2,373
Vacant: usable (water avail.)	4,470	Public open spaces	2,660
Vacant: unusable (steep hillsides)	6,740	Highways and streets	3,718
Forest reserve	17,760	Agriculture	1,005
Usable area ¹	28,490	Military	5,395
		Unused open space	27,540

¹“Zone area” in 1960 was apparently the same as “usable area” in 1953. The latter consisted of all uses except vacant steep hillsides and forest reserve.

Source: Territorial Planning Board, *Supplement to the First Progress Report. Existing Urban Resources and Facilities of the Territory of Hawaii* (1939), p. 344; Honolulu City Planning Commission, *Land Use and Zoning, City of Honolulu, 1953* (undated), p. 14; Honolulu Planning Department, *General Plan for Urban and Urbanizing Areas* (1960), p. 21; Hawaii State Department of Transportation, Advance Transportation Planning Office, records; Hawaii State Department of Planning and Economic Development, Statistical Report 98 (Dec. 28, 1973), p. 18.

Table 91.—LAND AND FLOOR AREA IN COMMERCIAL AND HOTEL USE, FOR OAHU: 1964 AND 1969

Land use	Number of establishments	Land area (acres)	Floor area (square feet)	
			Total	Per establishment
Retailing:				
1964	3,746	1,016	10,986,345	2,933
1969	3,906	1,036	13,375,672	3,424
Services, exc. hotels:				
1964	4,862	434	9,146,100	1,881
1969	5,696	602	13,933,747	2,446
Hotels:				
1964	60	73	5,001,017	83,350
1969	81	116	7,571,981	93,481

Source: State of Hawaii and City and County of Honolulu, *Oahu Transportation Study*, Vol. I, *Economic, Population, and Land Use* (1967), p. IV-A-3; Hawaii State Department of Transportation, 1969 land use files from Oahu Transportation Planning Program.

Table 92.—ZONED LAND USE: OCTOBER 1, 1973
(In square miles)

County and district	All uses ¹	Residential	Hotel-apartment	Commercial	Industrial	Agricultural	Conservation	Unimproved residential
State total	6,359.442	125.567	11.370	6.857	21.900	3,049.029	3,089.438	55.281
City & Co. of Honolulu	579.249	94.447	4.084	4.100	12.293	226.016	222.060	16.249
Honolulu (ewa side)	31.304	10.815	0.529	0.404	7.276	—	11.750	0.530
Honolulu (central)	16.308	4.217	1.799	1.819	0.574	—	7.610	0.289
Honolulu (waikiki)	31.351	9.423	0.108	0.290	—	0.342	17.441	3.747
Koolaupoko	63.862	19.174	0.216	0.633	0.333	11.702	28.328	3.476
Koolauloa	67.371	2.576	0.280	0.062	—	29.904	33.983	0.566
Waialua	110.166	1.158	0.028	0.048	0.026	62.215	46.145	0.546
Wahiawa	39.066	17.158	0.077	0.141	0.059	7.641	13.918	0.072
Waianae	58.385	2.988	0.105	0.133	0.448	35.710	16.569	2.432
Ewa	161.436	26.938	0.942	0.570	3.577	78.502	46.316	4.591
Maui	1,171.667	8.650	3.454	0.703	1.968	637.669	503.689	15.534
Hawaii	3,985.203	17.689	2.688	1.589	6.231	1,876.181	2,063.310	17.515
Kauai	623.323	4.781	1.144	0.465	1.408	309.163	300.379	5.983

¹For gross area based on other sources, see the Hawaii State Department of Planning and Economic Development, *Hawai'i, the Natural Environment* (1974), pp. 9 and 11.

Source: Hawaii State Department of Taxation, Systems and Procedures Office, records.

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Table 93.— ESTIMATED ACREAGE OF LAND USE DISTRICTS: 1964 TO 1974
 (Total acreage, including inland water, as classified by the Hawaii State Land Use Commission under the provisions of Chapter 205, Hawaii Revised States.)

Year and island	Total area ¹	Classification by State Land Use Commission			
		Urban ²	Conservation ³	Agricultural ⁴	Rural ⁵
STATE TOTALS					
1964: August	4,111,500.0	117,800.0	1,862,600.0	2,124,400.0	6,700.0
1969: August	4,111,500.0	140,163.3	2,009,086.7	1,955,875.0	6,375.0
1974: March	4,111,500.0	147,472.0	1,986,428.9	1,968,727.2	8,871.9
ISLANDS: 1974					
Hawaii	2,573,400.0	32,249.6	1,322,528.6	1,218,009.8	612.0
Maui	465,800.0	14,725.5	193,336.7	254,225.7	3,512.1
Kahoolawe	28,800.0	—	28,800.0	—	—
Lanai	90,500.0	2,134.0	35,110.0	50,536.0	2,720.0
Molokai	165,800.0	5,154.0	49,751.0	110,004.1	890.9
Oahu	385,300.0	84,093.4	156,920.9	144,285.7	—
Kauai	353,900.0	9,115.5	197,681.7	145,965.9	1,136.9
Niihau	45,700.0	—	—	45,700.0	—
Kaula and Lehua	400.0	—	400.0	—	—
Northwestern Haw'n Isl.	1,900.0	—	1,900.0	—	—

¹These totals differ somewhat from the official figures based on measurements by the Geography Division of the U.S. Bureau of the Census: State total, 4,128,256; Hawaii, 2,584,320; Maui, 466,432; Kahoolawe, 28,800 (same); Lanai, 89,280; Molokai, 167,104; Oahu, 388,928; Kauai, 354,112; Niihau, 46,720; Kaula and Lehua, 512; the Northwestern Hawaiian Islands, excluding Midway, 2,048.

²Defined as "those lands now in urban use and a sufficient reserve for future urban growth". (H.R.S., §205-2).

³Includes all areas formerly designated "forest and water reserve zones" and includes, among others, "areas necessary for protecting watersheds and water sources; preserving scenic areas; providing park lands, wilderness, and beach reserves..." (*ibid.*).

⁴Defined as lands with a "high capacity for intensive cultivation" (*ibid.*).

⁵Defined as areas "primarily of small farms mixed with very low density residential lots" (*ibid.*).

Source: Hawaii State Land Use Commission, unpublished estimates.

93A. Proposed and Approved District Reclassifications
 1974

Table 94.—LAND OWNERSHIP: 1938 TO 1968
(In acres)

Year	Total area	Federal government ¹	State government ²	Major private owners ³	Other owners ⁴
1938	4,118,400	199,709	1,588,430	2,330,261	
1942	4,118,423	214,933	1,505,526	2,397,964	
1948	4,118,827	226,743	1,529,476	2,362,608	
1956	4,117,227	317,012	1,426,493	1,906,236	467,486
1964 ⁵	4,105,600	401,482	1,590,532	1,923,183	224,193
1968	4,128,263	355,769	1,584,715	1,917,560	270,219

¹Includes fee simple and ceded land.

²"Public lands" for 1938. Data for all years include State land managed by the County governments and various State agencies, and Hawaiian Homes Commission lands.

³Total for 1956 refers to land owned by private owners with 5,000 acres or more in fee simple; data for 1964 and 1968 refer to land owned by private owners with 1,000 acres or more in fee simple.

⁴Land owned by private owners with less than 5,000 acres (in 1956) or 1,000 acres (in 1964 and 1968) in fee simple. Also includes County land acquired by purchase or gift in the name of the Counties.

⁵Land claimed by both Federal and State governments is included in both categories; data thus fail to add to the indicated total.

Source: Territorial Planning Board, *First Progress Report. An Historic Inventory of the Physical, Social and Economic and Industrial Resources of the Territory of Hawaii*, 2nd ed. (August 1939), p. 49; *Report of the Commissioner of Public Lands for 1942* (p. 11) and 1948 (pp. 4-10); Economic Planning and Coordination Authority, *Major Landholdings in Hawaii*, EPCA Staff Report No. 14 (1957), p. 6; Robert H. Horwitz and Judith B. Finn, *Public Land Policy in Hawaii: Major Landowners*, University of Hawaii, Legislative Reference Bureau, Report No. 3, 1967, p. 99; Hawaii State Department of Land and Natural Resources, *Report to the Governor, 1971-1972*, p. 50; Hawaii State Department of Planning and Economic Development, *Land Use and Ownership Trends in Hawaii* (Statistical Report 98, December 28, 1973), p. 25.

Table 95.—LAND OWNERSHIP OR TENURE, BY ISLAND: JUNE 30, 1968

Island	Ownership or tenure (in acres)				
	Total area	Federal government ¹	State government ²	Major private owners	Other owners ³
State total	4,128,263	355,769	1,584,715	1,917,560	270,219
Hawaii	2,584,320	241,858	1,106,126	1,052,583	183,753
Maui	466,439	26,478	204,895	221,223	13,843
Kahoolawe	28,800	28,800	—	—	—
Lanai	89,280	8	—	87,832	1,440
Molokai	167,104	78	53,019	110,444	3,563
Oahu	388,928	56,241	64,810	221,820	46,057
Kauai	354,112	2,306	153,305	176,953	21,548
Niihau	46,720	—	—	46,705	15
Other islands ⁴	2,560	—	2,560	—	—

¹Includes fee simple and ceded land.

²Includes State land managed by the County governments and various State agencies, and Hawaiian Homes Commission lands.

³Land owned by private landowners with less than 1,000 acres in fee simple and County land acquired by purchase or gift in the name of the Counties.

⁴Kaula, Lehua, and the Northwestern Hawaiian Islands.

Source: Hawaii State Department of Land and Natural Resources, *Report to the Governor, 1971-1972*, p. 50.

Table 96.—FEDERALLY OWNED PROPERTY IN HAWAII: 1960 TO 1972

Subject	June 30, 1960	June 30, 1970	June 30, 1972			
			All agencies	Defense ¹	Civil agencies ¹	
					National Park Service	Others
Number of installations	167	160	159	3	3	153
Land, total (acres)	234,074.1	396,900.7	396,493.8	174,945.7	218,318.0	3,230.1
Urban	23,530.2	57,202.3	10,511.0	(NA)	(NA)	(NA)
Rural	210,543.9	339,698.4	385,982.8	(NA)	(NA)	(NA)
Buildings:						
Number	11,506	11,479	11,305	10,661	171	473
Floor area (1,000 sq. ft.)	(NA)	(NA)	59,781	58,120	234	1,427
Cost, total (\$1,000)	877,162	1,115,240	1,178,743	1,118,546	8,690	51,507
Land	21,910	40,083	46,078	36,543	1,453	8,082
Buildings	407,478	545,140	584,752	562,419	1,457	20,876
Structures and facilities	447,774	530,017	547,913	519,584	5,780	22,549

NA Not available.

¹Corps of Engineers included with civil agencies.

Source: Committee on Governmental Operations, U.S. House of Representatives, *Federal Real and Personal Property Inventory Report* (biennial).

Table 97.—ESTIMATED PRESENT-DAY VALUE OF FEDERAL REAL PROPERTY DONATED OR ACQUIRED AT NO COST TO THE FEDERAL GOVERNMENT, FOR HAWAII: 1972

Agency	Number of installations	Acreage	Est. present-day land value (\$1,000)
Total	51	3,811	3,795
Defense	12		
Army	(NA)	41	614
Navy	(NA)	9	45
Air Force	(NA)	3,040	1,482
Corps of Engineers	(NA)	5	583
National Park Service	1	181	217
Coast Guard	38	595	854

Source follows next table.

Table 98.—REAL PROPERTY LEASED TO THE FEDERAL GOVERNMENT IN HAWAII: 1972

Subject	Amount
Number of leases	253
Land in acres, total	48,601.8
Urban	35.9
Rural	48,565.9
Number of locations	175
Floor area in square feet	521,196
Annual rental	\$2,571,257

NA Not available.

Source of tables 97 and 98: Committee on Government Operations, U.S. House of Representatives, Ninety-third Congress, First Session, *Federal Real and Personal Property Inventory Report as of June 30, 1972* (GPO, August 1973).

Table 99.—LAND UNDER THE JURISDICTION OF THE DEPARTMENT OF HAWAIIAN HOME LANDS: 1972

(The Hawaii State Department of Hawaiian Home Lands administers the provisions of the federal Hawaiian Homes Commission Act, 1920, as amended, which provides for the leasing of designated lands under specified terms to qualified descendants "of not less than one-half part of the blood of the races inhabiting the Hawaiian Islands previous to 1778.")

Land use	Parcels ¹		Acres	
	State total	Oahu	State total	Oahu
All uses ²	2,812	1,283	189,878.33	5,069.68
Homesteader use	2,680	1,273	40,780.26	362.38
Houselots	2,242	1,273	1,149.35	358.03
Farm lots	365	—	9,869.33	4.11
Pasture lots	69	—	16,809.74	—
Community pasture	4	—	12,951.60	—
Commercial or industrial	—	—	0.24	0.24
Leases and licenses	132	10	142,843.80	3,821.82
Farming or ranching	35	10	108,488.60	2,026.70
Commercial or industrial	97	—	235.73	51.23
Public service facilities	—	—	2,827.21	8.41
Parks	—	—	81.71	0.87
Water, forest reserve, or conservation	—	—	30,035.19	1,646.32
Lot remnant	—	—	17.54	1.47
U.S. Government	—	—	366.44	—
Roads and rights-of-way	—	—	791.38	86.82
Not in use or unusable	—	—	6,254.27	885.48

¹By principal use.

²The State totals include 1,283 parcels and 5,069.68 acres on Oahu, 367 parcels and 26,794.75 acres on Molokai, 95 parcels and 29,075.85 acres on Maui, 841 parcels and 110,970.71 acres on Hawaii, and 226 parcels and 17,967.34 acres on Kauai.

Source: Arthur Y. Akinaka, Ltd., and James M. Dunn, *A Land Inventory and Land Use Study for the Department of Hawaiian Home Lands* (December 18, 1972), tables A, C, and 2.