




# Annual Report *2014*

**THE KOHALA CENTER™**  
education. environment. empowerment.





Founded in the year 2000, The Kohala Center is an independent, community-based center for research, conservation, and education. We turn research and traditional knowledge into action, so that communities in Hawai'i and around the world can thrive—ecologically, economically, culturally, and socially.

**Our Mission:** To respectfully engage the Island of Hawai'i as model *of* and *for* the world through our work in the areas of energy self-reliance, food self-reliance, and ecosystem health.

**Our Vision:** We envision a state of *pono*, in which individuals realize their potential, contributing their very best to one another, to the community, and to the *'āina* (land) itself, in exchange for a meaningful and happy life.

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## Letter from the Board Chairperson

FROM THE KOHALA CENTER'S VERY BEGINNINGS, we have said that "we believe in a state of *pono*, in which individuals realize their potential, contributing their very best to one another, to the community, and to the *āina*, the land itself, in exchange for a meaningful and happy life." The values of productive and responsible interdependence are embedded in this vision. Our volunteers, our partners, and our staff personify these values every single day in the way that we together serve island communities and island environments.

Take for example a microloan fund established at The Kohala Center this year through the thoughtful work of the Kahiau Foundation. The lending program places emphasis on *nonfinancial* values, giving weight to applicants' commitments to culture, community, and nature. One of the program's loan recipients is a family that has produced food and farmed *lo'i kalo* (wetland taro ponds) for generations in Waipi'o Valley. While the production of poi is where the greatest financial return is, the family wanted to press forward with expanding the number of *lo'i* they had under their care: not to make more money, but because of a core desire to *aloha 'āina*—to show love for and connect intimately with the environment in the valley—and to work in partnership with neighbors to maintain and improve the *'auwai* (irrigation ditches) and carry forward their cultural heritage. Almost any traditional lender would recognize that opening more *lo'i* is not where the greatest return on investment is, but The Kohala Center's Kahiau Microloan Program recognizes that this is where the heart is. Where the drive to deploy one's talents towards the greater good is. *This* is where our work lies.

When done well, values-driven work may seem easy, but in my role as chairperson of the board I know that

it takes enormous effort and sound infrastructure. Given the complexity and reach of our programs, we have put into place a robust fund accounting system and built a strong program development team. To support our administrative and programmatic work, we have developed an effective management and advisory team. Our communications team often engages in cross-cultural interpretation, so that those who may not be familiar with our root culture can understand what we experience as the deeper meaning of what we do.

The right values, supported by the right team and the right infrastructure, have brought us to this time and place. A time in which we can provide strong support for the innovative and responsive work of our network of friends and partners. And the place? Through the generosity of Waimea resident Jim Posner, a landmark gift was made to advance our collective endeavors. As we enter our fifteenth year of service, a spectacularly beautiful sixty-acre ranch will become The Kohala Center's new home. At an elevation of 3,500 feet, with stunning views of the Kohala Coast and majestic Haleakalā, our new campus will physically manifest the soaring aspirations of Hawai'i's communities for our entire island planet. *Kilohana*, "the work of seers," is the name of one of the property's streams. We hope someday humanists, scientists, performing and fine artists, cultural practitioners, and peacemakers will gather at the campus—all working toward a more abundant, creative, and compassionate future. The *mana* (power, energy) of the ranch inspires our staff and our partners to push even harder for excellence in service to Hawai'i—and the world.

In this year's Annual Report, you will see our values and our infrastructure at work: serving schoolchildren and young adults, teachers and intellectual leaders, family farmers, small business owners, government agencies, fellow nonprofits, and, of course, the *āina* itself.

I sincerely thank you for your support because without it, none of this would be possible.

Mahalo nui loa,

A handwritten signature in dark ink, reading "Roberta Chu".

Roberta Chu  
Chairperson, Board of Directors, The Kohala Center





## Letter from the President and CEO

“A LEAP OF FAITH.”

“A MOMENT OF INSANITY.”

These are ways in which friends and family described my sudden move home to Hawai‘i from a rather comfortable existence as a senior executive of a large foundation in Los Angeles. But I knew from the moment I learned about the results of a 1999 community health survey conducted in North Hawai‘i Island that island residents were right: in order to address chronic health disparities such as diabetes, obesity, heart disease, and drug and alcohol abuse, communities needed to provide greater educational opportunities for island youth, ensure that young adults are qualified for the new jobs that ought to be here (rather than training young people for the existing job market), and diversify the economy. Instead of continuing to band-aid the symptoms of a society in trouble, island residents insisted on working toward a new way of life in rural Hawai‘i. When Hawaiian leaders urged moving forward with creating greater educational and employment opportunities by enhancing—and celebrating—Hawai‘i’s spectacular natural and cultural landscape, a clear strategy was developed. Ringing softly in my ears were the words of “old folks,” who would always say: “You take care of the land, and it will always take care of you.” I knew deep in my heart that this strategy would work.

We are now nearly fifteen years into our work of building vibrant partnerships to address the issues of energy self-reliance, food self-reliance, and ecosystem health. Together, we—you, island residents and leaders, our partners, and our staff—are making a difference. *Mauka* (upland), the talented crew and volunteers of the Kohala Watershed Partnership care for the source of our fresh

water: the native forests. *Makai* (oceanside), staff and ReefTeachers at Kahalu‘u Bay Education Center protect the fragile coral reefs of Kahalu‘u, a vital nursery of our coastal fisheries. School gardens flourish across the island and the state because of committed teachers whose work is supported and organized by the Hawai‘i Island School Garden Network and the statewide Hawai‘i Farm to School and School Garden Hui. Small family farms are being empowered to promote and improve biodiversity through seed-saving trainings and resources offered by the Hawai‘i Public Seed Initiative. Local businesses are growing and prospering with assistance from our Rural and Cooperative Business Development Services team. And our ongoing efforts to reduce our economically crippling dependence on imported fossil fuels and its damage to the environment spawned an implementable plan to increase ridership and efficiency in Hawai‘i Island’s mass transit system.

Over the years The Center itself has grown, in turn strengthening our local economy. We began in 2000 with an operating budget of \$7,500 and no employees. We now work with an operating budget of \$3.9 million and twenty-three full-time and fifteen part-time employees, all of whom are engaged in building *‘āina* (land)-based programs for community well-being. In a convergence of vision, from our past and of our future, Waimea resident James Posner recently donated a sixty-acre ranch on Kohala Mountain to The Center, from which we will further serve island communities.

And so those “old folks”—our wise and revered *kūpuna*—are right: if we take care of the land, it will always take care of us. A simple statement. A concept rich in possibility. An idea that worked in the past and is working again today. Because of people like you.

*Mahalo nui loa* for your continued support of the aspirations of island communities and for believing in our work.

Matthews M. Hamabata, Ph.D.  
President and Chief Executive Officer

## A landmark gift:

### *The Kohala Center's future campus*

WHEN HAWAII ISLAND RESIDENT JAMES POSNER surprised us late in 2013 with his intention to give The Kohala Center a sixty-acre ranch on Kohala Mountain to serve as our future campus, he reaffirmed our mission and vision, and further strengthened our push for excellence in service of island communities and environments. The land itself is breathtaking: when it rains at the ranch, streams flow, ponds fill, and waterfalls spill over gorges, as native plants flourish and birds fly among thousands of trees. On crisp mountain days, Maui and Kaho'olawe appear across the deep blue 'Alenuihāhā Channel as clouds spiral toward the heavens. It is a bountiful landscape and a fitting reminder of why we engage in the work that we do.

Posner's generosity is far from a random act of kindness. As he puts it, "The spirit of this gift represents a convergence of vision from the ancient and recent past onward into the future, outward to the world at large, and beyond what we imagine today."

The gift, extraordinary by all measures, was unexpected yet timely. Posner has spent his eight-year tenure at the ranch building on the work of previous owners Wally and Wendy Campbell, preserving and enhancing its natural beauty and creating a self-sufficient, mixed-use facility. The Kohala Center, which has experienced unprecedented growth as we enter our fifteenth year of service, is now well positioned to develop a future campus that can strengthen our programs, which respectfully





engage the Island of Hawai'i as a model of and for the world through efforts in the fields of energy self-reliance, food self-reliance, and ecosystem health.

"I wanted the land to be a productive and welcoming place for the purposes of conservation, propagation, education, expression, and communion," Posner said. "The Kohala Center is ideally suited to steward the ranch to the next level."

Through his generosity, Posner joins our founding benefactor, Dr. Earl Bakken, and more than 700 volunteers, 300 donors, and board members and staff in working toward a more abundant, sustainable, creative, and compassionate future—for Hawai'i and the world.

The ranch is being given to us in two separate parcels: the first forty-acre parcel was transferred in mid-June 2014; the second twenty-acre parcel will be transferred by the summer of 2015. We plan to begin moving research, educational, and conservation programs to the campus in the second half of 2015. Beyond establishing a permanent home for The Kohala Center and our

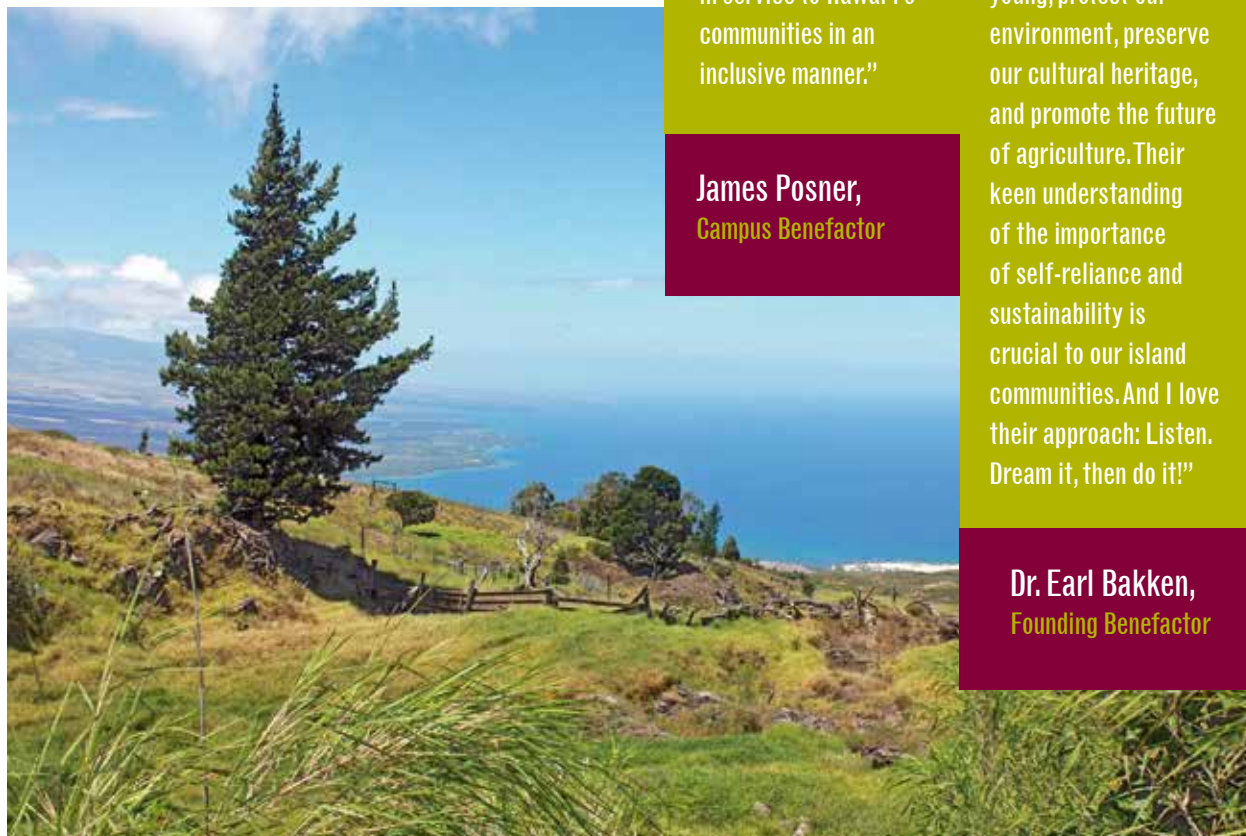


"Over the last fifteen years, The Kohala Center has demonstrated excellence in accomplishment, integrity, and creativity in service to Hawai'i's communities in an inclusive manner."

**James Posner,**  
Campus Benefactor

"I am excited by the continued growth and success of The Kohala Center and the work they are doing to educate our young, protect our environment, preserve our cultural heritage, and promote the future of agriculture. Their keen understanding of the importance of self-reliance and sustainability is crucial to our island communities. And I love their approach: Listen. Dream it, then do it!"

**Dr. Earl Bakken,**  
Founding Benefactor



Surveyors Kevin and Kathy McMillen generously donated their services, as part of the process of transferring the Kohala Mountain property to The Kohala Center. This is a *mauka-to-makai* (mountain-to-sea) story: the McMillens came to know of The Kohala Center's work through our ecosystem health efforts at Kahalu'u Bay.

**Kevin and Kathy  
McMillen**  
KKM Surveys  
Kailua-Kona,  
Hawai'i Island

"I have surveyed land on all the major Hawaiian Islands over the past 23 years, and I can honestly say that the ranch property gifted to The Kohala Center is my favorite parcel of all. The lake water system, the choice and placement of trees, and other features truly complement the natural spiritual power I've always felt when visiting and walking this land."

Kevin McMillen



"I fell in love with Kahalu'u Bay on my first visit in 1987, back when tourists were feeding frozen peas to the fish and didn't realize the harm they were doing. I have swum here every week since 1996 with a group of wonderful women. The Kohala Center's ReefTeach program has been instrumental in revitalizing the reef in this critical location by educating visitors on how to tread lightly so future generations can enjoy the same privilege. I am very grateful for their service to our community."

Kathy McMillen

programs, we aspire for the new campus to be a serene, yet energized, gathering place for public, private, and independent sector leaders, scientists, community organizers, humanists, performing artists, fine artists, and peacemakers—all imagining and inspiring thoughtful and creative ways to enhance Hawai'i's and the world's well-being. As the Reverend Puanani Burgess, a member of our board of directors and a noted poet, peacemaker, and community organizer put it, "A gift of this magnitude, made with such noble intent, will have ripple effects across our entire island planet."


While such a generous contribution may indeed be seen as the result of years of hard work and measureable results, we are truly humbled by the recognition and trust in our capacity to work together with our broad network of friends and partners—all of us serving as compassionate and capable stewards of this remarkable land. It has already inspired us to work harder, push even further for excellence, and embrace the value of *aloha 'āina* (love for the land) in everything we do. *Mahalo nui loa* to all of our donors, partners, volunteers, and sponsors for your continued support, trust, and faith in our work.





# Back to our roots:

## *Our history*



AS WE LOOK BACK on the accomplishments of The Kohala Center and its programs this past year, and stand in awe of the increasing generosity and trust of our supporters, it is important to remind ourselves of our roots and how our organization, our programs, and our accomplishments came to be. Where we are today is the result of nearly fifteen years of listening to island residents and community leaders. Of conducting credible research with esteemed institutions. Of building powerful local, national, and international partnerships. Of hard work from staff and consultants, and countless hours of time and dedication from passionate volunteers. From the very beginning, we have been driven by a vision of a state of *pono*, in which individuals realize their potential and contribute their very best to one another, to the community, and to the *‘āina* (land) itself, in exchange for a meaningful and happy life.

Ever since residents of North Hawai‘i Island expressed through a community health survey in 1999–2000 that they wanted—and needed—more educational and employment opportunities to create “a healthier, happier community,” the founders of The Kohala Center have focused on an *‘āina*-based approach to addressing community resilience. The inspired way forward came through the voices of Native Hawaiian leaders who strongly believed that the island’s natural environment—

and the challenges presented to it by human society—were intellectual assets that, if respectfully engaged, would create greater educational and job opportunities and serve as the basis through which to diversify the economy.

The Island of Hawai‘i, with most of the world’s climate zones contained in a clearly bounded environment, could be conceived as a miniature version of the planet. Furthermore, its extreme and troubling dependence on imported food and fossil fuels could also be viewed as a model of humanity’s growing inability to live successfully at the intersection of human and natural systems. With Hawai‘i Island’s remarkably abundant natural resources, and with a root culture steeped in knowledge about ways to live in harmony and abundance with nature, the island could also serve as a model for the world when it comes to solutions for achieving energy self-reliance, food self-reliance, and ecosystem health.

The call for approaches that would yield educational and employment opportunities fit well with research and literature on the social determinants of health and the value of developing intellectual capital. Guided by the expressed needs and wisdom of Hawai‘i Island’s communities and leaders, as well as recommended solutions supported by contemporary research, The Kohala Center was born as an independent, community-based center for research, conservation, and education.



With few resources at the outset, The Center's founders pursued a strategy of carefully forging multi-institutional partnerships to turn knowledge into action for the benefit of island residents and island environments. Through an array of local, regional, national, and international partnerships, The Kohala Center combined credible research with indigenous and local community knowledge to create programs to promote well-being by caring for—and celebrating—Hawai'i's spectacular natural and cultural landscape. Energy self-reliance, food self-reliance, and ecosystem health became our focus areas. And by addressing these challenges at the intersection of human and natural systems, we have created knowledge-rich jobs, as well as place-based and project-based science, mathematics, and environmental education programs that regularly serve more than 8,300 Hawai'i Island children and youth.

Today, as we enter our fifteenth year of existence, our portfolio of programs—Hawai'i Island School Garden Network, Rural and Cooperative Business Development Services, Hawai'i Public Seed Initiative, Kohala Watershed Partnership, Kahalu'u Bay Education Center, and the Mellon-Hawai'i Doctoral and Postdoctoral Fellowship Program—is now recognized not only for each program's distinct achievements, but more importantly for its collective impact. In 2013, Dr. Jon Matsuoka, president and chief executive officer of Consuelo Foundation of Honolulu and Manila, put it simply when he explained his reason for inviting The Kohala Center's president and CEO, Dr. Matthews Hamabata, to join a Hawai'i delegation visit to the Foundation's poverty alleviation projects in the Philippines: "Hawaiian leaders tell us that The Kohala Center excels at building 'āina-based programs for community well-being."

This acknowledgment, and the journey to the Philippines that followed, broadened our perspective yet again, just as it had spurred our formation at the dawn of the new millennium. Experiencing the rich and diverse nature of 'āina-based approaches to community well-being—through music, dance and fine arts, as well as programs in renewable energy, sustainable food production, and ecosystem health—prompted Dr. Hamabata to reflect on how the fine arts and the performing arts in Hawai'i are also 'āina-based. While the The Kohala Center itself may not develop programs in the fine and performing arts, welcoming high-quality arts programs to our new campus would enhance the development of a lively and extremely creative environment rich in generative potential. As our work moves forward, guided by the value of *aloha 'āina* (love for the land), the horizon expands to reveal new ways of fostering community well-being and developing our collective future.





# Energy Self-Reliance

■ Shortly after The Kohala Center was formally incorporated at the end of the year 2000, island leaders expressed interest in having us address what they felt was one of Hawai'i Island's most pressing concerns: energy. Hawai'i is consistently number one in the nation when it comes to the cost of electricity, yet ranks in the bottom 10% of states in energy production and imports nearly 95% of the energy resources its communities consume. With electricity prices on Hawai'i Island running 300% higher than the average in the continental United States, and gasoline and diesel fuel prices at least 25% higher, energy is a significant economic and social justice issue for the island and the state.

After careful analysis, research, and planning, we partnered with the Rocky Mountain Institute, the County of Hawai'i, local business and community leaders, and leading energy experts to facilitate community dialogues and examine alternative energy strategies for Hawai'i Island. These activities led to professional development workshops for local planners and architects to help them consider energy efficiency in their future projects, a 2007 partnership with the County and the School of Forestry and Environmental Studies at Yale University to conduct the first sustainable energy study for Hawai'i Island, and the subsequent development of a County of Hawai'i Energy Sustainability Program Five-Year Roadmap in 2012.

The transportation sector continues to be Hawai'i Island's largest energy consumer, demanding 52% of the island's total energy for ground transport and aviation. And while strides have been made in recent years to improve public transportation services, in 2014 we commissioned a research team from the University of Michigan to explore ways in which these services could be expanded to increase system efficiency, make options more convenient and attractive to island communities, and ultimately reduce residents' transportation costs.





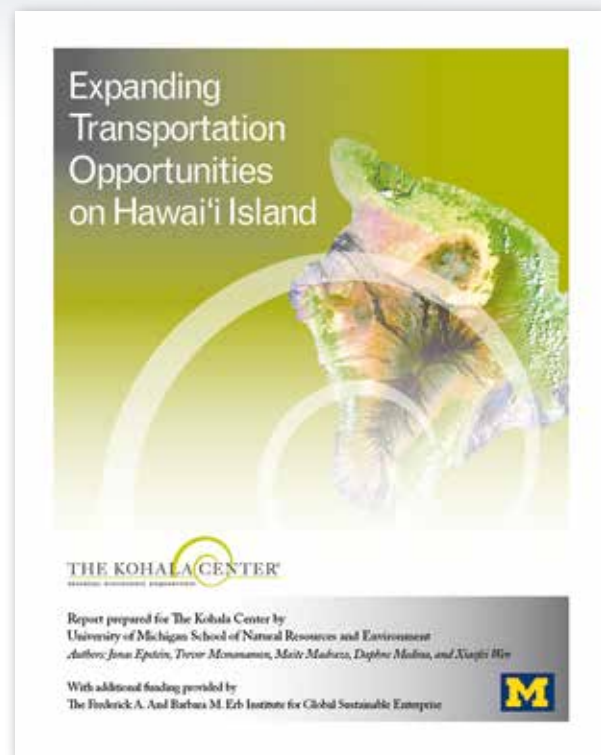
# Reducing fossil fuel dependence: *2014 transportation study*



THE MAGNITUDE OF HAWAII'S ENERGY CHALLENGES has many people wondering whether Hawai'i Island, and the state, can achieve energy self-reliance in their lifetime. Since the early days of The Kohala Center, island leaders have asked us to address the high costs of energy, the state's dependence on imported petroleum, and the impacts of that dependence on the island's communities and businesses. Considering that Hawai'i depends on imported fossil fuels more than any other state in the U.S., importing more than 95% of our energy, the idea of making meaningful progress in the short-term has seemed daunting.

In just the past few years, however, much has changed. Hawai'i's energy portfolio, once considered an "outlier" compared to those of other states, is now viewed as a model for the United States and beyond. An immense problem—overwhelming energy dependence combined with the highest electricity rates in the country—has now become a transformative opportunity.

In responding to concerns of island residents, we recognized the importance of taking the long view. During the past decade, we have convened a broad spectrum of stakeholders to address Hawai'i Island's most challenging energy issues with an eye toward developing renewable, clean energy resources that



benefit our communities and respect the environment. Conversations about energy sustainability on Hawai'i Island most often have focused on harnessing renewable energy sources such as geothermal, hydropower, wind, and solar. Yet with ground transportation accounting for

more than half of Hawai'i Island's fossil fuel needs, scant attention has been paid to reducing this heavy demand.

In 2014, The Kohala Center engaged researchers from the University of Michigan School of Natural Resources and Environment to develop a set of recommendations for public and private investments focused on high-impact solutions to reduce fossil fuel use in the island's ground transportation system, while improving accessibility and lowering travel times for commuters. Supported in part by the university's Erb Institute for Global Sustainable Enterprise, the project's research team—graduate students Maite Madrazo, Trevor McManamon, Jonas Epstein, Xiaofei Wen, and Daphne Medina—traveled to Hawai'i Island in March 2014 to conduct interviews and gather data to better understand the island's unique geography, communities, and socioeconomic composition. The resulting report, *Expanding Transportation Opportunities on Hawai'i Island*, takes up a key issue addressed in the *County of Hawai'i Energy Sustainability Plan: Five Year Roadmap (2012)*, which identified fossil fuel demand and dependence as a critical barrier to achieving energy sustainability. Though Hawai'i Island has integrated more renewable energy onto its electrical grid than anywhere else in the United States, its reliance on fossil fuel remains high, particularly in the area of ground transportation.

Hawai'i Island's rural landscape, highly dispersed population, and vast distances make efficient transportation, and especially public transit, highly challenging. The University of Michigan team found that nearly 73% of Hawai'i Island residents choose to

commute alone via personal vehicles like cars, trucks, and vans. Although less than 2% of commuters choose public transit to travel to work and 14.5% of residents carpool to work, these figures exceed the national averages for rural areas of 0.6% and 9.9%, respectively.

In the span of five years, the Hawai'i County Mass Transit Agency (MTA) increased ridership significantly through its Hele-On bus service and shared taxi program—from fewer than 800,000 riders in 2006 to approximately 1.15 million in 2011 (*Hawai'i County Comprehensive Annual Financial Report, 2011*). Yet the County still faces a number of challenges in increasing access to high-quality, convenient, and cost-effective transit options. Public transit riders in Hawai'i County, who earn about half the income of all other commuters on the island, have commute times that are twice as long as the average (68 minutes vs. 30 minutes). Furthermore, the high cost of energy disproportionately impacts low-income households, resulting in an equity issue that could become more acute over time.

On the whole, residents who commuted alone using their personal vehicles earned more than those who carpooled or used public transit. Interestingly, the island's public transit commuters had a substantially lower median earnings level: they only earned \$16,000 per year on average, while those who commuted alone or via carpool earned almost twice that amount. This suggests that many lower-income residents do not have access to or cannot afford a personal vehicle. And while public transportation may offer more cost-effective commute solutions, riders are compromised by significantly longer commute times, and limited schedules and route options.



## Modes of Commuting

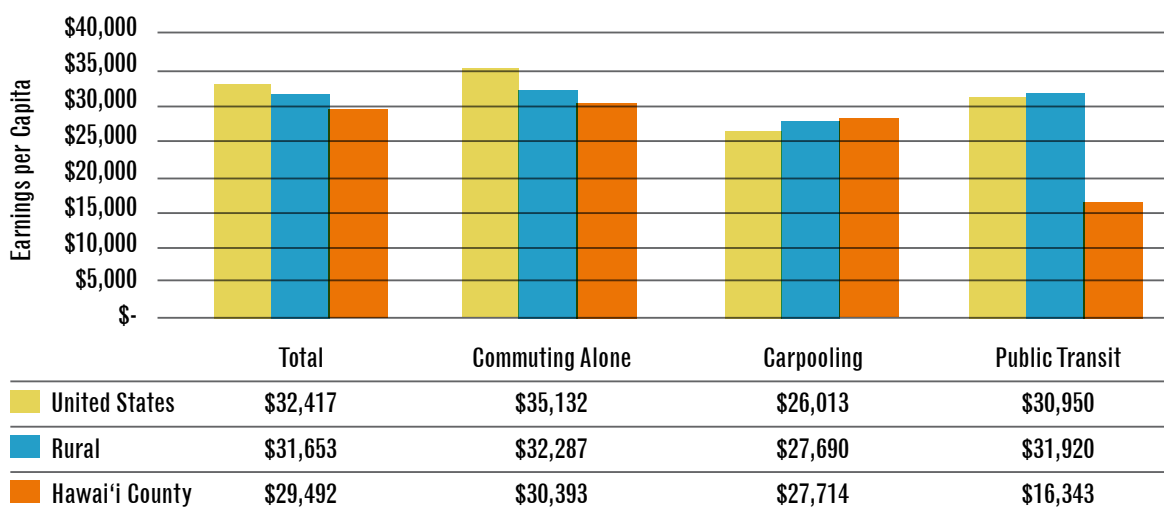
	United States	Rural	Hawai'i County	Maui County
Mode Used				
Commuting Alone	76.4%	81.4%	72.7%	68.4%
Carpooling	9.8%	9.9%	14.5%	14.9%
Public Transit	5.0%	0.6%	1.7%	2.3%
Other	8.8%	8.1%	11.1%	14.9%

Source: 2012 American Community Survey, U.S. Census Bureau

In its discovery process, the University of Michigan research team sought input from several public agencies and residents, and also studied the public transit system on Maui due to its similarity to Hawai'i County's rural setting. Maui currently uses geographic information systems (GIS)

forward and feasible, and included (a) the implementation of Google Transit, a low-cost technology option that could help passengers identify ideal routes, schedules, and connections; and (b) website enhancements that would include the development of clearer route schedules and maps

## Hawai'i County Median Earning



to develop clear route maps and schedules for transit riders, and uses Google Transit to publish information about their services. The Maui system's budget is more than double that of Hele-On, as is its ridership, despite having about three-quarters of the population that Hawai'i Island does.

The research team's immediate, short-term recommendations for Hawai'i County's Mass Transit Agency were straight-

that can be viewed without downloading a file. The report also recommends ways to step up access to Hele-On public transit services, as well as lower household travel costs through rideshare and vanpool options that reduce vehicle miles traveled and cut the cost of commutes by increasing the number of riders per vehicle. Longer-term recommendations include ways that the agency can gather data to optimize route planning and schedules, and ultimately increase ridership.



"Our project goal was to improve the bus system on Hawai'i Island, whether that was from an economic, environmental, or social perspective, or a combination of these. We found opportunities that make sense in all three areas, with several not requiring significant upfront investment."

Maite Madrazo, Trevor McManamon,  
Jonas Epstein, Xiaofei Wen, and Daphne Medina,  
University of Michigan School of Natural Resources  
and Environment, Ann Arbor, Michigan



# Food Self-Reliance

■ Early in our history, as we organized and conducted community forums for island residents to share their experiences and ideas about energy issues, one group in particular expressed unique concerns about the impacts energy costs had on their businesses and the island's livelihood: farmers. The high cost of energy and petroleum-based products affected their ability to pump water, operate farm equipment, afford agricultural inputs, and transport their products, ultimately resulting in lower profit margins, higher costs for consumers, and disincentives for agricultural producers to enter or stay in business. Indeed, skyrocketing energy costs and dependence on imported petroleum were contributing to Hawai'i's challenge to feed itself.

Partnering with the Rocky Mountain Institute (RMI) again in 2007, we helped RMI complete a new research study, the *Island of Hawai'i Whole System Project*, to examine obstacles inhibiting local food producers from holding a higher market share and to recommend potential courses of action. The study yielded an alarming statistic: an estimated 85% of food on Hawai'i Island is shipped or flown in from at least 2,300 miles away. Not only did Hawai'i's farmers and food producers need relief from high energy costs, as well as support services to grow and strengthen their businesses, the demand for locally grown and produced food also needed to be elevated.

Residents subsequently asked us to take the lead in facilitating solutions to address the island's food production and demand challenges. In 2007, as recommended in the RMI study and at the explicit request of island residents, we launched our first food-related program, the **Hawai'i Island School Garden Network**, to increase the number of learning gardens in island schools, instill an appreciation and desire for fresh fruits and vegetables among schoolchildren, and advocate for local farm to school procurement programs. To preserve and promote long-term biodiversity and protect crop varieties that thrive in the state, we created the **Hawai'i Public Seed Initiative** in 2010 to establish networks on five islands to facilitate seed selection, saving, and sharing. In an effort to expand and strengthen Hawai'i's rural economies and food systems, we formed our **Rural and Cooperative Business Development Services** program in 2011 to provide planning, marketing, legal, and grant writing services, promote cooperative business models, administer microloans, and offer technical assistance to rural and agricultural businesses statewide. Finally, in 2012 we introduced our **Beginning Farmer-Rancher Development Program** to recruit, train, and inspire the next generation of agricultural producers that will move Hawai'i toward greater food self-reliance.





# Nourishing our keiki:

## *Hawai'i Island School Garden Network*

WHEN ISLAND RESIDENTS AND COMMUNITY LEADERS recognized and expressed the need for Hawai'i to produce more of its own food and reduce its dependence on imports, they knew that one audience in particular was going to be key in moving the state toward long-term food self-reliance: children.

Not only would connecting Hawai'i's *keiki* (children) to the *āina* (land) teach them how to grow their own food, they would also develop a taste for fresh, healthy, locally grown fruits and vegetables, and gain a deeper appreciation for agriculture and where their food comes from. More than that, research studies showed that garden-based learning programs in K through 12 schools improved academic performance, confidence, and behavior, and could even contribute to curbing the alarming increase of adult onset diseases (e.g., obesity, diabetes, hypertension, heart disease, and depression) in children. A plan began to emerge: Promote school learning gardens as a means to improve student health, dietary lifestyles, and academic performance, and instill in Hawai'i's *keiki* a sense that by caring for the *āina*, the *āina* in turn would care for them and their families.

Founded by The Kohala Center in 2008 with support from the Ulupono Initiative (and the following year from the Hau'oli Mau Loa Foundation), the **Hawai'i Island School Garden Network** (HISGN) currently supports sixty-eight school learning gardens at public, private, and charter schools on the island through technical

assistance, professional development programs, and mini-grants. Under the leadership of program director Nancy Redfeather and school garden coordinator Donna Mitts, the program has expanded considerably in just six years and is recognized locally—and even nationally—for its standard of excellence and commitment to providing Hawai'i's youth and educators with meaningful opportunities for active learning and engagement. In 2013 the national FoodCorps program, part of the AmeriCorps Service Network, selected HISGN as the host site to establish **FoodCorps Hawai'i**. Today, HISGN administers:

- FoodCorps Hawai'i;
- **Kū 'Āina Pā**, a yearlong teacher training and curriculum development program;
- the statewide **Hawai'i Farm to School and School Garden Hui**;
- an annual statewide **School Learning Garden Symposium** and **Hawai'i Farm to School Conference**;
- working groups to assist schools in navigating state and federal programs;
- workshops to connect school learning gardens to the Mālama Honua Worldwide Voyage of the outrigger canoes Hōkūle'a and Hikianalia; and
- programs to inspire low-income families to incorporate more fresh, affordable local produce into their diets.



## *FoodCorps Hawai'i*

As HISGN established itself as a community-based program capable of supporting and promoting school learning gardens as a powerful platform for improving childhood nutrition and academic performance, the national FoodCorps organization recognized it as a viable and appealing host site for a Hawai'i-based FoodCorps program. FoodCorps places emerging community leaders, known as service members, into limited-resource schools to improve school food environments in an effort to reduce childhood obesity and food insecurity. Hawai'i became the fifteenth state to join this national effort to connect America's schoolchildren to real, healthy food; the national program currently supports more than 180 service members at 145 sites in sixteen states.

Launched at the beginning of the 2013–2014 school year, FoodCorps Hawai'i's first cohort included eight service members at ten service sites on Hawai'i Island, Moloka'i, and O'ahu. Out of more than 1,000 applicants for the nationwide program, six of the eight service members chosen for the Hawai'i positions came from the communities they served. Service members were selected based on their knowledge of local culture and values, dedication to healthy communities, a sense of *kuleana* (responsibility) to mentor youth, and willingness to develop innovative practices to build food systems.

## 2013–2014 FoodCorps Hawai'i Community-Level Partners

The Kohala Center, Hawai'i Island School Garden Network (Host Site)

MA'O Organic Farms, O'ahu

Sust'ainable Molokai, Moloka'i School Garden Network

Hawai'i Department of Education (six public schools)

Charter Schools of Hawai'i (two charter schools)

## 2013–2014 FoodCorps Hawai'i Service Members and Schools

Amelia Pedini, FoodCorps Fellow, Hawai'i Island School Garden Network/The Kohala Center

Leina'ala Kealoha, Kua O Ka Lā Public Charter School, Puna, Hawai'i Island

Janette Lee, Kohala Elementary School, North Kohala, Hawai'i Island

Simon Mendes, Maunaloa Elementary School, Moloka'i

Julia Nemoto, Māla'ai: The Culinary Garden of Waimea Middle School, South Kohala, Hawai'i Island

Jolyne Oyama, Nā'ālehu Elementary School, Ka'ū, Hawai'i Island

Lacey Phifer, Moloka'i High School, Moloka'i

Jessica Sobocinski, Hōnaunau Elementary School, South Kona, Hawai'i Island

Tasia Yamamura, Wai'anae Elementary School, O'ahu

"There is so much opportunity here in Hawai'i. We are still at the beginning of something very exciting, and our team is eager to foster that growth. We envision a future where farm to school programming is not only a familiar concept, but a reality valued for its incredible impacts on the health of children and communities."

Amelia Pedini,  
2013–2014 FoodCorps Hawai'i Fellow



"Hawai'i's geographic and demographic identities stood out to us as presenting a unique opportunity to serve a state that, while facing significant food access and health challenges, offered a robust and dedicated network of organizations working to improve children's and community health. The significant work that the Hawai'i Island School Garden Network has done to build a network of connected, resourced, and committed organizations working to increase kids' knowledge of, engagement with, and access to healthy food demonstrated to us that this was an organization serious about creating and sustaining change. Partnering with an organization that is so well respected exponentially increases the value of our investment, and is opening doors for our service members that are empowering them to make deeper impacts."

**Cecily Upton**

Co-Founder and Vice President of  
Programs, FoodCorps  
New York, New York



### ***Kū 'Āina Pā Teacher Training Program***

The 2013-2014 school year also welcomed the second cohort of Kū 'Āina Pā, HISGN's yearlong teacher training program funded by a USDA Secondary Education, Two-Year Postsecondary Education, and Agriculture in the K-12 Classroom Challenge Grant (SPECa) and the WHH Foundation. Whereas the first cohort was comprised exclusively of school learning garden educators from Hawai'i Island, the second cohort included garden

educators, FoodCorps Hawai'i service members, and a handful of school garden program volunteers. The twenty-five participants hailing from Hawai'i Island, Maui, Moloka'i, and O'ahu completed 100 hours of instruction over the course of several intensive weekends throughout the school year, while also conducting professional and personal action research projects on topics such as technology in the garden, place-based education, and the positive impacts of school wellness policies. As the second cohort graduated from Kū 'Āina Pā in June 2014, a third cohort of thirty participants, including the 2014-2015 FoodCorps Hawai'i service members and classroom teachers seeking to integrate 'āina-based curriculum into their courses, completed a three-day Summer Intensive. To date, eighty-five school garden teachers, classroom teachers, FoodCorps Hawai'i service members, and other 'āina-based education professionals and volunteers have been trained through the program.



### ***Hawai'i Farm to School and School Garden Hui***

Redfeather and food justice advocates on other islands helped to establish the Hawai'i Farm to School and

"More than 50% of our school's population is of Native Hawaiian or Pacific Islander descent, and statistics indicate that one out of every two of these children will end up with adult-onset diabetes if we don't do something now. We have a moral imperative to act. We're certainly trying to address that with our Māla'ai garden by growing fresh, nutritious food right here on campus, and thanks to the support of the Hawai'i Island School Garden Network and FoodCorps, we have a much greater chance of success for our keiki and their families."

**Matt Horne**

Principal, Waimea Middle School  
Waimea, Hawai'i Island



School Garden Hui in 2010 in an effort to effect meaningful food systems change by connecting Hawai'i's agricultural producers and distributors with public, charter, and independent schools across the state. HISGN and The Kohala Center formally assumed management of the Hui in 2014, providing the group and its statewide coordinator, Lydi Morgan Bernal, with administrative and logistical support. The premise of "farm to school" is to enrich the connection communities have with producers of fresh local food by changing food purchasing and education practices at schools and preschools, as well as to increase youth and community awareness, interest, and involvement in agricultural sciences. With well over 100,000 school meals served daily in Hawai'i and a growing interest in fresh fruit and vegetable snack programs for schools, farm to school holds great potential to bolster Hawai'i's agricultural economy and reduce dependence on imported food. Additionally, studies have demonstrated that farm to school programs and school learning gardens increase student knowledge about and consumption of fresh fruits and vegetables, contribute to improvements in health and social behaviors, and can boost academic achievement.

Comprised of representatives from fourteen organizations, including the Hawai'i Department of Health (HDOH) and the Hawai'i Department of Education (HDOE), the Hui provides capacity building, resource development, professional development, policy development, and advocacy services to farmers, teachers, students, and the school garden networks on each island in an effort to strengthen the movement statewide and advance systemic change. This year the Hui, in partnership with The Kohala Center, organized a statewide farm to school conference, "Re-growing Community Food Systems," at Kamehameha Schools' Kapālama campus on O'ahu. The conference attracted nearly 200 teachers, students, government representatives, and food producers to discuss



local agricultural production challenges, how to cultivate relationships between the state's farms and schools, and the positive impacts that garden-based education programs have had on student diets, nutrition, and health.

### *Hawai'i School Learning Gardening Symposium*

The theme of the seventh annual Hawai'i School Learning Garden Symposium, "Awakening the Senses for Deeper Learning," emphasized the power of school garden programs to engage students' heads, hands, and





hearts. Held at Hawai'i Preparatory Academy in Waimea on June 7, 2014, the Symposium offered more than 100 attendees from across the islands—and even some from the continental United States—a full day of educational workshops, presentations, and speakers focused on integrating essential curricula into school learning garden settings and engaging the full spectrum of children's senses.

### *Local food-sourcing initiatives*

Sourcing local food for public schools holds both great opportunities and challenges. With support from a Specialty Crop Block Grant from the Hawai'i Department of Agriculture (HDOA), HISGN continued its work with farmers, food distributors, and HDOE to increase the volume of local produce in Hawai'i's schools. In May 2014, HISGN and The Kohala Center's Rural and Cooperative Business Development Services hosted workshops in Hilo, Waimea, and Kealahou to educate island food producers and distributors about eligibility requirements to participate in the USDA's Fresh Fruit and Vegetable Program, which seeks to increase the availability of fresh produce in elementary schools with the highest free and reduced-price meal enrollments. Led by Glenna Owens from HDOE's School Food Services Branch, the workshops attracted more than eighty prospective suppliers of local produce.

### *Mini-grants*

Given that most school learning gardens are underfunded, HISGN disburses mini-grants each year to help programs purchase equipment and supplies, upgrade their garden infrastructures, attend professional development workshops, and/or supplement salaries. During the 2013–2014 school year, twelve garden programs at public and charter schools received grant support, directly benefiting 111 teachers and 1,540 students who use their schools' gardens as classrooms. The schools used the food they grew for children's snacks, student farmers markets, school events, and to send home to families. Through grant support from the Ulupono Initiative, HISGN has awarded more than \$350,000 of start-up and improvements funding to Hawai'i Island school garden programs since 2008.



### *'Ai Pono Workshops*

In celebration of the current Mālama Honua Worldwide Voyage of the Hōkūle'a and Hikianalia, HISGN has been working with the 'Ai Pono Program to teach keiki about traditional Hawaiian foods that can be grown, harvested, prepared, and packaged for the crews of the *wa'a* (canoes). Workshops have been conducted in conjunction with Kū 'Āina Pā to educate teachers about the voyage and the foods that provide the crews with physical, mental, and spiritual strength on the long-haul trips at sea. Teachers in





turn are working with their students to grow herbs for teas and condiments to complement on-board meals, and make traditional cordage for gifts for the voyage. When Makali'i sails south in 2017 to bring Hōkūle'a home to Hawai'i, chief navigator Chadd Paishon's goal is to have 80% of the food come from school and community gardens.

### *High school agriculture and culinary programs*

Funded by a grant from Kaiser Permanente, HISGN initiated technical assistance to four high school programs to help them obtain food safety certifications and/or Good Agricultural Practices (GAP) certifications. HISGN also continues to work with University of Hawai'i at Hilo dean of agriculture Bruce Mathews and Future Farmers of America (FFA) national and regional representatives to revive FFA programs throughout the state.

### *SNAP-Ed outreach events*

In a new initiative funded through the USDA Supplemental Nutrition Assistance Program Education (SNAP-Ed) and coordinated through "Live Better Together," a joint effort between HDOH, Kaiser Permanente, and a host

of community partners, HISGN staff formed an island-wide stakeholder group to increase the consumption of fruits and vegetables among SNAP-eligible East Hawai'i residents. Building on The Kohala Center's work in 2012 to set up acceptance of Electronic Benefit Transfer (EBT) funds for eligible food items at eight Hawai'i Island farmers markets, HISGN and a team of collaborators held a series of "EBT Double Dollar Days" events at the Hilo and Maku'u Farmers Markets in the summer of 2014 to promote SNAP and healthy eating options. In addition, "Healthy 'Ohana Nights" at five East Hawai'i elementary schools promoted healthier diets and family meal plans. HISGN also helped to organize a six-session "Cooking for Better Health" course at Hawai'i Community College designed to educate those who prepare food for low-income communities on how to prepare health- and budget-conscious meals featuring local ingredients.

What started six years ago as a modest program to support the revival of learning gardens at Hawai'i Island schools has blossomed into a comprehensive local and statewide effort to train teachers, groom community food justice leaders, create efficient funding and procurement pathways between local farmers and schools, provide technical and financial support to school garden programs, and improve access for island families to fresh, healthy food—all in service of the health and well-being of Hawai'i's keiki.



## Promoting biodiversity:

### *Hawai'i Public Seed Initiative*

IN ORDER FOR SCHOOL GARDENS, farms, backyard gardeners, and food producers to thrive, a diverse, locally adapted, and sustainable supply of seeds is necessary to ensure crop success and guarantee food security. Seeds are fundamental to life and community: not only do they provide food that sustains us, they also carry cultural and agricultural legacies, providing growers, producers, and consumers with direct connections to the 'āina and to each other. For many generations, Hawaiians cultivated plants for food in each *ahupua'a* (mountain-to-sea land division) based on what grew well in each area. Like many regions in the world, Hawai'i lost sight of many of its indigenous practices, and with it many varieties of seeds and genetic diversity. In 2010, the Food and Agriculture Organization of the United Nations reported that the world lost an estimated 75% of its crop diversity during the 20th century.

With the increasing effects of climate change, the rapid consolidation of seed companies, and the patenting of seeds, the anticipated continued decline in biodiversity will pose a serious threat to global seed availability and food systems. In an effort to reverse this trend and improve local food security and agricultural resilience, the **Hawai'i Public Seed Initiative** (HPSI) is working with scientists, educators, farmers, and consumers across the state to promote greater biodiversity and seed resilience,

empower island seed networks, and host community seed exchanges and educational events

Spearheaded by Hawai'i Island School Garden Network director Nancy Redfeather and coordinated by Lyn Howe, HPSI was established after The Kohala Center conducted a baseline survey in 2010 of community capacity for, and interest in, seed saving. The program subsequently organized a statewide Seed Symposium, "Hua Ka Hua: Restore Our Seed," co-sponsored by the U.S. Department of Agriculture (USDA) Organic Program; University of Hawai'i at Hilo College of Agriculture, Forestry, and Natural Resource Management; the University of Hawai'i at Mānoa College of Tropical Agriculture and Human Resources (UH CTAHR); the County of Hawai'i; and the Keauhou-Kahalu'u Education Group of Kamehameha Schools.

In the eighteen months following the inaugural Symposium, HPSI hosted basic seed-saving workshops on Hawai'i Island, Maui, Kaua'i, Moloka'i, and O'ahu with the support of UH CTAHR extension agents Glenn Teves (Moloka'i), Dr. Russell Nagata (Hawai'i Island), and Hector Valenzuela (O'ahu). "We were excited to have educated more than 180 people on five islands about seed production and saving, and to have opened doors to numerous resources available to them," Howe said. "These workshops helped to organize



"I really appreciate how the Hawai'i Public Seed Initiative is bringing together seed savers and growers from across the Hawaiian Islands. Many of us farmers and gardeners do our own 'research' in a vacuum, trying out different seed varieties until we find the ones that succeed for our specific conditions. The Hawai'i Public Seed Initiative has helped me find and connect with peers around the state, enabling us to share our own research and success stories and learn from each other's experiences. There's great comfort, support, and wisdom in these connections. And the seed exchanges are not only fun and educational, but the experience of sharing seeds brings with it a very personal human element: when I plant seeds I've been given, I associate what grows from them with the person who gave them to me. The care that goes in to harvesting, selecting, sharing, and growing seeds is personified through the Hawai'i Public Seed Initiative, and it's helping to build a strong, connected community and movement statewide."

**Anna Peach**

Owner, Squash & Awe Farms  
Waimea, Hawai'i Island



and raise awareness of the importance of growing seed that is locally adapted to our many microclimates, as well as define the work ahead for the seed movement in Hawai'i."

## *Statewide Seed Network*

The seed-saving workshops also helped to identify committed seed leaders from each island, who were then invited to HPSI's first Statewide Seed Network gathering in the summer of 2013. Organized as a "Train the Trainers" event, the weekend provided participants with valuable peer- and expert-level education, as well as opportunities to strategize and build teams in order to establish a statewide network of seed leaders who would in turn organize educational events, variety trials, and seed exchanges on their respective islands. Participants advocated for mini-grant support to further seed work on each island, and HPSI was able to allocate funding to support five projects on Hawai'i Island, Maui, and O'ahu. Projects funded to date include seed variety trials, growing seed on a production level, community seed and plant exchanges, educational workshops, and seed-lending libraries, resulting in increased seed awareness and outreach statewide.

A second Statewide Seed Network gathering was convened in Waimea on Hawai'i Island in August 2014, during which the previous year's attendees shared the results from their individual seed projects, gave progress updates about activities on their islands, and gathered more support and

momentum from the Initiative and each other. This year's gathering also featured an interisland seed exchange and inspirational tours of South Kohala farms such as Milk and Honey Farm, Squash and Awe, and Robb Farms. Cultivating new relationships and sharing experiences also proved to be valuable parts of the weekend. "Sharing stories and seeds is vital for a strong, sustainable community," said Donna Mitts, Hawai'i Island School Garden Network coordinator, who is also a farmer and active seed saver. "When committed and passionate folks come together to share sustainable food production knowledge, we all need to focus our energies on listening to and learning from each other."

## *Seed exchanges and Seedy Saturdays*

In November 2013, HPSI sponsored the eleventh annual West Hawai'i Seed Exchange at the Amy B.H. Greenwell Ethnobotanical Garden in Captain Cook in conjunction with Arbor Day. The seed exchange brought together home gardeners, students, and their teachers to share knowledge with each other and the community. The annual seed event was supported by a grant from the Kaulunani Urban and Community Forest, a program of the Hawai'i Department of Land and Natural Resources.



This year, HPSI stepped up its community-based outreach and education efforts by producing several events on Hawai'i Island dubbed "Seedy Saturdays." These no-cost community gatherings feature seed exchanges and educational programming. The events also emphasize proper seed exchange protocols and remind participants of the importance of checking for invasive species, such as weedy seed species, insects, coqui frogs, and little fire ants when transporting and sharing plant materials.

Zoe Kosmas, farm production assistant with The Kohala Center's Beginning Farmer-Rancher Development Program, assisted Howe in organizing a Seed Exchange in Honoka'a along with other Hāmākua-area farmers. "If we want to have reliable plant varieties that perform well in Hawai'i, our farmers and gardeners need to feel empowered to save their own seeds from healthy, vigorous plants native or adapted to our diverse environments," Kosmas said. "With natural and industrial factors impacting crop performance worldwide, depending on seeds that are shipped from around the world is risky. These seed exchanges and educational programs not only further Hawai'i's potential to be more food self-reliant, they can help foster a stronger sense of pride, community, and determination."

### *Variety trials and selection*

2014 ushered in the United Nations' International Year of Family Farming, as well as renewed support for HPSI through 2015 from the Ceres Trust. Funding from Ceres Trust has enabled HPSI to continue to promote crop biodiversity and public access to seeds through the development of a statewide plant variety survey among seed network members, experienced gardeners, and school

garden teachers, as well as on-farm variety trials and hands-on workshops for small farmers and gardeners in the art of plant selection. Recognizing the value of data collected from variety trials and how they could benefit farmers and gardeners in Hawai'i's unique climate zones, The Kohala Center's communications specialist Liam Kernell and multimedia development associate Neema Oshidary have been working with Howe and HPSI program associate Ilana Stout to create an online "Seed Variety Selection Tool for the Hawaiian Islands." The goal is to document and promote the practical knowledge of statewide farmers and gardeners regarding named varieties that grow successfully in various island locations, seasons, and conditions. The online participatory action research project will allow users to search data submitted by experienced, pre-qualified Hawai'i growers to determine which varieties of common crops—such as tomatoes, lettuce, taro, eggplant, beans, peppers, and squash—perform best in their specific climate zones. The Seed Variety Selection Tool is expected to launch publicly by the end of 2014, with additional crop varieties added to expand the database in the future.

### *National Heirloom Festival and Exposition*

HPSI gained exposure on a national level when Howe, Redfeather, and Stout represented the program at the fourth annual National Heirloom Festival in Santa Rosa, California, in September 2014. The festival, often called "The World's Fair of Pure Food," showcases heirloom fruit and vegetable varieties and was attended by more than 20,000 people. The HPSI team participated in the festival's exposition, which featured over 300 vendors from across the United States, to promote the program's collaboration with UH CTAHR over the last three years to produce seed-saving workshops, cultivate a statewide network of seed leaders, maintain varietal diversity, and create a source of locally adapted seeds for Hawai'i's numerous microclimates.

The UN's designation of 2014 as the International Year of Family Farming made this a fitting year for significant progress toward promoting biodiversity in Hawai'i. The Hawai'i Public Seed Initiative is empowering Hawai'i's growers to produce more food more efficiently, save and share the seeds best suited for Hawai'i's diverse agricultural environments, and move our islands toward a more sustainable and secure future.



# Supporting island economies:

## *Rural and Cooperative Business Development Services*

IN ADDITION TO PROGRAMS that promote biodiversity, Hawai'i Island growers and food producers need technical assistance to grow and sustain their businesses. Like many rural areas around the world, Hawai'i Island presents numerous challenges to small-business owners, ranging from limited professional and financial resources to the availability of a qualified workforce. Formed to address these challenges, The Kohala Center's **Rural and Cooperative Business Development Services** (formerly known as the Lualima Center) works to expand and strengthen Hawai'i's rural economies and food systems by providing business development services to farmers, value-added producers, small businesses, and cooperatives.

Launched in 2011 with a U.S. Department of Agriculture (USDA) Rural Cooperative Development Grant and additional support from the Ulupono Initiative, our Rural and Cooperative Business Development Services group has assisted more than 150 rural business ventures statewide. In fiscal year 2013–2014 the team served forty agricultural businesses, helped to form four new cooperatives, assisted twenty-two existing co-ops, and secured \$2.5 million in funding to support local food systems with an additional \$915,000 pending. To help serve the program's growing roster of clients,

Anna-Lisa Okoye was hired in March 2014 as a rural business development specialist, joining associate vice president for programs Nicole Milne and cooperative business development specialist Melanie Bondera. The team, along with professional consultants and partners, provides expertise in business education, organizational development, business and strategic planning, market analyses, marketing, grant writing, capitalization strategies, legal assistance, and conflict resolution. Our Business Services team continued to expand its portfolio with the launch of two new microloan programs, with research and recommendations to advance Hawai'i's organic food industry, and by strengthening stakeholder support for an emerging Hawai'i venison industry.

### *Business microloan programs*

New microloan programs were established to address a persistent issue for small businesses and entrepreneurs in rural Hawai'i: the lack of access to capital to launch or grow their businesses. Data from the Hawai'i Institute for Public Affairs suggest that the state's businesses are undercapitalized, with Hawai'i consistently ranking in the bottom ten states in the nation in loans guaranteed under the U.S. Small Business Administration—despite

being listed as the eighth-most entrepreneurial state in the nation in 2013's *Kauffman Index of Entrepreneurial Activity*. Recognizing the traditional barriers small businesses often face in securing support capital, the microloan programs take what might be considered an unconventional approach: evaluating applicants' nonfinancial values and social capital.

### Hawai'i Island Food Producers Fund

The Hawai'i Island Food Producers Fund is an innovative financing program powered by online crowd-funding and a social underwriting model that offers Hawai'i Island food producers dollar-for-dollar matches for loans made through Kiva Zip. The new program provides zero-interest loans up to \$5,000

"The assistance and guidance I have received from The Kohala Center's Rural and Cooperative Business Development Services team exceeded my expectations. They strive to identify the best opportunities for my business and many times have gone above and beyond. For instance, one of my goals for my business was to transition from manual accounting to QuickBooks, and while the Business Services team wasn't expected to assist in this endeavor, they jumped in, helped me get trained, and ensured my new system was set up properly. As a result, I was able to develop a five-year projection and budget for my business, something I've never been able to do before. Program staff has also been instrumental in helping me identify additional markets for our products and programs that fit the need of our business.

"Thanks to The Kohala Center and their exceptional staff, farmers and food producers like myself and my family feel optimistic that our businesses can be successful. They have helped to restore my family's pride and love for our business and for farming—five generations later."

### Kahealani K. Ka'aihili

Vice President, Mokuwai Piko Poi Inc.  
Waikoloa, Hawai'i Island



### Kahiau Rural Business Development Microloan Program

Committed to supporting excellence in Hawai'i, the Kahiau Foundation underwrites the Kahiau Rural Business Development Microloan Program, offering low-interest microloans up to \$15,000 and business development services to entrepreneurs that demonstrate a commitment to *nonfinancial* values: namely, serving the community, protecting the natural environment, and strengthening culture. The program aims to expand access to capital for businesses owned by Native Hawaiians and *kama'aina* (people born in Hawai'i) on Hawai'i Island and Moloka'i that are committed to building a sustainable future for Hawai'i, particularly businesses operating in the arenas of renewable energy, local food production, and ecosystem health.

(or up to \$10,000 for farmers) to entrepreneurs who would otherwise not qualify for conventional loans; grant funds from the County of Hawai'i, which are administered by our Business Services team, provide the loan matches, enabling up to \$275,000 in loans made to Hawai'i Island farmers and food producers. Kiva Zip, a pilot project of Kiva.org, the world's





"In addition to providing grant writing assistance to help us secure funds to launch our Ho'olaha Ka Hua community-supported agriculture food distribution program, The Kohala Center is also helping to funnel young farmers and food producers into the program as suppliers of fresh, healthy, locally grown food. They're also facilitating evaluation of the program, working with our staff to develop evaluation tools and processes to gauge the program's effectiveness, impacts, and outcomes. The Center brings an objective voice to our work, as well as validated evaluation tools based on sound methods and experience. By evaluating us from the outside, they'll help keep us accountable. All of our partners bring different areas of competence and expertise to Ho'olaha Ka Hua, meaning that we at The Food Basket can focus on what we do best—program delivery—and do it even better."

**En Young**  
Executive Director,  
The Food Basket  
Hilo, Hawai'i Island



first and largest nonprofit microlending website, has increased its focus on supporting farmers and food producers because of their popularity amongst Kiva Zip lenders and their traditionally high rate of loan repayment. In 2014, lenders supported more than 200 farmers and food producers nationwide.

## *Cooperative development*

The development and support of cooperative businesses in Hawai'i continues to be a primary focus. Cooperatives, or "co-ops," are businesses mutually owned by their employees (and in some cases their customers) that distribute profits among their workforces and within the local economy. Although cooperatives can take six months to two years to develop, they can be effective for generations when properly organized and managed. In 2013, The Kohala Center received funding under the USDA Rural Cooperative Development Grant Program to support the creation of new co-ops in Hawai'i and advance the capacity of existing ones. Two co-ops the program served this past year include:

### **Palili 'O Kohala**

Located in Hawai'i Island's North Kohala district, Palili 'O Kohala is a new venture that will contribute to the district's community-supported goal of producing 50% of its own food by 2018. The agricultural co-op is comprised of ten Native Hawaiian families united to grow, process, and sell *kalo* (taro) and value-added food products derived

from vegetables, pigs, and chickens. Palili 'O Kohala will implement natural farming techniques to produce and distribute a variety of sustainably grown foods to local consumers at affordable prices. The Business Services team provided technical assistance and logistical support to the farming families to help them design a cooperative that will benefit their individual businesses. The cooperative business structure enables the families to access and share land, processing infrastructure, and collectively benefit from marketing efforts. These benefits play a pivotal role in reducing costs, streamlining marketing, and distributing to a wider audience than they would working independently.

### **Maui Axis Deer Harvesters Co-op**

One cooperative venture our Business Services team has assisted since 2011 not only contributes a vital nutritional source—protein—to Hawai'i's food system, but it also helps to reduce the population of a destructive invasive species. Wild axis deer on Maui, Moloka'i, and Lāna'i cause millions of dollars in damage to farms, ranches, and ecosystems each year. Landowners and hunters—two groups that have historically had conflicting interests—are working together to cull



axis deer herds and process the meat, providing local venison to supermarkets and restaurants. In the fall of 2013, Bondera helped to convene fifty stakeholders from the three islands at University of Hawai'i Maui College to discuss issues and shared challenges, collaborate on solutions, and define potential markets. The broad coalition of hunters, ranchers, farmers, chefs, representatives from the Hawai'i Department of Health and Department of Land and Natural Resources, the Maui College Food Innovation Center, and funders discussed issues such as fencing, ante- and post-mortem USDA inspections, processing, and habituation and domestication. The team also established an ongoing online forum for stakeholders to communicate and continue dialogues, worked with the Hawai'i Department of Agriculture (HDOA) to offset inspection fees, and organized a venison by-products business workshop on Moloka'i in the fall of 2014.

### *Organic Industry Analysis*

As an independent, community-based center for research, conservation, and education, The Kohala Center often helps to catalyze action by addressing emerging issues through research studies. At the behest of leading members of Hawai'i's organic food industry, The Kohala Center applied for USDA Specialty Crops Block Development Grant funding through HDOA to conduct an analysis of barriers inhibiting the availability of certified-organic

food produced in Hawai'i. Our Business Services team facilitated the project and convened a statewide Organic Industry Advisory Group (OIAG) comprised of specialty crop producers and other industry representatives and affiliates from across the state to guide research, data collection, public input, and analysis. The yearlong study included six public surveys tailored to specific stakeholder groups, a statewide organic industry conference held in Kailua-Kona in October 2013 that included community feedback sessions, and a final report, *Growing Organics: Moving Hawai'i's Organic Industry Forward*, issued in March 2014. The *Growing Organics* report, compiled by the OIAG and the Business Services team and submitted to HDOA, put forth fifty-eight recommendations across ten subject areas including representation, processing, farmland, distribution, education, enforcement, and marketing. Existing public and private entities such as government agencies, educational institutions, and interisland transport companies were identified and correlated with each recommendation based on their potential to create or update programs and services to better support the production and availability of locally grown, certified organic foods in Hawai'i.

By distributing much-needed capital to businesses with values rooted in community and the 'āina, providing technical assistance and critical business services, bringing diverse stakeholders together to collaborate and solve challenges, and encouraging the formation and growth of cooperative businesses, our Rural and Cooperative Business Development Services team is strengthening Hawai'i's rural economy and furthering food security efforts across the islands.



# Training future farmers:

## *Beginning Farmer–Rancher Development Program*

CONNECTING CHILDREN TO AGRICULTURE and healthy food, breeding and saving locally adapted seeds to ensure long-term biodiversity, and providing critical services to rural businesses to help them succeed in a post-plantation economy have been key facets in designing programs that move Hawai'i toward greater food self-reliance. Without an ample pipeline of trained farmers, however, this goal will be unattainable.

Given that nearly 90% of the food available in Hawai'i is imported, and the number of farms in the state and across the country is declining while the average age of farmers is increasing, we created the **Beginning Farmer–Rancher Development Program** in 2012 with grant funding from the U.S. Department of Agriculture (USDA) and matching funds from the County of Hawai'i. The program is dedicated to training new farming families on Hawai'i Island and inspiring island youth to consider careers in agriculture.

Through partnerships with the County of Hawai'i, University of Hawai'i at Hilo, UH College of Tropical Agriculture and Human Resources, Kamehameha Schools, the Hāmākua Agricultural Cooperative, and

support from successful Hawai'i farmers and ranchers, the Farmer–Rancher Development Program aims to increase local food production, decrease dependency on imports, diversify Hawai'i Island's rural economy, and create jobs. Under the leadership of director Derrick Kiyabu, the program currently contributes to these goals through a comprehensive, hands-on training course for novice farmers and ranchers, as well as paid agriculture internships for Hawai'i Island high school students.

### *Farmer–rancher training course*

The Farmer–Rancher Development Program's primary training course combines classroom and on-farm instruction led by successful farmers and leading agricultural professionals from around the state, covering concepts from soil science and pest management to budgeting and how to write a business plan. Program graduates who successfully develop viable farm and business plans are eligible for leases on farmlands managed by the Hāmākua Agricultural Cooperative, Kamehameha Schools, and County of Hawai'i with the understanding that satisfactory farm operation start-up



will allow for longer-term land occupancy. Graduates also gain access to farm equipment and materials, and receive mentoring and guidance in marketing, produce distribution, and accessing USDA support programs.

To date, the program has attracted participants as diverse as Hawai'i's ecosystems, ranging in age from late teens to late 60s and with interests as varied as cultivating lychee orchards to raising rabbits, and with different levels of experience from working on family farms to dabbling in backyard gardening. Fifty-six new farmers, including thirteen farming families, have graduated from the first three training cohorts with the basic knowledge required to start a diversified family farm. This surpasses the initial goal of training forty farmers in the Hāmākua region by

the end of 2014; a fourth cohort comprised of nineteen students, which commenced in October 2014, will bring this number even higher.

Many graduates are actively pursuing their ambitions: cohort one graduates Diane Sugerman and her husband started a dried fruit snack business, Hawaiian Grown Flavors, and currently sell their products at the Waimea Homestead Farmers Market every Saturday. Cohort two graduate Brandon Lee secured a land lease through Kamehameha Schools' Mahi'ai Matchup Agricultural Business Plan Contest and is starting an heirloom pastured hog operation in Pepe'ekeo; Lee is also following the farm to table model by serving food from his farm at his restaurant, Napua at Mauna Lani Beach Club.

### Kai Bowman

Graduate, Beginning Farmer-Rancher  
Development Program  
Honoka'a, Hawai'i Island



"When I moved back to Hawai'i after college I started gardening in my backyard and fell in love with being able to grow food from seed to harvest. A friend of mine who had taken The Kohala Center's farmer training program suggested I check it out because I'd learn a lot more about soil and growing methods. I got really excited after learning more about Korean Natural Farming in the class, as it helped me connect with things my uncle and my kūpuna had taught me about how Hawaiians used to farm and care for the land. The program hooked me up with some lease land, and I'm looking forward to trying to combine Korean, Hawaiian, and organic approaches to build up the soil and start a sustainable and diversified farm. I think it's a joke that we're dependent on imports for 90% of our food when Hawai'i can and should be at least 90% independent by growing our own food here at home. This program gave me the confidence to start farming, take the initiative to work toward making us more self-sufficient, and hopefully show others that they can do it too."







And cohort three graduate Edward Richter is selling his shiitake mushrooms to Waimea restaurants.

“The farmer training course was an invaluable learning and networking opportunity for us,” said Stella Caban, a graduate of the program’s third cohort. “The combination of practical knowledge, meet-and-greet site visits with successful farmers, networking with ag professionals and other beginning farmers, and getting a better understanding of available ag loans and grants has inspired me and given me the confidence to pursue my own agricultural enterprise.”

### *High school agriculture internships*

In addition to training and supporting new farming families, the Farmer-Rancher Development Program also includes an agriculture internship program for high school students. With financial support from Kamehameha Schools’ ‘Āina Ulu Program, the internship program focuses on connecting youth with local food systems and agriculture-related careers

that exist on the island and around the state. One-week internships are conducted during fall and spring intersessions, and a two-week internship is held during the summer. The internships offer paid stipends and include site visits and hands-on experience at local farms. Four sessions have served twenty-eight students, from Hilo to North Kohala, who all share a common interest in *mālama ‘āina* (caring for the land).

Interns enjoy opportunities to “talk story” and work alongside young farmers like Max Bowman of ‘Āno‘ano Farms and community leaders like Kulia Torintino-Potter of Pōhāhā I Ka Lani, a non-profit organization formed to revitalize Hawaiian culture and natural resources. The internships also connect students to mentors and services that can assist their transitions from high school to higher education and careers. Interns network with potential employers at farms and agriculture operations, as well as with professors from the College of Agriculture at UH Hilo. One senior from Kohala, who had no plans after graduation, was inspired to enroll in the two-year agriculture program at

Hawai'i Community College after an eye-opening visit to the college's farm in Pana'ewa. From these visits and others, interns learn about hard work, commitment, and creativity—essential values for a successful farming career.

### ***The Kohala Center Demonstration Farm***

At the center of the Beginning Farmer-Rancher Development Program is The Kohala Center Demonstration Farm, a production operation and outdoor classroom that serves as home base for both the farmer-rancher training course and the high school agriculture internship program. The Demonstration Farm provides hands-on learning experiences that are essential to the development of agricultural knowledge.

Over the last two years, many hands have helped to revive and develop the fallow ten-acre parcel located below the Honoka'a post office. Under the experienced leadership of farm manager Anthony Blondin and production assistant Zoe Kosmas, the farm produced its first harvest of sustainably grown vegetables in 2014 including kale, chard, pumpkins, basil, cauliflower, cherry tomatoes, eggplant, and ornamental flowers, with more varieties on the way. Produce harvested from the farm is sold every Wednesday at the Waimea Midweek Farmers Market.

By recruiting and training a new generation of farmers, and opening the minds of Hawai'i Island's high school students to rewarding careers in agriculture, our Beginning Farmer-Rancher Development Program is contributing to a more local and sustainable economy by growing farmers—and food—for Hawai'i's future.





# Ecosystem Health

■ The programs we've designed over the years to strengthen rural island economies and move Hawai'i toward greater food independence would be unsustainable if we didn't attend to a natural factor greater and more powerful than humanity: the environment. Clean water, fertile soils, and healthy reefs are all vital ingredients in our ability to grow and harvest food, yet decades of deforestation, perhaps less than thoughtful development, plantation-era agriculture, and the introduction of invasive plants and animals have threatened native and endemic species and contributed to the degradation of Hawai'i's rainforests, farmlands, and marine ecosystems.

Ancient Hawaiians' natural resources management practices were guided by values that demonstrated respect and reverence for the *āina* (land): by caring for the *āina*, the *āina* would in turn provide sustenance and security for them. Moreover, they knew how important it was to care for and protect water, viewing it as a sacred resource vital to abundance and prosperity. *Mohala i ka wai ka maka o ka pua*, literally translated as “unfolded by the water are the faces of the flowers,” is often understood to mean “flowers thrive where there is water, as thriving people are found where living conditions are good.” Honoring the wisdom of those who came before us, we take a *mauka-to-makai* (mountain-to-sea) approach to our work in ecosystem health—from restoring native forests and watersheds back to health to protecting ocean environments and promoting responsible interactions with marine wildlife.

Mauka, our **Kohala Watershed Partnership** staff, field crew, and volunteers have worked for more than a decade to restore and protect the native forested watersheds of Kohala Mountain by removing invasive species, outplanting native trees, building sediment dams to mitigate downslope runoff, and connecting island youth with Kohala's unique natural environment. Makai, our **Kahalu'u Bay Education Center** team, along with hundreds of volunteers, teach more than 52,000 residents and visitors each year how to enjoy the bay without harming the fragile corals and colorful marine life. In addition to being the largest visitor attraction in West Hawai'i, the bay serves as a nursery for our coastal fisheries.





# Restoring native forests:

## *Kohala Watershed Partnership*



**THE KOHALA WATERSHED PARTNERSHIP** (KWP) is a voluntary coalition of private landowners and public land managers dedicated to restoring and protecting the native forested watersheds of Kohala Mountain. It is estimated that half of Hawai'i's forests have been lost to deforestation, with the remainder threatened by non-native plants and animals. Through the implementation of an adaptive watershed management plan to create fenced preserves, manage feral ungulates, control invasive plants, and restore native forests, the Partnership's projects protect essential ecosystem services including the capture of rainwater, sediment mitigation, and groundwater recharge. These actions ensure that both native ecosystems and human communities in North Hawai'i have an abundant supply of fresh water, and protect downslope coastal ecosystems from the detrimental effects of land-based pollution.

The Partnership was formed in a Memorandum of Understanding in 2003 between nine land-owning partners and two associate partners who wanted to address watershed management and conservation collectively rather than on individual properties. Together, KWP's partners hold a total land area of more than 65,000 acres in the districts of North Kohala, South Kohala, and Hāmākua. Part of the Hawai'i Association of Watershed

### Partners

Department of Hawaiian Home Lands  
Hawai'i Department of Land and Natural Resources—Division of Forestry and Wildlife  
Kahua Ranch  
Kamehameha Schools  
Kohala Preserve Conservation Trust  
Laupāhoehoe Nui LLC  
Parker Ranch  
Ponoholo Ranch  
Queen Emma Land Company

### Associate Partners

Hawai'i County Department of Water Supply  
The Nature Conservancy

Partnerships, a network of eleven organizations protecting forests and watersheds on six islands, KWP cares for Kohala Mountain by outplanting native plants, building and maintaining fences and sediment dams, providing environmental education, and organizing surrounding communities to combat and reduce populations of invasive





plants and animals, including coqui frogs. Coordinator Melora Purell orchestrates this work by bringing together private landowners, government agencies, community partners, five full-time and two part-time staff members, and hundreds of passionate volunteers. The Partnership's work in fiscal year 2014 included:

### *Habitat protection*

One of the Partnership's top priorities is to protect native habitats from destructive invasive species. KWP's five-person field crew, led by field crew leader Cody Dwight, maintained twenty-seven miles of conservation fences to exclude feral goats, pigs, and cattle from trampling and uprooting native plants and transporting seeds from invasive plants. With funding support from the U.S. Fish and Wildlife Service's Partners for Fish and Wildlife Program and the Hawai'i State Plant Extinction Prevention Program, the crew also fenced and protected the last remaining habitat for an endemic snail, pūpū kaniōe (*Partulina physa*), and a native plant, 'ōha wai (*Clermontia peleana* subsp. *singuliflora*), both once thought extinct. The crew also propagated and outplanted many young 'ōha wai to re-establish their population in the Kanea'a-Ponoholo Biodiversity Preserve.

### *Invasive species management*

Not only does KWP protect critical native habitat through fencing and outplanting, crewmembers and volunteers also work to remove invasive species that can—and often do—disrupt and displace endemic plants. The field crew removed all feral cattle from a 500-acre management area on Kahua and Ponoholo Ranches, further reducing the negative effects on the watershed from uncontrolled feral ungulates. The Partnership's Coqui-Free Waimea program continued its successful efforts to educate residents about the threats coqui frogs could pose to Kohala Mountain's ecosystem and how to control them from encroaching into the town and onto the mountain. A growing number of area residents have become vigilant stewards in the fight against the tiny, shrill menace, even turning neighborhood "frog hunts" into social outings.

### *Volunteer days*

Given the vast area that KWP is responsible for protecting and enhancing, the program and its crew rely on the generosity of volunteers who donate their time to assist with maintenance and restoration efforts during twice-monthly volunteer days organized by the Partnership. In fiscal year 2014, KWP received assistance from more than 200 student and adult volunteers who donated more than 1,500 hours of time on field outings to plant native trees, control invasive weeds, and maintain trails.

### *Pilina: Hawai'i Island Conservation Forum*

KWP organized and presented the first-ever Hawai'i Island Conservation Forum in November 2013, bringing together more than 200 conservation professionals, land managers, and interested community members at Waimea's Kahilu Theater. The event convened stakeholders to identify synergies, highlight existing partnerships, and create collaborative networks for future projects. Participants heard from each other about the work underway to protect and nurture the land, the water, the forests, the reefs, and the people of Hawai'i Island, covering topics such as rehabilitation of injured native wildlife, control of invasive albizia trees in South Hilo and Puna, revival of anchialine pond ecosystems in Ka'ū, and forest restoration efforts on Mauna Kea.

"Several years ago, when my son Makana's seventh-grade class at Waimea Middle School participated in a volunteer outplanting day one Saturday, I figured 'Cool, I bet he'll enjoy a field trip into the forest,' and didn't give it much more thought than that. Well, he must've fallen in love because he's put himself on the volunteer list for virtually every native planting, invasive species removal, and dam-building day since! It's amazing that at such a young age he found something to be so passionate about. As a Kohala Watershed Partnership intern, he's learned that he can keep up with adults doing real "grown-up" work. As a youth leader, he really loves playing with and mentoring the younger kids! They really look up to him, and he clearly enjoys teaching and sharing his passion with other potential conservationists. Makana knows that he is making a difference and it's done wonders for his self-confidence.

"I believe the volunteer days and summer youth activities that KWP makes available to the community provides our kids with opportunities to *mālama honua* (care for the Earth). If they have fun memories of nature, they will grow into adults with the passion to preserve it for future enjoyment."

**Tammey Oliveros**  
Waimea, Hawai'i Island



### *Youth summer programs*

Two summer programs administered by the Partnership—the Teen Leadership Program and the Waimea Nature Camp—provide island youth with opportunities to connect with nature in meaningful ways in North Hawai'i Island's majestic outdoor classroom. In the summer of 2014, four highly motivated teens interested in pursuing careers in natural science or conservation were selected for the Teen Leadership Program. Over the span of two months, the teen leaders are given opportunities to collect data with researchers, work alongside the KWP field crew, and lead and mentor 2nd through 8th graders in the Waimea Nature Camp. The mission of the Waimea Nature Camp is "to develop in our children an ethic of stewardship for our natural resources by engaging their minds through natural science and touching their hearts with the power and beauty of nature." The month-long camp uses play, crafts, and exploration to impart the values of equality, service, peace, and respect. Spending time

on Kohala Mountain, participants in both programs learn about the source of Waimea's water, threats to the water cycle, and native and invasive plants. Though the knowledge that students gain in these programs often rivals classroom instruction, the camp connects with participants not just academically, but emotionally as well. As Purell notes, "It's very simple: you are going to take care of what you love."

After centuries of deforestation, development, and encroachment by invasive plants and animals, Kohala Mountain is slowly being healed and lovingly restored thanks to the efforts of the Kohala Watershed Partnership's devoted and determined staff, cooperative and responsible partners, a passionate legion of volunteers and residents, and an emerging generation of stewards inspired to care for the *āina* (land) they call home.





# Protecting ocean resources:

## *Kahalu'u Bay Education Center*

FROM *MAUKA* TO *MAKAI* (the mountains to the sea), we work with communities to steward the island's precious resources and, in many cases, restore a sense of place. When it became increasingly clear that Kahalu'u Bay needed significant attention to restore its fragile ecosystem and the facilities of the surrounding county park, community and business leaders, residents, and government agencies asked us to help. Five years after we stepped in to assume management of a community-based volunteer program to protect the bay, a new program was born: the **Kahalu'u Bay Education Center** (KBEC), a partnership between The Kohala Center and the County of Hawai'i to revive and revitalize Kahalu'u Bay and Beach Park.

Rich in historical, cultural, and environmental treasures, Kahalu'u Bay welcomes more than 400,000 visitors annually, making it West Hawai'i Island's most popular tourist destination. As visitor traffic increases, educating visitors on proper reef etiquette and ecosystem stewardship is critical to the bay's survival and the region's economic health. Through volunteer-driven educational programs such as Citizen Science and ReefTeach, KBEC promotes and measures the positive impacts of environmental

stewardship to ensure the bay remains a healthy and welcoming place for residents and visitors alike.

This past year, KBEC's successful volunteer programs not only continued to educate visitors on proper "reef etiquette" and monitor the bay's health, they also served as models for new, similar programs in other vulnerable marine environments on the island's Leeward Coast. KBEC also reconnected the local community to the bay and park through an educational and family-friendly Keiki Fishing Derby, garnered support from local businesses and residents to raise funds for a new mobile education unit, and welcomed hundreds of students from across the country and around the world to learn and practice environmental stewardship.

### *ReefTeach*

A volunteer program created by the University of Hawai'i Sea Grant Program in 2000, ReefTeach educates visitors to Kahalu'u Bay on proper ways to enjoy and interact with corals, *honu* (green sea turtles), and the bay's other colorful marine life. Decades of increased human use took its toll

on the bay as swimmers and snorkelers, who would often step or stand on the reef, were unknowingly and literally trampling the corals to death. Today, under the leadership of program director Cindi Punihaole and volunteer coordinator/trainer Rachel Silverman, KBEC's staff and more than 400 ReefTeach volunteers promote "reef etiquette" to 52,000 visitors annually through direct and friendly interactions onshore and in the bay. ReefTeach also welcomes students from Hawai'i Island schools to attend trainings and share their knowledge with bay visitors; sixty-four students from Parker School in Waimea and more than 300 elementary and intermediate students in the Child Defense Freedom School's summer program at Kealahou High School participated in ReefTeach activities this past year.

Impressed by the friendly, efficient, and informative education that ReefTeachers at Kahalu'u Bay provided to visitors, representatives from the Puakō Community Association (PCA) approached KBEC about helping them implement the program at Puakō's most popular beaches: Waialea Bay and Paniau Cove. We helped PCA's board to secure a grant from the National Oceanic and Atmospheric Administration (NOAA) to create educational materials, recruit and train volunteers, conduct on-site outreach, and track visitor behaviors at both beaches. According to PCA member George Fry III, "We had been running a Makai Watch booth in Puakō for a couple of years, and wanted to increase our volunteers to reach more people. We are big believers in education, and Kahalu'u Bay's ReefTeach program

"Kahalu'u has been my family's home for generations. Our grandmother lived in a house right on the point where the Keauhou Beach Hotel was, and my mom and her siblings spent a lot of time on the beach. During my childhood, Kahalu'u Bay and Beach Park was a very special place where the community and families would gather to celebrate birthdays, have potlucks, play music, and swim in the bay. But as tourism picked up and more visitors came to the bay, things changed and the bay suffered. I appreciate all that Kahalu'u Bay Education Center is doing to educate visitors on how to care for the coral and to respect the sea life, to find a balance where people can experience this natural habitat without harming it. I also respect the center's efforts to engage the local community and reconnect them with the bay and park through events like the Keiki Fishing Derby that bring families together and teach our keiki about history and stewardship. It's my dream to see the center's conceptual Master Plan become a reality so that we can restore the park, bring back the history of this place, and continue to make it feel like home again."

**Ronald Sakata**  
Department of Parks and  
Recreation, County of Hawai'i  
Kahalu'u, Hawai'i Island





"I really enjoyed the opportunity to volunteer with Kahalu'u Bay Education Center this summer. Every day working with the ReefTeach program presented new lessons: I learned how to communicate with people from all walks of life, how easy it is to influence others to do good, and how much work goes into trying to save the world. The greatest lesson I learned is that the smallest actions can have the largest impacts. On my last day, a couple of visitors stopped by to ask questions about the turtles. I imparted much of the great knowledge I learned over the summer and they were very appreciative. Later in the day they came back and let me know they encountered some people harassing a turtle in a tide pool, and that because of what they'd learned from me that day they were able to impart that knowledge on those who were threatening the turtle. They may or may not have changed those people's minds, but in that moment I was so proud to see that the knowledge I was able to share empowered a sense of stewardship in others. It was a magical moment to see the immediate ripple effect that can happen when knowledge is shared. Because of my time at Kahalu'u Bay I learned that you don't always need huge movements or marches to make a difference...you just need one person to listen and be inspired to act."

**Autumn Brunelle**  
Summer 2014 Intern and  
ReefTeach Volunteer  
Cass Lake, Minnesota



certainly has it down pat. We thought ReefTeach would be a perfect fit for our community." Over the course of the NOAA grant period, twenty-three new volunteers and more than 125 students were trained to provide reef etiquette education at the two beaches.

One component of ReefTeach that allows the island's businesses to give back to the community is the Adopt-a-Day program. Starbucks in Kailua-Kona, as well as thirty-five other West Hawai'i Island businesses, routinely coordinate ReefTeach Adopt-a-Day outings for their employees; this year Starbucks locations in Waimea and Waikoloa also joined the effort by assisting the new ReefTeach program at Puakō.

### ***Wilderness Ventures and Bold Earth Adventures***

While the Kohala Watershed Partnership's Waimea Nature Camp offers kids a mauka perspective of island environments, KBEC hosts makai-side experiences for two different youth summer programs: Wilderness Ventures and Bold Earth Adventures. These two independent programs for high school-aged students aim to develop a sense of responsibility, self-confidence, and tolerance in their participants through meaningful outdoor experiences.

All of the teens in both programs are visitors to Hawai'i Island, coming from the continental United States as well as places as far away as Guatemala, China, and Italy.

While much of their time in the programs is spent in adventurous exploration, working with KBEC provides participants with opportunities to give back to the very island that gave them a summer full of life-changing experiences. The teens spend two to four days at Kahalu'u Bay, starting with a brief classroom training in which they learn about the coral reef ecosystem, interactions between marine organisms, and how people can protect fragile underwater environments. After a snorkel tour of the bay, during which participants observe and learn more about Kahalu'u's diverse marine life, they put their new knowledge to work as ReefTeachers, interacting with visitors and encouraging snorkelers to be good stewards of the reef by respecting marine life and not stepping on coral. Between ReefTeach shifts, participants collect and analyze water-quality data, explore tide pools, and visit nearby *heiau* (ancient Hawaiian temple) and culturally significant fishponds. Not only do the students return home with incredible memories and experiences, they also take back with them—and hopefully share—the knowledge that the health of our oceans impacts the health of communities worldwide.

## *Keiki Fishing Derby*

Decades ago, Kahalu'u Beach Park was a popular gathering place for the surrounding community, a place where families would come together and hold celebrations, play music, talk story, and enjoy the beautiful bay. As park facilities fell into disrepair and the bay became a popular tourist destination, local families patronized the park less frequently. In an effort to reconnect the local community with Kahalu'u's history and culture and re-establish a sense of place, KBEC hosted a Keiki Fishing Derby in October 2013. By holding a fishing derby at historic Waikua'a'ala Pond on the north end of the park, KBEC encouraged parents and grandparents to pass down traditional fishing knowledge to their *keiki* (children) while fishing invasive tilapia out of the pond and learning about sustainability.

More than fifty keiki ages seven to fifteen participated, collectively removing 373 tilapia from the pond. The fish were all turned over to event sponsor Kona Aquaponics, which planned to raise the fish for food and use their waste as fertilizer. Other event sponsors included Fair Wind Cruises, Patagonia, Jack's Diving Locker, and Body Glove, which all donated prizes. Young Brothers provided a \$1,000 grant in support of the event, and KTA Superstores and Starbucks donated food and drinks for volunteers. Radio stations B93 and B97 FM and KWXX-FM donated public service announcements.



## *New mobile education unit*

Since the center opened in 2011, the on-site van that serves as KBEC's home has met a variety of needs by housing everything from snorkel gear to educational materials. But time and growth have taken their toll on the seven-day-a-week workhorse: the van began to rust and literally burst at the seams. In January of 2014, KBEC kicked off a campaign to raise \$60,000 to procure and customize a larger mobile education unit to serve as the program's new home. Appeals to members of the Kona-Kohala Chamber of Commerce, program supporters, bay visitors, and the local community resulted in KBEC meeting its fundraising goal in less than six months. With a length of 25 feet, the new mobile education unit will enable KBEC to store more equipment, educational materials, and merchandise, ultimately expanding the program's capacity to serve more visitors. Local shipping company Matson has offered to donate shipping services to bring the new vehicle to Hawai'i Island from California, with an expected arrival in early 2015.

Through committed volunteers, engaging educational programs, and community support, KBEC is making a difference in the health of Kahalu'u Bay, one of Hawai'i Island's most vital environmental and economic assets. As corals slowly return to health and marine species that haven't been seen in years make a comeback, KBEC's efforts are paying off: for Kahalu'u Bay, for the community, and for Hawai'i Island's vibrant coastal ecosystem.



# Academic Programs

■ Over the years, we have created a suite of complementary *‘āina* (land)-based programs for community well-being. These programs have created knowledge-rich jobs—for ecologists, scientists, researchers, engineers, economists, educators, writers, designers, programmers, and many more. Through our work we, along with our partners, are building a knowledge-based economy by honoring and caring for the environment. Underlying all of our programs is a commitment to meaningful engagement, active learning, stewardship, and educational advancement. Providing youth and young adults with opportunities to further their academic achievements will ultimately enable us, and the communities we serve, to foster a more informed, educated, and resilient society.

Through solid partnerships with leading academic institutions, we are able to offer youth and young adults—both in Hawai‘i and beyond—opportunities to expand their horizons, realize their academic potential, and prepare for the jobs of the future. In 2014 we awarded scholarships to two emerging scholars from Hawai‘i Island: one to attend the **Brown University Environmental Leadership Lab**, designed to develop leadership skills while studying interactions between natural and social systems, and the **CURIE Academy**, a program at Cornell University for high school girls who excel in math and science. And for the tenth consecutive year, we welcomed the **Cornell Earth and Environmental Systems Field Program**, a semester-long program based on Hawai‘i Island in which undergraduates learn and apply principles of contemporary natural sciences, with the island serving as a dynamic learning laboratory rich in history, culture, and traditional knowledge.





# Academic Programs

ONE OF THE QUALITIES that distinguishes us is our strong, meaningful partnerships with local, national, and international research agencies and academic institutions. Our partners not only bring new resources and additional perspectives that can inform solutions to our islands' challenges, they also provide our youth and young adults with opportunities to advance their own knowledge and help them realize their full potential.

## *High school scholarship programs*

Because of Hawai'i's isolation and distance from the continental United States and other countries, many of Hawai'i's students miss out on opportunities to travel and experience educational programs outside the islands, primarily due to costs. Each year, The Kohala Center offers scholarships to Hawai'i Island high school students to attend leadership and academic programs at prestigious universities. Often these experiences help to inspire students to pursue opportunities they never thought possible.

Lysha Matsunobu, a 2014 graduate of Parker School in Waimea, exemplifies the transformational power of such programs. Through a Kohala Center scholarship, she participated in the Academic Connections program at University of California, San Diego, in 2011. "My summer at UC San Diego was invaluable to me as I remember it as my starting point in exploring academics beyond high school," she said. "I returned to Hawai'i to self-study AP Environmental Science in my sophomore year, confident with the knowledge I had gained from

the course at UCSD." Matsunobu was one of 141 U.S. Presidential Scholars selected from across the country based on their outstanding academic achievement, artistic excellence, leadership, citizenship, and contribution to school and community. She began her undergraduate study at Stanford University in the fall of 2014.

This past year we awarded scholarships to two Hawai'i Island youth to participate in engineering and environmental sciences programs at Ivy League universities:



**KaMele Sanchez**, a 2014 graduate of Honoka'a High and Intermediate School, participated in Cornell University's CURIE Academy in Ithaca, New York. The CURIE Academy is a one-week residential engineering program for high school girls who

excel in math and science, with classes, labs, and research projects led by Cornell's world-renowned faculty and graduate students. "This program gives me the opportunity to expand my knowledge and enhance my skills, so that I can come back home and share and help better my community," Sanchez said before embarking on her cross-country journey. Sanchez was also one of our Beginning Farmer-Development Program's high school agriculture interns in the fall of 2013 and a Kohala Watershed Partnership Teen Leader in the summer of 2014.





**Kaila Alcoran-Gaston**, a graduate of Ke Ana La'ahana Public Charter School in Keaukaha, received a tuition scholarship to attend Brown University's Environmental Leadership Lab (BELL) in Bristol, Rhode Island. The BELL

program focuses on sustainable development through several academic disciplines, including biology, engineering, environmental science, and policy. Students learn about human impacts on ecosystems and how policies, practices, and technology can influence and solve society's looming challenges. Before making the trek to Rhode Island, Alcoran-Gaston said that she was "excited to learn about human demands on the environment and what can and cannot be compromised, particularly in terms of long-term detrimental effects on our ocean and coastline ecosystem. I hope to learn how to contribute more knowledgeably to my own coastal community."

## ***Cornell Earth and Environmental Systems Field Program***

Under the tagline "The island as teacher. You as student. Mutually beneficial," Cornell University's Earth and Environmental Systems Field Program (EES) enables university undergraduates to study environmental and Earth systems on Hawai'i Island. The spring-semester program is offered by Cornell University in collaboration with us and unites classroom study and hands-on field research.

In 2014, Cornell EES celebrated its tenth anniversary, and with it some notable accomplishments: for the sixth straight year the program was carbon neutral, and for the fourth consecutive year the program was at full capacity with sixteen enrollees. The program also expanded beyond Cornell this year, with two students from Oberlin College and University of California, Berkeley. The 2014 class served in internships with the Nature Conservancy, Kahalu'u Bay Education Center's ReefTeach program, Hawai'i Marine Mammal Consortium, Waikoloa Dry Forest Initiative, Ka'upulehu Dryland Forest, Pu'u Wa'awa'a Forest Reserve, and Mālama Kai Ocean Warriors. Beyond their internship assignments, students worked with island conservation groups to outplant more than 1,000 native plants, helping to sequester carbon and restore native ecosystems.

Some of the students who developed a strong interest in ocean voyaging during the semester stayed on the island to greet and send off Hōkūle'a and Hikianalia, the Polynesian *wa'a* (voyaging canoes) that started their three-year Mālama Honua Worldwide Voyage from Hilo. Many of those students stayed on Hawai'i Island over the summer to work with Nā Kālai Wa'a, a nonprofit group dedicated to maintaining cultural values and customs through the teaching of non-instrument navigation and open-ocean voyaging.

Just as Hawai'i Island students gain valuable knowledge from attending academic programs in faraway places, university students who travel to Hawai'i Island for educational programs often experience deeply meaningful personal and intellectual growth. This exchange enables island youth to bring wisdom home for the benefit of Hawai'i, and for the island to instill in students who visit it a sense of *aloha 'āina* (love of the land) that can be shared and practiced far and wide.

"In my brief time in this amazing island microcosm, I have learned that the extraordinary is ordinary here. It is commonplace. One day in particular that stands out for me is our trail-mapping hike through Pololū Valley. The overlook of the northeastern coast was not only astounding, but also provided a great example of the diversity of the 'āina (land). The environment really came alive for me this day. Learning and doing in a place like this reminds me how connected I am to the Earth. I am not here to live on the Earth, but rather as part of it. To top the whole day off, I had my first experience hearing *koholā* (humpback whales) singing underwater—it was an absolutely amazing way to end a day in the field. All in all, this experience, as well as many others throughout the islands, has created in me a deeply rooted respect for the 'āina."

**Christie Hilliard**  
B.S. Animal Science (2014),  
Cornell University  
Hudson, New York



# Intellectual Leadership

■ Through our programs, internships, and scholarships, we are helping to prepare island youth for the knowledge-rich jobs of Hawai'i's future and inspiring them to push for excellence in their academic pursuits. As we work to help move Hawai'i and its communities toward greater self-reliance, the value of *alaka'i* (leadership) is driving the advancement of traditional and contemporary Hawaiian knowledge and perspectives for the benefit of local communities and societies around the globe.

The next generation of Hawaiian scholars is critical to continuing the legacy of indigenous knowledge, serving as Hawai'i's "brain trust" and holding the promise of intellectual leadership at colleges, universities, and research agencies here in Hawai'i and abroad. Their scholarly endeavors, rooted in the wisdom of generations of *kūpuna* (respected elders), are revolutionizing how we know ourselves and our history in Hawai'i, and in so doing, how we know the world.

We were delighted and honored when, in 2008, The Andrew W. Mellon Foundation recognized us as an organization capable of creating and administering a fellowship program to identify and support doctoral and postdoctoral scholars. With additional support from Kamehameha Schools, we launched the **Mellon-Hawai'i Doctoral and Postdoctoral Fellowship Program**; the Kahiau Foundation has also contributed to this effort. Over the span of six cohorts, the program has aided thirteen doctoral candidates in finishing their dissertations and eleven postdoctoral scholars in publishing original research. To date, seven fellows have received tenure and another eight are in tenure-track positions within the University of Hawai'i system, and one has an appointment as a research fellow at Oxford University in England. The fellows have published, or are in the process of publishing, book manuscripts with academic presses such as Duke University Press, Kamehameha Schools Press, Oregon State University Press, Oxford University Press, University of Arizona Press, University of California Press, University of Hawai'i Press, and University of Minnesota Press, thus making their indigenous research and knowledge accessible to global audiences.





# Advancing indigenous knowledge:

## *Mellon-Hawai'i Doctoral and Postdoctoral Fellowship Program*

AS GLOBAL INTEREST IN INDIGENOUS PERSPECTIVES grows, we are honored to support the development of new knowledge from Hawai'i—for Hawai'i and the world—through initiatives such as the **Mellon-Hawai'i Doctoral and Postdoctoral Fellowship Program**. Founded at The Kohala Center in 2008 by The Andrew W. Mellon Foundation and Kamehameha Schools, the Fellowship Program supports the work of Native Hawaiian scholars early in their academic careers, and of others who advance the knowledge of Hawai'i's natural and cultural landscape and Hawaiian history, politics, and society. The Kahiau Foundation also supported the program in 2010–2011 and 2012–2013.

Given our successes in creating knowledge-rich jobs and fostering the development of a knowledge-based economy and society in Hawai'i, the program is intended to support the development of *kama'āina* (native-born) intellectual leadership for Hawai'i's schools, universities, and research agencies. The fellowships provide financial and professional support to scholars in the period before accepting their first academic posts, giving doctoral fellows the opportunity to complete their dissertations and publish original research, while enabling postdoctoral fellows to publish original research early in their academic careers. Doctoral fellows accepted to the program receive \$40,000 each, and postdoctoral fellows

receive \$50,000 each. Each fellow works with a mentor, who is a leader in the fellow's field of research.

In 2013–2014, we welcomed the sixth cohort of Mellon-Hawai'i Fellows, comprised of four doctoral and one postdoctoral fellow: Doctoral fellows Iokepa Casumbal-Salazar, Ph.D.; Eōmailani Keonaonalikookalehua Kukahiko, Ph.D.; Bryan Gene Kamaoli Kuwada; and Kaiwipunikauikawēkiu K. Lipe, Ph.D.; and postdoctoral fellow Brandy Nālani McDougall, Ph.D. All fellows in the program's sixth cohort were affiliated with the University of Hawai'i at Mānoa. The fellows were selected by a distinguished panel of senior scholars and *kūpuna* (esteemed elders), including panel chairman Robert Lindsey Jr., member of The Kohala Center's board of directors and a trustee of the Office of Hawaiian Affairs; panel executive advisor Dr. Shawn Kana'iaupuni, director of the Public Education Support Division at Kamehameha Schools; Dr. Dennis Gonsalves, former executive director of Pacific Basin Agricultural Research Center and professor emeritus at Cornell University; Dr. Pualani Kanahale, distinguished professor at Hawai'i Community College and member of the board of directors of the Edith Kanaka'ole Foundation, and Dr. James Kauahikaua, scientist-in-charge at the U.S. Geological Survey Hawaiian Volcano Observatory.



*Mentor Cristina Bacchilega, Ph.D. with postdoctoral fellow Brandy Nālani McDougall, Ph.D.*

Postdoctoral Fellow **Brandy Nālani McDougall, Ph.D.** is an assistant professor of American Studies at UH Mānoa, where she earned her Ph.D. in English in 2011. During her fellowship she worked with mentor Cristina Bacchilega, Ph.D., a professor in UH Mānoa's Department of English. McDougall's monograph examines the continuity of the practice of *kaona*, a term often translated as "hidden meaning," within *Kānaka Maoli* (Native Hawaiian) literature from the 1960s to the present. Specifically, her work examines *kaona* references to three Hawaiian Creation traditions—the Kumulipo, Papa and Wākea, and Pele and Hi'iaka—and how contemporary authors use *kaona* to emphasize Kanaka Maoli political and cultural claims to 'āina and *lāhui* (nationhood or governance), as well as Hawaiian society's *kuleana* (responsibility) to enact those claims through decolonial action. McDougall noted that she hopes her examination of *kaona* "honors and recognizes the amazing intellectualism and spirituality of our kūpuna and shows how this intellectualism and spirituality has continued through our literature, despite the cultural and environmental devastation caused by American colonialism. These creation traditions connect us deeply to the 'āina and our kūpuna, and their lessons are infinite and tremendously healing. The *kaona* embedded within these *mo'olelo* (histories, stories), coupled with the *kaona* being actively composed by our contemporary authors, further hones and reinforces our intellectualism as a people."

Doctoral fellow **Eōmailani Keonaonalikookalehua Kukahiko, Ph.D.**, successfully defended her dissertation that examined "ethnomathematics," the integration of culture and mathematics, in Hawaiian educational settings. By investigating the experiences of classroom teachers working in Hawaiian educational settings who successfully integrate Hawaiian language and culture within their math classes, Kukahiko's research validated current literature indicating that ethnomathematics can increase student engagement and learning. Working with mentor Joseph Zilliox, Ed.D., a professor at the Institute for Teacher Education in UH Mānoa's College of Education, Kukahiko's research gleaned from the teachers' suggestions that the creation of culturally responsive mathematics curricula would improve academic performance and quantitative intelligence in Hawaiian and other diverse communities. As Kukahiko explained, "Through this research I seek to honor Hawaiian knowledge, and promote a deeper understanding of how Hawaiians viewed their mathematical environment. It is my hope that through my work and research I can encourage educators to incorporate Hawaiian language and knowledge into their classrooms, regardless of their educational settings."

The research being conducted by doctoral candidate **Bryan Gene Kamaoli Kuwada** focuses on the impact that translation has had on Hawaiian history, how that history is perceived and understood today, and



*Mentor Joseph Zilliox, Ed.D. with doctoral fellow Eōmailani Keonaonalikookalehua Kukahiko, Ph.D.*



"I'd like to mahalo The Andrew W. Mellon Foundation for making this stage in my academic journey possible. Having the means to care for my family and having the time to write has truly transformed our lives. And to The Kohala Center for administering this program... when I applied for this program I mainly saw it as a way to get funded so I could really focus on writing my dissertation. I had no idea how amazing the mentorship would be, that we'd be connected with so many people... the program is so well thought out, so well managed, and so full of aloha. I'll never forget this experience, and I promise to pay this forward in my community."

**Dr. Kaiwipunikauikawēkiu Lipe**  
University of Hawai'i at Mānoa  
Honolulu, O'ahu



*Doctoral fellow Bryan Gene Kamaoli Kuwada with mentor Craig Howes, Ph.D.*

also examines contemporary translation standards and practices. During his fellowship he worked with mentor Craig Howes, Ph.D., the director of the Center for Biographical Research and a professor in the Department of English at UH Mānoa. Over the course of his academic studies Kuwada noticed that many translations were (and are) conducted as a mechanical process, in which a word or phrase from one language is switched with its equivalent from the other language, rather than as highly interpretive practice in which the translator is essentially acting as another author. Kuwada's dissertation focuses on translations from and to *ʻōlelo Hawaiʻi* (Hawaiian language) as a force that affected both how history played out in the kingdom, and how society perceives and understands

that history. "Unlike what happened with many other indigenous peoples, translation in Hawaiʻi went both ways, with foreign stories, histories, treatises, laws, etc., being translated into Hawaiian, and Hawaiian stories, histories, treatises, laws, etc., being translated out of Hawaiian," Kuwada said. "My dissertation also brings a critical focus to contemporary translation practices, with the hopes of developing a more ethical and responsible model of translation than what sometimes gets practiced now." He hopes that practicing translation in a way that is ethically and culturally conscious will help make more Hawaiian stories available to people, as well as help them see that understandings of history have been manipulated through translation in ways that are not always so readily apparent.

Doctoral fellow **Iokepa Casumbal-Salazar, Ph.D.**, successfully defended his dissertation in September 2014. Working with mentor Noenoe K. Silva, Ph.D., professor of political science at UH Mānoa, Casumbal-Salazar's research analyzed the politics of astronomy on Mauna Kea and the debates surrounding the planned Thirty-Meter Telescope (TMT). Whereas the mountain

"I first became aware of The Kohala Center as a result of reviewing very strong book manuscripts on Native Hawaiian issues. Authors of these manuscripts had either been Mellon-Hawai'i Doctoral and Postdoctoral Fellows or served as mentors to these fellows. It signaled to me that The Kohala Center was a locus of important scholarship on Hawaiian issues.

"The field of Native and Indigenous studies is incredibly important at this time. Its political and theoretical interventions around issues of race and ethnicity, sovereignty, colonization, and settler colonialism are influencing broader academic discourses and disciplines while also circulating back through Native communities and informing tribal politics and recognition processes. Native Hawaiians are often at the forefront of these conversations and exchanges: I have seen the work of Native Hawaiian scholars, specifically around education, decolonization efforts, and literary studies, taken up as models for similar projects in different Native contexts. I have been impressed by the emphasis that the Mellon-Hawai'i Doctoral and Postdoctoral Fellows have made in ensuring that their scholarship is responsible to the community and informed by broader community concerns. It's important that The Kohala Center continue to support Native Hawaiian intellectual leaders and strengthen this community to ensure that they are able to contribute to and empower Native communities—both in Hawai'i and globally."

**Jason Weidemann**  
 Editorial Director, University of  
 Minnesota Press  
 Minneapolis, Minnesota



is prized to astronomers for its physical attributes as the best place on the planet to observe the universe, Mauna Kea is sacred to many Kānaka Maoli because it figures prominently in the *mo'okū'auhau* (genealogical story) as an ancestor and a place to be revered and



*Mentor Noenoe K. Silva, Ph.D. with doctoral fellow Iokepa Casumbal-Salazar, Ph.D.*

protected. Today, many Hawaiians continue to value this connection, yet the conflict is not merely one of science versus religion or astronomers versus activists, but also one over legitimacy, meaning, and possible futures. Who gets to decide and what are the historical conditions of that privilege? Casumbal-Salazar argues, "The latest push for another telescope takes place in the broader context of multicultural settler colonialism under U.S. occupation, realized through law and rationalized by science. The struggle over Mauna Kea is emblematic of the struggle over Hawai'i." His dissertation invites readers to think differently about the controversy by presenting an alternative conversation about the politics that inform the issue.

Strategic goal number one of UH Mānoa includes language to "foster a Hawaiian place of learning," yet doctoral fellow **Kaiwipunikauikawēkiu K. Lipe, Ph.D.**, who successfully defended her dissertation in May 2014, asserted that the institution is predominantly non-Hawaiian by almost every definition. Lipe worked with mentor Maenette Ah Nee-Benham, Ed.D., the dean of the





*Mentor Maenette Ah Nee-Benham, Ed.D. with doctoral fellow Kaiwipunikauikawēkiu K. Lipe, Ph.D.*

Hawai‘inuiākea School of Hawaiian Knowledge at UH Mānoa, to research and recommend how the university could implement this goal despite the reality that the current culture and environment of the university do not naturally support such a mandate. Despite what Lipe sees as a concerted effort over the last thirty years to reimagine, redefine, and re-ground UH Mānoa as a Hawaiian place of learning, many policies have been enacted but have not been put into practice. In her dissertation, Lipe captured

this shift through the mo‘olelo of select Native Hawaiian educational leaders who witnessed and engaged in this evolution, and compiled a mo‘okū‘auhau of the university’s people, policies, stories, demographics, and culture. “By doing so, I sought to discover how these different genealogical elements have supported or inhibited the transformation of UH Mānoa into a Hawaiian place of learning,” Lipe said. “I also explored *mana wahine* (female power) as the values, skills, strategies, and approaches they employed to create Hawaiian places of learning. Through the lessons of the mo‘olelo, I proposed a new theory of change to be helpful in future work to continue to transform the Mānoa campus into the Hawaiian place of learning it strives to be.”

After six years, our collective efforts to promote kama‘āina intellectual leadership are making a visible difference in the lives of the scholars, their respective fields of research and study, and their chosen organizations. The fellowship program has awarded twenty-five fellowships to sixteen doctoral candidates and nine postdoctoral scholars. Seven fellows are tenured and seven more are in tenure-track positions in the University of Hawai‘i system, and one fellow has obtained a research position at Oxford University in the United Kingdom. As this network of contemporary Kānaka Maoli scholars continues to grow, so too will the aspirations of future generations of Hawai‘i’s children, who will see for themselves that there are indeed no limits to their potential.



# Administrative and Financial Reports



OUR ADMINISTRATIVE TEAM AND PROGRAM STAFF continued their skillful and meticulous management of a diverse portfolio of funding sources, managing sixty-seven active grants in fiscal year 2013–2014. In recent years we have invested in upgrading our internal accounting systems and retaining outstanding legal and audit services, ensuring that program and operating revenues are utilized accurately, efficiently, and ethically. Maintaining the trust and confidence of our partners is critical to our continued success and ability to deliver results. Thus, we undergo the rigorous federal Office of Management and Budget A-133 audit annually. This year, as in past years, we are pleased to report that The Kohala Center has once again earned the designation of “low-risk auditee.”

In fiscal year 2013–2014, we focused on two internal projects to improve efficiency in the areas of communications and data management:

## *Website redevelopment*

The version of our website built in 2008 required coding knowledge and expertise to update and expand, resulting

in significant time and cost to maintain. Rebuilding the website from the ground up on the popular, open-source Wordpress content management system has resulted in a clean, elegant, and scalable website that is more user-friendly and easier to navigate, quick and efficient to maintain without advanced coding skills, is more compatible with mobile devices such as smartphones and tablets, and affords improved integration with social media platforms such as Facebook.

## *Constituent relationship management*

After careful evaluation, we implemented CiviCRM, an open-source constituent relationship management system designed specifically for nonprofit organizations by developers with deep knowledge of the needs and realities of nonprofit business environments. This customizable and scalable contact management system will enable us to understand and serve our constituents better, track donation histories and memberships and, over time, will even allow us to manage external email communications and event registrations from one central, integrated solution.



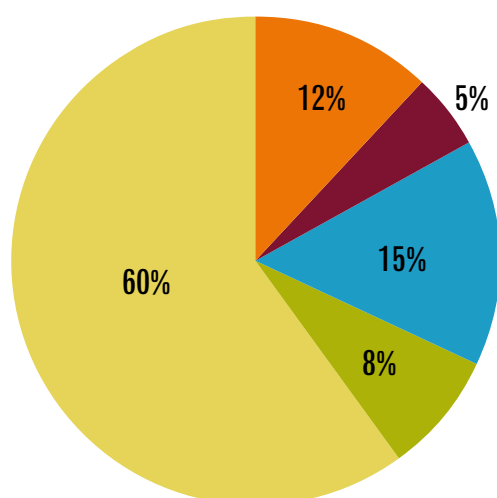
## Financial matters for the fiscal year ended June 30, 2014

### Support and Revenue

Federal	\$799,496
State and Local	\$313,919
Trusts and Foundations	\$968,814
Earned and Other	\$556,681
Contributions*	\$3,948,691

<b>Total Support and Revenue</b>	<b>\$6,587,601</b>
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Fiscal Year 2013-2014: Support and Revenue

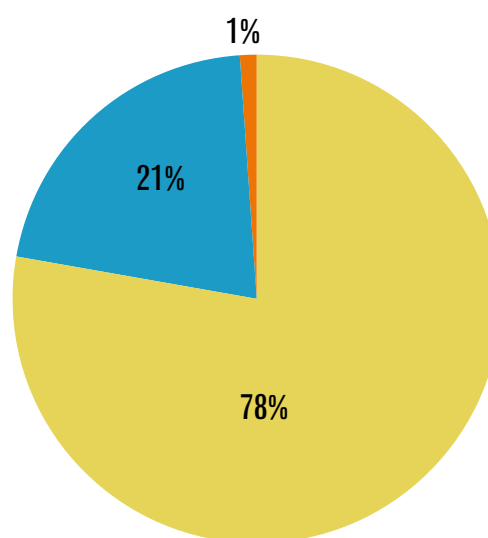


### Expenses

Program Services	\$2,831,893
Supporting Services	\$766,481
Fundraising	\$48,817

<b>Total Expenses</b>	<b>\$3,647,191</b>
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Fiscal Year 2013-2014: Expenses



Total assets	\$4,710,496
Total liabilities	\$936,440
Unrestricted net assets	\$3,360,442
Temporarily restricted net assets	\$413,614
Total liabilities and net assets	\$4,710,496
Change in net assets	\$2,940,410

\*Cash and Property

# New Staff Profiles

AS OUR ORGANIZATION AND PROGRAMS CONTINUE TO GROW to meet the needs and aspirations of island communities, we are creating meaningful jobs and contributing to a thriving knowledge-based economy in Hawai‘i. Meet the talented individuals who joined our team in fiscal year 2014—all of whom are committed to pushing for excellence and achieving results.

## Lydi Morgan Bernal

*Coordinator, Hawai‘i Farm to School and School Garden Hui*



My *‘ōhana* (family) has lived on O‘ahu for seven generations. Although I was born in Seattle, where my parents were while my father was attending graduate school, I was raised in the valleys of Nu‘uanu and Mānoa and graduated from Punahou School. I

attended Amherst College in Massachusetts, where I earned my bachelor’s degree in biology with a focus on microbiology, and a minor in studio arts.

I credit my family, as well as my sixth-grade teacher, for inspiring in me a deep love for our planet. My stewardship for Hawai‘i’s environment began with a Hoa‘aina internship with the Nature Conservancy of Hawai‘i. After college, while working for the Hawai‘i State Legislature one session as an aide, I discovered how much food and energy we import. This awareness and experience set me on my course for a career in agriculture, in particular working to reconnect Hawai‘i’s *keiki* (children) and youth with the *‘āina* (land).

After the legislature, I worked with The Green House, where I learned how to garden, compost, and teach students about sustainability. I then became a garden educator and school garden coordinator with the Kōkua Hawai‘i Foundation, where for eight years I collaborated in the development of the ‘ĀINA In Schools garden and composting curriculum for grades K through 5, and worked with many public and charter elementary schools to grow school gardens and farm to school programs.

I am grateful to The Kohala Center for “adopting” and supporting the Hawai‘i Farm to School and School Garden Hui. As coordinator of the *Hui* (association) I feel blessed to work with three of my cherished mentors: Nancy Redfeather of The Kohala Center, Betty Gearen of The Green House, and Gigi Cocquio of Hoa ‘Aina O



Makaha. Their respect for young people and commitment to preparing them to inherit and care for our planet, and the way that they bring spirit, beauty, and peace into my life and the world, truly inspire me and my work.

It is a pleasure to work with my teammates at The Kohala Center and to be aligned with such meaningful and critical programs. I appreciate the opportunity to work with an organization that invests in people, is committed to high standards of quality and excellence, and operates with a culture of optimism for Hawai'i's future.

## Jared Considine

*Field Technician, Coqui-Free Waimea,  
Kohala Watershed Partnership*



My connection to nature and the earth began at an early age, having been born and raised in the rural farming community of Dixon, Illinois. My upbringing inspired me to be an outdoorsman; I was particularly inspired as a volunteer for The Nature

Conservancy at a young age. I pursued higher education in environmental sciences, receiving a degree in forestry from Southern Illinois University and attending graduate school for soil science at Oregon State University.

Before moving to Hawai'i, I worked for multiple natural resource agencies and nonprofit organizations including the U.S. Department of Agriculture Natural Resources Conservation Service, The Nature Conservancy, the U.S. Forest Service, and Irvine Ranch Conservancy. I was drawn to Hawai'i Island by its incredible natural beauty as well as its diverse microclimates and year-round growing season. I feel very fortunate to have found this part-time opportunity with Coqui-Free Waimea as it fits my schedule, helps me develop new skills, and provides great personal reward knowing that my work benefits the community and the environment.

If there's one valuable lesson my work experiences have taught me, it's that you get the best results when you treat people with fairness and respect. Working with the Waimea community to fight back against invasion by coqui frogs has been truly inspiring. Many think the battle can't be won, but showing residents how to control them, then seeing them get so excited when they catch their first coqui, affirms how meaningful this work is and how successful we as a community can be in protecting our town and delicate ecosystem of Kohala Mountain.

## Zoe Kosmas

*Farm Production Assistant, Beginning  
Farmer-Rancher Development Program*



Hawai'i Island is sure a far cry from my native Minneapolis, Minnesota, where I was born and raised. After high school I went to the University of Vermont, where I earned a B.S. in public communications. While in Vermont I had the opportunity

to work with many local organizations that focused on sustainable community development, which introduced me to community agriculture and opened up my awareness of our role in local and global food systems.

My desire to learn how to grow my own food, and to experience a culture and environment different than anything I'd experienced before, led me to Hawai'i Island. After graduating from college, a friend and I made the decision to come out to Hawai'i to farm, explore, and play. Little did I know that Hawai'i wasn't going to let me off so easily: I had apparently come with deep work to do—deep work that only this 'āina could teach. I landed near Pololū Valley in North Kohala, where I worked on a twenty-acre tropical permaculture farm. After about six months several of us decided to transition from the casual work-trade community structure to a more organized, focused educational opportunity for people wanting to transform their lives through agriculture and living off

the land. This desire is what birthed the Hawai'i Institute of Pacific Agriculture (HIP), a program still thriving and educating youth and island communities today.

Through these experiences I learned about permaculture, community living, tropical agriculture, education, and Hawaiian agrarian traditions, and knew I had found my calling. After helping start HIP, I spent some time in California and volunteered in several farming communities in South America, then returned to Hawai'i Island at just the right time to apply for and get a job with The Kohala Center in the newly created role of farm assistant. I enjoy working with an organization that's been serving Hawai'i's communities and the environment for almost fifteen years, and love that I get to work outside, get dirty and grow our demonstration farm, and still pursue my passion for educating youth and empowering communities around shared values of personal and ecosystem health, resilience, and food self-reliance.

I hope to continue to build and foster meaningful relationships within the communities The Kohala Center serves and the programs we offer. As The Center continues to grow, I hope to help us maintain an intimate, 'ohana style of working so that we remain accessible to all communities in Hawai'i, and serve as an example for organizations around the world.

## Anna-Lisa Okoye

*Rural Business Development Specialist,  
The Kohala Center*



While I wasn't born and raised in Hawai'i, you could say I'm an island girl: I was born in Trinidad and raised in England, before my family relocated to New York and then Atlanta. I attended the University of Pennsylvania, where

I received my B.A. in psychology with a minor in legal studies, then went on to graduate with a law degree from New York University.

When I was in law school, I began studying community organizing and community economic development, participating in two clinics with NYU's Center for Community Problem Solving. During these clinics, I taught financial literacy and "Know Your Rights" workshops to incarcerated and recently paroled individuals, while examining the exclusion of low-income individuals from mainstream financial services and opportunities. From these experiences I realized that I wanted to develop a skillset that would help me create economic opportunities for low-income communities. My interest in local food systems stemmed from personal experiences with diet-related illnesses, which led me to learn more about nutrition, local food systems, and food policy in the United States.

Interestingly enough, I first learned of The Kohala Center as a potential client. After visiting Hawai'i Island with my husband Mike in 2010, we knew we wanted to make this our home. When we moved here three years later, Mike and I envisioned opening a locally sourced organic juice business together. I contacted The Kohala Center to learn more about the local food system and received business planning assistance from The Center's Rural and Cooperative Business Services team. The guidance I received helped us determine that our business vision would not be easily achieved given the current realities of the island's local food system. A few months later, when The Center was advertising for a rural business development specialist, I jumped at the opportunity to work toward increasing on-island food production by supporting local entrepreneurs.

Over the course of my career, I've come to learn the importance of knowing yourself and engaging in work that feeds your soul. At The Kohala Center I am consistently inspired by the dedication and heart of my colleagues, the work ethic and community-mindedness of our clients, and the generosity and vision of our supporters. I'm honored to be a part of moving Hawai'i Island and its residents toward greater self-reliance by supporting rural businesses that promote healthy food, healthy people, healthy communities, and healthy ecosystems.



## Neema Oshidary

*Multimedia Development Associate,  
The Kohala Center*



Being born and raised in Cupertino, California, in the heart of Silicon Valley, was an amazing experience. After graduating from the University of California, Los Angeles, with a degree in computer science, I decided to hop across

the Pacific to the one state with even better weather and beaches. Weather and beaches aside, though, what truly drew me to Hawai'i Island was the opportunity to live and work in an environment where people are still connected to the 'āina and cherish community values. After twenty-three years I knew I was ready to explore life, and a value system, beyond the borders of the Golden State.

During my second year of studies at UCLA, I was exposed to web development, and from that point on I knew that was what I wanted to pursue. I began making websites for myself and for friends and never seemed to get tired of it. I decided to pursue a career in web development, and here I am today doing exactly that with The Kohala Center.

I appreciate the fact that everyone at The Center takes pride not only in their individual work and programs, but also in the collective work that The Center does for the community. It's exciting to be a part of a team that is having positive impacts through its programs here and across all the Hawaiian Islands, and even more exciting to be able to leverage interactive technologies to reach, educate, and help more people. A major component in community development is access to and sharing of important information, and I look forward to applying my programming skills to build tools that meaningfully connect and inform individuals within the community.

My grandfather, whom I've been fortunate to have present throughout my life, has always been a man that I look up to and admire. He has a ruggedness that is

the by-product of many decades of hard, physical labor to support his family, but beneath this rough exterior is the kindest man you will ever meet. He has shown me the nobility of living a simple life that is driven by core values. I see many of these values here on Hawai'i Island, and I hope to support, promote, and live by such values as beautifully as he has.

## Pohaiikananikamahina Patterson

*Field Crew Member,  
Kohala Watershed Partnership*



Born in Hilo and raised in Waimea, I have literally been connected to this island my entire life. Growing up in Waimea taught me to appreciate the beauty of Hawai'i's unique environment and nurtured my connection to it.

As a kid, I always envisioned a career in which I got to work outside. While I was in high school I was introduced to the world of natural resource management through the Hawai'i Youth Conservation Summer Program, which inspired me to pursue a career in this field. I was also inspired by my aunty Kalei Nu'uhiwa because of her expertise in understanding and interpreting the natural world from a Hawaiian perspective. Her work helped me appreciate traditional knowledge as science, and motivated me to explore the intersections of traditional knowledge and Western science. I went on to the University of Hawai'i at Hilo, where I studied geography, Hawaiian studies, and agriculture.

After graduating from college in 2011, I was hired to teach science classes at Ke Kula 'o Nāwahīkalanī'ōpu'u, a Hawaiian language and cultural medium school. I went on to work as a field assistant with the Mauna Kea Watershed Alliance, and a year later I was fortunate enough to have the opportunity to join the Kohala Watershed Partnership and The Kohala Center.

I have learned many valuable lessons from my previous and current work. Within my own life I strive to contribute to my community and the environment, and seek out opportunities that allow me to meet these goals. I have participated in research, cultural, and community-based capacities within the larger environmental movement in education, agriculture, and conservation, and I believe that this is an exciting time with many great opportunities.

Being a child of this island, I have long been passionate about the health of our community and environment, as well as the relationship between our community and the environment. Because of The Kohala Center's dedication to both, I feel that my background and passion for our community, Hawaiian language and culture, and our environment can contribute to solutions leading to positive change.

## Rachel Beth Silverman

*Volunteer Coordinator and Trainer,  
Kahalu'u Bay Education Center*



I was born in Washington, D.C., and raised in Rockville, Maryland; my family moved to Los Angeles while I was in high school. I attended Humboldt State University in Arcata, California, where I studied biology and zoology. After

graduating I traveled and lived in many places, including Mexico, Costa Rica, Florida, and Ontario, Canada.

After college I was awarded an internship with a bird migration monitoring program in Tortuguero, Costa Rica. This was the same location where Archie Carr began marine turtle monitoring in the 1950s. I spent every waking moment either counting birds or learning about sea turtles. While in Costa Rica I also had the opportunity to work with Randall Arauz, director of PRETOMA, a nonprofit organization devoted to protecting sharks and

sea turtles. Unafraid to stand up to authority in order to protect vulnerable ecosystems, he is both an expert and an activist who works with local people, fishermen, police and park guards, and government organizations, and even advised the Costa Rican president. Despite all of this esteem and prestige, he is still totally approachable and inclusive. He has learned to compromise and work together with diverse groups to accomplish very tough goals. To this day Randall still inspires me, and I am motivated by his passion, determination, and approachability.

I've been very lucky to work with and lead a number of conservation and environmental education projects focusing on ocean conservation and sea turtles. I longed to live close to them again, and on a family vacation to Hawai'i Island and a visit to Kahalu'u Bay, I learned about the *honu* (turtles) that frequent the bay and Hawai'i's coastlines. I felt like I had to move closer to them and help them survive. My parents were in the process of retiring as well, and we were contemplating locations where my husband and I could raise our daughter close to my parents. Kona seemed a perfect place for all of us, and soon after we moved here I started volunteering for Kahalu'u Bay Education Center's ReefTeach program.

I love to inspire and educate people both young and old about the natural environment, and I am so happy to have the chance to do that here. And I'm even happier that the volunteer coordinator and trainer position at Kahalu'u Bay Education Center opened up and that I got the job! I'm looking forward to building the volunteer base at Kahalu'u, increasing communication and collaboration with current volunteers, and sharing our environmental education programs with schools all over Hawai'i Island.





# Board of Directors



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# Photography Credits

## Front Cover

Wind turbines in Ka‘ū, Hawai‘i Island

*Photo by Samantha Birch*

*Honu* (green sea turtle, *Chelonia mydas*)

*Photo by Doug Sell*

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Wind turbine in Ka‘ū, Hawai‘i Island

*Photo by Samantha Birch*

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Farmer in greenhouse

*Photo courtesy Kiva.org*

Girls with a leaf and caterpillar

*Photo by Amy Salling*

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Girl with string bean

*Photo by Amy Salling*

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School garden plot at Kohala Elementary School

*Photo by Janette Lee*

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Salad bar at Konawaena High School

*Photo courtesy Mary Lynn Garner*

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White-spotted boxfish (*Ostracion meleagris*)

*Photo by Doug Perrine*

‘Ōhi‘a lehua (*Metrosideros polymorpha*) blossom

*Photo by Jack Jeffrey*

Yellow tang (*Zebrasoma flavescens*)

*Photo by Andrew Walsh*

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*Honu* (green sea turtle, *Chelonia mydas*)

*Photo by Bo Pardau*

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Aerial photo of Kahalu‘u Bay, Hawai‘i Island

*Photo by Bo Pardau*

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Threadfin butterflyfish (*Chaetodon auriga*)

*Photo by Doug Perrine*

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Cornell University Earth and Environmental Systems

Field Program students

*Photos by Alexandra Moore*

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Kilauea lava flowing into Pacific Ocean

*Photo by Brad Lewis*

*Tiwi* (Hawaiian honeycreeper, *Vestiaria coccinea*)

*Photo by Jack Jeffrey*

*Liko lehua* (*Metrosideros polymorpha*)

*Photo by Jack Jeffrey*

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Ocean wave

*Photos by D. Watt/SeaPics.com*

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*Laukahi* fern (*Dryopteris wallichiana*)

*Photo by Jack Jeffrey*

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*‘Apapane* (Hawaiian honeycreeper, *Himatione sanguinea*)

*Photo by Mark Kimura, Ph.D.*







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