

Chapter Two State of the Territory 2002

2.1 Population Characteristics and Immigration

American Samoa had a resident population of 57,291 people as of April 2000. This represented a two percent annual growth rate since the Census of 1990 when the Territory's population stood at 46,773 people.¹

The population for the Island of Tutuila was recorded at 55,912 people in April 2000 and comprised over ninety-seven percent (97.6%) of the Territory's total. In contrast to Tutuila's population growth during the decade, the Manu'a Islands lost twenty-two percent of their population. The Census counted 1,379 people in year 2000 compared to the 1990 total of 1,760.²

In April 1990, fifty-one percent (51%) of the Territory's population were male. The ratio of males to females did not change in the 2000 Census as there were 29,264 males and 28,027

females recorded, or fifty-one and forty-nine percent (51% : 49%) respectively.

The population of American Samoa is much younger than the population of the continental United States. The median age of the Territory's population at April 2000 was twenty-one years (21) compared to the median age of thirty-five (35) years for the fifty United States. Children, under the age of five and between five and twenty, comprised forty-eight percent (48%) of the Territory's population. The percentage of children of this age group did not change between 1990 and 2000.³

The age-cohort distribution for the ages twenty to sixty-four (20 to 64) and sixty-five (65) and over also did not change. Forty-nine percent (49%) or 27,955 people of the age cohort (20 to 64) and three percent (3%) of the population 65 and over were recorded in Census 2000.

Samoans, regardless of birthplace, made up eighty-eight percent (88%) of the population in the year 2000. There were 50,545 Samoans resident in the Territory, of which 32,470, or fifty-six and seven-tenths percent (56.7%) of the total population listed American Samoa as their birth place. Thirty-one percent (31%), of the population, or 17,712 people, were born in Samoa. Six and three tenths percent (6.3%) were born in the United States.

In 2002, a majority of American Samoa's residents are descendants of parents or grandparents that once lived on one of Western Samoa's islands. The 2000 Census reported that sixty-eight percent (68%) had fathers and sixty-seven percent (67%) had mothers either born in the United States or elsewhere. Thus, the Census data shows that foreign born residents are gradually displacing locally born Samoans.

Figure 2.1

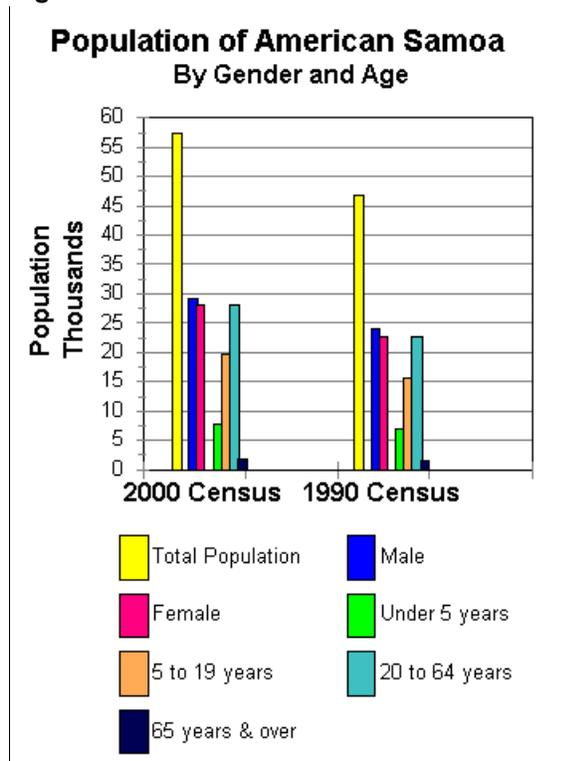


Figure 2.2

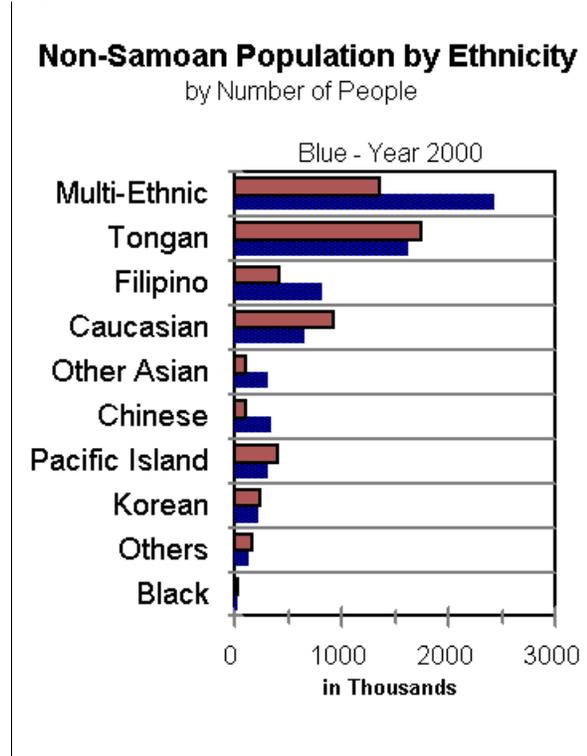


Figure 2.2, Non-Samoan Population by Ethnicity, provides a general description of the distribution of the non-Samoan population. The largest non-Samoan group of residents have been immigrants from the Polynesian islands of

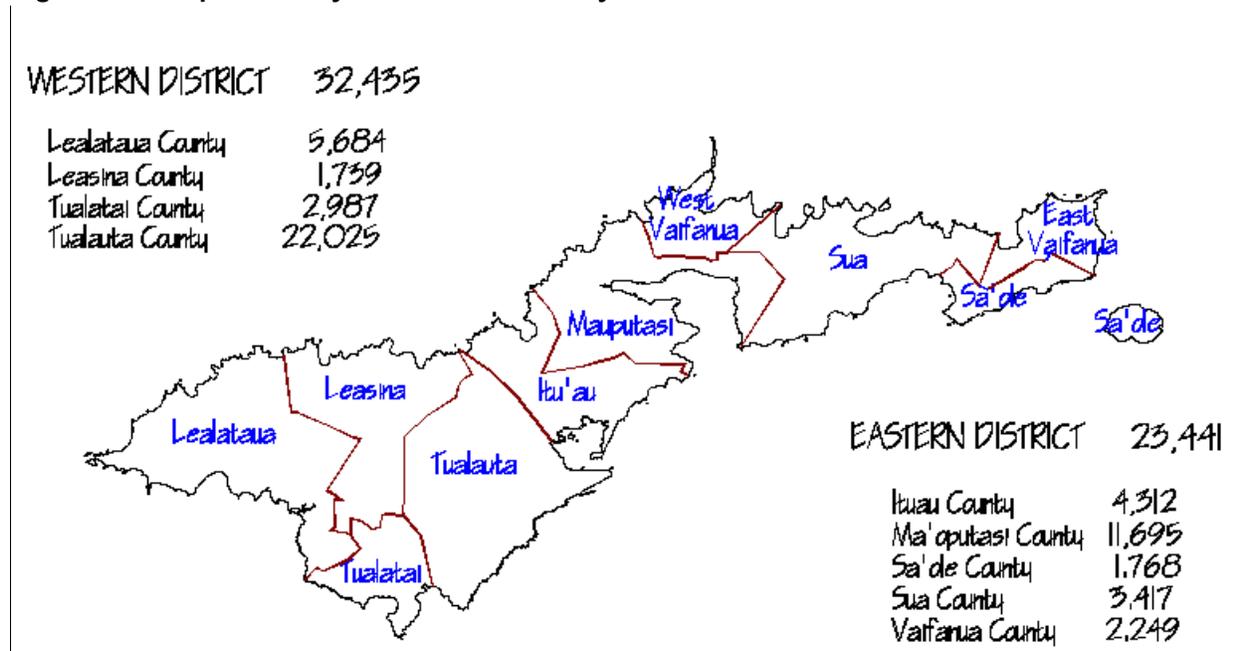
Tonga, located several hundred miles to the southwest of the Samoa archipelago. The Tongan community remains the largest non-Samoan community with an April 2000 population of 1,598, or two and eight-tenths (2.8%) of the Territory's population. However, their numbers have decreased slightly over the last ten years.⁴

Other ethnic groups represented in small numbers include Filipinos, Koreans, Chinese, and Caucasians. Including the Tongans, and multi-ethnic people, who represent four and two-tenths percent (4.2%) of the total population, the non-samoan residents comprised eleven and eight tenths (11.8%) of the Territory's population.

Over the last decade the Chinese and Filipino communities have grown significantly, while the Caucasian community has decreased markedly in numbers. The Asians are particularly active in the retail and wholesale sectors at the ownership level, while Filipinos tend to be employed as skillful managers. Caucasians are employed in many roles of responsibility in the government, business and professional sectors.

Figure 2.3, Population by District and County on Tutuila, identifies the spacial distribution of

Figure 2.3 Population by District and County on Tutuila



Tutuila's population. Ma'oputasi County, encompassing the Pago Pago Bay area and Tualauta County, which includes the Tafuna Plain, hold the majority of the Territory's population.

2.2 The Economy

The cash economy of the Territory is mainly based upon receipt of and re-circulation of income that originates from outside the Territory's boundaries or from foreign sources. This includes earnings from two tuna processing canneries, the fishing fleets that supply the canneries and Federal assistance programs and grants. These sources of outside income are commonly called the 'base economy' in American Samoa. Their input is estimated to result in ninety-three percent of final sales in the local economy.⁵

The base economy is the lifeblood of the local commercial sector, or private sector, because their expenditures and the expenses of their employees drive the sales of goods and services in the private sector. The private sector produces few products that result in foreign receipts and only a small percentage of sales and services that would result in the production of final goods.

2.2.1 Base Economy

2.2.1.1 Tuna Canneries

StarKist Samoa (owned by the H.J. Heinz Inc. of Pittsburgh, Pennsylvania) and Chicken of the Sea (COS) Samoa Packing Company (owned by Thai Union Ltd. of Thailand) operate tuna processing canneries on the north shore of Pago Pago Harbor. The StarKist Samoa cannery is the largest tuna cannery in the world. It packs 550 tons of tuna per day and employs about 2,600 workers. Chicken of the Sea packs about 400 tons of tuna per day and employs 2,400 workers.⁶

Their annual purchases in the local economy total over \$60.0 million per year, of which \$40.0 million is in payroll and \$20.0 million in other expenditures, e.g. fuel, power, water and services.

The domestic and foreign offshore fishing fleets buy fuel and supplies in the millions of dollars but the true value of the fleet purchases is unknown.⁷

Figure 2.4 StarKist Samoa Cannery



The two canneries in American Samoa, have been operating in the territory for over forty years; they have expanded by leaps and bounds in the last twenty-five years. Since 1973, cannery employment at StarKist Samoa and Samoa Packing has increased almost five-fold, while the value of tuna exports has increased nearly fifteen-fold. Between 1982 and 1997 US imports of canned tuna rose from ten percent to twenty-five percent of US consumption while US production dropped. At the same time American Samoa's tuna cannery production rose from fifteen percent to forty-four percent of total US consumption.

The canneries get generous corporate income tax benefits as a result of being located

Figure 2.5 Foreign Fishing Vessels



in American Samoa. The advantages include duty-free entry of canned tuna into the U.S. market under Headnote 3a and tax relief from the Internal Revenue Service Section 936 Federal tax credit. The savings to the canneries amounted to \$66.6 million as reported by the U.S. Department of Labor's economic report, *The Minimum Wages in American Samoa, 2001*.⁸ The canneries use the customs and tax credit savings as well as the minimum wage standards as their leverage and justification for remaining in the Territory.

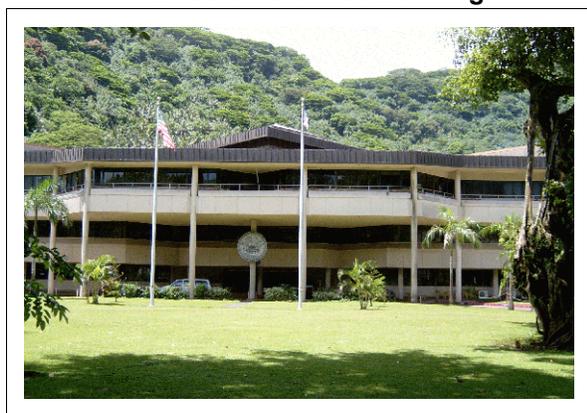
The ability of the canneries to lobby against higher wages and to keep the minimum wage lower has been one of the factors for the canneries continued presence in American Samoa. The cannery minimum wage rate was \$3.25 per hour in 1999, up from \$3.00 in 1993.⁹

2.2.1.2 American Samoa Government

1) Revenues and Expenditures

The American Samoa Government is the largest single employer in the Territory. It employed 5,002 people in 2000. This represents roughly twenty-eight percent (28%) of the Territory's 16,718 paid employees that work in the cash economy, but only a one percent increase in government employment over the five-year period from 1994.¹⁰

Figure 2.6 American Samoa Government Executive Office Building



In Fiscal Year 1999 the American Samoa Government's revenues were estimated to be close to \$105.0 million. Local revenues of \$56.5

million, collected from taxes and charges, made up fifty-four percent of total revenues. U.S. Federal allocations for formula and program grants contributed to the remainder, or forty-six percent of total revenues. These included \$24.8 million for allocations from various Federal agencies, an annual Department of the Interior Operations Grant for \$23.0 million, and a \$10.1 million Capital Improvements Program award from the Department of the Interior for the government's construction of infrastructure.¹¹

The Department of Education and the Hospital Authority received roughly forty-five percent of the government's total revenues for their operations and improvements. Of the two, the Department of Education received the largest share at \$28.8 million. These two organizations' revenues dwarfed those of all other government operations. The next highest revenues were allocated for the American Samoa Legislature (Fono), the Department of Public Works and the Department of Public Safety, which operates the correctional facilities and provides police and fire protection. These three organizations received between \$3.5 and \$3.9 million for their annual budget.¹²

Government expenditures have exceeded revenues during the last decade by \$7.0 to \$12.0 million. After recent windfall payments for insurance back payments and the utilization of the national tobacco settlement to pay past debts, estimates by the Territorial Office of Fiscal Reform place the Territorial debt between \$18.0 to \$24.0 million. These payments have reduced the debt by half. In order to further reduce the debt and respond to U.S. Congressional concerns, the government is taking measures to implement a Fiscal Reform package to bring expenditures in line with revenues.¹³

2) Government Owned Enterprises

In addition to conventional government operations, the government owns and operates several revenue-generating enterprises. They are:

- the American Samoa Power Authority that operates the electrical power system, the

water system, wastewater systems and solid waste disposal;

- the American Samoa Telecommunications Authority that operates the telephone and satellite cable systems;
- the Pago Pago International Airport and Ofu and Ta'u airports in the Manu'a;
- the main seaport/wharf in Pago Pago Bay;
- the golf course at Ili'ili village;
- the Petroleum Tank Farm; and
- the American Samoa Hospital Authority LBJ Tropical Medical Center.

Other public assets are leased to private businesses, including public lands, land parcels at the Senator Inouye Industrial Park and the Ronald Reagan Marine Railway, the ship repair facility located next to the canneries within the inner Pago Pago Harbor.

(2.1) American Samoa Power Authority (ASPA)

The American Samoa Power Authority (ASPA) was established in 1981 to assume responsibility over and operation of the Territory's electric power system. Since 1981, ASPA has also taken over the water and wastewater systems (1988), and most recently the solid-waste services in 1995. ASPA is a wholly-owned government enterprise, administered by a Board of Directors. ASPA's operational expenses are covered by fees, but ASPA's revenues often do not meet its expenses, and capital improvements for all of ASPA's divisions have historically been supported by grant awards from the Department of Interior.

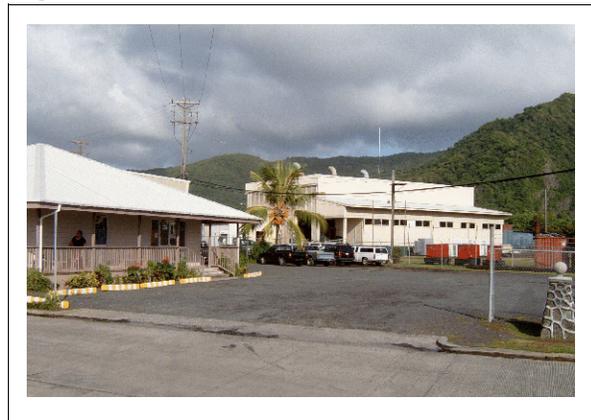
(2.1.1) Electric Power

American Samoa's power system includes four generating stations with approximately eighty-nine miles of single and three phase distribution lines. For Tutuila, the main generating facilities are divided between two

plants, Satala and Tafuna. The Manu'a Islands have two small generating facilities at Ofu and Faleaso villages, respectively.¹⁴

ASPA has invested extensively toward the improvement of the electrical power system since 1981, including development of its human resources and the creation of a reliable electrical generating, switching and distribution system. The system's power plants on Tutuila Island, located at Satala village near the canneries and at Tafuna, have a generating capacity of forty megawatts. The capacity will be increased to forty-four megawatts by the end of 2002. The distribution grid is a combination of overhead and underground wires.¹⁵

Figure 2.7 The Tafuna Power Station



ASPA system peak load on Tutuila is twenty-six megawatts. The total number of electrical meters is 10,000, of which eight thousand are classified as residential customers. The two tuna processing canneries are estimated to use thirty percent, on average, of the power ASPA generates.¹⁶

ASPA electricity charges are higher than the average homeowner kilowatt charge for the continental United States, but are in the same range as the prices charged by America's most expensive utilities. In early 2002, for example, residential customers were paying about US \$0.17 per kilowatt.¹⁷

(2.1.2) Water

ASPA's Water Division provides piped, metered, chlorinated potable drinking water to about ninety-eight percent of the American Samoa's population. Only four villages are not connected to the government system, they are: Ofono, Fagamalo, Malota and Fagalii. The Water Division is constantly expanding its system to reach these unserved remote villages, which have relied upon surface water catchments that could be unreliable and contaminated during drought conditions or heavy rain.

The Territory's water is derived from about sixty production wells, for the most part. Two surface water catchments are presently reconstructed with state of the art microfiltration plants to treat the water from the two surface water sources that connect to the central water system. The water is drawn from shallow aquifers which are recharged in a matter of days or weeks following rainfall. The main aquifers are located in Malaeimi Valley at the Tafuna Plain and the Malaelo Valley. Scientific estimates suggest that Tutuila's aquifers could reliably yield enough water to serve a population of 115,000 people.¹⁸

Maximum recharge is estimated at twenty-five million gallons per day. The present level of water production is nine million gallons per day.

ASPA presently sells eight million gallons of water per day. The canneries consume between twenty to thirty percent of the total and twenty to thirty percent is unaccounted for or lost due to leakage. ASPA charges about \$1.45 per 1000 gallons of water, which is consistent with U.S. pricing.¹⁹

(2.1.3) Solid Waste

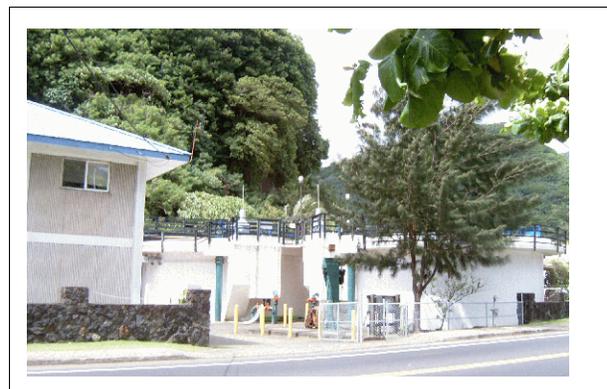
The Solid Waste Division operates a sanitary landfill in the village of Futiga at the southwestern corner of the Tafuna Plain to handle about forty tons of waste each day. The landfill is currently being expanded and improved to meet U.S. Environmental Protection Agency regulations. The old landfill was officially closed in accordance with U.S. Environmental Protection Agency regulations. New improvements are being funded by the Department of the Interior.

Private companies, under contract to ASPA, collect solid-waste on an island-wide basis several times a week. Disposable material is buried at the sanitary landfill. Recyclable material is contained at ASPA's scrap metal yard near the Pago Pago International Airport and shipped abroad. The cost of the refuse service is met by a surcharge assessed with the electrical bills. Residences, for example, are charged a collection fee of three dollars per month, while businesses pay higher rates.

(2.1.4) Wastewater

The Wastewater Division operates two sewerage systems on Tutuila, along the Pago Pago Bay shoreline and in the central Tafuna region. About thirty percent of the territory's population, or about four thousand households, are connected to the government sewer systems. The percentage is increasing slowly as the utility expands the system and converts septic tank systems and connects them to the government system.

Figure 2.8 Pago Pago Bay Wastewater Treatment Plant



The Pago Pago Bay area system is the most extensive of the two sewerage systems. Ninety percent of residences and businesses from the villages of Fagaalu to Atuu are connected to the system. The Tafuna sewerage network underlies the village of Nu'uuli and the Tafuna plains. It is being constantly expanded year by year with construction grants provided by the federal government to accommodate the rapid growth of population in the area. The expansion is taking

place in the aquifer recharge area to protect the groundwater supply.

Secondary sewage treatment is provided at two plants at the villages of Utulei, in the bay area, and Fogagogo adjacent to the Pago Pago International Airport at Tafuna. Each of the plants has its own ocean outfall. The plants are in good shape and have excess capacity available to serve expanded service areas. On the outer islands (Ofu, Olosega, Ta'u, Aunu'u), ASPA provides a similar array of utility services as it provides for Tutuila residents.

ASPA is also active in allied areas. For example, ASPA has been contracted to supply management expertise to the public utility at Ebeye Island of the Republic of the Marshall Islands. ASPA has also been designated American Samoa's physical and institutional home for DELTA/PEACESAT Network, a government satellite network system being utilized by different agencies, including the American Samoa Community College, for tele-medicine, distance-learning and other public purposes. As result of its involvement with DELTA/PEACESAT, ASPA has also been given lead responsibility for pursuing initiatives in "e-commerce" including the securing of major funding from the Federal government on behalf of the Territory. The utility has participated in the creation of an institutional foundation for such initiatives by establishing a non-profit corporation, the Pacific e-Commerce Development Corporation.

(2.2) American Samoa Telecommunications Authority (ASTCA)

The American Samoa Telecommunications Authority (ASTCA) is for the most part fully self-sustaining, however, it does receive a budget and a small subsidy for employees from the government. ASTCA offers excellent local, long-distance and Internet service. ASTCA is presently evaluating access to high-speed/broad-bandwidth Internet service from International businesses.

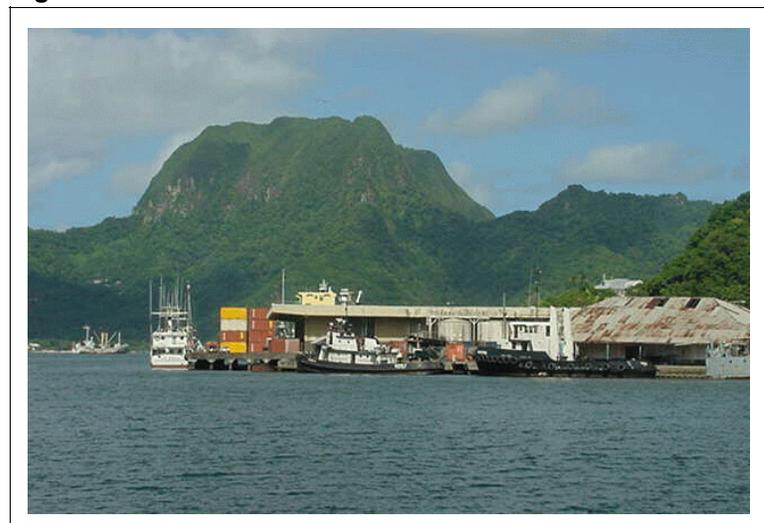
Some government agencies have access to one of the high-speed, wide area networks that have been installed to facilitate education, distance learning, tele-medicine and teleconferencing. Every classroom in the Territory has a high speed connection to the Internet as a result of the U.S Department of Education E-Rate Program, and video teleconferencing capability exists in many government agencies, including the hospital and the community college.

Figure 2.9 ASTCA Satellite Communications



(2.3) Main Sea Port in Pago Pago Harbor

Figure 2.10 Port Administration Main Wharf



The sea ports and airports are operated by the Department of Port Administration. Shipping and transport are vital to an isolated island society, and American Samoa has therefore invested, to the best of its ability, in its seaports, airports and telecommunications infrastructure.

Pago Pago harbor boasts several government-owned deep draft freight docks, a large container yard, private docks for the canneries, a 3,000 ton marine railway, a modern fuel dock, a local fisheries dock and smaller bulkheads and ramps.

The main wharf is located in the village of Fagatogo and utilizes an area of approximately forty-one acres. Most of the facilities of the dock are in need of repair, according to the latest assessment of Port Master Plan of 1999. Repairs and construction are being made on the order of \$1.0 million per year and the latest work done has been the hardening of the container yard.²⁰

In 1999 there were 807 vessel arrivals at the main port. Half of these vessels were either fishing boats or reefers associated with the offshore, distant water fishing fleet. About ten container ships or fuel tankers a month docked at the port and more than 38,000 containers moved through the port with 540,400 tons of cargo off-

loaded during the year.²¹

(2.4) Petroleum Storage (Tank Farm)

A modernized petroleum fuel storage facility,

Figure 2.12 Pago Pago International Airport Terminal



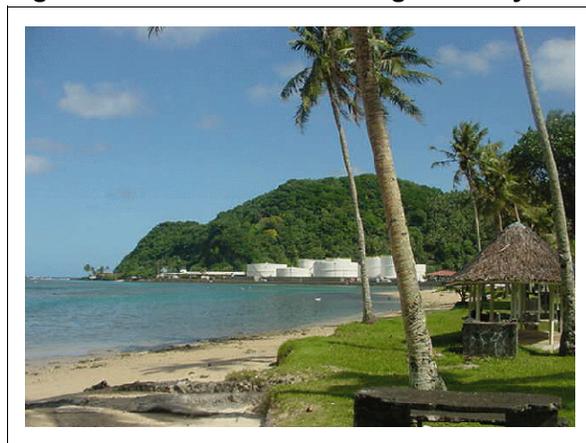
operated by the Office of Petroleum Management, houses five new petroleum storage tanks that meet U.S. Environmental Protection Agency hazard regulations. They will be able to hold a total of 290,000 barrels of fuel, i.e. a two-month reserve, by mid-2002. These will provide storage for diesel fuel for the offshore, distant water fishing fleets and aircraft fuel.²²

(2.5) Airports

The Pago Pago International Airport is a modern airfield capable of receiving today's largest passenger and cargo aircraft. Runway 23 has recently been extended by 1,000 feet, making its overall length 10,000 feet. This has been a long, sought-after improvement that will enable trans-Pacific flights to depart the airport safely.

The airport registers about five or six large jet visits per week, including twice-weekly Hawaiian Air passenger flights to and from Honolulu, Hawaii, regular military stopovers for refueling, and a weekly air cargo flight. Small twin-prop planes arrive and depart Pago Pago International Airport on an hourly basis on either runway 8 or 23, connecting the Territory with the Independent State of Samoa. In 1999, arrival and departure of

Figure 2.11 Petroleum Storage Facility



flights of small commercial props numbered near 12,000. Flights are also available to a lesser extent to the Manu'a Islands of Ofu and Ta'u where existing airstrips will be upgraded from 2,600 feet to 3,200 feet.²³

Pago Pago International Airport registered the arrival of 62,246 passengers in 1997²⁴ and about 1,100 tons of cargo, which is less than one percent of total sea freight. In all, the Airport handles about 200,000 passenger transits a year, and modest non-commercial traffic, primarily military and cargo flights.²⁵

(2.6) Golf Course

The 18-hole Ili'ili Golf Course is located on 120 acres of land at the western end of the Tafuna Plain and provides a marvelous view of Tutuila's southeastern shore. The annual income derived from golf course revenues is in the vicinity of \$100,000, but trivial in comparison to the government's total revenues.²⁶

Figure 2.13 The Public Golf Course



2.2.2 Private Sector

American Samoa's private sector employed approximately 6000 people in 1999. These numbers represent an increase of thirty-three percent in private sector employment over 1994 and reflect the ability of the private sector to absorb employable people in the Territory.²⁷

The latest reliable data available on discrete information about the economy, i.e., 1995 survey information, shows that the retail and wholesale trade, the services sector, the construction industry and transport services (taxis and buses) accounted for ninety percent of employment in

the private sector. The wholesale and retail trade employed 1,685 people, or thirty-six percent of the sector workforce. The services sector, transport and construction comprised twenty-one, eighteen and fourteen percent respectively.²⁸

Employment in the finance sector and agriculture and fisheries represented only four percent and six percent of total employment, respectively. The low numbers of people working in the finance sector is reasonable for there are only two banks and several small finance and insurance businesses represented. The low employment in agriculture and fisheries, i.e., 307 persons, indicates difficulties in making agriculture and fisheries a successful commercial activity.²⁹

With the demise of the brief experiment in garment manufacturing in the late 1990s, i.e, the failure of the BCTC and Daewoosa clothing manufacturing companies, processed tuna products in aluminum containers, fish meal and pet food once again account for virtually all of American Samoa's commodity exports.³⁰

2.2.2.1 Retail and Wholesale Trade

American Samoa's private sector, and most significantly the retail and wholesale trade, is based on providing goods and services to the tuna industry, the government and the men and women working for those economic titans. The vast majority of the retail and wholesale trade is focused upon the supply of foreign foodstuffs and the sales of inexpensive clothing and goods. Estimated initial input to the economy from the sales to the canneries, government and their employees, and to the employees of the private sector itself is roughly \$50.0 million.³¹

Figure 2.14 Fagatogo Square Business and Shopping Center



The retail and wholesale trade has for many years earned foreign income by selling its products to residents of Western Samoa, the fishing fleets and to traveling 'yachtees,' although this is a small percentage of total activity.

2.2.2.2 Agriculture

Commercial agriculture does not exist on a large scale in the Territory. Commercial agriculture is primarily widespread, small-scale farming of traditional crops such as taro, bananas and coconuts.

The 1999 Census of Agriculture reported 1,498 farms to be producing crops or raising livestock for commercial consumption. The total amount of commercial farm land in use was 8,578 acres at the time of the Census and the average size of commercial farm was 5.7 acres. Approximately two-thirds of farms were under crop production, while only five percent of commercial farms were used for livestock and poultry production. All other farms of farms were reported as 'mixed use.'³²

The total value of commercial farms sales in 1999 was \$44.3 million, which equated to an average commercial farm earnings of \$29,600. Bananas, taro and yams were the big money earners and sold for a value of \$7.8 million and \$8.4 million, respectively. Poultry and eggs, and hogs and pigs sales was slightly over \$1.0 million. In recent years a fair amount of

Figure 2.15 Local Commercial Agriculture



production has been sold to the school lunch program.³³

Non-commercial, subsistence agriculture accounted for the substitution of, or consumption of production valued at \$29.6 million. There were 4,975 subsistence farms under cultivation with an average size of 2.2 acres. This represented a non-cash crop earning equivalent of \$5,934 per farm.³⁴

The possibility of growing kava, noni and other herbs on an export-oriented, cash crop basis is currently under exploration.

2.2.2.3 Fisheries and Marine Resources

Although the territory is an important hub for extensive distant-waters fisheries, the local fisheries industry is limited. A small fleet of approximately fifty, small, 'alia' boats under forty feet are presently operating and catch fish within a single days travel. They are out to take bottom fish and pelagic fish, e.g., tuna and bill fish, to be sold locally.³⁵

In 1999, the Census of Agriculture reported one hundred twenty-one active fishermen had earned \$7.0 million from the sale of fish. Local grocery stores picked up some of the fish, while some of the fish were sold from coolers and roving distributors. Not all fish caught were sold

Figure 2.16 Local Commercial Fisheries



as cultural traditions expect some of the catch to be consumed by the extended family.³⁶

Since 1999 the local alia fleet is said to have almost doubled as a result of the influence the great financial success of the alia fishermen of the Independent State of Samoa has experienced. They are selling a great majority of their albacore tuna to the canneries. Their operations are said to have grown five-fold in the last five years.³⁷

The local distant-water fishing fleet is a growing business with up to fifteen medium-sized boats of fifty to one hundred fifty feet that fish offshore. These boats have been supplying the canneries in competition with the larger foreign fishing fleet. They are supplying the canneries primarily with albacore tuna and much smaller amounts of other pelagic species.

In August of 2001, the U.S. National Marine Fisheries Service agreed to confine fishing within fifty miles of American Samoa's shores to domestic fishermen and U.S. vessels that were registered to fish in American Samoa's exclusive economic zone before October 2001. Since it is illegal to disallow U.S. owned vessels to fish within the fifty mile limit, it has been reported that more than twenty-five boats formally based in Hawaii and California's west coast are now fishing or will be fishing shortly within this limit and selling fish to the canneries.³⁸

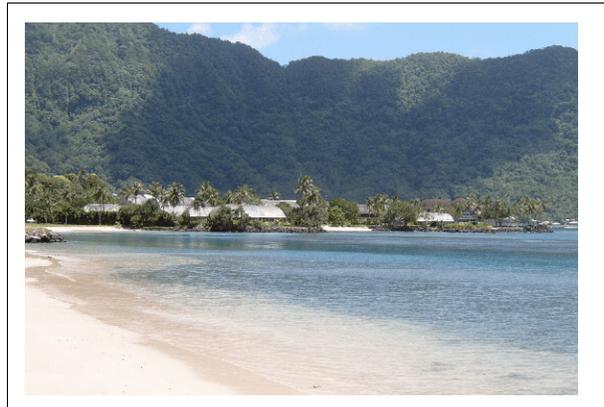
Aquaculture is beginning to catch on in American Samoa. It was reported in the 1999

Census of Agriculture that there were fifteen farms raising Tilapia fresh water fish. Sales to local stores was valued at \$85,700 for 1999. The sales of giant clams was also recorded, but resulted in a small amount of earnings.³⁹

2.2.2.4 Visitor Industry

American Samoa's visitor industry has gone through a long period of decline. Tourism peaked in the mid-1970s when 35,000 people visited the Territory by plane and cruise ship. The number of tourists and visitors has declined since then.⁴⁰

Figure 2.17 The Rainmaker Hotel seen from Utulei Beach Park



Between 1990 and 1997, the number of tourists visiting American Samoa declined from 8,499 to 4,514, a forty-seven percent drop. The number of people coming to American Samoa for

business purposes also dropped, but to an even greater extent, from 16,347 down to 6,835, or a fifty-eight percent decline. The decline in both tourists and business people visiting the island, was matched by a lesser decrease of relatives visiting family members, a downward turn of eighteen percent, not a good indicator of a turnaround in business.⁴¹

The decline in American Samoa's visitor industry has been accompanied by a substantial increase in the development of tourism in the Independent State of Samoa in recent years. This is in stark comparison to the malaise associated with the downturn in American Samoa tourism.

Figure 2.18 Twin Otter Aircraft of Samoa Air



The interest in small-scale tourism and ecotourism remains alive. 'Bed and breakfast' businesses have been growing in number. In addition, a new one hundred and four room hotel in the Tafuna area is expected to be completed by February 2003 that will cater to business people, and tourist as well. These activities are a response to the success seen with ecotourism on the islands of Upolu and Savai'i of the Independent State of Samoa and a general feeling that tourism can be revived with the development of appropriate infrastructure and services.

2.2.2.5 Labor Force Characteristics

The 2000 Census data shows that 16,718 people were employed in the cash economy. This figure represents forty-nine percent (49%) of the population that is sixteen years of age and older. There were 909 people reported to be unemployed, or five and two-tenths percent (5.2%) of the labor force.

The manufacturing sector is dominated by the StarKist and Chicken of the Sea fish processing workforce. At the time of the Census, clothing manufacturing was not a significant activity. Those in the Health, Education and Social Services classification, as well as Public Administration, are primarily employed by the American Samoa Government.

Figure 2.19 The Labor Force in 2000

Economic Sector	2000	Percent
Private Sector	11,346	70%
Government	5,002	30%
Industrial Classification		
Agriculture & Fishing	517	3%
Construction	1,066	6%
Manufacturing	5,900	35.3%
Wholesale	361	2.2%
Retail	1,429	8.5%
Transport & Warehousing	1,036	6.2%
Information	323	1.9%
Finance, Insurance	311	1.8%
Professional Management	239	1.4%
Education, Health, Social	2,856	17.1%
Arts, Entertainment, Food	624	3.7%
Public Administration	1,505	9%
Other Services	506	3%

Figure 2.19, the Labor Force in 2000, provides a glimpse at the make-up of the employment characteristics of the Territory.

The Transport classification includes a broad class of worker, i.e., bus and taxi drivers, truckers, warehousing, and the utilities of power, electricity and water. Sixty-six percent of the employees working at the two canneries were born in Western Samoa, while roughly forty percent of those born in American Samoa worked for the government.⁴²

2.2.2.6 Remittances

The value of remittances to and from overseas family members and friends should not be forgotten in calculations of income and expenditures of the Territorial economy.

There is a well-established pattern of Samoan family members living overseas who

send money (remittances) back to family members. It is a common practice among Western Samoans that live in American Samoa to send money to their families in the Independent State of Samoa. In fact, their primary purpose in working in American Samoa is to earn American dollars, as the wages in the Independent State of Samoa are low relative to American Samoa's wages.

Remittances to American Samoa are common, especially with military personnel who enter the armed forces and repatriate earnings to their parents. It is difficult to place a value on remittances or to track remittances to American Samoa that arrive as U.S. dollars. Remittances can be received through the U.S. mail or repatriated as direct deposits into accounts from Hawaii, the U.S. Mainland or from military payrolls anywhere in the world.

Payments from American Samoa to the Independent State of Samoa can be tracked because the exchange must be made to Samoan Tala. The value of per capita remittances to the Independent State of Samoa from American Samoa has not been recently analyzed. However, it is possible that Western Samoans are remitting as much as one-third of their income to Samoa or New Zealand family members.

2.3 The Environment, Land and Resources

2.3.1 The Role of the Government in Resource Management

The passage of the National Environmental Policy Act of 1969 (NEPA) by the U.S. Congress has had a profound effect upon how the American Samoa Government and the Territory's communities manage the natural and renewable resources of the Territory. NEPA provides for the overall protection of the environment by mandating the observance of environmental protection legislation that covers the air, land and water. The mandates of the legislation are carried out by agencies and offices of the Federal Government. These same agencies have over time developed the responsibility to fund environmental protection and preservation

programs within their legislative mandate and to extend their mandate and funding to the States and territories.

One of the principal purposes of the NEPA is to assure that any development using Federal funding that would affect the environment, including all facets of the economic, natural and social environment, must adhere to the NEPA regulations. Therefore, in order for the American Samoa Government to accept Federal funding for development purposes, it must assure that the NEPA laws and regulations are enforced.

American Samoa has a clearing house process, the Project Notification and Review System (PNRS), to enforce the NEPA that was established under Public Law 21-35. The Department of Commerce administers the PNRS. The clearing house is a consistency review procedure that calls upon all American Samoa Government agencies with an environmental protection mandate to review the potential impacts of a program or project. The funding for these agencies has been provided, for the most part, by the Federal agencies. Foremost among the agencies with environmental mandates are the American Samoa Environmental Protection Agency, the Coastal Management Program of the Department of Commerce, the American Samoa Historic Preservation Office, and the Department of Marine and Wildlife Resources. The Coastal Management Program manages the Project Notification and Review System.

2.3.2 Coastal Environment and Resources

2.3.2.1 Coastal Terrain

The vast majority of American Samoa's coastal shoreline is rugged or inaccessible and unsuitable for human settlement or recreational activities, like swimming. Tiny Ofu island, which has a relatively long, sandy beach without a craggy coastline, is an exception to this generalization.

About half of Tutuila's coastal fringe is habitable. The north shore, because of its precipitous cliffs and steep mountain slopes that abut the sea, make permanent habitation difficult.

Human settlement has occurred along the southern shoreline and on the alluvial shelves of the sheltered bays. Settlements have also developed on the narrow, flat shelves between the sea and the mountains, after access was made possible by excavation of rugged, coastal ridges to build the main highway.

American Samoa's shoreline is constantly under duress from wave surge and erosion. The majority of the Territory's main highway is built upon the narrow shelf that borders the shoreline and mountains. It is the only road that transverses the Territory from east to west. Therefore, it is necessary to protect it from serious damage.

Shoreline protection is the responsibility of the Department of Public Works and the American Samoa Environmental Protection Agency under jurisdiction of the U.S. Army Corps of Engineers. Shoreline development and management is the responsibility of the American Samoa Coastal Management Program.

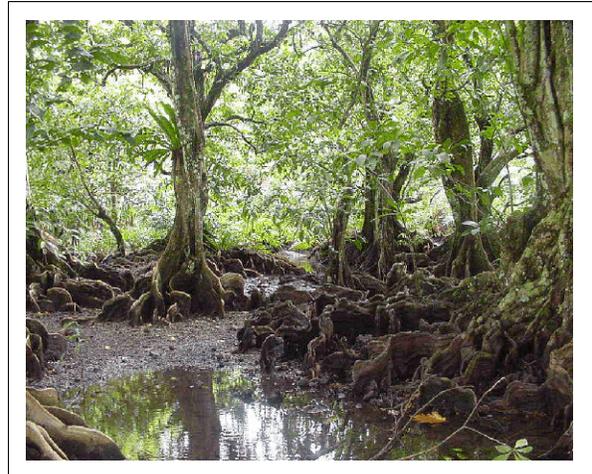
2.3.2.2 Coastal Wetlands

The wetlands that exist on Tutuila are generally found in coastal areas. They are areas that are inundated or saturated by surface water at a frequency and duration sufficient to support a prevalence of vegetation adapted for life in saturated conditions. They include fresh and saltwater marshes, aquifer recharge areas, floodplains, streams and springs. In Samoa, mangrove swamps are wetlands.

Mangrove swamps still exist in the Nu'uuli Pala and Leone Pala along the southern shore of Tutuila. They are the remnants of a much larger ecosystem, but are now defined as Special Management Areas because of their fragility. There has been a significant loss of wetlands on Tutuila since the turn of the Twentieth Century. Estimates put the loss at thirty to forty percent during the period 1900 - 1961. Over the next forty years, more than thirty percent of the remaining wetlands were lost. The result is that by 1991, at least forty-eight percent of all original wetlands had been lost to development, filling and degradation. To date it is likely that Tutuila

has lost sixty to seventy percent of its original wetlands.⁴³

Figure 2.21 Ifi Trees of Vatia Wetland

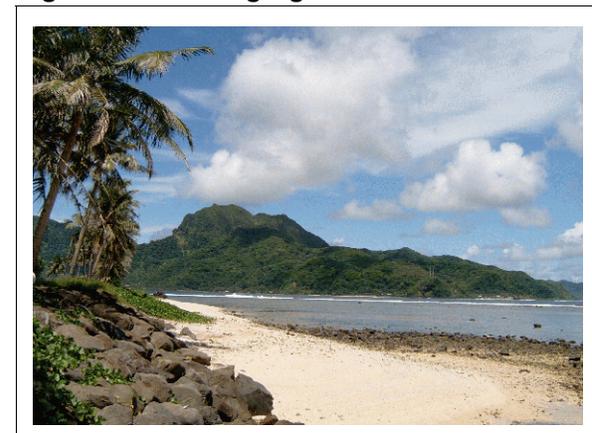


Wetland loss is being addressed by the Coastal Management Program through resource management and conservation programs, however, wetlands degradation is continuing. Wetlands degradation is due to clearing and filling to accommodate village homes, piggeries and commercial activities. Though American Samoa is a leader on the regulatory front, the problem of stopping wetlands degradation has not been solved. The possibility of restoring wetlands that have been lost is not feasible, but restoration of degraded wetlands is possible.

2.3.2.3 Coral Reefs

Coral reefs are an integral part of coastal resources. Coral reefs bound American

Figure 2.22 Fringing Reef off Niuloa Point



Samoa's islands and are found at offshore banks within the Territorial at-sea boundaries. They are composed of a highly diverse ecosystem that has existed for millions of years and provided Samoans with a food source since the islands were inhabited several thousand years ago.

American Samoa's coral reefs have been seriously affected by human settlement and natural disasters in the past twenty-five years. They were set upon by an extraordinary invasion of the 'crown of thorns' starfish in 1978 and 1979, and were subsequently damaged by Hurricanes Tusi, Ofa and Val from 1986 through 1991. In 1994 and in 1998 coral bleaching occurred as a result of an El Nino warm water event.⁴⁴

In spite of these setbacks, the coral recruitment is high and many areas are recovering. However, in some areas, e.g., Pago Pago Bay, chronic human impacts and pollution have impeded their recovery or permanently damaged the reefs.

Coral reef protection and preservation is the responsibility of the American Samoa Coastal Management Program, the Division of Agriculture, Community and Natural Resources of the American Samoa Community College, the American Samoa Environmental Protection Agency, the Department of Marine and Wildlife Resources, the Fagatele Bay National Marine Sanctuary, the National Park of American Samoa, and the newly established Coral Reef Initiative, which is a program based upon the cooperative programming efforts of the Fabove listed agencies.

2.3.3 Renewable Land and Water Resources

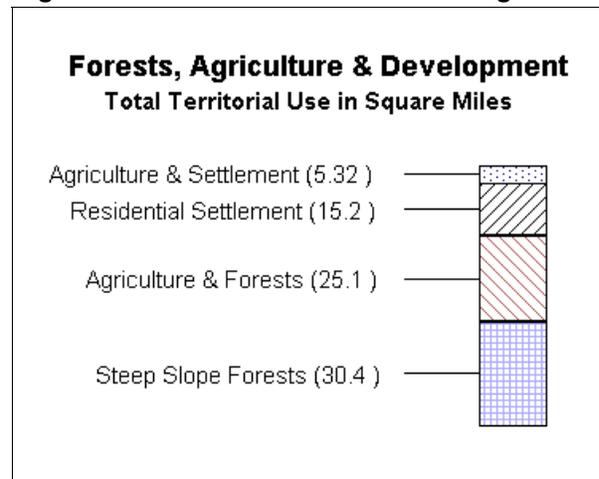
2.3.3.1 Forests and Agricultural Land

Tutuila has approximately thirty-six square miles of land with slopes of thirty degrees or more. There has not been a recent assessment of the amount of forest cover left on the islands of American Samoa. It is probably safe to say that twenty square miles of forest on Tutuila have been

relatively undisturbed because of Tutuila's steep slope topography and another sixteen square miles may be inter-cropped with banana and other minor subsistence or commercial crops.⁴⁵

A historical tracking of forest clearance is not available. Areas now given up to development may have been under cultivation prior to colonization. It is known, however, that the a major portion of the Tafuna Plain had not been utilized prior to World War II because of its rough, basaltic surface. Now, there only thirty-two acres of natural lowland rainforest growth left in a single, semi-degraded patch.

Figure 2.23 Territorial Land Coverage



The Census of Agriculture survey of 1999 recorded 19,736 acres of land in agriculture production. This accounts for thirty-one square miles or fortypercent of all the Territory's land in use for agricultural purposes. The data does not exist independently for Tutuila and the Manu'a Islands.⁴⁶

Given that the three islands of Manu'a make up twenty square miles and that they are also steeply sloped, it is probable that one-half of the islands possess relatively undisturbed forests. The remainder of the land, less the small villages, or about eight square miles, are inter-cropped in forested areas.

Figure 2.24 Forests of the Eastern District



Figure 2.1 provides a graphical description of land in use. To interpret the following graph, it should be understood that the Territory has 55.5 square miles of slopes greater than thirty degrees. Thus, 30.4 square miles of land, or forty percent of the Territory's land remains in steep slope forests; 25.1 square miles or thirty-three percent of the land is used for agriculture purposes with intermixed forests on steep slopes; low-land agriculture (on slopes less than thirty degrees) occurs on 5.3 square miles, or seven percent of the total Territory's lands; and 15.2 square miles of land is developed or undergoing development.⁴⁷

The above analysis shows that there is only five square miles of land left in the Territory that has not been consumed for development purposes.

2.3.3.2 Fisheries and Marine Life

The seas surrounding American Samoa support a very diverse range of marine flora and fauna, including almost nine hundred species of fish and more than two hundred species of coral. American Samoa's marine biodiversity is much greater than that of Hawaii and of the Caribbean islands.

Before the advent of motorized boats, sophisticated fish finding sonar and scuba diving equipment, American Samoan's principal tools for catching fish were spears, hand lines and nets. Fishing was concentrated at the reef and in

near shore waters for bottom fish, but off-shore fishing for larger pelagic fish was also practiced. Today, American Samoan fishermen are using the latest technology to locate and catch fish with bigger boats that travel further out to sea.

The new fishing techniques, the need to supply more fish to an expanding human population and possible over-fishing of some species have experts concerned about the viability of certain fish stocks. However, the size of the fish stock and fragility of the fish stock is not altogether clear.

Biological information about reef species and their responses to overexploitation is sparse. There is evidence of reduced subsistence fish catches, and there are clear indications and scientific opinion that over-fishing has caused serious fish stock depletion. Nevertheless, subsistence fishing continues at the reef edge. Some villages have placed restrictions on fishing in their waters and some areas may soon be designated 'no take' areas.⁴⁸

Figure 2.25 Reef Fish of American Samoa



Rose Atoll, the Territory's only wildlife refuge, is presently the Territory's only 'no-take area.' It is primarily known for its bird population but it is also off-limits to fishermen.

Bottom fishing from canoes away from the reef edge has long been a traditional fishing practice. Several fisheries development programs increased the catch which temporarily peaked in 1983 and 1988, but the programs

decreased the fish catch in the long run, as bottomfish can be more easily impacted by overfishing. However, recent biological studies indicate the bottomfish resource remains healthy.⁴⁹

The question about whether the deep sea, pelagic fish stock in American Samoan waters is being depleted cannot be reliably answered at this time. The U.S. National Marine Fisheries Service and the Department of Marine and Wildlife Resources are systematically monitoring the fish stock. However, because pelagic fish are highly migratory and appearance in these waters is seasonal, it is difficult to determine the true scale of the fish stock.⁵⁰

Giant clams are highly prized by Samoans and because of their popularity, they have been over-harvested. The population has decreased dramatically for Tutuila. With the exception of Rose Atoll, a wildlife refuge, they are now uncommon throughout the Samoa archipelago.⁵¹

Sea turtles are also prized by the Samoan culture as food and for the making of jewelry. They have long, complicated life cycles that involve repeated long-distance migrations to other islands of the Pacific for nesting and feeding. Consequently, it is difficult to determine the status of the stock. But turtle numbers have been observed to decline so much that they are now considered an endangered species.⁵²

2.3.3.3 Wildlife: Birds and Mammals

The vertebrate fauna of American Samoa is limited in diversity and most of the species are shared with other Polynesian islands. With few exceptions, most species of native fauna appear to sustain breeding populations and do recover from devastating hurricanes. Human activities have affected wildlife more significantly in the past, as prolonged hunting and the destruction of the essential forest and wetland habitat have reduced populations. This observation is applied mainly to the bird population as there is a lack of information about other vertebrate species.⁵³

There are fifty-nine species of birds in American Samoa, of which forty-four are considered residents. Of the forty-four, twenty are

seabirds and twenty-four are land and waterbirds. Populations of mynas and bulbuls are well-established and they are commonly associated with urban and agriculture habitats. The Pacific pigeon or 'lupe' is a species of great cultural importance to Samoans. They have been historically hunted along with the multi-colored fruit dove and purple-capped fruit dove. These three species are currently protected from hunting under a 1992 executive order. There is one known bird extinction, the spotless crane, and concern for several other species.⁵⁴

Figure 2.26 Bats Roosting in a Tree



There are three species of bats, the only native mammals of American Samoa. Two species are fruit bats and the third is the sheath-tailed bat. Estimates of the bat population can be difficult to render because of their roosting habitats. It is believed the fruit bats are recovering satisfactorily after the latest hurricanes, but the sheath-tailed bats, which live in caves may be on the verge of extinction.⁵⁵

The Department of Marine and Wildlife Resources is the American Samoa Government agency oversight responsibility for marine and wildlife resources.

2.3.3.4 Watersheds and Water Resources

American Samoa's water system extends between the village of Alofau in the far eastern quadrant of Tutuila to Amanave at the extreme western point of the island, between which seven water districts collect drinking water for the island.

American Samoa’s primary water system is operated by the American Samoa Power Authority (ASPA). The water system relies upon the use of groundwater for its potable water supply. Surface water supplies, or village water systems, serve about ten percent of the population and the tuna canning operations in Pago Pago Bay.

Tutuila has a number watersheds or catchment areas throughout the island, however, the Malaemi Valley and Leone-Malaeloa watersheds supply roughly seventy-five percent of the island’s drinking water with twenty-two ground wells. The Pago Pago Bay watershed area supplies the bay area.⁵⁶

American Samoa is blessed with an abundance of rainfall which replenishes the groundwater supply. The wells draw water from groundwater aquifers, or a lens of fresh water that floats upon heavier seawater, under the earth’s surface. The most expansive aquifer is under Malaemi Valley. Studies estimate it can provide eighteen million gallons of water per day, if daily average rainfall is maintained. Existing pumps at maximum output are able to pump twelve million gallons and Tutuila presently uses over eight million gallons per day.⁵⁷

2.3.4 Human Settlement and Government Land Use

2.3.4.1 Human Settlement

Tutuila Island, with fifty-six square miles of land, comprises almost three quarters of all Territorial land. Of this area, just twenty square miles, or thirty-six percent of Tuila’s land area, is flat land or has slopes less than thirty degrees.

In 2001, human settlement of Tutuila was roughly estimated to cover twelve square miles, or sixty percent of land that could safely support development, i.e., land with slopes less than thirty degrees. The eight square miles of land under thirty degrees of slope are areas not densely developed and under random crop production or lie vacant or dormant.⁵⁸

The Manu’a Islands are also mountainous, but not densely populated, thus human

settlement exists only on the narrow fringe of the islands. The residential area is assumed to be roughly one and a half square miles.

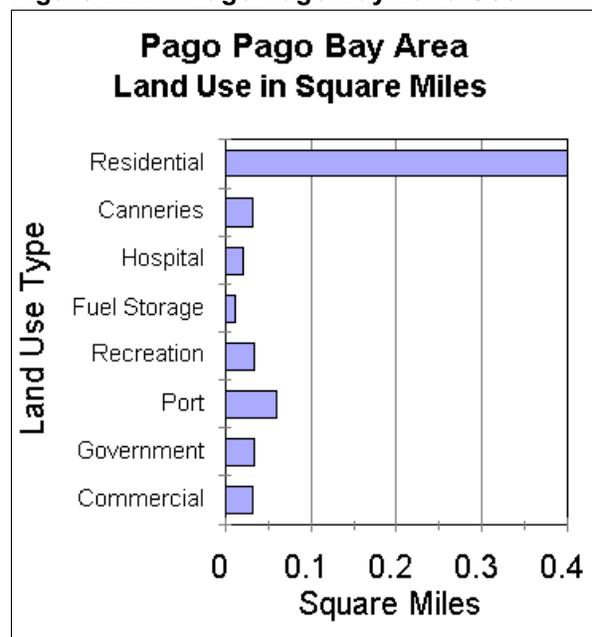
1) Pago Pago Bay and Harbor

Pago Pago Bay is bordered by steep slopes that limit the amount and type of development opportunities. Although there has been considerable residential development on the slopes of Fagatogo, Pago Pago, Atuu and Utulei villages, the majority of development exists on the flat alluvial shelf between the bay’s shoreline and within several hundred feet on the mountainside of the main highway that parallels the shoreline.

Only three quarters of a square mile is developed land along the Pago Pago Bay shoreline and on the slopes surrounding the bay. This is a fairly small amount of land considering the size of the bay which stretches one and a half miles north and two and a half miles west, and is an average of one mile wide.⁵⁹

Residential housing takes almost sixty percent of the land. The Territory’s main port and Pago Pago Park use the largest parcels of land. All land between the main highway is government owned, but some of the land is leased to private businesses and the canneries.⁶⁰

Figure 2.27 Pago Pago Bay Land Use



2) Tafuna and Southwest Tutuila

The Tafuna Plain, westward to the village of Futiga and northward to Pava'ia'i, with its flat or gently sloping land, encompasses five square miles or twenty percent of Tutuila's habitable area.⁶¹

Approximately two-thirds of the land in the Tafuna area, or three and a third squares miles, is utilized for residential purposes. Tafuna is expanding rapidly in areas that were not previously developed or had been underdeveloped. Thirty percent of the residential area is also used for growing crops surrounding the housing. They are mainly bananas, as most of the soil in the Tafuna area is not suitable for commercial or intensive agriculture.⁶²

Pago Pago International Airport occupies twenty percent of the land, taking up one square mile of area. The third largest portion of the land is used by the Ili'ili Golf Course.

The second largest habitable area, i.e., nearly two and a quarter square miles of gently sloping or flat land, lies between the crest of the Tafuna Plain and the village of Leone in the southwest quadrant of the island. More than half of the area is flat, as it was the site of a World War II airfield. This area is predominantly low-density residential housing, with mixed uses including public and private schools, markets, churches and small agriculture plots.⁶³

This area has been filling in during the last two decades as a bedroom community as it lacks concentrated commercial, industrial and administrative activities as found in either the Pago Pago Bay or Tafuna areas. It is the least dense area of the south-central quadrant of the island and most probable area for more concentrated development.

3) Coastal Villages and Upland Bedroom Communities

Away from the Pago Pago Bay area, to the west of the Tafuna Plain, and along Tutuila's northern and southern shoreline, forty-six small

coastal villages dot the flat, alluvial shelves in Tutuila's numerous bays. The soil has been deposited from millennia of hillside erosion and ocean wave surge. On average, the village land areas do not extend more than five hundred feet from the shoreline to the foot of the mountains and they are generally twice as wide as they are deep. Populations are small owing to the limited land area.

Tutuila also has two upland villages, A'oloaufou and Tafeta-Mapasagafou, that are also bedroom communities. They are situated in the heights at the center of the western quadrant of Tutuila.

The Manu'a Islands have five very small villages with a total population of 1,379 people, situated along their shorelines.

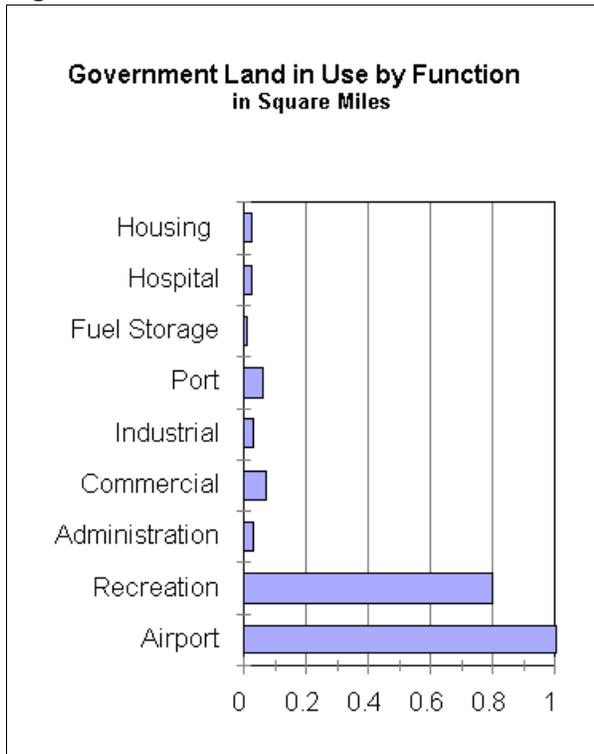
2.3.4.2 Government Land Use

The American Samoa Government owns lands that were acquired by the U.S. Department of the Navy during the early years of its administration and World War II. The lands are located along the Pago Pago Bay shoreline and in the southeast corner of the Tafuna Plain.

The following chart illustrates how the lands are presently utilized. As a reference, the Pago Pago International Airport occupies nearly one square mile of land, or fifty percent of government owned land. Most of the recreational use in the Tafuna area, or forty percent of government land, includes the Ili'ili Golf Course

The chart does not include the airports on Ta'u and Ofu, nor does it include land occupied by elementary and high schools, other government facilities, or roads in the Eastern and Western Districts of Tutuila. Area coverage has not been reliably estimated for these areas.⁶⁴

Figure 2.29 Government Land Use



2.3.5 Conservation, Land and Resource Management

2.3.5.1 Land and Resource Management

1) Land Tenure System and Traditional Leadership

Family lands, or ‘communal lands,’ are the vast majority of lands held in American Samoa. The land cannot be alienated (sold), but there are mechanisms by which it can sometimes be converted to ‘individually-owned land.’ This individually- owned land is analogous to fee-simple status, but it can be bought and sold only by American Samoans. Land can be leased, and there are quite a few leases for commercial purposes, but there are restrictions on leases of Samoan lands.

Land use and management is in control of the senior matai (chief) of the family, but the village fono and mayor also have a say in its disposition. Thus, traditional land tenure has had and continues to have a profound impact on development possibilities, opportunities and

patterns. It has also helped sustain a viable role for chiefs in modern times. However, chiefly privilege has also come into conflict with official government regulations and control.

2) Land Use Management by Government

The foundation for land use management in American Samoa exists in establishment of the Zoning Board of American Samoa (ABAS), and the Territorial Planning Commission (TPC) in the 1960s and 1970s. They derive their authority from Chapter 3 of the American Samoa Code. They respectively review and approve the use of land, and oversee and approve development plans. Their activities are administered by several divisions of the Department of Commerce (DOC).

In addition, the American Samoa Coastal Management Program of DOC administers the Project Notification and Review System (PNRS) and issues land use permits after clearance of the Territory’s environmental protection laws is assured and approval by the Zoning Board and Territorial Planning Commission.

The Pago Pago Bay area has been zoned according to the 1960 classifications, but the remainder of the Territory is zoned only for conservation. No land use designations have been identified for the entire Territory.

Special Management Areas (SMA) have been designated for the Leone, Nu'uuli and Pago Pago Bay area. SMA management is governed by laws that enable the government to better control development.

2.3.5.2 Conservation and Historic Preservation

Conservation of the Territory’s archeological, cultural and historic sites is the responsibility of the American Samoa Historic Preservation Office.

American Samoa possess many cultural, archeological and historical sites and points of interest. Foremost among them is the U.S. Naval Station Tutuila Historic District located in the center of Fagatogo village. The historic site is

composed of buildings constructed during the early Twentieth century and used by the U.S. Navy.

Situated within the historic district are the Fita Fita Barracks, now the headquarters for the Department of Public Safety; the old jail; the naval communications center, now used as a records depot; the Jean P. Haydon Museum; and the early naval administration office, the restored American Samoa Court House. Also of historic interest is the Blunts Point Guns National Historic Landmark. These are guns installed by the U.S. military during World War II to protect the mouth of Pago Pago Bay.

Archeologists tend to view the islands, inhabited for the past 2,500 to 3,000 years, as a large unexplored archeological site. Yet, there are only a few specific sites of major significance that have been widely recognized. They are the adze quarry in Leone, which provided a valuable resource that was traded throughout the South Pacific, and star mounds found in the Tafuna area.

The U.S. Department of the Interior, National Park Service, manages the National Park of American Samoa which was created in 1988. The park covers a total of 9,000 acres of property along the north side of Pago Pago Bay and on the Manu'a islands of Ofu and Ta'u. Since half the land on these islands has been included in the National Park, they are at present off limits to further development.

2.3.5.3 Environmental Protection: Air and Water

The mandate of American Samoa's Environmental Protection Agency (ASEPA) is to develop and implement programs to preserve and protect the environment and public's health.

1) Air Quality

Air quality in American Samoa is generally considered to be excellent, to the point of being a monitoring reference and pristine compared to the rest of the world.

There are emission points on Tutuila where air quality can be degraded. These are related to: traffic congestion at the Tafuna-Nuu'uli village main highway transportation corridor and within the Pago Pago Bay area during the morning and evening hours 'rush' hours; emissions from the Satala and Tafuna diesel generators at the electrical power plants; smoke from burning debris and garbage; traditional ground ovens, or 'umus'; and jet aircraft operations at the Pago Pago International Airport.⁶⁵

The most recent modeling of emissions due to transportation shows automobiles to be the primary source of carbon monoxide and hydrocarbon pollution and the Pago Pago Bay area to have the greatest concentrations. Sulfur oxides produced by the generation of electricity have increased due to the rising use of higher sulfur content fuels.⁶⁶

The bay area has always experienced displeasure with odors emitted from the tuna packing canneries. In recent years, ASEPA has been working with the canneries to reduce the odors, and odors have been diminished, although they are still present at times.

2) Water Quality

(2.1) Drinking Water

American Samoa's drinking water is subject to groundwater pollution, particularly during periods of heavy rains. During these times, it is not uncommon for ASPA to issue warnings about the quality of the water and instructions to boil water. Otherwise, bacteria levels are kept to within accepted USEPA limits.

In outlying areas, the primary problems in water quality are related to improperly maintained septic tanks, effluents from piggeries and improper disposal of solid and chemical wastes. Concern over these activities are increasing as development is increasing in the Malaeimi watershed and Tafuna aquifer areas. Secondly, soil erosion, natural or man-induced, contributes to the degradation of water quality.⁶⁷

At present the American Samoa Power Authority, Water Division, is working with the

public and other agencies to mitigate or remedy the causes of groundwater pollution.

(2.2) Pago Pago Bay Water

Water quality in the bay and in coastal waters varies depending upon location. Point sources of pollution within the bay include the tuna canneries, the sewage treatment plant, the power plant, the fuel storage facility (tank farm), and the ship repair yard. Each of these facilities must control pollution at the source and meet USEPA requirement and ASG standards.⁶⁸

While all of these facilities are in compliance and standards are generally met, the harbor demonstrates excessive bacterial indicators after heavy rains. In general, sediments are contaminated with heavy metals and fish are toxic and unsafe to eat. Swimming is also discouraged after a heavy rainfall and near the sources listed.⁶⁹

2.4 Society and Social Development

The social development of American Samoa and the delivery of social services to the community by the government is closely tied to and reflective of the historic pattern of social interaction and the roots of the Samoan society.

2.4.1 Society and Traditions

Family and family relationships are important in the scheme of life in Samoa. Families and communal living provide for the present and for a promise of a future. Participation in family matters provides a sense of security that an individual's needs will be met when and if any needs arise. This extends from the mundane (food and shelter) to the practical (permission to build a house on family lands) to the sacred (family affirmation at the time of a wedding or funeral).

Family members are called upon to serve the family and the matai. Service is a broad term, but one of the hallmarks of the society is respect for elders and care of them. Commitment to service will keep one in good graces as a family member.

Service to the matai, prior to the time when money became an essential commodity, used to entail physical labor, but now increasingly service to the matai involves monetary donations, as well as personal participation in various activities.

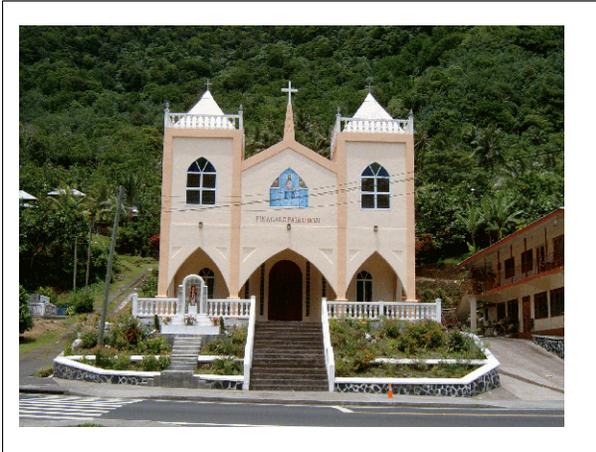
The demands of service (tautua) at cultural events (faalavelave) has become a heavy burden for many households as families become more dependent upon a monetary income and less on the produce of their communal lands to fulfill their family obligations. The constant giving and receiving service (now money) has the practical effect of preventing most Samoan households from "saving for a rainy day" and from the necessity of doing so. The reality that Samoan families tend to be large with constant material demands makes savings and wealth accumulation doubly difficult.

A Samoan who opts out from meeting the burdens and responsibilities of the Samoa Way (fa'aSamoa) essentially casts him or herself out of the family and/or village. Such an act would have been unthinkable in the past, but it is becoming possible with modernization and in American Samoa's monetary economy. More commonly, a Samoan may choose to leave Samoa and participate in the fa'aSamoa from afar by remitting some of their income home, and thereby, keeping themselves in good standing with the family.

2.4.2 Religious Life

Church affiliation is one of the underpinnings of modern Samoan society. Not long after the Christian missionaries arrived in the first half of the Nineteenth Century, Samoan social life has been strongly influenced by the church and revolves around the church.

Figure 2.30 A Church in Pago Pago Village



The vast majority of American Samoa's residents are affiliated with a church and actively participate in church affairs, which include not only Sunday services but choir practices, youth groups, and a host of other social functions.

The first missionaries to establish a church in American Samoa were of the London Missionary Society. The church is now the Congregational Christian Church of American Samoa and the largest denomination in American Samoa. Other major denominations include the Roman Catholic Church, Methodists, and the Church of Jesus Christ of Latter-day Saints, the Mormons. These churches and others are deeply rooted in the social organization of American Samoa.

In the past ten to twenty years, charismatic and evangelical denominations (e.g., Church of Christ, Assembly of God) have experienced significant increases in American Samoa, at the expense of the membership of the older, mainstream churches. But regardless of the denomination to which Samoans belong, church affiliation is one of the most important aspects of life in American Samoa.

2.4.3 Arts, Culture and Entertainment

Arts, culture and entertainment in American Samoa are sometimes separate interests and at other time the same. Churches, private organizations and the government tend to mix

them in what may be best described as cultural events.

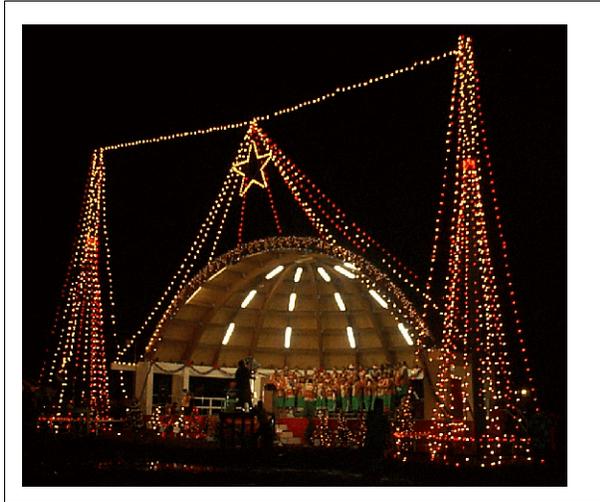
The American Samoa Council on Arts, Culture and the Humanities is the governmental body with a mission to maintain and strengthen traditional arts of the indigenous Samoan culture and to introduce its arts and culture to the broader world and there are other government agencies, like the Coastal Management Program, that utilize cultural activities and events to promote their programs and educate the public.

The most prestigious events during the year where culture and entertainment mesh are the Flag Day Ceremonies in April, Teuila Festival in September and the government's Christmas Program. Here, one finds signing, dancing and traditional entertainment.

At other times of the year, the Council and other agencies foster the arts and culture through:

- the Arts Fia Fia Program in which the arts, Samoan and non-Samoan, are celebrated for two weeks in which artists demonstrate their creations with indoor and outdoor exhibits at the Jean P. Haydon Museum;
- the Easter Music Festival with choirs;
- the Arts-in-Education Program in which local artists provide classroom instruction in arts, crafts and the traditional crafts of weaving and tapa making;
- the Miss American Samoa Pageant in which contestants annually compete to hold the title of Miss American Samoa; and
- the Coast Weeks Program, sponsored by the American Samoa Coastal Management Program to support rational resource management.⁷⁰

Figure 3.31 Annual Christmas Program



When people want non-Samoan and non-traditional entertainment, they can visit the Nuū'uli Cinema that shows up-to-date movies from Hollywood in a modern, air-conditioned, multi-theater facility.

At other times Bingo in the villages is the place to enjoy oneself. Bingo games are most visited by women, but Bingo is a common means of entertainment in American Samoa.

Bingo is held both on a small-scale and large-scale. Nightly or weekend, organized, large-scale bingo games may attract as many as 1,000 adults. Critics charge that although this is a recreational activity, children and the elderly are sometimes neglected and that many families suffer financial hardship due to bingo losses.

2.4.4 Education

2.4.4.1 The Educational System

American Samoa mandates free public education for all children and youth up and including the age of sixteen. The educational system includes government operated schools, private schools and church schools. The education system consists of pre-schools, kindergartens, elementary schools, high schools, a polytechnic high school and a community college. Figure 2.32 shows the distribution of students throughout the school system.

Figure 2.32 Educational Enrollment and Educational Attainment

School Enrollment	Number	Percent
Pre-School/Kindergarten	3,293	15.8%
Elementary	11,418	54.8%
High School	4,645	22.3%
College & Graduate	1,474	7.1%
Educational Attainment		
Less than 9 th Grade	3,120	12.3%
9 to 12 th No Diploma	5,476	21.6%
High School Graduate	9,983	39.3%
Some College No Degree	3,173	12.5%
Associate Degree	1,755	6.9%
Bachelor Degree	1,224	4.8%
Graduate School	649	2.6%

Age of respondents: 25 years and older

The Department of Education (DOE) is the largest agency in the American Samoa Government. Its primary role is to prepare the school age children to be academically, socially and mentally competent to effectively control life's many challenges, and to become responsible citizens in any society they choose to live in.

The Department of Education employs more than 1,600 people in various lines of activity on a Territory-wide basis.⁷¹

The American Samoa Community College (ASCC) provides open admission to those wishing to further their education. The Community College offers an Associate of Arts and Associate of Science degree in several fields. The ASCC is situated at the western edge of the Malaeimi Valley adjacent to the village of Mapasaga at the northern reach of the Tafuna Plain. On the average it employs about forty-five instructors and enrolls about 1,100 students per year and graduates 200.⁷²

Included on the grounds of the community college is the Agriculture, Community and Natural Resources Division (ACNR) of ASCC, formally called the Land Grant Division. The ASCC has an 1862 land-grant status. As such, it receives funding for integrated research and extension activities that focus on agricultural development.

1) Educational Attainment

In the 1970s many young adults leaving school went into the military after high school, as there were few local jobs or other means to achieve a decent living. Few people went on to college, and even fewer attained university degrees. Today, the situation is different, as there are opportunities not available in earlier years for personal achievement.

There are at present about 900 high school graduates per year.⁷³ The opportunity to enter the military has been restricted by the higher standards of the all-volunteer military (and by the generally low score results of American Samoa students), but there has been an undeniable increase in the educational aspirations of local high school graduates. Many graduates go on to attend the community college, and it is no longer

rare for a high school graduate to go straight to an off-island school in pursuit of higher education.

Figure 2.33 American Samoa Community College



When the 1990 census was conducted, seven percent of American Samoan-born adult residents had a college degree. When the 2000 census data is released, it will undoubtedly reflect a higher percentage.

Although many students do not return home with their college degrees, many do. Though American Samoa suffers from a 'brain drain,' similar to any small, rural community, it suffers to a lesser extent than many others due to the close association Samoans have for their island home. Moreover, it is not uncommon for Samoans to go off-island for education or career advancement, and to stay away for decades, but always with the intention to return home before (or at) retirement.

Many members of the local legislature, government and the business sector leaders are returned military personnel. Those who entered the armed forces in the 1970s and 1980s are returning home now, having completed twenty years of service. They are eligible for a full military pension and veteran privileges that include shopping at the local PX, flying 'space available' for free on military planes to and from Hawaii, and Veterans Administration health benefits.

2) The Library System

American Samoa's library system consists of the Feleti Barstow Public Library (State library), the public and private school libraries and libraries within government departments.

Figure 2.34 The Feleti Barstow Public Library



The Feleti Barstow Public Library, situated adjacent to the American Samoa Government Executive Office Building in Utulei village, was opened during Flag Day celebrations in April 2000 as a replacement for the previously delapidated State library. The new 12,000 square foot library houses the features of a modern library including the Pacific Collection and a media center where computers are available to the public for Internet usage.⁷⁴

There are also several libraries that hold special collections in the Territory as well. They are the LBJ Tropical Medical Center, the High Court, the Fono, the Jean P. Haydon Museum and the ASG Archives.

The State Library places great emphasis on telecommunications for the present and future. The library is a participant in the State E-Rate program which allows educational institutions a ninety percent discount on Internet access and usage. The State library currently provides eighteen Internet ready computers, fifteen of which are available in its media center for public access and information research.

The American Samoa Community College Library is located at the site of the community

college in Malaeimi and serves the needs of forty-five faculty members and 1,200 students with about 22,000 volumes.⁷⁵

The combined public and private school libraries total thirty-three in number, of which there are fifteen libraries with a full-time staff. Of the public school libraries, for which inventory data is available, there are approximately 20,000 volumes of reading material available.⁷⁶

2.4.5 Health and Well-Being, Medical Care

In 2001, every man, woman and child has access to basic essential health services in American Samoa. The Department of Health, which operates five regional clinics in the Territory, and the American Samoa Hospital Authority provide all essential public health functions. There are no private pharmacies or clinical laboratories, and only one physician's office and one dentist operate privately in American Samoa.

Although the Territory of American Samoa is designated a Health Professionals Shortage Area (HPSA) and a Medically Underserved Area (MUA), using Federal criteria, the health care compares favorably with other Pacific island

Figure 2.35 American Samoa Medical Center



jurisdictions.⁷⁷

The health and well-being of the populace has been improved over the last two decades. Serious, debilitating diseases, like polio are no longer existent in American Samoa. Small pox has been entirely eradicated and childhood immunization makes infectious outbreaks of

diseases like mumps and chicken pox unlikely. Maternal mortality is rare, infant mortality has been significantly reduced, and life expectancy has moderately increased. In essence, the Territory of American Samoa is one of the healthiest areas of the Pacific Region.⁷⁸

Despite improvements as a result of vigilance, new technologies and improved care, some diseases still persist, while newly emerging infectious diseases and bacteria appear with resistance to medication. HIV cases have been confirmed recently in American Samoa and the chronic diseases of diabetes mellitus, heart disease and stroke, cancer, high blood pressure and mental health problems are still of significant concern to the health system.⁷⁹

Six of seven deaths in American Samoa are caused by an unhealthy lifestyle. Contributions to health problems include smoking, (twenty-seven percent of the population are smokers) and poor diet (as sixty-five percent of men and seventy-six percent of women have been defined as obese in a 1994 study). Obesity closely correlates with non-insulin dependent diabetes and fifteen percent of the population is diabetic.⁸⁰

The American Samoa Medical Center continues to meet US 'minimum acceptable standards' of health care quality as warranted by 'medicare certification.' The Medical Center offers a comprehensive range of inpatient and outpatient acute care, 24-hour emergency services, an ENT Clinic (ear-nose-throat), renal dialysis, an OB/GYN Clinic (Obstetrics and Gynecology), internal medicine and pediatrics care.⁸¹

The Medical Center has a U.S. certified clinical laboratory, diagnostic imaging, a CATscan, tele-medicine capability, a hospital medical staff of forty-five doctors, twelve dentists and twenty dental assistants. However, it attempts to cope with a shortage of registered nurses.⁸²

2.4.6 Social Conditions and the Delivery of Social Services

American Samoa is in a unique period of transition in family and village life that has direct

application to efforts in the service delivery of social service programs.

As with other Pacific Island cultures, the transition involves the complex effects of modernization. There are several relevant influences. Well educated Samoans, and those that are returning from living overseas bring a more modern or Western orientation back with them. They face the challenge of accommodating their 'off-island' ways with the more traditional customs and mores practiced in Samoa. On their own, they will help practices to change blending the 'old' with the 'new' ways of social interchange.

Other influences challenge the basic tenets of the Samoan culture as it moves into the Twenty First Century. These are in socioeconomic status, the lack of supervision for children and youth due to working or absent parents, and the introduction of high-risk behaviors, e.g., crime, alcohol and drug abuse.⁸³

Some progress has been made in social service delivery over the last several years. They include:

- increased health and well-being of the elderly; blind and disabled; and pregnant breastfeeding and non-breastfeeding postpartum women and infants; and children up to five years of age;
- improved outcomes for children and youth through increased community awareness of services especially for child protection and advocacy and child welfare services through outreach and educational activities;
- improved quality of care by child care providers through mandatory training and certification processes and requirements of health and safety; and
- increased staff competency through contracted services of clinical psychologists.⁸⁴

Figure 2.36 Department of Human and Social Services



2.4.6.1 Children, Youth and Adult Assistance

Families in American Samoa are beset by similar problems as found on the U.S. Mainland. There is adult and juvenile crime, family violence, and child and abuse and neglect. There was a fifty-seven percent increase in adult assault offenses for the years 1994 - 1996. Juvenile assault offenses increased by thirty-five percent in the same period. Adult offenses against family and children for those years increased by forty percent. Sex offenses increased by one hundred twelve percent. For youth, disorderly conduct increased by one hundred and fifteen percent.⁸⁵

No single influence alone can account for the problems that have arisen in American Samoa in the last ten years. High-risk behaviors, such as crime, illegal drugs, and family violence have increasingly strained the usual pathways through which Samoa families resolve their problems.⁸⁶

In addressing the needs of the community, the Social Services Division of the Department of Human and Social Services has served as the umbrella agency since 1997 for the delivery of services. It provides a broad range of important social service programs to the needy of the community. They include:

- Child Protective Services (CPS) to provide protection and intervention services for minors at-risk of suffering abuse or neglect;

- Adoption Program to conduct screening of parents to assure a safe homes;
- Foster Care Program to provide to recruit and certify of potential foster care providers and place children in a stable environment;
- Crisis Line Program to provide immediate crisis counseling for emergency referrals;
- Shelter Program to provide temporary, safe, emergency shelter and support services to children, individuals and families;
- Spouse Abuse Program to provide counseling to victims of spouse abuse and to provide them referrals for legal consultation; and
- Counseling Services Program to provide individual or group counseling of all ages undergoing risk of child abuse, family conflicts, and a wide range of problems.⁸⁷

2.4.6.2 Care of the Elderly

In 1970, only three and eight tenths of the population was sixty years of age or older. Twenty years later, in 1990, the population appeared to be aging as five and four tenths percent of American Samoa's population was sixty years or older. When the 2000 Census data is released, it is expected to show more people living longer. This is to be expected as health care has improved.⁸⁸

Parallel to the increase in the number of seniors, but unrelated to the increase, is a perceived shift in how some elders are cared for by their families. In traditional Samoan society, the extended family cared for their elderly without outside assistance. But that model may be changing in modern American Samoa society as it is possibly becoming more difficult to work in the economy and care for the elderly at the same time.

When the Catholic Diocese of Pago Pago first opened a Nursing Home facility (Nazareth House) twenty years ago, few if any families placed elderly members of their family in the facility, but now there is a waiting list.⁸⁹ However, this trend may represent the knowledge that

sickly elders may best be served in such a care facility.

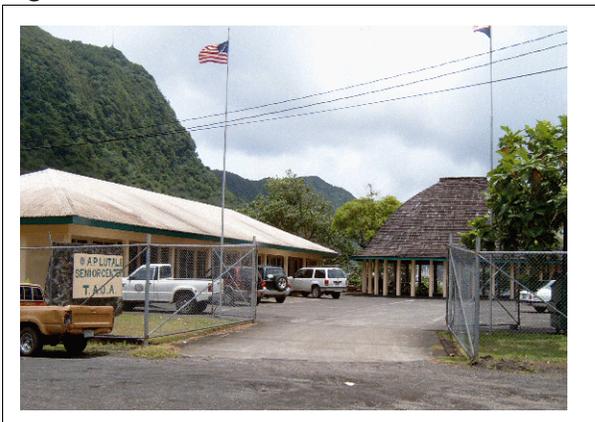
Figure 3.37 Nazareth House



The Nazareth House is also supported by funding from the Developmental Disabilities Council to care for the developmentally disabled which includes children and youth.

Additionally, the Territorial Administration on Aging (TAOA) is reporting as many as ten cases of elderly abuse per month and has defined a need for a shelter for abused elders. For many, this is a profound example of something going dreadfully wrong in the society.⁹⁰

Figure 2.38 A.P. Lutali Senior Center



TAOA normally provides assistance to anyone over the age of sixty with the maintenance of: the Nutrition and Services Program by providing food to the needs; the Health and Care Program by providing

examinations and nurse visits; and by assisting with procuring temporary employment.

2.4.6.3 Youth Programs

The majority of youth programs are to be found with the churches, but the Department of Youth and Women's Affairs has been established to assist them in their needs and development. The department is reasonably new and it has been focusing on workshops, conferences and seminars to orient and educate youth about empowerment, employment and sexual health. The department is also interesting in developing youth programs for recreation to keep youth out of trouble and acting positively. It also sponsors events like youth festivals for cultural awareness.⁹¹

2.4.6.4 Federally Funded Food Assistance

Due to the low income levels in the Territory, all children attending public school in American Samoa are eligible to take part in the USDA School Lunch program. The Territory receives about \$7.5 million annually to provide free school breakfasts and lunches to pre-school and elementary school children.

Other federally funded food supplement programs, i.e., the Food and Nutrition Services program (food stamps) and the Women, Infant and Children's Program (WIC), provides up to \$5.3 million worth of food assistance for low-income mothers, expectant mothers, children under six, the disabled and the elderly.⁹²

2.4.7 Outdoor Recreation

Besides family and church, recreational activities and sports occupy an important role in the lives of many American Samoans. They are, in general, enthusiastic and accomplished athletic competitors. Organized recreational sports is a focus for individuals, schools, churches, youth groups and villages.

A few Samoans have parlayed their natural abilities into lucrative professional careers, while a larger number have had stellar careers in college. They had the opportunity to be exposed to more advanced and intense coaching,

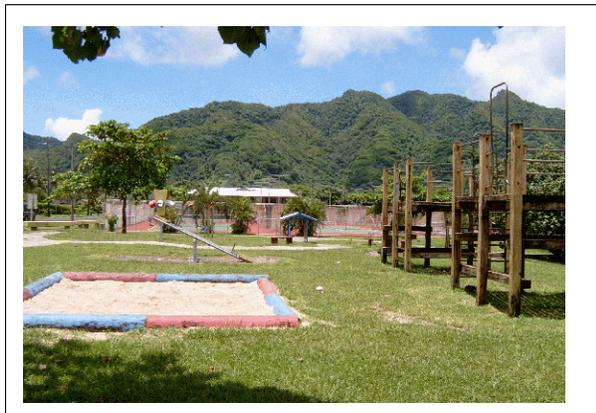
competition and facilities that are generally not available in American Samoa.

Figure 2.36 Veteran's Stadium



American Samoa does not lack for recreational activities. However, there are some important indoor facilities missing and the quality of outdoor recreational infrastructure may not be up to standards in many venues. This is more a result of lack of funding to create the facilities than interest in maintaining them.

Figure 2.37 Lions Park Childrens Playground and Tennis Courts



The Department of Parks and Recreation is responsible for the upkeep and development of public recreational areas and facilities in the Territory. There is, or are:

- eight small Territorial parks or recreational areas on Tutuila which are generally situated along the shoreline and are suitable for family outings;

- two parks with tennis courts;
- one outdoor track and field stadium, with a football field;
- one softball and baseball field complex with seating; and
- one 18-hole golf course.⁹³

The Territory is missing an indoor sports complex that could include an indoor basketball court with seating, an Olympic size indoor swimming pool with seating and other facilities for general use and to support the South Pacific Games and various other Territorial and regional events.

The Department of Parks and Recreation sponsors organized departmental and community recreational programs, e.g. volleyball, softball, boxing and junior golf. The department is also involved with the preparation for cultural events which occur during Flag Day and at Christmas.⁹⁴

In addition to the facilities that are maintained by the Department of Parks and Recreation, several high schools have covered recreational facilities, although there are not enough recreational facilities at each school to satisfy the demand for use.

There are also private enterprises and clubs for recreation. There are several tennis clubs, gyms to work-out, and squash courts, and a new bowling alley under construction. Sidewalks along new roadways in Tafuna and the Office of Motor Vehicles test track have become popular walking paths for exercise, in addition to the beaches.

2.4.8 Law and Order

Law and order is the responsibility of the traditional culture, the High Court and the Department of Public Safety. Violations of village codes and regulations are handled by the village matai. More serious violations are handled by the police and the courts, if they reach the point of a police report and are not resolved by the village authorities.

**Figure 2.41 Department of Public Safety
Headquarters**



There is a lack of data to show how often violations occur in villages or how effective the traditional system is at handling violations or invoking penalties. In recent years the trend in total crimes has dropped, as reported by the Department of Public Safety, though as reported in the social services section, crimes against family members appear to be on the increase.⁹⁵

Crimes of passion often end up in court and the government's Public Defender is called upon to represent the offenders. Serious offenses result in offenders being confined to the local prison. The facility was thoroughly run-down by 1999. Prisoners rioted in 1999 and burnt several cell blocks over the conditions. The cell blocks were renovated and are now more habitable.

If the offenders are youths, they are housed in a new Juvenile Detention Facility.

The Department of Public Safety has three divisions: Police, Fire and Corrections. The department has been fortunate in recent years to have received funding from the Federal government for various improvements other than for correctional facilities. They are:

- renovations to the Fagatogo Fire Station, the only fire station in the Territory; construction of the Faga'itua Police Substation; and
- renovation of the administration building to house the Residential Substance abuse Treatment Center for inmates.

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