

producers (e.g., ranching, fishing, and cultivation or gathering of other traditional food sources or goods) is presented below to highlight their importance to the island’s economy. The Proposed Action includes establishing a new lease for the USAGM property on Saipan and the reuse of the existing facilities and communications towers. Under the new lease, the use of the property and terms of the lease would be similar to the past lease but operate under a different federal agency, the DoD. Thus, there would be no impact to socioeconomics related to the Saipan site and the existing environment is not described further in this section.

3.3.1 Population and Demographic Composition

Table 3.3-1 shows population trends on Tinian, Saipan, and the CNMI for the past six decades based on U.S. Census data. Non-resident workers are included in these numbers.

Table 3.3-1 Population of CNMI and Tinian, 1970-2020

<i>Location</i>	<i>1970</i>	<i>1980</i>	<i>1990</i>	<i>2000</i>	<i>2010</i>	<i>2020¹</i>
CNMI Overall	9,640	16,780	43,345	69,221	53,883	47,329
Saipan	7,976	14,549	38,896	62,392	48,220	43,385
Tinian	710	866	2,118	3,540	3,136	2,044

Notes: Population numbers include non-resident workers. Data from the 2020 decennial census is the most recent census data. Population data for the island of Tinian was released in October 2021 (U.S. Census Bureau 2021), and census-tract level data on the island was released in July 2023 (U.S. Census Bureau 2023). The U.S. Census Bureau’s American Community Survey that updates census data on an annual basis is not conducted in the CNMI (U.S. Census Bureau 2022a).

¹ According to the U.S. Census Bureau, the COVID-19 pandemic had a minimal impact on data collection for the 2020 Census of the CNMI (U.S. Census Bureau 2022b).

Sources: Pacific Web 2025; U.S. Census Bureau 1970, 2000, 2010, 2020.

Tinian has experienced periods of substantial population growth and decline since 1970, mirroring the population trend in the CNMI. On Tinian, economic growth was primarily related to the casino industry, which, along with the garment industry in the CNMI, generally brought an influx of migrant non-resident workers. Notably, Tinian’s population increased by 48 percent corresponding with the opening of the Tinian Dynasty Hotel and Casino. The permanent closure of the resort in March 2016 (Saipan Tribune 2019) resulted in a subsequent population decline on Tinian. Typhoon Soudelor in 2015 was another contributing factor to Tinian’s population decline and falling populations in the CNMI (CNMI Report to the President on 902 Consultations 2017). The U.S. Census estimates that 2,044 residents were living on Tinian in 2020, concentrated in the developed southern end of the island in the village of San Jose.

According to the 2020 U.S. Census, the ethnicity on Tinian primarily falls into two categories: “Native Hawaiian and Other Pacific Islander” and “Asian.” An estimated 51 percent of the population is Native Hawaiian and Other Pacific Islander while 38 percent are Asian. The 2020 U.S. Census provided the following subcategories under the “Native Hawaiian and Other Pacific Islander” category: Carolinian, Chamorro, Chuukese, Kosraen, Marshallese, Palauan, Pohnpeian, Yapese, and Other. Subcategories under the “Asian” category include Bangladeshi, Chinese (except Taiwanese), Filipino, Japanese, Korean, Nepalese, Thai, and Other (U.S. Census Bureau 2020). Of the 1,033 Native Hawaiian and Other Pacific Islanders on Tinian, 937 are Chamorro (91 percent) (U.S. Census Bureau 2020).

In both the CNMI and in Tinian, an estimated 74 percent of the population speaks a language other than English at home. Prominent languages are Chamorro and Filipino. Carolinian and various

Asian languages are also spoken within the CNMI but not as frequently on Tinian. The average age in the CNMI and on Tinian is about 35 and 36, respectively. About 40 percent of the CNMI and nearly 46 percent of Tinian's population have a high school diploma. There are 14,282 households in the CNMI and 609 in Tinian, and the average household size in both the CNMI and on Tinian is three people. In addition, more than 30 percent of Tinian's residents have incomes below the annual statistical poverty thresholds.

No military personnel are permanently stationed on Tinian but in 2020, the U.S. Navy Seabees constructed a temporary Base Camp on the island, referred to as Camp Tinian. Typically, one Naval Mobile Construction Battalion is assigned to the island for a 6-month period at a time. Training events currently approved under the *Mariana Islands Training and Testing EIS/OEIS* occur periodically, some lasting up to four weeks at a time, and bringing approximately 1,000 service members temporarily to Tinian. Major training events include Valiant Shield and Cope North.

3.3.2 Economic Activity

As of 2016, the most recently published available data, reported the largest employment sectors on Tinian were public administration (371 with an average annual pay of \$31,678) and construction (120 with an average annual pay of \$31,283). In 2019, the average per capita income was \$21,657, based on the 980 workers employed on Tinian (U.S. Census Bureau 2020). The U.S. Air Force Divert project has been constructing new facilities north of TNI. Some employees are working on the project under the H1B Visa program. The U.S. Air Force construction contractor, Black Micro Corporation, identified an average annual salary of \$29,056 in 2023 under its H1B visa program (H1BGrader.com 2024, MyVisaJobs.com 2024).

Revenue generated by the CNMI government supports local public administration jobs on Tinian and the other islands within the CNMI. Various revenue sources fund local appropriations including direct taxation and fees charged for specific government services. In total, there are 11 categories of local taxation that generate revenue, with the primary sources of tax revenue being the Business Gross Revenue Tax on commercial operations and the Wage and Salary Tax paid by employees based on their annual total income and salary. As of 2020, CNMI government revenue was \$223.0 million, largely consisting of gross business receipts taxes (\$82.7 million), income taxes (\$57.5 million), and charges for services (\$25.6 million) (CNMI Office of the Public Auditor 2020). Trends in CNMI government revenue track with the population trends described in the previous section, with revenues declining since 2017 with the loss of garment manufacturing and declines in the casino industry. Natural disasters such as Super Typhoon Yutu in 2018 and the wide-spread impacts of the COVID-19 pandemic further constrained revenues.

Federal grants constitute a substantial share of overall expenditures, accounting for approximately 34 percent of the CNMI's gross domestic product in 2020. The decline in economic activity during the COVID-19 pandemic and the long-term economic impacts resulting from natural disasters highlight the importance of federal aid in the CNMI and its impact on the health of the island economy (CNMI Governor's Council of Economic Advisers 2021).

3.3.2.1 Local Economic Factors

Tinian's local economy is primarily driven by tourism and commercial agriculture, supported by the aircraft and vessels that transport people and goods to and from the island. The CNMI as a

region relies heavily on imported food resources and the local ranchers and fishers on Tinian have worked to develop sustainable sources of locally grown and sourced meat and fish, which has played a key role in reducing the CNMI's dependence on imported goods (Saipan Tribune 2024). Additionally, the community's subsistence practices offer additional security in the face of fluctuations in the global markets that affect both the availability and price of goods on the local economy.

Tourist arrivals to Tinian occur via air taxi operations at TNI, with passengers traveling from other island locations through Saipan. Star Marianas Air offers direct passenger and air cargo service between Tinian, Saipan, and Rota. The other available mode of goods transport to Tinian is by cargo vessels. Large cargo vessels arrive at the Port of Tinian's North Wharf to unload, and smaller non-commercial cargo service is provided at the small boat dock at the Port of Tinian's marina. In fiscal year 2021, a total of 427,348 revenue tons of cargo were delivered through CNMI seaports (Commonwealth Ports Authority 2021). This has been a 5 percent decrease in the movement of goods since 2020, which could be attributed to the decrease in shipping activity due to the global pandemic. The largest imports to CNMI are construction materials such as raw cement and petroleum products. The vast majority (approximately 80 percent) of exports from CNMI are the return of containers with wastepaper and packaging. Tinian has historically accounted for roughly 4 percent of CNMI's total trade volume (Commonwealth Ports Authority 2018).

Tourism

Tourism is the primary economic industry for CNMI and Tinian by not only increasing the exchange of goods but also increasing tax revenue through both local purchases and income tax. In 2022, Tinian had an estimated 26,058 visitors, which represents a recovery from a recent downturn in the tourism industry. Tourism peaked on Tinian in 2013, with approximately 58,000 annual visitors, but by 2015 that number had declined to 24,346 visitor arrivals, a more than 50 percent decrease (Marianas Visitors Authority 2015). Reasons for the decline include the exit of Japan and Korean Airlines from the CNMI market, the world-wide recession, and visa complications for Russian and Chinese visitors (Marianas Visitors Authority 2015). Tourism continued to decline as a result of Typhoon Soudelor in 2015, the closure of the Tinian Dynasty Hotel and Casino in 2016, Typhoon Yutu in late 2018, and the global pandemic in 2020.

In 2021, the most recent year island-specific data is available, Tinian reported 20,333 visitor arrivals, down over 16 percent from 2015 (Commonwealth Ports Authority 2023). In 2022, the Tourism Resumption Investment Plan was established by the Mariana Visitors Authority to provide subsidies to airlines, hotels, travel agencies, and related businesses to help restart the tourism industry. The recent gains in tourist arrivals are due in part to this effort, along with Marianas Visitors Authority promotions and infrastructure improvements. Visitor arrivals in Fiscal Year 2024 increased 22 percent compared to the previous year, but the total number of visitors is still 44 percent lower than Fiscal Year 2019, which is the last year direct flights from China were available (Marianas Visitors Authority 2024).

Tourism on Tinian includes activities such as visiting historic and cultural sites, exploring unique environmental features, shopping, eating at local restaurants, SCUBA diving, and relaxing on its many beaches. Although tourism occurs on the whole island, specific tourism resources found in the Military Lease Area include the 107th U.S. Naval Construction Monument, Japanese Village Ruins, the Old Japanese Communications Center, Mount Lasso, Shinto Shrine, Blowhole, runway

Able, the Atomic Bomb Loading Pits, Ushi Point, three dive locations, and six distinct beaches (Mariana Visitors Authority 2024).

Commercial Agriculture

Ranching

Thirty-two cattle ranching operations occupy approximately 2,442 acres of leased land on Tinian (Northern Marianas College Cooperative Research, Extension and Education Services 2023). There are no recent cattle population surveys. However, the Tinian Cattleman's Association provided an unofficial count of 1,500 total cattle after a wildfire occurred in 2018 (Tinian Cattleman's Association 2023). Cattle ranches are family-owned and operated. An estimated 75 percent of ranchers on the island utilize military land (Tinian Cattlemen's Association 2023). Although the land use permits between the CNMI government and the ranchers expired in 2016, the ranchers continue to graze cattle primarily on grassland in the Military Lease Area on a holdover basis. According to the Tinian Cattlemen's Association chairman, ranchers need a long-term lease agreement to qualify for U.S. Department of Agriculture Natural Resources Conservation Service grant funding. Without such funding, many ranchers will struggle to continue operations (Tinian Cattlemen's Association 2023).

Historically cattle ranching has been a subsistence activity on Tinian, but in April 2023, the Tinian Cattlemen's Association initiated the development of commercial beef production with the construction of a new slaughterhouse, the Tinian Kualidat Meat Processing Center. The facility, which was certified by the U.S. Department of Agriculture in the summer of 2023, can now process up to four cattle per week and is able to sell Tinian beef (Tinian Cattlemen's Association, Personal Communication, 2023).

Farming

There are two farms on Tinian that grow vegetables and leafy greens for two local markets, with no farm larger than 2 acres. Such small farms do not require commercial farm permits (Tinian Mayor's Office, Personal Communication, 2023).

Fishing and Aquaculture

As with other islands in the Pacific, fishing is an important practice for the people of Tinian and the CNMI as a whole. Beyond its importance as a commercial industry, fishing provides the community with food security and serves to strengthen social connections and propagate cultural traditions, which are discussed further below in this section. Fisheries in the CNMI have been small and fluid, with businesses that are highly sensitive to changes in the economy, regulations, population and other factors.

The majority of small-scale commercial fishing in the CNMI is located on Saipan, occurring within 20 miles of the island using 16-to-20-foot boats, typically on 1- to 2-day trips and that may conduct multiple fishing activities during a single trip (e.g., troll fishing, bottom fishing, spearfishing) to target various species like pelagic fish, bottomfish, and coral reef fish (Western Pacific Regional Fisheries Management Council 2023; Department of Fish and Wildlife 2024). However, the waters around the CNMI are extensive and contain abundant fishery resources, with substantial development potential for underutilized bottom fish and pelagic species (Western Pacific Regional Fishery Management Council 2024). The Western Pacific Regional Fishery Management Council and the National Marine Fisheries Service established an annual catch limit of 84,000 pounds and

an annual catch target of 78,000 pounds for each year between 2020–2023 for the 13 bottom fish management unit species, which include snappers, groupers, and jacks. The bottom fish fisheries are managed as a single multi-species stock complex that is assessed as one unit whether the fish are in territorial or federal waters (from the shoreline out to 3 nautical miles and from generally 3 to 200 nautical miles from shore, respectively) (86 FR 10526). The CNMI's catch in 2022 was 47,567 pounds and the three-year average catch was 55,916 pounds, both of which are well below the regulatory limits (Western Pacific Regional Fishery Management Council 2023).

Challenges for the commercial fishing industry in the CNMI include the conditions of the seaport and the relatively fixed or flat average commercial fish prices in the region against the increasing costs for fishing gear, tackle, boats and maintenance, and fuel. The seaport has limited space for the expansion of commercial fishing businesses and the pressures of fixed pricing create tight profit margins that leave the commercial fishing industry in the CNMI, including locally-owned fish markets and vendors, largely reliant on less expensive foreign labor. Natural disasters such as typhoons have also affected the industry by disrupting fishing activities due to sediments in nearshore waters after the event, gasoline rationing, and lack of available running water and electricity to prepare and store catch. Additionally, on Tinian, the lack of lighted channel markers to the Port of Tinian entrance constrains fishers from leaving early or returning to port when it is dark due to safety concerns (National Oceanic and Atmospheric Administration 2018).

According to a survey of 112 boat-based fishers across the CNMI, even operations with higher catch and profits were only able to derive around half of their personal income from selling their catch (Hospital and Beavers, 2014, as cited in National Oceanic and Atmospheric Administration 2018). Data on commercial fish sales is not collected for Tinian but, according to interviews, there are approximately 25 active fisherman who operate from Tinian and 20 who engage in cliff fishing, crabbing, and diving regularly. Commonly caught fishes include rudderfishes, unicornfishes, and drumfishes, along with harvesting shellfish and coconut crabs from the cliffs and nearshore rocky areas. While individuals may sell directly to local vendors, the catch is more commonly consumed or shared with family and friends and thus fishing has more cultural and subsistence value. Use of boats for pelagic, reef, and bottom fishing is less popular, due to the higher costs (e.g., fuel, insurance, maintenance) and seasonality considerations (e.g., sea state and safety considerations) and boats tend to stay closer to shore (within around 800 feet for bottom fishing and 300 feet for trolling). On Tinian, fishing is becoming more common on the weekends compared to the weekday, with most fishers going out approximately once a week (R. DeLa Cruz, Personal Communication, 2025; R. Sablan, Joint Region Marianas, Personal Communication, 2025). Fishing for reef fish using small boats beyond the reef is seasonal and dependent on weather conditions. Fishing on the windward side of Tinian usually occurs between the months of April and October (Trianni et. al. 2018; CNMI Division of Fish and Wildlife 2024).

Tinian also cultivates aquaculture, including fish nurseries and shrimp raceways (Northern Marianas College Cooperative Research, Extension and Education Services 2023). An Aquaculture Feasibility Study is underway to expand aquaculture in both CNMI and on Tinian. Preliminary plans include three offices, two laboratories, six raceways, a mesocosm tank field for fish nurseries, and a seawater well reservoir on Tinian (Northern Marianas College Cooperative Research, Extension and Education Services 2023).

Subsistence Activities

Recent impacts to Tinian's economy from disasters such as Super Typhoon Yutu and social and economic crises like the COVID-19 pandemic highlight the importance of subsistence activities practiced on the island. This type of activity serves to both supplement income and provide stability if imports become expensive or scarce due to global supply chain disruptions.

Subsistence activities practiced on Tinian include agriculture, gathering, hunting, fishing, and ranching when conducted for a family's own use or for income substitution (U.S. Census Bureau 2010a). Subsistence activity was not evaluated in the 2020 Census, but the 2010 Census identified 103 Tinian residents over the age of 16 who participated in subsistence activities (4.5 percent of the over-16 population) (U.S. Census Bureau 2010). Interviews conducted by the DON in 2016 for the *Tinian Food Survey Report and Socioeconomic Assessment* suggest that more people may be engaged in subsistence activities than indicated in the 2010 census data (DON 2018). Given the closure of the Tinian Dynasty Hotel and Casino and associated loss of jobs, the estimates provided in the structured interviews could more accurately reflect current levels of subsistence activities that occur on Tinian. These interview estimates suggest that as much as 53 percent of the average Tinian citizen's diet is locally sourced.

Agricultural products grown for subsistence on Tinian include taro, sweet potatoes, and melons. Other agricultural products harvested on Tinian include hot peppers (Donni Sali or Pika), yams, and breadfruit (DON 2018). While the slaughterhouse on Tinian was recently certified by the U.S. Department of Agriculture for commercial sale of beef, the 2016 Food Survey found that 82 percent of the interviewees indicated beef from local cattle was an important part of the community's diet, and they consumed more local than imported beef products. Individuals also raise pigs for their personal use and sell them to other local households as a subsistence practice (Tinian Cattlemen's Association 2023).

In addition to agriculture and ranching, throw net, spearfishing, rod and reel, and bottom fishing are important subsistence activities on Tinian throughout most of the year. (Tinian Department of Lands and Natural Resources 2023). In 1999, the National Marine Fisheries Service officially identified the CNMI, including Tinian, as a "fishing community," which is "a community...substantially dependent on, or substantially engaged in the harvest or processing of fishery resources to meet social and economic needs" (National Oceanic and Atmospheric Administration 2012). According to the Tinian Department of Lands and Natural Resources and the Western Pacific Fishery Management Council, Tinian fishermen typically fish to obtain food for themselves and their family. The 2016 Food Survey found locally sourced fish and shellfish were a common and important part of the diet on Tinian, with interviewees estimating about 60 percent of the fish consumed on Tinian was locally caught. Other data indicates that 90 percent of the fish harvested on Tinian were consumed by the fishermen, family, and friends, with less than 10 percent sold commercially (DON 2018).

Locally hunted wildlife including turtledoves, coconut crabs, sea crabs, and goats and chickens, also supplement Tinian diets (Department of Land and Natural Resources, Personal Communication, 2023). While the entire island could be considered a hunting ground, most hunting occurs in the Military Lease Area. Medicinal plants are also gathered on Tinian and used for traditional healing. These plants are often gathered in the areas around North Field and along rocky coastlines and cliff lines (DON 2015).

According to the Northern Marianas College's Cooperative Research, Extension, and Education Services, access to subsistence agriculture, gathering, fishing, and hunting sites was substantially reduced due to Typhoon Yutu. Although cattle fencing, water catchment facilities, shade trees, and cattle corrals were damaged in the storm, no cattle were lost (Tinian Cattlemen's Association 2023). Many of the fruit trees, plants, and game were killed by the storm and by the ensuing drought and wildfires (DON 2018). The COVID-19 pandemic also impacted subsistence activities by restricting movement and travel and limiting the number of people who could gather (Northern Marianas College's Cooperative Research, Extension, and Education Services 2023). All these events had impacts on the availability of resources and the ability of residents to engage in subsistence activities.

3.3.2.2 Social Cohesion

Socioeconomics also considers social cohesion, which is the level of "relationship between individuals, groups, and organizations within a community" (Holdsworth and Hartman 2009). The Chamorro population and its historical reliance on agriculture, fishing, hunting, and gathering defines the Tinian community today and contributes to the community character and social cohesion of Tinian. In a community with strong social cohesion, several factors, such as high levels of social ties, interdependence, trust, and reciprocity, exist that bind people together within that community. The Chamorro concept of *inafa'maolek* is closely linked with the concept of community cohesion. *Inafa'maolek* is a core Chamorro value that continues to be passed down to each new generation and refers to the "interdependence within the kinship group," literally translated as "making it good for each other" or "getting along" (Cunningham 1992). In other words, society is based on good relationships and mutual respect. *Inafa'maolek* is grounded in familial relationships and reciprocal obligations between people in these relationships. Relationships tend to be guided by the age of the parties, with the older person owing the younger person responsibility and the younger owing the older deference.

The Carolinian (Rafaluwasch) population holds the concept of *tipiyeew* as the sentiment of social cohesion and a sense of belonging within the community. *Tipiyeew*, which translates to "to be decided, of one mind, to agree," represents a deeper connection and shared identity among community members. It fosters unity, cooperation, and a collective vision, serving as a guiding principle for decision-making and community engagement. Through *tipiyeew*, the Carolinian community nurtures a strong sense of unity, cultural preservation, and inclusive community dynamics (Kuehling 2012).

3.3.3 Public Services

3.3.3.1 Public Safety

As of 2021, the Tinian Department of Public Safety was staffed by 25 police officers (a ratio of 12 officers for every 1,000 residents) and 21 firefighters (a ratio of 10 firefighters per 1,000 residents) (CNMI Department of Public Safety 2022; CNMI Department of Fire Emergency Medical Services 2022). The Commonwealth Ports Authority also maintains firefighting capability at TNI as a requirement for airport operations. This capability is available to the Tinian Department of Public Safety in the event of an emergency. TNI has one firefighting vehicle and nine personnel. The personnel have dual roles as Aircraft Rescue Firefighters and Ports Police officers (Commonwealth Ports Authority 2023).

3.3.3.2 Public Health

There are two medical facilities on Tinian including the Tinian Healthcare Center and the Isla Community Health Clinic. The Tinian Healthcare Center, part of the Commonwealth Healthcare Corporation, is the island's primary health care facility and is located in San Jose Village. The facility was built in 1987 and has five holding beds and provides emergency services, an outpatient clinic, laboratory, x-ray, radiology, pharmacy, dentistry, and public health operations (Commonwealth Healthcare Corporation 2022).

In 2023 alone, the Tinian Healthcare Center and the Isla Community Health Clinic encountered 4,419 and 1,777 patients, respectively (Commonwealth Healthcare Corporation, 2023). Information provided by the Tinian Mayor's Office indicates that as of September 2023, there was one Physician's Assistant at the Tinian Healthcare Center and one Nurse Practitioner at the Isla Community Health Clinic (Tinian Mayor's Office, Personal Communication, 2023).

3.4 Biological Resources

Biological resources include living, native, or naturalized plant and animal species and the habitats within which they occur. Plant associations are referred to generally as vegetation, and animal species are referred to generally as wildlife, both of which include terrestrial and marine species. Habitat can be defined as the conditions present in an area that support plants and wildlife.

Biological resources are divided into five categories: (1) terrestrial vegetation, (2) terrestrial wildlife, (3) terrestrial special-status species¹, (4) marine communities, and (5) marine special-status species (including marine protected areas).

3.4.1 Terrestrial Vegetation

Terrestrial vegetation is defined as plant species or groups of plants (plant communities) that occur and interact with each other, animal populations, and the physical environment. Plants that are of cultural or societal importance on Tinian are also described in this section. The vegetation present in an area provides habitat that supports different wildlife species. The plant communities on Tinian and within the Military Lease Area are described according to plant associations and the dominant species.

The 12 plant communities that occur on Tinian are listed in Table 3.4-1 and are shown on Figure 3.4-1 and Figure 3.4-2. The six most prevalent plant communities on Tinian are described below. Definitions of all plant communities in Table 3.4-1 are provided in Appendix G.

Table 3.4-1 Plant Communities on Tinian and Within the Military Lease Area

<i>Plant Community</i>	<i>Acres</i>	<i>% of Total Land Cover on Tinian</i>	<i>Acres within the Military Lease Area</i>	<i>% of Total Land Cover within the Military Lease Area</i>
<i>Leucaena</i> Forest	8,283.20	33.1	5,750.40	37.6
Secondary Limestone Forest	6,206.86	24.8	4,098.10	26.7
Other Scrub/Grassland ¹	5,176.60	20.7	3,229.50	21.1
Developed	1,683.00	6.7	407.90	2.7
Limestone Native Forest	1,032.59	4.1	268.30	1.8

¹ When species are mentioned for the first time, they are listed using their common name followed by their scientific name in parentheses; only the common name is used afterwards. If there is no common name, only the scientific name is used. Appendix G identifies the Chamorro names for species, where applicable.