



# Kilo Honua Workshop Report

Kailua, Ko'olaupoko, O'ahu, Hawai'i

March 13-15, 2014



- ▶ Traditional Knowledge
- ▶ Food
- ▶ Renewable Energy

## Note from the Director

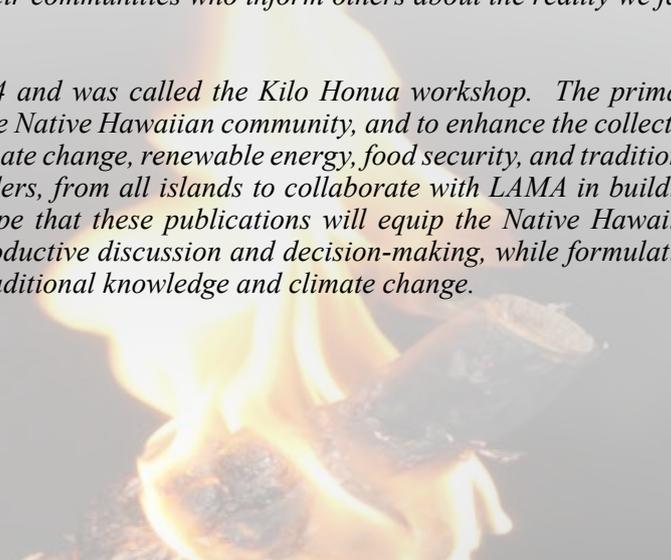
*Welina e nā hoa makamaka mai ka pi'i 'ana o ka lā i Kumukahi a i ka nāpo'o 'ana o ka lā i Lehua. Loli Aniau, Maka'ala Aniau (Climate Change, Climate Alert) or "LAMA" is a project housed within the University of Hawai'i at Mānoa Hawai'i inuiākea School of Hawaiian Knowledge (HSHK), one of the largest schools of indigenous knowledge in the United States.*

*LAMA's mission is to catalyze climate adaptation and resiliency by engaging communities in Hawai'i and beyond through innovative training and policy tools that link decision-makers with the university, island communities, and the public as well as private sectors. It is our goal to engage and empower climate justice communities in Hawai'i and globally.*

*The overall goal of the "Lamakū Na'auao" project is to build the capacity of the Native Hawaiian community to participate in decision-making and contribute to an enhanced capacity for our islands' food, agricultural sectors and cultural practices to be resilient to the impacts of climate change. LAMA believes that by enhancing the collective knowledge, skills and attitudes of the participants we are lighting the lama (torch) in each community regarding these key issues that our communities are faced with. The participants become strengthened leaders in their communities who inform others about the reality we face and encourage them to take action.*

*One of the first community workshops was held in March 2014 and was called the Kilo Honua workshop. The primary purpose of this workshop was to engage, listen and learn from the Native Hawaiian community, and to enhance the collective knowledge, skills, and attitudes of the participants regarding climate change, renewable energy, food security, and traditional knowledge. We invited cultural experts, practitioners, and leaders, from all islands to collaborate with LAMA in building a strong kahua for the Kilo Honua publications. It is our hope that these publications will equip the Native Hawaiian community with the vocabulary and knowledge to engage in productive discussion and decision-making, while formulating solutions in the key areas of renewable energy, food security, traditional knowledge and climate change.*

*'o au iho nō,  
Malia Nobrega-Olivera  
Director of Strategic Partnerships and Community Engagement*



In the ahupua'a of Kailua, the moku of Ko'olaupoko, on the island of O'ahu, cultural practitioners, community educators, kupuna, and Native Hawaiian leaders from Ka Pae 'Āina o Hawai'i convened at an intensive two and half day workshop. Together we listened to mo'olelo of various aloha 'āina efforts, shared best practices, and discussed place-based, community driven, and culturally rooted initiatives/solutions that benefit us today but more importantly the generations to come. We came from different islands and hold different kuleana in our communities however, we all are committed to working for the betterment of the lāhui.

The mo'olelo and experiences lay the foundation for the Kilo Honua publications that will be disseminated through the Cultivating Kilo Honua workshops as well as other community gatherings. The primary goal of these workshops are to engage the Native Hawaiian community and enhance the knowledge, skills, and attitudes of the participants regarding climate change, renewable energy, food security, and traditional knowledge.



# TRADITIONAL KNOWLEDGE



*Listening Sessions*

*Photo credit: Malia Nobrega-Olivera*



*Photo credit: Pōmaika'i Kaniaupio-Crozier*

## **Pōmaika'i Kaniaupio-Crozier**

shared his engaging ideas and perspectives through his unique ho'āina lens. Pō's work in the Pu'u Kukui Watershed Preserve puts him in constant contact with the various ecosystems from the wao akua to the wao kanaka. He stressed the need to re-install connectivity across all of these habitats to adequately secure an 'āina-based, sustainable future in Hawai'i.

While each moku is unique and significant, continuous data and record keeping is crucial in monitoring and mediating the

growing effects of climate change. "Pua ke koa, 'ohi 'ohinā 'ano 'ano – when the koa flowers, gather the seeds."

What has proven effective for sustainability in our environment may not necessarily work in these changing times, and issues surrounding climate change may provide a unique opportunity for innovation. Pō shared that, while plant extinction protection (PEP) is a great effort in navigating climate change, more common seed storage is an important factor for long-term viability. Keeping this storage strategy low-tech is critical so that efforts can be duplicated. His crew at Pu'u Kukui maintain a sizeable seed collection and



*Photo credit: Pōmaika'i Kaniaupio-Crozier*



*Photo credit: Pōmaika'i Kaniaupio-Crozier*

storage operation in the preserve to ensure the survival of a variety of native species, underscoring the winning combination of kānaka sensibility in thoughtful mālama 'āina practice while simultaneously preserving and securing natural resources.



*Photo credit: Pōmaika'i Kaniaupio-Crozier*

**Keali'i Pang**, presented an ethnobotanical approach to issues surrounding climate change, reminding us that if we lose plants, we lose a very important part of our culture.

**“Our kūpuna were master observers whose recognized weather patterns and environmental symbiosis, and climate change presents unprecedented challenges in monitoring and mitigation of its effects.”**

Can culture be retained without the 'āina? Barely. Keali'i shared how the carefully articulated religious system mai ka wā kahiko served as an environmental regulator for the population. Fishing and agricultural practices were dictated by reverence and acknowledgement of the akua, and this enabled a balance and mutual sustaining of the environment and the people. This connection served as a constant reminder of what we have kuleana to mālama.



*Photo credit: Malia Nobrega-Olivera*



*Photo credit: Hau'oli Waiiau (above). Pōmaika'i Kaniaupio-Crozier (right).*



The impacts of climate change, however, present debilitating challenges to this fragile balance. Primarily, it ushers in the loss of plant habitats, causing gathering areas to be lost, which then leads to separation between kanaka and the ʻāina and kai resources. This then creates a disassociation of Hawaiian spirituality, and plant traditions are at high risk of being lost. Taking clues from our kūpuna may be the key ~ looking into the names and traditions of specific wahi pana may be a good start in writing the new traditions of our changing environment.

**Hannah Springer** eloquently shared how the answers to effectively adapting to a changing climate can be found not only through study of traditional practices in ancient times, but through recalling how our kūpuna adapted to the introduction of western customs, ideologies, and encroachment on Hawai'i's shores. She used Kona, Hawai'i as the example throughout her presentation, citing that an area scarce in water and other natural resources typically found on other islands forced innovation among Kona's inhabitants, and instituted communal attitudes about conservation not found anywhere else. Looking through the lens of this innovative ecological knowledge, she brought traditional relevance to our conversations around security,



*Photo credit: Thelma Tomich*



**Buddy Ke'ala** has been instrumental in the revitalization of fishpond productivity across Hawai'i, blending contemporary and traditional fishing expertise to establish educational, economic, and food security opportunities in Hawai'i. Buddy spent many years training young Hawaiians in loko i'a restoration, 'āina work, and natural resource management techniques. His work focuses on combining contemporary and traditional practices to achieve success in Hawai'i's changing landscape, with a particular emphasis on water quality monitoring and management. Navigating business courses and legal and permitting issues has allowed him to meet these needs head-on, and notes that loko i'a restoration efforts not only brings communities food security, but provides educational opportunities, economic stimulation, and traditional connectivity.

**"The estuary is the most productive system in the world ~ the point where fresh water meets the sea providing an ideal habitat for larval and near-shore fisheries. The fish can smell 'em,"** he says, **"and they are easily recruited to the ponds."**



*Photo credit: Buddy Ke'ala (above). Malia Nobrega-Olivera (below)*

In the early 1900's, a fishery study reported that 600,000lbs were harvested annually from Hawai'i's loko i'a, but a similar study conducted in 1970 reported yields of less than 20,000 lbs. Modern development cuts off ma uka to ma kai water sources, severely compromising these fragile systems.

But there is hope. Revitalization enthusiasts like Buddy continue to lead community education and



restoration initiatives, breathing life back into loko i'a across the islands.



Buddy believes that every fishpond is restorable, stating that the externally labeled ecological progression of neglected loko i'a systems may be at

the root of the systematic dismissal of these once highly productive ponds as a viable, renewable resource in these modern times. **"A pond naturally wants to fill back up,"** he says. **"It's up to kānaka to keep it a pond!"**



*Photo credit: Buddy Ke'ala (both above).*



*Photo credit: 'Anakala Les Kuloloio*

**'Anakala Les Kuloloio** is a beloved kupuna and longtime community activist hailing from māmalā o Kuloloī'a, known in modern times as Honolulu Harbor. He is credited for being at the forefront of the 1970's Hawaiian renaissance.

Urging us to cling fast to the traditions of our ancestors, 'Anakala Les delivered an animated and engaging presentation detailing his own 'ohana's vast knowledge of the sea, and how ancestral observations inform us in these modern times on how best to navigate the changing climate. 'Anakala Les reminds us that we have the tools,

the rules, and the desire to sustain, just as our kūpuna did for hundreds of years, through keen observation and mālama of our environment, our natural resources, and intergenerational learning.



“Our ancestors were rememberers ~ participators ~ recalling spirit images from the Universe.”



*Photo credit: Malia Nobrega-Olivera (both above).*



*Photo credit: 'Anakala Les Kuloloio (both above)*

He tied this mana‘o to abundance, saying that our ancestral memories teach us about biodiversity, our interactions with the creatures of the sea that sustain us, and responsible stewardship of these resources.

For example, he introduced the subject of endangered species vs responsible stewardship ~ by carefully observing traditional kapu and seasonal hunting, this becomes a non-issue.

FOOD



*Listening Sessions*

*Photo credit: Malia Nobrega-Olivera*

Sust'āina ble Molokai



*Photo credit: Malia Akutagawa*

School of Hawaiian Knowledge. She is also part of Hui 'Āina Momona, a consortium of scholars throughout the university community charged with addressing compelling issues of indigenous Hawaiian knowledge and practices, including the legal regime and Native Hawaiian rights associated with mālama 'āina, and with a focus on cross-disciplinary solutions to natural and cultural resource management, sustainability, and food security.

Presenting as the President of Sust'āinable Molokai, a non-profit she founded, Malia detailed the organization's strides in bringing the momona back to the island and the community through a variety of traditional discovery and modern agricultural practices. Loko i'a restoration, pono fishing practices, subsistence studies, fishing resource management ~ the weaving of these practices reestablishes momona on the land. Citing the 'Aha Ki'ole system that

## M a l i a A k u t a g a w a

is a Molokai native hailing from the ahupua'a of Kamalō. She is a full-time professor at the University of Hawai'i-Mānoa William S. Richardson School of Law and Hawai'i inuiākea



*Photo credit: Malia Nobrega-Olivera*

emphasizes collaboration at the ahupua'a and community grassroots level, she shared guiding queries that highlight the sustainable future of Molokai.

**“How many people can Molokai really sustain?”**



*Photo credit: Malia Akutagawa*



*Photo credit: Malia Nobrega-Olivera*

Through Sust‘ainable Molokai, Malia Akutagawa is helping her community ask questions such as “How many people can Molokai really sustain” and “what is the sustainable yield of an aquifer?” As part of this effort, Malia worked with her community to conduct an assessment study that surveyed the community about their subsistence levels through interviews with farmers, local businesses providing goods and services, hunters, fisherman, and other community groups. Their findings were astounding, determining that while 98% of the food found in restaurants and stores were brought in by barge, 40% of the local diet comes from subsistence sources and 53% of the population is growing their own food. What are the community identified needs?”



*Photo credit: Malia Nobrega-Olivera*

Under the Sust‘ainable Molokai model, ‘aina



*Photo credit: Malia Akutagawa*

is essential in true sustainability and abundance, and designing ahupua‘a that provide more than enough for the island’s inhabitants. Among the many innovative ways that Sust‘ainable Molokai achieves this end, they have created Molokaipedia, a community empowerment tool that brings ownership of data about



*Photo credit: Malia Nobrega-Olivera*

community resources and initiatives, utilizing this data in a way that is meaningful for them, tightening community networks, informing key stakeholders, and increasing equity and access to these community resources. With ‘āina central to this tool, she cites Malo:

“...moku is land surrounded by water, ‘āina is land sustained by kānaka.”

**Ilima Ho-Lastimoso** is a native of Waimānalo, O‘ahu, who shared her involvement with an aquaponics sustainability movement, and her vision of reaching those in her community to do the same. A



*Photo credit: Ilima Ho-Lastimoso*

member of the Waimānalo Ahupua‘a Coalition, God’s Country Waimānalo is committed to establishing a viable community food system, with production, distribution, consumption, and recycling providing for the community in an unending cycle.



*Photo credit: Malia Nobrega-Olivera (both above)*

The hui promotes education and training in traditional gardening, canoe culture activities, ukulele building, lā'au lapa'au propagation and practice, and aquaponics system installation.

With the health of her community as a guiding focus, Ilima Ho-Lastimosa has led a sustainable revolution in modern resource management and cultivation in her own backyard. She has hosted community workdays guiding her neighbors in installing their own systems, and sees working alongside community and 'ohana to construct



*Photo credit: Ilima Ho-Lastimosa*

micro-ahupua'a with limited space and natural resources has proven an effective empowerment tool with incredible community benefit. This modern innovation serves as a viable solution to depleting natural resources while ensuring subsistence in rural Hawaiian communities.



*Photo credit: Ilima Ho-Lastimosa*

**Puni Jackson** is a Native Hawaiian artist and practitioner who is the community education coordinator at Ho‘oulu ‘Āina. A guiding philosophy of Ho‘oulu ‘Āina is a commitment to abundance, and dedication to producing more than enough for the larger community.



*Photo credit: Puni Jackson (above). Hau'oli Waiau (right).*

Housed under Kokua Kalihi Valley (KKV) Comprehensive Family Services, the hui seeks to lift and empower the surrounding community by providing an open space for people to practice and perpetuate Hawaiian culture, farm, create art, and access traditional and alternative health care services. Hosting over 12,000 accesses annually, KKV provides a pu‘uhonua deep in the mountains behind Honolulu

that promotes ‘ai pono, wholeness, and spiritual connectivity. The hui stands as a stellar example of real community-based sustainability.

Through the farmer education program, “we are ‘GROWING FARMERS’ and their capacity to farm.”



*Photo credit: Malia Nobrega-Olivera*

# Renewable Energy



*Listening Sessions*

*Photo credit: India Clark*

**Nelson Ikaika Fernandez** life work has been dedicated towards sustainability and sustainable practices. Serving as the UHM and the Pālolo STEM Outreach Coordinator for the Pālolo Discovery Science Center, he works on research projects related to ocean wave energy conversion efficiency and urban wind turbine performance. Currently, he is working on a project related to wave energy extraction and floating offshore wind turbines. His capstone project team designed and built a functioning wind turbine. He also promotes sustainability education at the Pālolo Discovery Science Center where he teaches youth about solar energy, aquaponics, water management, climate change, and energy efficient practices.

Nelson stressed that **“Kānaka Maoli are natural engineers”**, insisting that we need to work overtime in learning to use the technology available to us so we can be the bridge between ‘ike kūpuna and our modern world. Detailing the mechanics of renewable energy sources such as solar, biomass, geothermal, wind, and ocean thermal energy conversion (OTEC), he provided insight through an engineering lens of their viability as well as the issues surrounding their use.

“We need to double time with technology so we can be the bridge between our kūpuna and our current world.”



*Photo credit: Malia Nobrega-Olivera*

**Mililani Trask** is a leader of the Hawaiian Sovereignty Movement, an attorney, a United Nations (UN) expert, and a long time advocate for indigenous peoples and human rights.



*Photo credit: India Clark*

Currently Mililani owns her own limited liability company called Indigenous Consultants and works with indigenous peoples based on the Native-to-Native model that she created.

The Native-to-Native model is based on the UN Declaration on the Rights of Indigenous Peoples (UNDRIP) and provides a human rights based approach to her work. **“We as Indigenous Peoples have a right to possess and own our lands, territories and resources and to set development priorities for that and to ensure direct benefit to our peoples and communities. This is a human right.”**

Mililani reminded us that “we own renewable energy in this State.” When it comes to taking care of the ‘āina Native Hawaiians fully understand the concept and the responsibility as guardians of the ‘āina. However, Native Hawaiian haven’t look at the energy resources coming to us from the ‘āina and from the akua and adapt that same kind of commitment. “We have the obligation to develop energy resources that belong to our people in appropriate ways and we have rights to control the development of it.”

Indigenous Consultants LLC tries to do business in a PONO way and this is how they define it: “P”- Policies for Energy= New and Comprehensive; “O” - Open and Transparent

Development Process; “N”- No Violation of Culture or Damage to Environment; and “O”- Opportunities for Community to Participate and Benefit. Their Native-to-Native model is built on 4 important principles- 1) Culturally Appropriate, 2) Environmentally Sustainable, 3) Socially Responsible, and 4) Economically Sensible. Indigenous Consultants LLC has worked closely with Innovative Development Group (IDG), a Native Hawaiian owned company, that has helped Maori people



*Photo credit: India Clark*

with the development of geothermal on their ‘āina based on their Native-to-Native model. Mililani shared their experience of partnering with the Maori people as the land owners and lessons learned through the process. She also shared examples of the community benefits included in their contracts that were prioritized by the Maori people and they included things like on the job training, scholarships and educational opportunities, and business opportunities such as timber drying and food drying.

One of the main points that Mililani pointed out to the participants is that “we need to change the way the state is operating. The State is operating on a continental model. We can’t use a continent model because the lands are contiguous.

**“Our islands are not contiguous. We need an island-by-island energy approach.”**

**Harmonee Williams** is a graduate of DURP at UH-Mānoa and an environmental community planner serving on the island of Molokai. She is a member of the Sustāinable Molokai team, which focuses on sustainable strategies for the island. Harmonee detailed Sustāinable Molokai's Molokaipedia initiative, focusing on an energy assessment project that provided a snapshot of the island's energy consumption. Their findings not only shed light on where energy is most used, but also provided a foundation of information and input to inform decisions about moving forward in energy for the entire State. She stressed that data collection is an incredibly valuable in creating change and shifting the attitudes and behaviors of the population ~ in order to make informed decisions about our future, we need to know the facts. The energy assessment, comprised of 281 surveys and numerous interviews, focus groups, and external research, pinpointed the highest energy uses on island. It exposed that Molokai endured the highest electricity rates in the nation, while boasting the lowest electricity usage. It also examines case studies in other countries where 100% renewable energy is attainable, but not necessarily cheaper.

Assessment tools like this one can provide each moku with a clear picture of where consumption is, and what direction is most viable for sustainability."



*Photo credit: Malia Nobrega-Olivera*

**Hermina Morita** served as a State Representative for 15 years for Kaua'i and Maui, and as the Chair of the Energy & Environmental Committee for the past 14 years. In 2011, she became the Chair of the Public Utilities Commission, a regulatory body overseeing public utility organizations such as HECO and private water owners. In this capacity, she has worked to bring transparency to the commission and increase accessibility by the public. Underscoring equity issues, the commission develops policy strategies, including early adoption policies relating to renewable energy initiatives and energy efficiency.

Discussion explored strategies in cracking this energy conundrum by re-working some of the longstanding systems that have historically been in place. She explained Renewable Portfolio Standards, which sets the stage for a market of renewable resources and is the basis for Hawai'i's energy policies. **The move towards locally-produced energy may be a key piece in the puzzle to stabilize Hawai'i's economy.** Incorporating an ahupua'a approach to the existing system, she examined the systemic effects of what happens upland and the implications downstream, citing that we need to get our dependency on oil under control, as it impacts our economy so severely.



*Photo credit: Malia Nobrega-Olivera*

## Future Actions

- Create a network of kilo honua practitioners
- Create a community of practice around kilo honua, mālama ‘āina, and sustainability
- Kilo Honua practitioners to host Kilo Honua community workshops in collaboration with LAMA
- Use social media to share our collective work and raise awareness about our key themes- traditional knowledge, food, renewable energy, and climate change.
- Hō‘ā i ka lama- Day of Action in support of the Mālama Honua Worldwide Voyage

Hō‘ā i ka lama is a project that transpired from a day of action that would be done once to a monthly action done on every full moon. It is a call to our global community to “Hō‘ā i ka lama” (ignite the torch) and turn our attention to the night sky to show our collective support for the Mālama Honua Worldwide Voyage, to raise awareness around the global issue of climate change, and encourage simple, conscious efforts to mālama ‘āina (care for the land). For more information visit- <http://hoaikalama.com>



The Hō‘ā i ka lama flyer available as part of the social media kit on the Hō‘ā i ka LAMA website (above).

# Workshop Agenda

## Thursday, March 13, 2014

7:00 AM	Additional arrivals of participants	
8:00 AM	Registration	
	Coffee, Tea, and Assorted Breakfast Items	
9:00 AM	Pule & Ho'okipa	
	Opening Remarks	LAMA
	Overview of agenda & Introduction of Facilitator(s)	LAMA and Facilitator- Annelle Amaral
9:30 AM	Listening Session 1	Malia Akutagawa
10:05 AM	Listening Session 2	Pomaika'i Kaniaupio-Crozier
10:40 AM	Listening Session 3	Keali'i Pang
11:15 AM	Listening Session 4	Iluma Ho- Lastimosa
12:00 PM	Lunch	
1:30 PM	Listening Session 5	Puni Jackson
2:05 PM	Listening Session 6	Buddy Keala
2:40 PM	Listening Session 7	Hannah Springer
3:15 PM	Overview of listening sessions/ Kilo Honua curriculum discussion	Facilitator- Annelle Amaral
4:00 PM	Break	
6:00 PM	Dinner	
7:30 PM	Video Sharing/ Discussion	

## Friday, March 14, 2014

8:00 AM	Coffee, Tea, and Assorted Breakfast Items	
9:00 AM	Pule and Overview of Day 1, Agenda for Day 2	
	Overview of agenda & Introduction of Facilitator(s)	LAMA and Facilitator- Annelle Amaral
9:30 AM	Listening Session 8- Renewable Energy	Harmonee Williams
10:05 AM	Listening Session 9- Renewable Energy	Nelson Ikaika Fernandez
10:40 AM	Listening Session 10- Renewable Energy	Milani Trask
11:15 AM	Listening Session 11- Renewable Energy	Hermina Morita
12:00 PM	Lunch	
1:30 PM	Listening Session 12	Jalna Keala
2:05 PM	Listening Session 13	Les Kuloloio
2:40 PM	Listening Session 14	
3:15 PM	Overview of listening sessions/Kilo Honua curriculum discussion	Facilitator- Annelle Amaral
4:00 PM	Break	
6:00 PM	Dinner	
7:30 PM	AVA Konohiki presentation/discussion	Lilikala Kameeleihiwa and AVA Konohiki team

## Saturday, March 15, 2014

8:00 AM	Coffee, Tea, and Assorted Breakfast Items	
9:00 AM	Pule & Wehena	
	Indigenous Methodology of Observation- Moon Calendars	Brenda Asuncion and La'akea Carvalho
10:30 AM	Kilo Honua curriculum discussion	LAMA and Facilitator
11:30 AM	Evaluation/Mahalo	LAMA and Facilitator
12:00 PM	Lunch	
1:30 PM	Mahalo/Airport Run	

# Workshop Participants

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Staff, students, volunteers, and other contributors make up the LAMA team. The core LAMA program staff and project team members are listed below. LAMA encourages participation and collaboration from all departments at the University of Hawai'i at Mānoa, as well as from external individuals and organizations.

- ▶ Malia Nobrega-Olivera, LAMA Director and Hawai'i inuiākea Director of Strategic Partnerships and Community Engagement, [nobrega@hawaii.edu](mailto:nobrega@hawaii.edu)
- ▶ Micky Huihui, LAMA Program Assistant, [mickyhuihui@gmail.com](mailto:mickyhuihui@gmail.com)
- ▶ India Clark, LAMA Project and Research Specialist, [india@hawaii.edu](mailto:india@hawaii.edu)
- ▶ Special thanks to volunteers: Hau'oli Waiiau and Thelma Tomich

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