

DEPARTMENT OF RESEARCH AND DEVELOPMENT

ROLE AND DUTIES

The Department of Research and Development's mission is to improve the quality of life for the people of Hawai'i County through economic development programs in agriculture, tourism, new industry, energy, and film, in a manner that is culturally and environmentally beneficial.

STAFF

Total budgeted positions: 10

Administration:

Director

Private Secretary

Account Clerk

Clerk III

Student Helper I

Program Staff:

Economic Development Specialist III (4)

Resource Materials Specialist

BUDGET

Budget appropriation: \$1,236,846	
\$1,018,406	General Fund
218,440	Other Revenue Sources

Actual expenditures: \$1,135,429	
\$956,171	General Fund
179,258	Other Revenue Sources

HIGHLIGHTS/ACTIVITIES

AGRICULTURE

Over the seven-year period since sugar production ceased on the Big Island, the contribution of agriculture to the island's economy has increased at an average rate of 4% per year.

Currently, the agriculture industry directly contributes \$161 million per year to our economy. New crops with nutraceutical value such as noni, awa and microalgae are being produced and high value tropical fruits including durian, longan, and mangosteen that have been planted over four years ago are now producing.

Along the Hamakua Coast, commercial tree and tropical ornamental plant production has expanded while in Puna, tropical ornamental plants and cacao farms are increasingly

important. Coffee is not only expanding in Kona but also in Ka'u. The flower industry has experienced a major change from primarily cut flowers to a mix of cut and potted flowering plants. Such a shift was a result of the industry's desire to diversify its product mix and to reach out to a much broader clientele. The expansion of the banana industry is a result of the industry's goal to supply the local market with almost all locally grown bananas. The organic farming sector is also starting to take off, particularly gourmet salad greens and herbs.

R&D continues to respond to the changes that are continually occurring in the industry. It has always been the goal of R&D to work very closely with the various commodity groups so that only relevant programs are being pursued. In addition, partnering with state, federal and private groups enables R&D to leverage its limited funds to obtain the necessary funding to keep the agriculture industry growing.

In fiscal year 2000-2001, R&D funded many exciting agricultural projects. The Mid Pacific Horticultural Trade Show proved to be very successful in creating a strong and continuous market for the ornamental foliage and flower industry. Attendance at this show increases every year. This year there were 700 buyers, an increase of 40% from 2000. Sales quadrupled, field stock plantings increased by over 600% and shadehouse production area increased by over 700%.

Potted flowers, mostly orchids, are a fairly new industry, increasing from \$2 million five years ago to about \$10 million at present. R&D funded an island-wide workshop on commercial orchid production and the response was overwhelming. Almost 200 people from all over the island registered for the workshop of which 160 are from East Hawaii.

The other very successful promotional program that R&D kick-started is the Taste of the Hawaiian Range Food Show. This project was started seven years ago to develop a local market for grass-fed beef. Three years ago, the island's fresh vegetables and fruits were also featured in various menus. This show continues to attract local and mainland chefs and food service businesses. This year 31 chefs, 25 food service businesses and Kamuela vegetable farmers participated. The show drew more than 1,400 people. Currently, upscale restaurants serve local beef and some supermarkets sell local meats.

R&D, in partnership with the Hawaii SBDC Network and state and private businesses, will participate in the Natural Products Expo West 2002 in Anaheim, California. This will provide Hawaii business the opportunity to showcase their products at the world's largest natural products trade show. Some Big Island businesses that participated in the Expo this year have gained financially from it and are planning on participating again this year. The market for natural food products is over \$20 billion and the market opportunity for our products in this market area is tremendous.

The pearl industry on the Big Island started up with R&D seed two years ago. This year \$1.6 million was obtained for the continuation of the project, as well as to develop new projects here and in the Pacific region.

The partnership between the County, state, and federal agencies and private business made possible the emergency repair of the portion of the Lower Hamakua Ditch. Such repair restored the flow of water to some Hamakua farmers. R&D's contribution of \$5,000 was matched with over \$55,000.

R&D funded a research project to identify a tree-harvesting system that will have a minimal impact on the land. This project aims to ensure that our land can be protected from soil erosion. Test marketing of currently available tropical wood was also conducted. A display of Australian Red Cedar, Queensland Maple, E. Deglupta and E. Saligna were placed in three Oahu stores and two on the Big Island. In addition, R&D partnered with the Hawaii Forest Industry Association in promoting finished wood products.

The effects of global warming such as drought, flood and drastic change in temperature pose a serious threat to agriculture. All these factors could have a devastating effect to farmers and our economy. R&D provided seed money to launch a pilot project to develop a market for Hawaii Carbon Credits. This project aims to provide Big Island ranchers, farmers and landowners with the opportunity to earn extra revenue while encouraging them to plant trees on over-grazed, eroded and less productive lands.

Phase I of the Ka'u Agricultural Water System in Pahala was to have been completed by the end of October 2001, but the November 2000 flood delayed the completion of the project. The flood inflicted substantial flume and pipe damage. The project received FEMA funds for the emergency and permanent repairs of the damage in the amount of \$59,469.00. An additional 10 acres was put into potato production making a total of 100 acres of diversified crops serviced by this system.

The papaya quarantine demonstration project has a total of 458.7 acres still in production. Marketable papaya production in the area is 11 million pounds per year most of which are Kapoho solo variety. Completion of the project will be at the end of December 2002.

Funded projects for Fiscal Year 2000-2001:
Market Development and Promotion Grants

<u>Abbreviated Title</u>	<u>Institution</u>	<u>Amount</u>
Hawaii Tropical Flowers Promo	Hawaii Tropical Flower Council	5,000
Big Island Promo at State Farm Fair	Big Island Farm Bureau	3,000
Big Island Farm Fair	Big Island Farm Bureau	5,000
Papaya Jam 2001	Papaya Administrative Committee	5,000
Forage Field Day & Taste of Hawaiian Range	University of Hawaii	6,000
Test Market for Commercial Tropical Wood	Big Island RC&D	4,500
Hawaii's Wood Branding Program	Hawaii Forest Industry Association	5,000
Mid-Pacific Horticultural Trade Show	Hawaii Export Nursery Assn.	20,000
Natural Products Expo West	Hawaii SBDC Network	20,000

Research Projects

<u>Abbreviated Title</u>	<u>Institution</u>	<u>Amount</u>
Impacts of Forest Harvesting on Soil	University of Hawaii	\$6,835
Development of Solar Pasteurizer	University of Hawaii	5,000
Marketing Program for UHH-University Park	Research Corp of Univ. of Hawaii	50,000
Lower Hamakua Ditch Watershed Protection	Dept. of Agriculture	5,000
Utilization of Coffee Processing Waste Water	Kona Pacific Farmers Coop	2,500
Marketing Hawaii Carbon Credits	TREES FOR LIFE Foundation	5,000
Clonal Propagation of Papayas	Hawaii Ag Research Center	5,000
Efficacy of Biochemicals for Control of Green Scale in Kona Coffee	Hawaii Ag Research Center	10,000

Ongoing Research (Initially funded in previous years)

<u>Target</u>	<u>Completion Date</u>
<u>Abbreviated Title</u>	
Disease Control for Field Grown Ginger	12/31/01
Ruminant Livestock Production Improvement	12/31/01
Supplemental Irrigation of Dryland Taro	12/31/01
Nematode Disease Management for Awa	07/31/02
Controlled Environment Anthurium Production	06/30/03

Research Projects Completed

Abbreviated Title
Consumers Preference for Potted Orchid
Screening of Fungicides and Insecticides
Information and Education Grants

<u>Abbreviated Title</u>	<u>Institution</u>	<u>Amount</u>
Commercial Orchid Production Workshop	University of Hawaii	\$5,000
Hawaiian Pasture & Range Forage	University of Hawaii	5,000
Fact sheets		
41 st Annual Macadamia Nut Conference	Hawaii Macadamia Nut Assoc.	5,000
10 th Annual International Tropical Fruit Conference	Hawaii Tropical Fruit Growers	5,000

TOURISM

The success of Hawai'i County's tourism program hinges on its cooperative relationships and partnerships with many supportive businesses, agencies, groups, and associations.

The department's goal is to increase the number of visitors and/or their length of stay on the Island of Hawai'i. The total number of visitors fell 3.0 percent to 1,267,966 during 2000, largely due to a drop in multiple-island visits. Those who stayed exclusively on this island increased by 2.3% to 462,470 visitors.

Another goal is to improve the quality of the visitor "experience" through product development and visitor satisfaction programs. The department executed 11 contracts totaling \$354,000 for activities such as visitor greetings, marketing, cooperative advertising, cultural festivals, and special events.

NEW INDUSTRY AND INDUSTRY DEVELOPMENT

Hawaiian Heritage Corridor

The primary purpose of Hawaiian Heritage Corridor is to develop awareness of and access to cultural, historical and artistic activities on the Island of Hawai'i. This is done through signage, brochures, and outreach projects to have residents and tourists visit points of interest around the island. During the past year, Kona Historical Society reprinted the Big Island Heritage & Cultural Tourism brochure and produced the Kona Heritage Stores brochure that tells the story of 70 stores past or present on Mamalahoa Highway.

Foreign Trade Zone (FTZ)

A plan for the development and utilization of the 29-acre Hilo Foreign-Trade Zone (FTZ), which was established to encourage foreign trade and to assist importers through the deferral or avoidance of duties, is being developed under the new FTZ director Mark Anderson. A marketing plan is being developed to find a suitable tenant to replace Gemini which has occupied the building since its construction

Enterprise Zone (EZ)

The Enterprise Zone (EZ) program is a joint state-County effort intended to stimulate business activity, preserve and create jobs in areas with low-income residents or high unemployment through tax and other incentives. R&D initiated the process of expanding five of the six designated areas of Hilo-Puna, Hamakua, Kohala, Kona I and II, and Kau. The expansion will add 328,000 acres to the 162,000 acres of enterprise zones for a total of 490,000 acres. There are 38 participating Big Island businesses that created 93 new jobs during the past year.

Economic Development Administration (EDA)

Submitted two amendments to the Economic Development Administration (EDA) and received approvals for modifications of the Comprehensive Economic Development Strategy (CEDS) to qualify Volcano Art Center for \$650,000, Hawai'i Alliance for Community-Based Economic Development for \$60,000, and the County Hazard Mitigation Plan-Hawai'i County Civil Defense for \$200,000 in grants from EDA. Assisted in the preparation of the grant application for the Hazard Mitigation Plan when funds became available as a result of the November 2000 flood. Plans are being made to update the CEDS document in FY 2002-2003.

Economic Development Projects

The Department of Research and Development has established a collaborative partnership with the Rural Development Project under Hawai'i Community College for training projects. Computer centers in Kailua, Kona and Laupahoehoe were developed in cooperation with Hawai'i County Economic Opportunity. Welfare to Work participants are trained from 9 to 3 and thereafter the center is available for use by the community.

R&D continues to work with non-profit organizations in the Ka'u area to generate economic development at the community level. The Office of Community Services was provided funding from R&D to boost development of a strategic plan for the community, identify community economic development projects, and apply for funding to implement the projects.

The department works with the Hamakua Economic Development Committee on local projects. A historical picture book plus CD about Hamakua is being developed, and a web site with information about sites and businesses in the area is being constructed through community efforts. Several incubator kitchens in the area offer opportunities for residents to begin entrepreneurial ventures, and Welfare to Work Participants receive training for employment.

Working with Project Storm to develop economic development in the Puna District, the Backyard Awa and Noni group of approximately 25 families plant awa and/or noni in their backyards to supplement their family income. R&D assisted the group in preparing a Biotech grant application for the construction of a product development facility.

Na Poe Hoa' Aina Project, aimed at assisting low-income families to develop small farms, received a grant of \$220,000 from USDA. Supported by R&D, the Emergency Response Academy (ERA) was funded by the Rural Development Program. ERA trained 11 young adults during the summer. Participants from this program obtained employment as lifeguards and other emergency response positions or decided to further their education.

In Waimea, R&D contracted Five Mountain Medical Community (FMMC) to promote Hawai'i as a "Healing Island" through support of promotional activities that establish the Island as an international health and healing destination.

In Kona, the department assisted Kona Pacific Farmers Cooperative and its 300 members to develop a Production Kitchen and Educational Center. R&D introduced the Rural Development Project (RDP) Manager to the Cooperative. RDP has provided members and workers with computer training and marketing opportunities.

Provided liaison services between the County Parks and Recreation Summer Fun Program and Department of Education's Summer Feeding program to provide lunches to children attending 13 summer fun programs in the County.

ENERGY PROGRAM

The main focus of the energy program continued to be implementation of energy efficiency retrofits in County facilities. Phase 2 of this ongoing program consists of upgrades of the lighting and air conditioning systems at the two main police facilities on the Big Island, the Hilo Public Safety Building and the Kona Police Station.

Honeywell Inc. began installing the lighting retrofit measures in May, with all other measures scheduled for completion by the end of July 2001. Capital cost for this project totals \$1,338,547, of which \$942,800 is being provided by a tax-exempt municipal lease with Citicorp at an annual interest rate of 5.72%. The remaining \$395,747 was provided by Hawaii County CIP funds. Honeywell has guaranteed annual energy cost savings totaling \$139,269 for this project.

In May 2001, consultant Steve Bolles submitted an Energy Program Report for Districts I and IV Pump systems of the Hawaii County Department of Water Supply (DWS). This study indicated potential annual energy cost savings totaling \$1,115,993. Required capital cost to implement these measures was estimated at \$8.75 million for an overall simple payback period of 7.8 years. The Hawaii County Energy Coordinator assisted Steve Bolles and DWS staff in initial steps to develop a performance contract for implementing retrofits to these water delivery systems.

In January 2001, Mayor Kim approved incorporation of a County-type EEP plan into the County's Emergency Operations Plan and on February 15 he informed Governor Cayetano that he was appointing the Energy Coordinator to represent Hawaii County on the State Energy Emergency Preparedness Advisory Committee.

Hawaii County testified in support of State Senate Bill No. 1435 which was subsequently signed into law providing \$200,000 per year for five years to assist in the development of hydrogen fuel capabilities in Hawaii. Much of this work is to be carried out at the Natural Energy Laboratory of Hawaii facility at Keahole.

The Hawaii County Energy Coordinator continued the building retrofit program, aimed at reducing energy use in the County's inventory of buildings.

FILM INDUSTRY

The Department of Research and Development's Big Island Film Office provided liaison services between government agencies, the community and the film industry for over 130 productions from 12 countries. This resulted in over \$4.5 million in production expenditures brought into the Big Island economy.

The office responded to over 280 inquiries, providing information, support materials and Big Island stock photographs from the Film Office photo library. The office hosted numerous familiarization scouts on the Big Island, i.e., "Planet of the Apes", "The Last Resort", Fuji TV "Stewardess Cop", "Baywatch", "Windtalkers", and HIFA Japan Producers tour.

The average number of visits to the Film Office's website was over 9,000 per month, from over 25 countries. Email arrived daily from foreign and Mainland-based production companies.

The Big Island Film Office's production support database grew by 75% and locations by 25%. Upgrades for the Film Office website took place and Phase I was launched in creating a dynamic image/text system with the digitizing of the photo library.

The Film Office represented the County on two State film industry boards designed to help grow the industry: the Hawaii Television and Film Development Board and the Hawaii Film and Entertainment Board. In addition, the Film Office participated as a board member of Na Leo 'O Hawaii and attended meetings of the Film and Video Association of Hawaii.

The Film Office participated in trade shows, festivals and conferences including; Locations 2001 International Trade Show, The Association of Film Commissioners International Cineposium, Sundance Film Festival, Association of Independent Commercial Producers 10th Annual Conference, Hawaii International Film Festival and the Hawaii State Legislature Film Industry Day.

The Big Island Film Office, together with the Neighbor Island Film Offices and the State Film Office, continued cooperative marketing efforts. The group placed poster-sized inserts in industry journals such as the Hollywood Reporter, Locations Magazine, American Cinematographer, Shoot and Creativity. In addition, the Big Island Film Office placed advertisements in the Hawaii Production Index as well as listings in the following industry publications; The Hollywood Reporter Blue-Book Film, TV & Commercial Production Directory, Pacific Coast Studio Directory, The International Location Service Guide, Motion Picture TV and Theatre Directory and the Creative Industry Handbook.

OVERVIEW OF BIG ISLAND FILM INDUSTRY PRODUCTIONS FY '99-'00

FEATURES

20th Century Fox (USA) – “Planet of the Apes”
‘Aha Punana Leo (USA) – “Ka’ililauokekoa”

TV EPISODES/SPECIALS

Jupiter Entertainment (USA) – “City Confidential”
Studios 107 (France) – “Ushuaia Nature”
Excor/Fuji TV (Japan) - "Stewardess Cop"
Pineridge Film & Television (USA) – “Girl Meets Hawaii”

DOCUMENTARIES

Korean Broadcasting System (Korea) – “Harry Kim”
NHK (Japan) – “Space Millennium”
BBC (Great Britain) – “Final Frontier”
Media Arts (USA) – “Jason Project”

TV COMMERCIALS

Non-Fiction Spots (USA) – “Colgate/Reach”
H2O Films (USA/Mexico) – “Tecate”
Straw Dogs (USA) – “Hughes”
Wild Scientific (USA) – “State Farm”

TRAVEL SHOWS

Granada TV (Great Britain) – “A Taste for Travel”
Leaders TV & Film Production (Taiwan) – “The Wonders of the World”
CNN (USA) – “Travel Now”

PRINT/CALENDARS/CATALOGS/MAGAZINES

Don Swats Productions (USA) – “Marlboro”
Peter Roger Pictures (USA) – “Toyota Highlander”
K.G.A. (Japan) – “Teijin 2001”

MUSIC VIDEOS

MTV (USA) – “Music in High Places”
Pro Vision International (Japan) – “Yuki Koyanagi”
Pomai & Loeka (USA) – “Come A’ama Crab”

INDUSTRIALS/MARKETING/INFORMATIONALS

J & H Productions (USA) – “Sony Wega”
Alpha Media (USA/Japan) – “Fuji-Denki”

SPORTS

The Golf Channel (USA & Japan) – “LPGA Takefuji Classic”
World Triathlon Corp. (USA) – “Ironman Triathlon”

INFORMATION RESOURCE CENTER

The Information Resource Center (IRC) is a service agency of the County of Hawaii charged with a two-fold responsibility. Its primary function, as a library, is to meet the information needs of the Department of Research and Development. The Library provides a full range of information services in support of the promotion and economic development of Hawaii's Big Island. It centralizes the holdings of 13 County departmental collections, currently with 9,417 titles on file.

The IRC is responsible for classifying and cataloging resource materials, and for adding and deleting entries in the Library Information System (LIS) database. The LIS is an online library catalog that centralizes the holdings of 13 County departmental collections. Access to the LIS database is available to all County personnel via the County's WANG VS 100 system.

The IRC is a depository for some U.S. Census Bureau publications, and state as well as County statistical resources. The IRC publishes the *County of Hawaii Data Book*, which covers a wide range of subject areas. It is accessible via the County's Website: <http://www.co.hawaii.hi.us>

Building permits, tourism counts, labor force statistics, gasoline consumption and tax collections are updated monthly in the *County of Hawaii Statistics*. A newspaper clipping file is also maintained and updated daily.

During the 2000-01 fiscal year, the IRC received an average of 50 information requests per week, from County departments, other governmental agencies, businesses and the general public.