



# ECONOMIC

## 2.1 INTRODUCTION AND ANALYSIS

The development of sound public policy requires an understanding of the economic factors affecting the planning area or region. Such factors are largely responsible for growth or lack of growth, and any planning effort which does not take them into account cannot be very effective. In varying degrees the other elements of the planning process are affected by the local economy.

Population usually settles, expands or declines within a given area in some correlation to economic opportunities or the lack of them. Besides affecting the number and density of population, economic activity has a direct bearing on income level, which to a certain extent determines the standard of living of the individual.

Different types of employment influence the social character of communities. The size and character of a community will define its need for housing, transportation, public utilities and facilities, special combinations of land use, recreation, and other forms of public and social services and facilities. Economic studies are thus one of the necessary first steps in developing plans for public and private actions.

Government has responsibility to identify, understand, forecast, protect and promote local economic sectors and to balance economic growth with desired environmental, social and other objectives of the community. Government has many policy instruments available to influence and guide developments, investment, and operation of private and public interests.

The economy, however, should not be considered as the primary focus of the General Plan. The planning process is geared towards the achievement of a higher quality of life for the residents of the County. Working towards the goals, policies, and standards of the economic element are only one aspect of accomplishing this desired end.

The island offers several amenities conducive for economic growth. Many of these are natural amenities such as a favorable and equitable climate, scenic vistas, high mountains, deep ocean, active volcanoes, large land areas, and an environment generally free of pollution.

Despite these amenities, there have been a number of problems that have limited the growth of the island. Most imported goods must be transshipped through Honolulu. The

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distances from the population centers of Honolulu, the mainland, and other major markets have limited the growth of export products from the Big Island. Products that are unique and/or have high value (such as macadamia nuts, flowers and nursery products, coffee, and papaya) have been successfully exported.

As the County's population and its tourism industry grow larger and the export volume increases, more favorable rates on overseas carriers may be instituted.

The relatively small population in the State, coupled with the distance to mainland markets, creates a disadvantage for local businessmen. The size of the State's population does not allow for efficient operations, and when exportation is considered in order to expand a particular market, the entrepreneur is faced with high transportation costs.

Natural disasters, such as tsunamis, volcanic activity, flooding, and droughts, are events that have and continue to shape the economic development on this island. For example, while volcanic activity has destroyed homes and historic features, it is also the County's largest single tourist attraction. In addition to actual physical damage, the fear of the recurrence of natural hazards presents a psychological barrier for investment. Measures to protect life and property have been planned and instituted throughout the County. Further hazard mitigation measures are reported in this plan.

The economy of the County has experienced significant changes over the past three decades since the adoption of the County's first comprehensive General Plan in 1971. Sugar cultivation was the leading agricultural activity during the 1970s and early 1980s. The latter half of the 1980s and throughout the 1990s saw the decline and eventual demise of the sugar industry on this island. Tourism replaced sugar as the County's primary economic generator during the mid-1980s and saw its peak visitor arrival numbers in 1989. Since 1990, external factors such as the Asian economic crisis, the Persian Gulf War, and a brief economic downturn in the U.S. Mainland have contributed toward the State continuing in a protracted economic doldrum. Nevertheless, the County was still successful in attracting several world-class events and saw the completion of several major projects including the opening of the 351-room Hapuna Beach Prince Hotel and the 243-room Hualalai Resort, the start of direct national and international flights to Kona, the filming of the movie *Waterworld*, and the arrival of the PGA Seniors MasterCard Tournament of Champions at the Hualalai Resort and Golf Course.

### **Agriculture**

Agriculture currently constitutes a major economic sector of the island of Hawaii. Including processing, the agricultural industry accounts for about 9.5 per cent of the island's employment. Local agricultural pursuits include the raising of cattle and other

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livestock, the growing of coffee, macadamia nuts, papaya, flowers and nursery products, vegetables, aquaculture, forestry and several processing plants that utilize locally grown products.

Some large corporate agricultural ventures such as macadamia nut plantations, operate on the island. However, diversification of the industry has led to smaller operations producing an ever increasing array of fresh vegetables, fruits, forestry, and aquaculture products.

Hawaii County accounts for approximately one-third of the fresh vegetables produced in the State of Hawaii, over half of the beef consumed, one-third of the coffee grown, most of the macadamia nuts, and varying percentages of the other crops and livestock. The total value of agricultural marketing declined approximately 20 per cent between 1985 and 1997. The number of farms and livestock operations during this same period increased from 2,650 to 3,319 operations. Acreage in farms, however, declined 57 per cent between 1985 and 1997. Agriculture has shown substantial growth on the island. The island accounted for 55 per cent of the crops in the State in 1997 while livestock on the island accounted for 18 per cent of the State total. While the County's share of statewide agriculture production has remained relatively constant, its livestock production has been steadily declining since peaking in the late 1980s. Much of this decline can be attributed to the closing of all feedlots within the State by 1993 due to the high cost of importing feed. Approximately 90 per cent of all beef cattle are now exported to mainland feedlots to be "grain-finished" before slaughter. New ventures in forestry and aquaculture have expanded opportunities and show promise for the future.

One of the most pressing problems faced by today's agricultural industries is their ability to attract labor. Agriculture is facing increasing competition for labor from other sectors of the economy, such as the visitor, retail and construction industries. There is also a demand for a greater number of personnel with technical and professional agricultural training. A related problem is the housing shortage for both minimum wage and seasonal labor.

Competition from urban uses for agricultural lands has intensified. The protection of important agricultural lands, however, has long been a policy of the County.

The relatively small population of the State and its isolation from overseas markets are limiting factors for the production of agricultural products for local consumption and export. The State Department of Agriculture, the Department of Business, Economic Development and Tourism, the University of Hawaii - College of Tropical Agriculture, and the County have programs to assist the industry.

The opportunities for the expansion of agriculture on the Big Island seem to be immense. The demand for fresh, locally grown products continues to grow as restaurants,

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grocery stores and hotels seek the highest quality products for their guests. Export products grown mostly on the Big Island, such as coffee, papaya, macadamia nuts, and flowers, also continue to expand. These commodities and others, such as ginger, guava and other tropical fruits, have potential for growth. There are also new high value crops which have the potential to be successfully cultivated. One such high value crop is Kava (Awa), a medicinal plant which has the potential to be a viable cash crop. Locally, small growers as well as a few large growers are producing Kava. Vanilla bean, cacao, nutraceuticals, hard wood forestry products, and medicinal plants are other types of high value crops that hold much promise for growth.

The expansion of the agriculture industry can also be measured by the success of overcoming some of the restrictive governmental regulations that prevent many locally grown products from being exported to domestic or foreign markets. Concerns regarding the transmission of plant pests and diseases during export have or could be adequately addressed by current treatment or processing technologies. The development of new protocol and processing facilities for quarantine treatment will assure the further expansion of the agricultural industry.

In order for Hawaii's cattle industry to strengthen, new techniques need to be developed for raising forage-finished cattle to compete in the marketplace with grain-finished cattle. Hawaii cattle will then be able to finish grazing on island pastures and remain for consumption within local markets. Local producers also need to find new venues such as processed meats and pre-fabricated meals to market locally raised cattle. By creating a market niche for forage-finished beef, ranchers will be able to keep cattle in Hawaii, increasing production weights and revenues for the State economy.

### **Forestry**

As one of the most heavily traded commodities on the global market and the tenth largest industry sector in the world, forest products grown in Hawaii may be able to capitalize on its central Pacific location, excellent growing climate, and the availability of vast expanses of former sugar lands. Hawaii's growth rates for forest products are among the fastest in the world. As a result, at least 24,000 acres are now being cultivated for eucalyptus production, with thousands of additional acres being planned. Dozens of landowners within the County are currently involved with the commercial production of forest products, both eucalyptus and higher value hardwoods such as toon, maple, and koa. A 1981 State Division of Forestry and Wildlife study identified approximately 80,000 acres of former sugarcane land as ideal for the establishment of a forest plantation. An additional 100,000 acres of pasture and brush lands were identified for longer-rotation forest plantations. The study concluded that there are ample lands available on the island to establish a forest plantation industry.

## Fishing and Aquaculture

Fishing and aquacultural activities are also basic economic sectors. The commercial fishing industry on the island accounted for \$6,100,000 in 1997 and remains the second largest commercial fishing producer in the State. The County's commercial fishing industry has shown a stable catch and poundage sold during the past five years ending in 1998. This stability in the local fishing industry is expected to continue for the foreseeable future.

The deep cold coastal waters off Keahole Point are nutrient rich and pathogen free. The Natural Energy Laboratory of Hawaii Authority (NELHA) is a State-funded facility located on 870 acres of land at Keahole, North Kona. The facility provides support for various research, commercial and educational programs that seek to locate at the Natural Energy Laboratory of Hawaii Authority project site to take advantage of its unique resources, including its cold, nutrient-rich ocean waters and high solar insolation. Microalgae, lobsters, abalone, ornamental fish and other sea vegetables and animals are grown at Natural Energy Laboratory of Hawaii Authority.

The Pacific Aquaculture and Coastal Resource Center is a joint effort by the University of Hawaii at Hilo, the County, State and the Keaukaha Hawaiian Homelands Community Association to establish a research and training facility in Hilo for local aquaculture farmers and university students. The center has the capacity to create water of any salinity or temperature necessary to raise fish. Operation of this center is expected to generate approximately \$650,000 annually to the local economy. Value added benefits are expected to add another \$3,000,000.

Aquaculture operations County-wide have grown from eight operations in 1982 to forty-three in 1996. During this same period, annual revenues have grown from \$90,600 to \$13,200,000. The County accounts for 37 per cent of the total aquaculture operations within the State but accounts for over 80 per cent of the total production and over 84 per cent of the production value. While most of the production from aquaculture farms is now sold locally, there are large markets overseas that these producers would like to tap. To assist the export of products overseas, the State has an Aquaculture Development Program (ADP). This organization provides a variety of support services to the aquaculture industry, such as information dissemination, business counseling, marketing, animal health management, and research and development funding. The key to the future growth and success of the aquaculture industry in the County is the ability of Natural Energy Laboratory of Hawaii Authority to obtain funding to increase the flow of deep sea water to its facilities and tenants and the expansion of its support facilities. These improvements will encourage longer residency at the facility by its current tenants as well as attract additional projects.

The Federal government has shown its support of Hawaii's aquaculture industry by approving \$9,000,000 for Hawaii aquaculture initiative in July 1997, of which

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\$1,600,000 has been appropriated for Tropical Aquaculture Research. In addition, the venture capital partnership HMS Hawaii Management Partners announced in December 1998 their commitment to contribute up to \$10,000,000 to help island entrepreneurs finance their aquaculture operations.

### **Manufacturing**

Congress recently funded construction and committed to staffing the USDA's ARS (Agricultural Resource Services) Pacific Basin Agricultural Resource Center in Hilo. The purpose of the facility is to improve the well-being of Hawaii and the Pacific Basin by strengthening the agricultural sectors, fortifying small farm profitability and sustainability by increasing efficiency of farming practices, identification of preservation and improvement of germplasm adapted to island environments, the development of pest controls and post-harvest technology, and increasing the value of products through the development of value added processing.

Other manufacturing activities are service-oriented, such as bakeries, printing and iron works. These operations are usually located close to population centers or transportation facilities.

### **Visitor Industry**

Tourism became the primary economic generator in the County during the 1980s. From 1982 to 1990, visitor arrivals grew at an average annual rate of 5.66 per cent. Visitor arrivals started to decline in 1991 due to recessions in the United States and Japan and the advent of the Persian Gulf War. These external events impacted visitor arrivals until 1996, when direct flights from Japan to Kona International Airport at Keahole were initiated. In the eight years ending in 1998, the annual visitor arrival growth rate was 1.18 per cent, much less than the previous eight years.

The growth of Hawaii County in terms of employment, population, income and economic activity during recent years has been more closely tied to the visitor industry than any other sector of the economy. Employment opportunities spurred by the growth of this industry has been the catalyst for economic growth in the County. As tourism became the primary economic generator during the 1980s, a shift in employment from the non-service to the service industry sector was evident. In 1980, the service industry accounted for approximately 60.6 per cent of average employment, rising to 71.3 per cent in 1990 and 78.5 per cent in 1997. The County experienced the largest growth in hotel job count statewide with an average annual growth rate of 5.2 per cent between 1981 and 1997.

The principal visitor destination area of the Big Island is the South Kohala-North Kona region in West Hawaii. The single most popular attraction is Hawaii Volcanoes National Park.

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The island continues to attract substantial investor interest in the visitor industry. Various resort and resort-residential complexes are currently under construction or are planned for construction in the near future. Most of these developments are concentrated in West Hawaii in the Kohala and Kona Districts, which will continue to accommodate the majority of the visitor market within the County. Visitor accommodation units within the County totaled 9,655 units in 1998, up from 8,952 units in 1990. Bed and breakfast units, although not a significant part of the total visitor unit count, have been the fastest growing segment of the industry, growing from 55 units in 1990 to 171 units in 1998. Historically, the County records the lowest visitor unit occupancy rates of all the major Hawaiian islands. Only in 1998 did the County's occupancy rate finally surpass that of Kauai.

Continued investor interest in resort and resort-residential development in the County suggests an economic future that promises new jobs and more commercial, recreational, and cultural activities. Along with these promises of a "better" life is the realization that the visitor industry is sensitive to exogenous factors, such as the national economy. High quality development, however, seems less subject to these factors. The key to orderly growth lies in proper planning and controlled development.

The cruise ship industry is a potential growth area for the County. In recent years, the total number of visitors to the County from cruise ships has increased substantially from 124,000 in 1997 to 184,000 in 1998. Based on 1998 visitor counts, cruise ship visitor annual expenditures are estimated to range from \$16,000,000 to \$23,000,000. Cruise ship visitors are expected to continue to increase in the future due to the recent resurgence and popularity of this industry along with the projected construction of additional cruise ships.

The County's natural beauty, historical and cultural attributes and its numerous educational institutions and programs lend themselves to provide the catalyst to allow new niche markets to flourish. Niche markets for the County's visitor industry, such as ecotourism, health and wellness tourism and educational tourism, have growth potential. The health and fitness resources of the various luxury hotels look towards health and wellness tourism as one of its target markets. The expansion of tourism should include careful planning to identify, promote and preserve the island's unique resources.

### **Research and Development**

Hawaii County has participated in the research and development industry through the Mauna Kea and Mauna Loa Observatories, the University of Hawaii Cloud Physics Laboratory, Hawaii Volcano Observatory, and various agricultural research centers. The University of Hawaii at Hilo has and will play an increasingly important role in this community. The university complex itself is an important economic force. The University of Hawaii at Hilo's Long Range Development Plan (1996) envisions a tar-

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get enrollment of 5,000 full-time equivalent (FTE) students by 2025, or roughly twice the 1995 enrollment. The plan outlines the program and facilities requirements necessary to accommodate the projected growth in enrollment.

The Natural Energy Laboratory of Hawaii Authority (NELHA) at Keahole, North Kona is currently involved in research and development in energy, materials and aquacultural projects. Hawaii Ocean Science and Technology (HOST) park, an integral part of the Natural Energy Laboratory of Hawaii Authority, is located adjacent to NELHA and is being developed for similar projects on a commercial scale.

The County is also participating in the development of the Pacific Aquaculture and Coastal Resources Center at Keaukaha, South Hilo for research in the spawning activities of several fish species and providing a research and training facility for university students and local farmers. The USDA's PBARC facility will bring substantial research resources to Hawaii.

The summit area of Mauna Kea has the worldwide distinction as the best international center for observational astronomy. Mauna Kea currently accommodates twelve of the world's most state-of-the art telescope facilities. The newest telescope is the \$300,000,000 Subaru telescope developed by the National Astronomical Observatory of Japan. The recent completion of the University of Hawaii-Hilo Institute of Astronomy complex at University Park will support the relocation of the Institute of Astronomy staff from UH-Manoa to UH-Hilo. The UH-Hilo is also working to offer a Bachelor of Science degree in astronomy to allow observatories to hire local astronomers. Approximately \$619,000,000 of capital investments into the County have been made by the astronomy industry, including the creation of approximately 270 permanent jobs. Astronomical activities contribute approximately \$50,000,000 annually to the County's economy.

Military presence within the County is represented by the United States Army. The U.S. Army operates a field training facility at the Pohakuloa Training Area on Mauna Kea and a recreational camp at the Kilauea Military Camp-Joint Services Recreation Center located within the Hawaii Volcanoes National Park. Permanently stationed military units are not located on this island. The Department of Defense appropriated direct expenditures or obligations of \$37,800,000 within the County in 1997, an increase of 84.4 per cent over 1987 appropriations. However, the Federal government's downsizing and restructuring of the U.S. military may eventually lead to base closings. As a result, military activities may not be a major economic sector in the foreseeable future.

## Secondary Industries

Secondary industries, such as government, construction, trades (retail and wholesale), utilities, financial institutions, and professional services are most often located close to population centers. Population usually locates close to employment centers that, in turn, are based on primary income generators, such as tourism or agriculture. Major transportation facilities also attract secondary industries.

Annual employment in the secondary industry between 1980 and 1990 increased a healthy 4.54 per cent. Latest census information from the State Department of Labor and Industrial Relations reveal that employment within the secondary industry between 1990 and 1997 increased by only 1.2 per cent annually, a dramatic slowdown in the growth of employment within the secondary industry due to the protracted growth of the local economy. The secondary economic sector employment accounted for 67.8 per cent of the County's workforce in 1997, compared to 69.7 per cent in 1990 and 60.5 per cent in 1980.

The largest secondary employment sector is the wholesale and retail trade, which reported the greatest percentage gain in average employment of 78.6 per cent between 1980 and 1990, but a mere 2.8 per cent between 1990 and 1997. The services sector has replaced the government as the second largest secondary economic sector in the County.

The major governmental, service, commercial, transportation, and educational center on the island of Hawaii is the city of Hilo. Of the island's population, approximately 30 percent reside within the city limits. Key to the growth of the city has been its transportation facilities. Until Kawaihae Harbor was constructed on the west coast of the island, Hilo Harbor was the only deepwater port in the County. The Hilo International Airport has been improved to accommodate larger aircraft while Kona International Airport at Keahole has been receiving direct national and international overseas flights.

The future economic outlook for the County is uncertain due to the state of foreign economies and its impact on tourism. Tourism is expected to continue as the primary economic generator in the near term. As a result, the services industry is expected to also be a dominant factor in the future of the County.

The County's vast quantity of natural resources and land will support the future growth of the County's non-service industries, especially agriculture. The willingness of the County and its residents to innovate and expand into new fields of industry will help the future expansion of the entire economy. As the primary sectors of the economy expand, the expansion of the secondary economic sectors will follow accordingly.

## **Enterprise Zones**

The Hawaii Enterprise Zone (EZ) program is a partnership between State and County governments and the private sector to stimulate, via tax and other incentives, certain types of business activity, job preservation, and job creation in areas most appropriate or needed. To be eligible for EZ benefits, at least half of a firm's annual gross income must be derived from one or more of the following activities – agricultural production or processing, manufacturing, wholesale/distribution, aviation or maritime repair/maintenance, telecommunications switching and delivery systems, information technology design and production, medical research/clinical trials/telemedicine or for-profit training programs in international business management or environmental remediation. Within the County of Hawaii, businesses that satisfy all of the requirements will qualify for the following tax benefits for up to seven consecutive years: 1) 100 per cent exemption from the General Excise Tax (GET) and Use Tax every year (contractors are also exempt from the GET on construction done within an EZ for an EZ-enrolled business); 2) an 80 per cent reduction in State income tax the first year (this reduction goes down 10 per cent each year for six more years); 3) an additional State income tax reduction equal to 80 per cent of annual Unemployment Insurance premiums the first year (this reduction goes down 10 per cent each year for six more years); and 4) a three-year exemption from any increase in County property taxes resulting from new construction in an EZ by EZ-enrolled businesses.

Within the County of Hawaii, Enterprise Zones have been established within portions of the Hilo, Hamakua, North Kohala, North Kona, South Kona and the Ka'u districts. In 1999, there were approximately 40 EZ-enrolled businesses located throughout the island.

## **Employment**

Employment opportunities have increased by over 22,700 jobs from 1970 through 1997. The 1980s saw employment grow at an annual compounded growth rate of 3 per cent. From 1990 to 1997, employment grew at an annual compounded rate of only 1.61 per cent, a reflection of the County's recessionary economy during this period. Employment in secondary industries also expanded. The largest employment decrease was in the sugar industry which saw the closing of the island's last sugar processing facility in 1997.

Unemployment rates during the 1980s and 1990s followed a similar trend as employment. Unemployment rates dropped drastically from 1980 to 1990 (6.2 per cent to 3.8 per cent, respectively) due to the County's strong economy during this period. As the economy slowed during the 1990s, unemployment increased to 10.2 per cent by 1997. For 1997, the districts of Puna and Ka'u experienced the highest unemployment rates at 15.6 per cent and 14.8 per cent, respectively.

The following table depicts the shifting of employment between the major sectors of the County's economy. It indicates that the County's economy has shifted from an economy dominated by agriculture in 1960 to a more diversified economy with a significant service-oriented component.

**Table 2-1. Employment by Major Economic Sector, 1960-1997**

	1960	1970	1984	1997
Percent Employed in Hotels	2.2%	6.0%	9.0%	13.4%
Percent Employed in Other Services	5.4%	6.9%	10.2%	17.5%
Total Service Employment	7.6%	12.9%	19.2%	31.0%
Percent Employed in Agriculture	27.0%	20.0%	14.7%	9.5%

Estimates - County of Hawaii Planning Department

Per capita income in the County grew at an annual compounded rate of 5.18 per cent during the 1980s and 2.91 per cent through 1996. The increase during the 1980s are reflective of the strong economic conditions that existed at the time with a corresponding decrease in per capita income growth during the recessionary periods of the 1990s. Median household income also increased at a healthy rate from 1980 to 1990, increasing from \$16,975 to \$29,712 at an annual compounded rate of 5.76 per cent. During this period, every district within the County also recorded increases in median family household income with the greatest increases occurring in the districts of South Kohala and North Kohala (8.43 per cent and 8.29 per cent, respectively).

According to statistics from the State Department of Labor and Industrial Relations, there has been a shift in employment trend from the non-service industry to a dominant service industry within the County. In 1980, service industries (wholesale/retail trade, finance, hotels, etc.) accounted for approximately 61 per cent of the private industry workforce and 49 per cent of the total wages earned. By 1997, the service industries dominated the private industry, accounting for approximately 79 per cent of the total workforce and 74 per cent of the total wages earned. This shift in employment trends has significantly changed the economic make-up of the County as workers have in-migrated to the Big Island to meet the demands of employment growth in the service industry, which is primarily fueled by the tourism sector. Additionally, non-service industry workers, primarily in agriculture, adjusted and shifted to new employment opportunities in the service industries as agricultural jobs dwindled.

Upon completing high school, an increasing proportion of the County's youth have pursued higher education. However, despite this trend, there is still scarcity of employment opportunities for the college-educated who desire to return to the island.

## Population

The population of Hawaii County has grown steadily since 1980. According to the 2000 U.S. Census, the County’s population increased 23 per cent between 1990 and 2000. During the same period, the State’s population grew by 9 per cent. The district of Puna saw the largest increase at 51 per cent, followed by South Kohala (44 per cent), North Kohala (41 per cent), Ka'u (31 per cent), North Kona (28 per cent), South Kona (12 per cent), North Hilo (12 per cent), Hamakua (10 per cent) and South Hilo (6 per cent).

Utilizing Series B, the County’s population is projected to grow 46 per cent to 217,718 from 2000 to 2020. South Hilo, currently the most populous district within the County, will be eclipsed by the Puna District in 2020 with an estimated population of 58,246 compared to South Hilo’s 49,791.

**Table 2-2. Projection of Resident Population by District, Year 2000 to 2020 (Series B)**

District	2000	2005	2010	2015	2020
Total	148,677	159,907	176,938	195,965	217,718
Puna	31,335	36,351	42,591	49,801	58,246
South Hilo	47,386	46,273	47,477	48,614	49,791
North Hilo	1,720	1,643	1,720	1,798	1,879
Hamakua	6,108	6,196	6,561	6,933	7,328
North Kohala	6,038	6,622	7,917	9,446	11,273
South Kohala	13,131	15,659	18,184	21,072	24,426
North Kona	28,543	30,467	34,024	37,922	42,275
South Kona	8,589	10,253	11,414	12,681	14,092
Ka'u	5,827	6,443	7,050	7,698	8,408

Economic Assessment, PKF Hawaii, January 2000  
 U.S. Census, 2000  
 Hawaii County Department of Research and Development

The Puna District will continue to experience relatively strong population growth due to the availability of relatively inexpensive lots that were created around the 1960s. The growth of the population in North and South Kohala, North Kona and South Kona are closely associated with the continuing growth of the visitor and agricultural industry within these districts.

## 2.2 GOALS

- (a) Provide residents with opportunities to improve their quality of life through economic development that enhances the County’s natural and social environments.

- (b) Economic development and improvement shall be in balance with the physical, social, and cultural environments of the island of Hawaii.
- (c) Strive for diversity and stability in the economic system.
- (d) Provide an economic environment that allows new, expanded, or improved economic opportunities that are compatible with the County's cultural, natural and social environment.
- (e) Strive for an economic climate that provides its residents an opportunity for choice of occupation.
- (f) Strive for diversification of the economy by strengthening existing industries and attracting new endeavors.
- (g) Strive for full employment.
- (h) Promote and develop the island of Hawaii into a unique scientific and cultural model, where economic gains are in balance with social and physical amenities. Development should be reviewed on the basis of total impact on the residents of the County, not only in terms of immediate short run economic benefits.

## 2.3 POLICIES

- (a) Assist in the expansion of the agricultural industry through the protection of important agricultural lands, development of marketing plans and programs, capital improvements and continued cooperation with appropriate State and Federal agencies.
- (b) Encourage the expansion of the research and development industry by working with and supporting the University of Hawaii at Hilo and West Hawaii, the Natural Energy Laboratory at Hawaii Authority and other agencies' programs that support sustainable economic development in the County of Hawaii.
- (c) Encourage the development of a visitor industry that is in harmony with the social, physical, and economic goals of the residents of the County.
- (d) Require a study of the significant cultural, social and physical impacts of large developments prior to approval.
- (e) Encourage the sustainable development of the fishing industry, various forms of aquaculture, and other fresh and sea water-based activities.
- (f) Support all levels of educational, employment and training opportunities and institutions.
- (g) Capital improvements program shall improve the quality of existing commercial and industrial areas.
- (h) The land, water, air, sea, and people shall be considered as essential resources for present and future generations and should be protected and enhanced through the use of economic incentives.

## §2.3: Policies

- (i) Continue to encourage the research, development and implementation of advanced technologies and processes.
- (j) Support the development of high technology industries.
- (k) Continue to encourage development and utilization of by-products from alternate energy conversion projects.
- (l) Identify and encourage primary industries that are consistent with the social, physical, and economic goals of the residents of the County.
- (m) Encourage active liaison with the private sector with respect to the County's requirements for establishing businesses on the island.
- (n) Encourage the development of the retirement industry.
- (o) Promote a distinctive identity for the island of Hawaii to enable government, business and travel industries to promote the County of Hawaii as an entity unique within the State of Hawaii.
- (p) Identify the needs of the business community and take actions that are necessary to improve the business climate.
- (q) Support research and development that would lead to the removal of marketing restrictions on Hawaiian fruits and other perishables.
- (r) Assist in the development of a film and video industry program to market Big Island sites and coordinate film and video activities on the Big Island.
- (s) Assist the further development of agriculture through the protection of important agricultural lands.
- (t) Assist in the promotion of the agriculture industry whose products are recognized as being produced on the island of Hawaii.
- (u) Encourage the establishment of open farmers markets to allow local agricultural producers to market their products.
- (v) Assist in cooperative marketing and distribution endeavors to expand opportunities for local agricultural products for export as well as to the local market.
- (w) Encourage the further development of the overseas capacity of Hilo International Airport for the exportation of agricultural crops.
- (x) Encourage the health/wellness industry.
- (y) Encourage new industries that provide favorable benefit-cost relationships to the people of the County. Benefit-cost relationships include more than fiscal considerations.



## §2.4.1: Puna

crease. The County also produces most of the State's bananas, with the Puna district accounting for a large percentage of production. The banana industry in Puna is expected to grow at a moderate rate.

Geothermal resource utilization is a small part of the existing economy of Puna. Future expansion of the geothermal industry within the district is promising.

Except for the Kulani Prison project, there are no major government installations in the Puna district.

The Kamehameha Schools East Hawaii Campus opened in the Fall of 2001. The campus will be able to accommodate an overall student population of approximately 2,300 students in grades K-12, and become a major employment generator in the Puna District.

The visitor industry has very little visible effect on the Puna district other than some roadside stands and a few visitor accommodations, such as bed and breakfast and vacation-rental operations. There are a number of visitor attractions frequented by tourists, such as the lava-inundated former Kaimu Black Sand Beach area, portion of the Volcanoes National Park, and the Painted Church.

Puna's population will probably continue to grow at a rapid rate. The major sector of its economy will continue to be agriculture, such as papaya, macadamia nuts and flowers. However, there are several problem areas that have already been mentioned as well as others such as capital requirements that have to be overcome for expansion. There is also potential for a limited amount of visitor facilities in the form of small accommodations and support facilities, such as recreational areas, botanical parks, and others. Puna also will continue to serve as a residential area for people working in Hilo.

### 2.4.1.2 Courses of Action

- (a) Assist the further development of the agricultural industry by providing support services to commodity groups and other organizations such as farmer's cooperatives, protecting important agricultural lands, and requesting and providing necessary capital improvements.
- (b) Resort growth should enhance and be in keeping with the area's rural character.
- (c) Assist the fishing industry through a cooperative effort with State and Federal agencies.
- (d) Support the development and utilization of geothermal resources and by-products consistent with the environmental, social, economic and other goals expressed elsewhere in the General Plan.

## 2.4.2 South Hilo

### 2.4.2.1 Profile

Population	1980	1990	2000	1980-90 % Change	1990-00 % Change
South Hilo	42,278	44,639	47,386	5.6	6.2

Economic Assessment, PKF Hawaii, January 2000  
U.S. Census, 2000  
Hawaii County Department of Research and Development

Population growth in Hilo and in the older plantation based communities on the coast north of the city declined or saw little growth. Between 1990 and 2000, the population for Hilo increased by 6.2 per cent.

Hilo is the County seat and the only metropolitan area on the island. Hilo also functions as the island's industrial, commercial, distribution and population core. Approximately 33 per cent of all Big Islanders live in this city. The rest of the population is scattered throughout the island.

Sugar was one of the largest single industries in South Hilo. The commercial growing of ornamental plants is now the largest agricultural product grown in the district. Bananas and papayas are some of the other major products grown in the district. More than half of the total acreage cultivated statewide for flowers and nursery products are located within the County, which also accounts for over half of the total statewide revenue of flowers and nursery products.

Several kinds of manufacturing operations are located in Hilo, including the processing of food, fruit, livestock, and garment manufacturing.

There were 1,165 visitor accommodation units available in 1998, a decline of 11.3 per cent since 1984 and a 46 per cent decline since its peak in 1976. Hilo continues to attract its share of visitors to the County with approximately 380,000 visitors (30 per cent) in 1997. As the center of business and government within the County, Hilo accommodates numerous business and local travelers for special events such as hula competitions and sporting finals. The South Hilo district will also benefit from the continued growth of the cruise ship industry, which saw a substantial increase in island-wide arrivals from 124,000 in 1997 to 184,000 in 1998 with annual expenditures estimated to range from \$16,000,000 to \$23,000,000. Overall, the future growth in tourism in the South Hilo district is anticipated to remain at current levels.

Hilo with its population size, harbor and airport facilities, higher education complex, and new investment has potential for economic growth. However, many public facilities, such as the airport facilities and the university facilities in Hilo, rely heavily on

## §2.4.2: South Hilo

State funds and the County must compete with other areas of the State. The closing of Hilo Coast Processing Company and Hamakua Sugar Company in 1994 resulted in some decline in allied sectors. New economic based activities in East Hawaii are needed if the city is to continue its role as the island's commercial and service center in the future.

There are several significant projects that could propel South Hilo's economy in the near future. Subject to the availability of funding, construction of the Saddle Road improvements could commence in late 2001 and will substantially reduce the commute time between Hilo and Kailua-Kona. Already in operation is a post-harvest fruit treatment plant that will allow a substantial increase in the amount of agricultural products to be exported worldwide. In addition, a call center established in Hilo could ultimately provide as many as 300 new jobs.

### 2.4.2.2 Courses of Action

- (a) Encourage the State to provide the necessary funds for the development of the university complex and airport facilities. Provide necessary support services and facilities to aid the development of these complexes.
- (b) Continue to implement a program to revitalize historic downtown Hilo.
- (c) Encourage manufacturing operations that utilize local raw materials, such as macadamia nut shells and timber.
- (d) Assist the fishing industry through a cooperative effort with State and Federal agencies.
- (e) Assist in the formulation and implementation of management education and manpower training programs to strengthen the overall skill levels of its work force to be compatible with existing and emerging industries.
- (f) Support the development of a master plan for lands within the vicinity of the University of Hawaii at Hilo to incorporate a "college town" concept utilizing an appropriate mixture of residential, commercial and other land uses to complement the university's infrastructure.
- (g) Explore the feasibility of expanding the Afook-Chinen Auditorium into an athletic-exhibition-conference facility that can attract additional activities and visitors to the Hilo area.
- (h) Support the efforts of the Pacific Aquaculture and Coastal Resources Center to renovate the abandoned sewage treatment plant in Keaukaha into an aquaculture center.
- (i) Coordinate with the University of Hawaii at Hilo to establish an aquacultural program along accessible areas of the Hilo coast for research, demonstration, and development purposes.
- (j) Support the construction and development of the USDA's Pacific Basin Agricultural Resource Center facility.

## 2.4.3 North Hilo

### 2.4.3.1 Profile

Population	1980	1990	2000	1980-90 % Change	1990-00 % Change
North Hilo	1,679	1,541	1,720	-8.2	11.6

Economic Assessment, PKF Hawaii, January 2000  
U.S. Census, 2000  
Hawaii County Department of Research and Development

The population in North Hilo has been declining for more than 50 years. However, in the 10-year period from 1990 to 2000, there was an 11.6 per cent increase in population. The major population and service center for the North Hilo district is Laupahoe.

Like Hamakua to the north, the North Hilo district is agriculturally oriented. On the arable lands of the lower elevations from Honohina-Ninole to Ookala, former sugar cane lands are being cultivated in smaller acreages with a diverse range of crops as well as planted in eucalyptus trees. Large tracts of land within the district are used for cattle grazing and logging of native and planted forests. Macadamia nuts, ginger, bananas, tropical foliage, orchids, tropical fruits, cacao, kava, assorted leafy vegetables, papaya and taro are some of the other agricultural products grown in North Hilo.

There are no visitor accommodations in North Hilo. Given current land uses, it is not anticipated that this area will provide overnight visitor accommodations aside from independent bed and breakfast operations.

Economic growth under present conditions is limited in the district. Residents of North Hilo, especially the young, continue to leave the area because of the lack of employment opportunities. Agriculture shows the greatest potential for growth.

### 2.4.3.2 Courses of Action

- (a) Assist the further development of agriculture. A program to expand agriculture should be developed and implemented.
- (b) Work with community groups and organizations to identify and develop potential cottage industries.
- (c) Support the development of a native hardwood industry.

## 2.4.4 Hamakua

### 2.4.4.1 Profile

Population	1980	1990	2000	1980-90 % Change	1990-00 % Change
Hamakua	5,128	5,545	6,108	8.1	10.2

Economic Assessment, PKF Hawaii, January 2000  
 U.S. Census, 2000  
 Hawaii County Department of Research and Development

Hamakua's population has grown over the past 30 years, even when faced with the closing of sugar operations in 1994. The continuing growth of the district's population has been largely due to the major resort activities in the neighboring district of South Kohala and the continuing settlement of the rural homestead areas. There has been some internal movement in this district into the town of Honokaa, which represents the commercial and residential center of the district. There are several smaller communities along the Belt Highway that serve primarily as residential settlements related to the former sugar plantations. At the higher elevations, there are scattered homesteads and ranches. Visitor accommodations are available at a 19-unit hotel in Honokaa as well as various bed and breakfast operations scattered throughout the district.

The economic mainstays of this area are cattle, macadamia nuts, and various crops. These are the greatest sources of income and employment for Hamakua. There are numerous cattle ranches and several different varieties of crops in the district. Of these, macadamia nuts are expected to continue to play an important role in the future of agricultural development. Other crops grown in this area are taro, watermelons, tomatoes, ginger, kava, coffee, and other vegetables.

The closing of sugar operations has made lands available for various crops. A large timber operation has initiated plantings of eucalyptus in its effort to establish a 15,000-acre eucalyptus plantation. The investment includes \$29,000,000 in Hamakua and has already created 100 full-time jobs. A 1981 study to identify the best potential forest lands within the County identified 80,000 acres, mostly located along the Hamakua coast between the 1,000 to 3,000-foot elevations.

On July 28, 2000, a joint announcement was made by the Hawaii Forestry and Communities Initiative (Na Hoa Mahi`ai) and the State Department of Land and Natural Resources to cultivate a 40-acre parcel of State land at Ookala with high value hardwoods such as koa, milo, kamani, mahogany, pheasantwood, and narra, with 25 per cent of the area dedicated to the restoration of a lowland native rainforest. The project is unique in that the land, under the jurisdiction of the DLNR Division of Forestry and Wildlife, will be actively managed by a consortium of community groups from the Ookala-Laupahoehoe area, with technical assistance provided by forestry and other natural resource experts from the State, the University of Hawaii, and several federal

## §2.4.4: Hamakua

agencies, including the USDA Forest Service and the Natural Resource Conservation Service. Community representation in the project includes the North Hilo Community Council, the Laupahoehoe Train Museum, and the Laupahoehoe High School.

Manufacturing within the district is limited to the processing of macadamia nuts and other agricultural products. The 60-megawatt co-generation power plant at Haina will encourage other manufacturing activities by providing thermal energy (waste heat) that could be utilized for drying of macadamia nuts or aquaculture activities.

The astronomical facilities located atop Mauna Kea are also part of the Hamakua District. The facilities are located within the 11,228-acre Mauna Kea Science Reserve, which includes those lands situated above the 12,000-foot elevation, with the exception of areas within the Mauna Kea Ice Age Natural Area Reserve.

Mauna Kea is considered the world's premier site for ground-based astronomical observatories. Mauna Kea is home to 13 observatories and includes 12 of the world's most state-of-the-art telescopes. More major telescopes are located on Mauna Kea than on any other single mountain peak in the world. Mauna Kea is widely recognized as offering optimum conditions for optical, infrared and millimeter/submillimeter measurements. In addition, the local availability of support technicians and personnel also contribute to make Mauna Kea one of the finest astronomical sites in the world. Astronomy has contributed over \$619,000,000 in capital investments to the State as well as generated approximately 270 permanent jobs.

#### 2.4.4.2 Courses of Action

- (a) Assist the further development of agriculture and continue to cooperate with the agricultural sector and other appropriate agencies to provide the necessary services to assist agriculture.
- (b) Allow the development of limited visitor facilities that will not detract from the natural beauty of the area.
- (c) Develop a tourism industry that will promote small business development by maintaining the plantation heritage of the area.
- (d) Diversify the economic base and enhance historical aspects of the area including existing ranching operations and the former sugar industry.
- (e) Support the growth of a forestry industry within the district.
- (f) Support the growth of astronomical research and development.

## 2.4.5 North Kohala

### 2.4.5.1 Profile

Population	1980	1990	2000	1980-90 % Change	1990-00 % Change
North Kohala	3,249	4,291	6,038	32.1	40.7

Economic Assessment, PKF Hawaii, January 2000  
 U.S. Census, 2000  
 Hawaii County Department of Research and Development

Population in North Kohala has grown significantly over the last 20 years. The growth in population between 1980 and 2000 can be attributed to the continuing development of various resort complexes along the South Kohala coast as well as a growing number of people who wish to establish their retirement home within the district. New entrepreneurial activities, both in health and wellness and eco-tourism enterprises, also contribute to the growth in population.

Cattle, nursery products and macadamia nuts are the major agricultural products. On smaller acreages, truck crops are grown. The largest tracts of grazing land extend from the top of the Kohala mountains to Akoni Pule Highway.

Another important source of income and employment is tourism and its related service industries. Chalon International, Inc., a major landowner within the district, has developed plans for a 240-unit resort and residential development adjacent to Mahukona Harbor. Economic conditions in Hawaii and Japan have delayed the construction of this proposed resort. There are many natural and historical amenities within the North Kohala district that are conducive to the development of tourist related facilities. There are many residents of this district who work in the adjoining district of South Kohala.

Besides Chalon International, Inc., other major private landowners within the district include Kamehameha Schools, Parker Ranch Foundation Trust and Kahua Ranch. Together with the State of Hawaii, these landowners account for 90 per cent of the land in this district.

The Upolu Airport can serve a limited number of flights. There are no regularly scheduled flights to Upolu by the two primary inter-island carriers. Upolu Airport is used occasionally by sightseeing air taxi services using both fixed wing aircraft and helicopters, flight training activities, medical emergency flights, and the military.

**2.4.5.2 Courses of Action**

- (a) Aid in the expansion of agriculture through the protection of important agricultural lands.
- (b) Resort facilities compatible with the physical, social and economic goals of the residents of the district should be considered.
- (c) Encourage the establishment of an open farmer’s market in North Kohala.
- (d) Assist in the formulation and implementation of education and manpower training programs to strengthen the overall skill level of the local residents to compete in existing and emerging sustainable and environmentally sound industries and businesses.
- (e) Work with communities and residents (community groups and organizations) to identify and develop potential cottage industries and provide flexibility in land use to accommodate these potential cottage industries.
- (f) Support efforts to promote small business development that is consistent with the rural, agricultural, and historic character of the area.
- (g) Assist the communities and residents in diversifying the economic base in ways that are consistent with the rural, agricultural, and historic character of North Kohala.

**2.4.6 South Kohala**

**2.4.6.1 Profile**

Population	1980	1990	2000	1980-90 % Change	1990-00 % Change
South Kohala	4,607	9,140	13,131	98.4	43.7

Economic Assessment, PKF Hawaii, January 2000  
 U.S. Census, 2000  
 Hawaii County Department of Research and Development

The primary economic activities of this area are tourism, cattle ranching, agriculture, public and private educational institutions, scientific research associated with the observatories located on Mauna Kea and health and wellness organizations.

Due to the growth in tourism within the district, the population of South Kohala increased dramatically over the past 30 years. The benefit of this growth for the residents of South Kohala is the lowest unemployment rate and the highest median household income of all the districts for 1997.

Kawaihae Harbor is the second deepwater port on the island. The Kawaihae small boat harbor adds to the inventory of amenities in the district and provides limited recreational and commercial sport fishing activities.

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The Mauna Kea Beach Hotel, which began operations in 1965, opened the door to resort development of this area. South Kohala has evolved into one of the world's premier resort destinations with luxury hotel complexes. Hunting on the slopes of Mauna Kea and the Kohala mountains, deep sea fishing, world-class golf courses, hiking trails, historic sites, sandy beaches, and a diversity of climates are some of the attractions available to tourists.

There is considerable investor interest in South Kohala. The three large resort complexes in the district - Mauna Kea Resort, Mauna Lani Resort, and the Waikoloa Beach Resort – currently account for 40 per cent of the total hotel rooms within the County. The South Kohala district is one of the best destinations in the State for world-class golf courses. During the period between 1980 and 1998, ten properties were developed totaling 3,400 visitor units. The larger of these resort properties include the 547-unit Outrigger Waikoloa Beach Hotel, the 350-unit Mauna Lani Bay Hotel & Bungalows, the 1,240-unit Hilton Waikoloa Village, the 539-unit Orchid at Mauna Lani, and the 351-unit Hapuna Beach Prince Hotel.

Although tourism is currently the leading economic industry in the district, the area is also well known for cattle ranching, vegetable production, egg production, and other forms of agriculture. Waimea is one of the most productive areas for vegetable crops on the Big Island. Cabbages, celery, lettuce, daikon (turnip), peppers, broccoli and carrots are just some of the vegetables grown. Experiments are being conducted on different crops as well as on the improvement of those presently grown. The agricultural industry, especially truck farms, has potential for further expansion. This industry, faced with competition for resources from tourism and other urban forces, needs governmental assistance.

The cattle ranching industry utilizes most of the land area within the district with pastures situated on the higher slopes of the mountains and extending down to the sea. Parker Ranch, one of the largest privately owned ranches in the world, has its headquarters in Waimea. The closing of all feedlots within the County has resulted in the export of 90 per cent of all cattle to mainland feedlots. Hawaii cattle producers need to expand their presence in the local market in order to keep cattle in Hawaii for finishing and local consumption.

The educational sector includes Hawaii Preparatory Academy (HPA) with a 1999 total enrollment of 578 students in grades K through 12, which includes 190 boarders from grades 6 through 12. In addition, Parker School is a day school with a 1999 enrollment of 129 students. Waimea has three performing arts venues: Kahilu Theatre, Gates Performing Arts Center, and Parker School Auditorium.

The Canada-France Hawaii Telescope on Mauna Kea has its base facility in Waimea. The base has a staff of 51 and an annual operating budget of \$6,200,000. As several planned telescopes are built on Mauna Kea, additional base facilities may choose to lo-

cate in Waimea due to its desirable environment. Waimea is also home to the headquarters of the W.M. Keck Observatory on Mauna Kea, the largest optical and infrared telescopes in the world. The headquarters employs about 80 people and has an annual operating budget of \$10,000,000.

**2.4.6.2 Courses of Action**

- (a) Assist in the development of agriculture by protecting important agricultural land from urbanization, providing or having provided the necessary capital improvements, such as water, and working cooperatively with the agricultural sector and government.
- (b) Work closely with the State and the Department of Hawaiian Home Lands to provide adequate land close to Kawaihae Harbor for industrial activities.
- (c) Recognize the diversity of climate, the quality of the ocean water and the natural beauty of the hills as vital economic and social assets of the region to be protected through appropriate regulations.
- (d) Resort development in the district shall be in an orderly fashion and consistent with the physical and social goals of the residents of the area. Utilize tools such as incremental zoning to insure development that will best meet the needs of the County.
- (e) Encourage the preservation of the rural, ranching character within the town of Waimea.
- (f) Support the growth of astronomical research and development.

**2.4.7 North Kona**

**2.4.7.1 Profile**

Population	1980	1990	2000	1980-90 % Change	1990-00 % Change
North Kona	13,748	22,284	28,543	62.1	28.1

Economic Assessment, PKF Hawaii, January 2000  
 U.S. Census, 2000  
 Hawaii County Department of Research and Development

Spurred primarily by the employment opportunities created by the expanding visitor industry, population has greatly increased in North Kona over the last 30 years. The growth of the visitor industry in recent years can be largely attributed to the expansion of runway and terminal facilities at Kona International Airport at Keahole, which now permits the arrival of national and international direct flights.

Tourism continues to expand in North Kona. Currently, there are about 4,081 visitor units in the area. During the period of 1980 to 1998, six new resort properties were developed in North Kona for a total of 900 visitor units, including the completion of the

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243-unit Hualalai Resort at Kaupulehu and 263-time share unit Kona Coast Resort in Keauhou. North Kona now accounts for over 45 per cent of total hotel rooms on the island.

The visitor industry in North Kona is expected to grow at a moderate rate. Once the major visitor industry area on the island, the North Kona district now shares this distinction with the South Kohala district. Many of North Kona's aging hotel properties need major renovation. This effort began with the renovation of the Keauhou Beach Hotel in 1999.

Most of the Big Island's coffee production is in the North and South Kona Districts, which has been producing coffee since the 1800s. Between 1982 and 1995, the Kona coffee industry experienced sales fluctuations between \$2,100,000 and \$8,700,000. Since 1995, the value of Kona coffee sales has steadily increased to approximately \$16,200,000 in 1997. Coffee production on the other islands has far surpassed this island; which now accounts for one-third of the coffee produced statewide. However, the market and price for Kona coffee continues to grow due to its distinct flavor and quality unique to coffee grown elsewhere in the world.

Besides coffee, agricultural enterprises include cattle ranching and the growing of fruits, macadamia nuts, and vegetables, particularly tomatoes.

Timber and fishing are small industries in Kona. Logging of native hardwood at one time provided a major source of income in the district. The Kailua-Kona Wharf is considered a major center for big game fishing and international tournaments usually held annually.

Quarrying operations for building materials are also conducted in North Kona. The Old Kailua Industrial Area and the Kaloko Industrial Area provide the largest concentration of industrial activities within West Hawaii. These industrial areas accommodate a wide range of manufacturing, service, wholesale and retail activities.

The North Kona district was once the major visitor destination on the island. However, this distinction is now shared with the South Kohala district due to the recent development of numerous hotel complexes along the South Kohala coast. While the majority of visitor accommodations were once centered in Kailua-Kona, visitor accommodation facilities now stretch from the Kona Village Resort to Keauhou. The North Kona district includes approximately 4,081 visitor units including hotels, resort condominiums, bed and breakfast operations and other transient units. The 1,900-acre Keauhou-Kona area provides approximately 1,300 hotel and resort-condominium units.

There are several government projects of significance to the district's economic future. A small boat harbor at Honokohau has been constructed just outside of Kailua Village.

## §2.4.7: North Kona

This facility will complement the already world famous big game fishing of the area. Further north along the coast, the runway at Kona International Airport at Keahole has been expanded to accommodate larger aircraft utilized for overseas flights. The State has completed an update of the master plan for the Kona International Airport at Keahole, which will include extensive terminal, runway and support facility improvements.

The Natural Energy Laboratory of Hawaii Authority (NELHA) at Keahole Point, an ocean science and technology park utilizing deep cold seawater pumped from 2,000 feet off of Keahole Point, has demonstrated the effectiveness and feasibility of various technologies and industries that use this unique, cold-water resource. Ocean thermal energy conversion, aquaculture, air conditioning of buildings using cold seawater, and the growing of cold-climate vegetables and fruits are just some of these successful activities. In 1999, the 870-acre NELHA complex hosted 26 projects employing more than 160 individuals and contributing approximately \$30,000,000 annually to the local economy.

Kona is considered the center for government, commercial and industrial activities for West Hawaii. In addition to being the center for government, retail, and banking services, Kona is also home to “big-box” retailers such as Costco, K-Mart, and WalMart and international sporting events such as the IronMan Triathlon, the Hawaiian International Billfish Tournament, and the Senior PGA Tournament of Champions at the Hualalai Resort.

#### 2.4.7.2 Courses of Action

- (a) Resort development in the area shall be in balance with the social and physical goals as well as economic desires of the residents of the district. Necessary pollution controls shall be available prior to development. Other necessary support facilities such as transportation and nursery facilities shall also be provided.
- (b) Assist in the further development of agriculture, including forestry and aquaculture activities. Necessary capital improvements that will aid agriculture, such as water, should be given priority for funding.
- (c) Continue to encourage development of the Natural Energy Laboratory of Hawaii Authority as a marine research and commercial facility.
- (d) Encourage and support the development of Hawaii Community College in West Hawaii, including the University of Hawaii Center.
- (e) Assist the fishing and boating industry through a cooperative effort with State and Federal agencies.
- (f) Recognize the natural beauty of the area as a major economic and social asset. This resource should be protected through appropriate review processes when development is proposed.
- (g) Improve Kailua Village to maintain its viability as a popular visitor destination.

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(h) Increase affordable housing opportunities in the Kailua-Kona area.

### 2.4.8 South Kona

#### 2.4.8.1 Profile

Population	1980	1990	2000	1980-90 % Change	1990-00 % Change
South Kona	5,914	7,658	8,589	29.5	12.2

Economic Assessment, PKF Hawaii, January 2000  
U.S. Census, 2000  
Hawaii County Department of Research and Development

South Kona's population has increased by approximately 12 per cent between 1990 and 2000 and 30 per cent in the previous decade. The major trade and population concentrations are along the Mamalahoa Highway at Kealahou, Captain Cook, and Honouliuli.

The primary economic activity of this district is agriculture, with its most important industries being coffee growing and processing, macadamia nuts, citrus fruits and cattle ranching. Within the South Kona district, roughly 4,000 acres of macadamia nut orchards are planted with approximately 237,000 macadamia nut trees. The operation entails the second largest macadamia nut processor in the State, accounting for roughly 20 to 25 per cent of all macadamia nut production.

The number of coffee farms has fluctuated over the years with a high of 635 farms in the late 1980s to a low of 550 farms in 1996. During the same period, coffee acreages have fallen from 3,000 to 1,960 acres. However, the total value of coffee sales within the County has recovered from its low of \$3,700,000 in 1992 to a high of \$16,200,000 in 1997. Although the price of Kona coffee has been quite volatile, it is still considered one of the most promising agricultural products grown within the County. Compared to other coffee producing areas of the world, the Kona coffee growers have a comparative disadvantage because of higher wages paid to laborers and the topography of prime Kona coffee lands, which limit farmers to manual harvesting methods compared to mechanical harvesting methods utilized by coffee growers on other islands and in other parts of the world. However, the manual harvesting methods utilized by Kona coffee growers may be a significant factor contributing to the superior taste of Kona coffee compared to other coffee grown throughout the State and the world.

Also grown in the South Kona district are bananas, citrus crops (oranges and tangerines), avocado, vegetables and other truck crops, and macadamia nuts. Cattle ranching is also one of the prominent industries in the district.

Manufacturing in South Kona is confined to coffee roasting and macadamia nut processing.

Unlike the North Kona area, the South Kona district has limited accommodations for overnight visitors. There are approximately 88 units located at Captain Cook (Manago Hotel), catering primarily to local business travelers and agricultural workers. A 730-lot agricultural-residential and golf course community and 80-unit private members' lodge development (Hokulia) is being developed north of Kealahou Bay in South Kona. This development will cater primarily to out-of-state second homebuyers.

**2.4.8.2 Courses of Action**

- (a) Assist the further development of agriculture by protecting important agricultural land from urbanization, and by providing necessary resources, such as water.
- (b) Resort development in the area should not destroy the natural resources and historical significance of the area.
- (c) Assist the fishing industry through a cooperative effort with State and Federal agencies.
- (d) Encourage ocean-based industries, such as aquaculture, in the area.
- (e) Encourage eco-tourism and agricultural tourism as regional opportunities.
- (f) Establish buffers on undeveloped lands around Kealahou Bay to assure preservation of the region's unique environment and cultural resources.

**2.4.9 Ka'u**

**2.4.9.1 Profile**

Population	1980	1990	2000	1980-90 % Change	1990-00 % Change
Ka'u	3,699	4,438	5,827	20.0	31.3

Economic Assessment, PKF Hawaii, January 2000  
 U.S. Census, 2000  
 Hawaii County Department of Research and Development

Located on the southern and eastern flanks of Mauna Loa, the Ka'u district is the largest on the Big Island. Although Ka'u is the largest of the nine districts on the island, the population of Ka'u is the second smallest only to that of North Hilo. Between 1990 and 2000, the Ka'u District saw an approximately 31 per cent increase in its population. Much of the increase in the Ka'u population has been concentrated in Ocean View and other smaller communities.

Agriculture is the economic mainstay of the Ka'u region. Coffee, orchids, vegetables, flowers, cattle, and macadamia nuts are grown in this district. Approximately

#### §2.4.9: Ka'u

\$5,000,000 has been invested in an effort to establish a forestry industry on approximately 5,000 acres that could generate 30 to 40 new jobs.

Within the Ka'u area are several cattle ranches that utilize vast acreages of grazing lands. Although employment in this sector is not large, it plays an important role in the area's economy.

The macadamia nut industry remains one of the primary industries within the district. However, growing competition from foreign producers are beginning to affect the industry due to increased worldwide production, weakness in the Asian economy, and more aggressive marketing of these foreign-grown macadamia nuts in the United States. Similar to the competition faced by the once-dominant sugar industry, future growth of the macadamia nut industry must quickly respond to the threat of foreign competition by focusing on the quality of Hawaii's macadamia nuts and developing alternative markets for the nuts and its by-products.

C.Brewer & Co., Ltd., the major landowner in this area, continues its efforts to explore new economic initiatives within the Ka'u District in the absence of its sugar industry. In addition to maintaining the largest macadamia nut orchard in the Ka'u District, C. Brewer & Co., Ltd. is also engaged in and promotes other forms of agriculture such as vegetables and coffee production. The establishment of a forestry industry upon lands once utilized for sugar cultivation is also being explored.

The existing Punaluu Resort and Seamountain Golf Course complex is the center of tourism activity within the Ka'u District. However, the only accommodations available at this complex is the 56-unit Colony One at Sea Mountain. The golf course remains in operation, but no other facilities or amenities are available. The 12-unit Shirakawa Motel in Waiohinu and various bed and breakfast operations provide the only other visitor accommodations within the district.

##### **2.4.9.2 Courses of Action**

- (a) Balance development with the social and physical environment of the area. Provisions for orderly development, housing, and pollution controls shall be implemented.
- (b) Assist the fishing industry, other ocean based industries, and aquaculture through a cooperative effort with State and Federal agencies.
- (c) Recognize the natural beauty of the area as a major economic and social asset. Protect this resource through appropriate review processes when development is proposed.