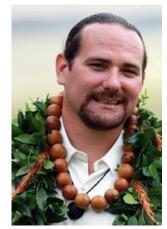
Interview and Survey Summary to Understand Professional Development Needs in Natural Resource Management Fields in Hawai'i

Hui 'Āina Momona



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A consortium of scholars who focus on cross-disciplinary solutions to natural and cultural resource management, sustainability, and food security facing Native Hawaiians, Pacific Islanders, and other Indigenous communities.

VISION: Lako ka 'āina o Hawai'i nei, momona mai uka a i kai.

Abundant 'āina, thriving people.

MISSION: Hui 'Āina Momona enhances Hawai'i's ability to nourish 'āina and people physically, intellectually, and spiritually through integrated scholarship and community engagement, manifesting aloha 'āina.

PURPOSE: Our purpose is to strengthen capacity to kia'i 'āina, care for and govern natural resources at the local level.

The Hui's overarching strategic objective is the development of cross-disciplinary solutions to natural and socio-cultural resource management, sustainability, and food security issues facing Native Hawaiians, Pacific Islanders, and other Indigenous communities integrating traditional Hawaiian knowledge and practices.

One of the primary strategies in achieving this objective is the development of a Hui 'Āina Momona education program focused on culturally-grounded natural resource management.

To inform the development of this program, the Hui administered 10 interviews and an online survey reaching 154 participants working with 'āina based non-profits, government agencies & large landowning entities.



'Āina Based Non-Profits, Agency & Large Landowner Interviews

April 2017

Who was interviewed?

- William Aila, Jr., DHHL & DLNR
- Suzanne Case, DLNR & TNC
- ► Kevin Chang, KUA & OHA
- Brant Chillingworth, Hau'oli Mau Loa
- ► Kamana 'opono Crabbe & Mehana Hind, OHA
- ► Neil Hannahs, KS & Hoʻokele Strategies
- ► Hiʻilei Kawelo, Paepae o Heʻeia
- Lenore Ohye, CWRM
- Johanna Ventura, Waipā
- ▶ Ulalia Woodside, TNC & KS



















Current & Future Needs

- Training in multiple disciplines, across sectors.
- Collaboration of government agencies and across sectors.
- ► Filling stewardship and management gaps. Government and large land owners do not currently have the capacity to manage all of their landholdings. Restructuring of the Department of Land and Natural Resources is necessary to be more facilitative, collaborative, and adaptive. Collaborating with communities is a great way to fill management gaps.
- There are some key challenges to collaborative management, including need for facilitation. Community co-management opportunities tend to harbor difficult-to-meet expectations for both community and government. Key areas to improve within government include collaboration across agencies, the ability to adapt rules, moving efforts forward within administrative and legal constraints, and general bureaucracy. The requirement for liability insurance is another challenge that impacts land owners and community organizations.

Current & Future Needs Cont.

- More career and job opportunities for people to do mālama 'āina work outside of the government sector. Spark the social entrepreneurial mindset.
- Partnerships across UH campuses. Joint teaching efforts will serve as bridges into communities and with cultural resources, and will provide students access to valuable learning opportunities across platforms, campuses, and islands.
- ► Create value for current generations to engage in long term investments that provide positive impacts for our natural resources.
- Volunteers who are ready with skills needed for the many volunteer opportunities available.
- ► Sharing with the larger community the great work being done by community groups, to garner the respect they deserve.
- Succession planning to prepare the next generation of values-driven leaders.

Current & Future Needs Cont.

- More national funders for projects in Hawai'i. Securing long-term, sustainable funding is a huge barrier for local non-profits to be able to follow through with long-term projects. To enhance impacts on the ground, national program officers need to be more supportive of community efforts, while remaining behind the scenes.
- ► Create monitoring, evaluation and performance metrics to understand the effectiveness of strategies in resource management and mālama 'āina. These metrics need to make sense for community and landowners, while capturing value in a way funders and others can understand.
- Address economic reality of homelessness, theft, burglary, and poachers that negatively impact natural resources and landowners.
- More adaptive resource management through focusing at the local level, looking to communities who utilize and gather from the lands. Decentralized governance and decision-making provides greater opportunities for adaptive and place-based resource management.

Cultural Grounding, Lens, History, Language & Archival Research

- Sufficient cultural expertise to help with integration of cultural practices and values into laws and policies.
- Grounding in culture and tradition allows for ability to ask better questions
- Experience working with and understanding local and diverse communities.
- Introduction to archival research and repositories.
- Understanding of Hawaii's history.
- 'Ōlelo Hawai'i, as it helps with the transfer of knowledge and is valuable for archival research.
- Training for cultural expertise.
- Foundational levels of values, etc. is good but needs to be on a deeper level to ensure culture is not the first thing to go.

Leadership

- A different model of leadership; leaders who can share space and help people work together.
- Resiliency, problem solving, and making good yet difficult decisions.
- Succession and Macro level government planning.
- HR: hiring/firing well, training, and capacity building, etc.
- Sense of kuleana for all.

Law & Policy	Science & Biological Background
- Macro level view of state and local	- Practical understanding of environmental science; e.g., fishpond
government.	ecosystems, hydrology, understanding the spread/control of plant diseases, etc.
- Understanding permitting and approval	
processes.	- Understanding the value of water, how it is interconnected with land and growth cycles.
- Understanding Ch. 343 triggers.	
- The government's obligations to Native	 Need to focus on interactions between ecosystems, at the ahupua'a and moku levelsPapakū Makawalu.
Hawaiians and public trust resources and how	
to incorporate legal protections into community work and working with	- Where and how people and the environment work together.
communities.	- Keeping up on the latest research and developments.
- Zoning, historical and present day land use and tenure in Hawaii as it ties into	- How to monitor.
governance and identity.	- Matching resource management needs with applied science and traditional knowledge methodologies.

Interpersonal Skills & Community Relations

- Introductory level of psychological understandings.
- Connection to place, which leads to broader lessons of kuleana.
- How to engage, work with and communicate with communities, partners and decision-makers; building and maintaining relationships.
- Facilitation training for community and public meetings to provide meaningful opportunities for input and communication, effective listening, and dealing with confrontation.
- Ensure that community process includes values.

Mediation, Facilitation & Conflict Resolution

- Being comfortable with conflict.
- Ability to know and apply skills of mediation, facilitation and crisis management.
- Hoʻoponopono in a Hawaiian to Hawaiian context, Hawaiian to government, Hawaiian to malihini, etc.
- Facilitation and social science work, to ensure processes include values. Being cognizant of where things are going and understanding how to navigate through adjusting one's process.

Mapping & Planning	New Economic Models
- Comprehensive organizational planning.	- Creating business models and structures that give back to the culture, community and environment.
- Resource management planning with a solid cultural and community foundation.	- Creating innovative non-profit and for-profit models (i.e., a for-profit entity that fits within non-profit mission, administrative and grant writing support from a partner entity, etc.)
- Mapping and GIS skills, the ability to read and create maps.	- Innovation training (e.g., Master Cho's training in Hilo).
- Traditional land use overlays.	- Global, lāhui approach to land stewardship, more collaboration across Hawaiian trusts.
- Storytelling with maps.	- Balancing: revenue generating commercial land holdings, cultural and conservation land holdings, and needs for resource management.
	- Basics on managing budgets, working with numbers, etc.

Community Governance & Collaboration	Education, Curriculum Development, Evaluation, Etc.	Emergency Planning & Preparedness
- Learn from indigenous & grassroots communities worldwide.	- Curriculum development, participatory evaluation, classroom management (particularly for non-	 Planning for the spread of viruses, climate change effects, etc.
- Engage with and support community work.	profits).- 'Āina based training for teachers.	
- Government capacity for co- management.	- Education internships.	

Physical Labor	Other
 Running heavy equipment, weed whackers, chainsaws, etc. 	 Archaeology and anthropology to restore historical sites so that they may be utilized for their intended
 Dry stack masonry for fishponds, etc. 	purpose.Need for professionals with
	practical, on-the-ground experience.

Program Design & Delivery Methods

Models:

- **Evening and/or weekend cohort** (e.g., one-week night, one-weekend day; consider examples such as Chaminade and the University of Southern California).
- ► Cohort allows for all students—across generations and professional sectors—to enter the program, take all courses, and finish together. This model would be highly beneficial for agency staff to network with other agency staff and potential partners.
- ▶ Webinar, online courses and resources; brings learning to the workplace during flextime.
- ▶ On-site learning to ensure connection to place with community partners while partnering with landowners, agencies, etc. The right model can build well-rounded community capacity. Mehana's 16-week Waipā course model is great.
- ▶ Offer a progression of different levels of courses and skills. The Hālau 'Ōhi'a model allows one to attain various levels of training based on how many classes are attended. The Papakū Makawalu model offers beginner and expert workshops.
- Build flexibility into the program to best meet individual needs.

Program Design & Delivery Methods

- ► Time commitment: 1-year is ideal; 2 years does not seem as attractive.
- Offer evening and weekend classes.
- ► Ease registration and enrollment requirements to **ensure program accessibility**.
- Teach pressing and meaningful issues.
- Create a program rich in experience and engaging community.
- Partner and work with other community initiatives and networks, such as E Alu Pū.
- Bridge with KSHK konohiki curriculum.
- Engage UH Mānoa Sustainability Coordinator.
- Involve field agency staff as a part of the program.
- Incorporate intermediate and high school level students and schools.

Resource Center

- ► Kuaʻāina Ulu ʻAuamo (KUA) is building an ʻauamo website to house tools and resources that people and communities want to share with one another. KUA also has a lending library, willingness, and the ability to partner. The Hui could be listed as a contact for communities who need specific kōkua.
- ▶ General mana'o is that there are a lot of resources out there already, but that many communities do not realize these kinds of resources are available. Figure out how to make these kinds of resources more accessible.
- Resource center with grant and foundation information would be valuable.

Key Values

- ► E hoʻohuli ka lima i lalo
- ► Ma ka hana ka 'ike
- ► Kūpuna wisdom
- ► Mālama 'ohana and 'ohana in the workplace
- ► Laulima
- Sense of place
- ► Generational transfer of knowledge
- ▶ Pule and ceremony as a part of our work

KEY TAKEAWAYS

- 1. There is real value in culture and community-based, cross-disciplinary training.
- 2. The demand is far-reaching, across many sectors and professions.
- 3. Focus on process and learning implemented on-the-ground.
- 4. Need for society to generate value for current generations to engage in long term investments that provide positive impacts for our 'āina and communities.
- 5. Recommend field based, on-site, on-line, cohort model offered with partners. Learning in work place, & professional managers as participants.

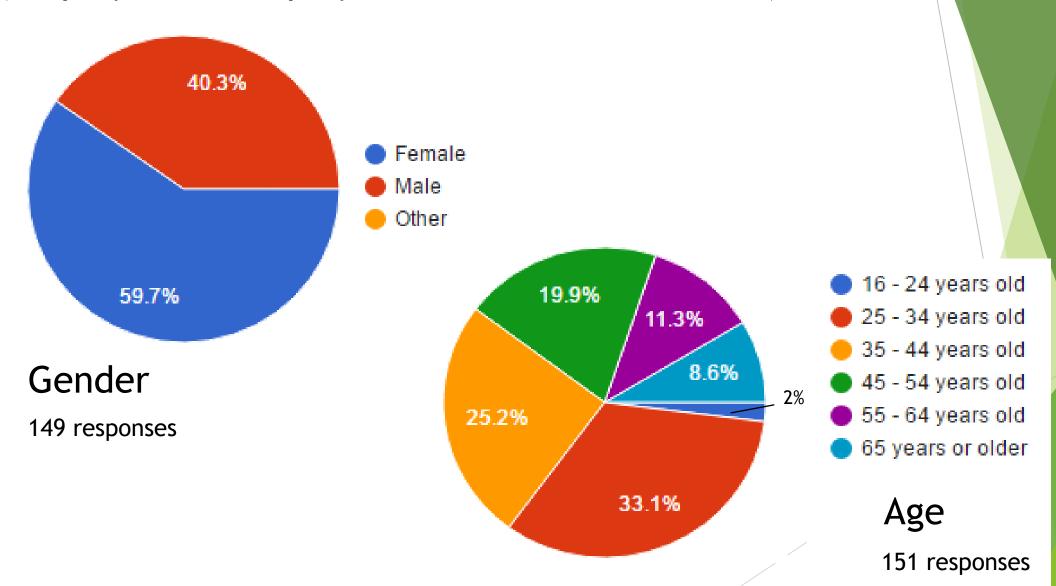


Employer/Employee Survey Responses
April 2017

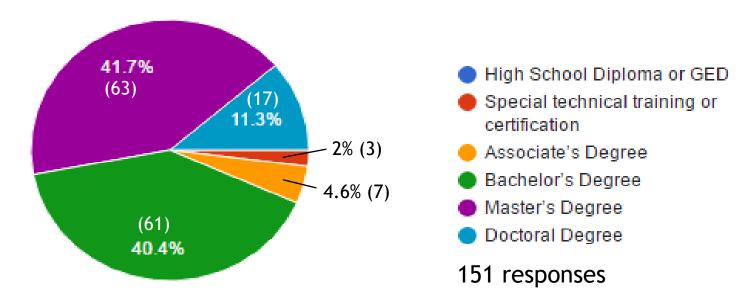
WHO RESPONDED?

154 total survey participants

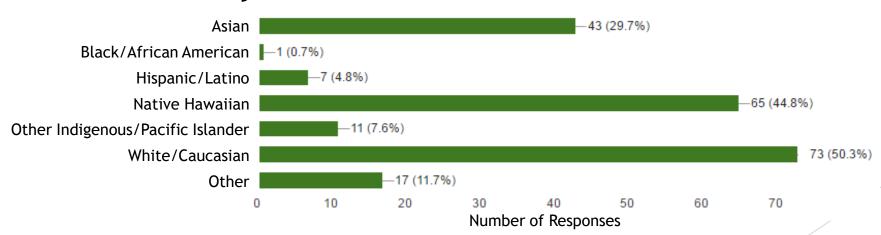
(employees & employers in NRM related fields)



Highest Level of Education

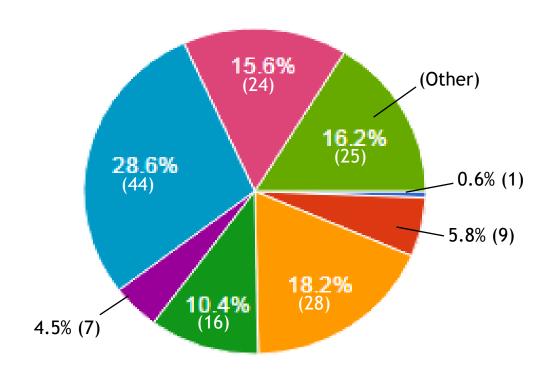


*Race/Ethnicity



Other: Human, Mixed, Chinese, Filipino, Irish, Norwegian, German, Swedish, Native American

Position within the organization

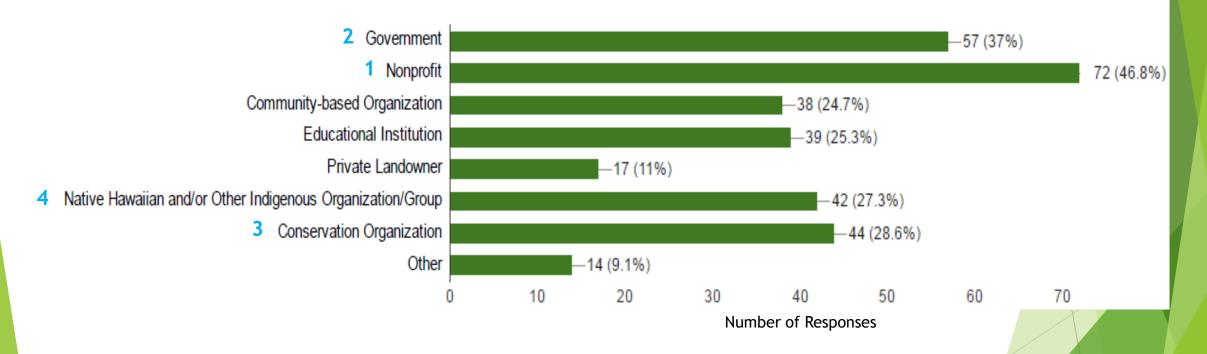


- Intern
- Volunteer
- Staff: Field or Technical
- Staff: Education and Outreach
- Staff: Administrative Support or Grants
- Manager/Supervisor
- CEO/Director
- Other

Staff = 33% Supervisor = 44%

Other: "Wear many hats", Board, Research Scientist, Attorney, Planner, Kumu, Marketing, Fellow, Engineer, Specialist, Instructor, Event Coordinator, VP of Finance

*What type of org do you represent?



Other: Environmental & Community Planning Company, Private Industry, Youth Development, Mālama 'Āina, Ecological Consulting Business, Hawaiian focused charter school, loko i'a practitioner

*Organizations

Government (42)

'Aha Moku

County of Kauai x2

CWRM x3

DHHL - Planning Office

DLNR - DAR

DLNR - DOBOR

DLNR - DOFAW x4

DLNR - DOFAW/NARS x2

DLNR - SHPD

DLNR x7

Hakalau Forest National Wildlife Refuge

Kaho'olawe Island Reserve Commission x2

Mauna Kea Watershed Alliance

NOAA Fisheries

NPS x2

OHA

Soil and Water Conservation District x2

State Office of Environmental Quality Control

US Fish & Wildlife Service x3

US Forest Service x2 USDA NRCS x3

Educational Institution (27)

Ka 'Ike O Ka 'Āina

Kamehameha Schools x8

Kanuikapono Charter x2

Kaua'i Community College x2

Kawaikini Charter x3

King Kekaulike High School

'Ohana Kūhaulua

PREL

RCUH - PCSU

UH Mānoa CTAHR x3

UH Sea Grant

UHH

Ulu Mau Puanui

University of New Hampshire

*Organizations (Cont.)

Private Company (4)

Forest Solutions, Inc.
Ola Design Group
Townscape, Inc.
Wear on Earth - Hawaii

Private Land Owner (4)

Hawaiian Islands Land Trust Kawika Tropical Fruit Orchards Kualoa Ranch Porter Trust, owners of Wai Koa Plantation

Nonprofit (62)

Hale o Lono
Hawaii Conservation Alliance
Hualiaupa'a
Kipahulu 'Ohana Inc
Kua'āina Ulu Auamo
Kukuiohiwai
KUPU x6
Limahuli Garden & Preserve (NTBG)

Marimed
Pacific Rim Conservation
The Kohala Center x2
Waikoloa Dry Forest Initiative

Community-based Org

God's Country Waimanalo
Hanalei Watershed Hui
Kaupulehu Marine Life Advisory Committee
KUPA
Malama Kaua'i
Mālama Māhā'ulepū
Maunalua Fishpond Heritage Na Pali Coast 'Ohana
Protect Kaho'olawe 'Ohana
Save Honolua Coalition
Waihe'e Limu Restoration Waikalua Loko I'a (Pacific American Foundation)
Waipā Foundation x2

*Organizations (Cont.)

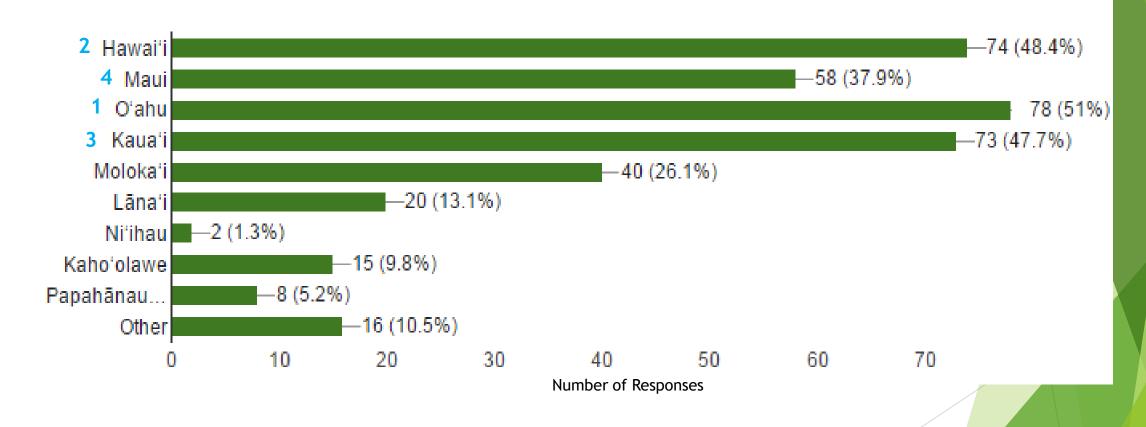
Native Hawaiian/Indigenous Org

Ewa Limu Project x2
Hi'ipaka LLC x2
Holani Hana, Inc x2
Hui Mālama I Ke Ala 'Ūlili
Ka Honua Momona Intl
Kalanihale Kamiloloa/One Ali'i Homesteaders
Association
Mālama Loko Ea Foundation
Na Pua Noeau
Paepae o He'eia
Polynesian Voyaging Society

Conservation Org

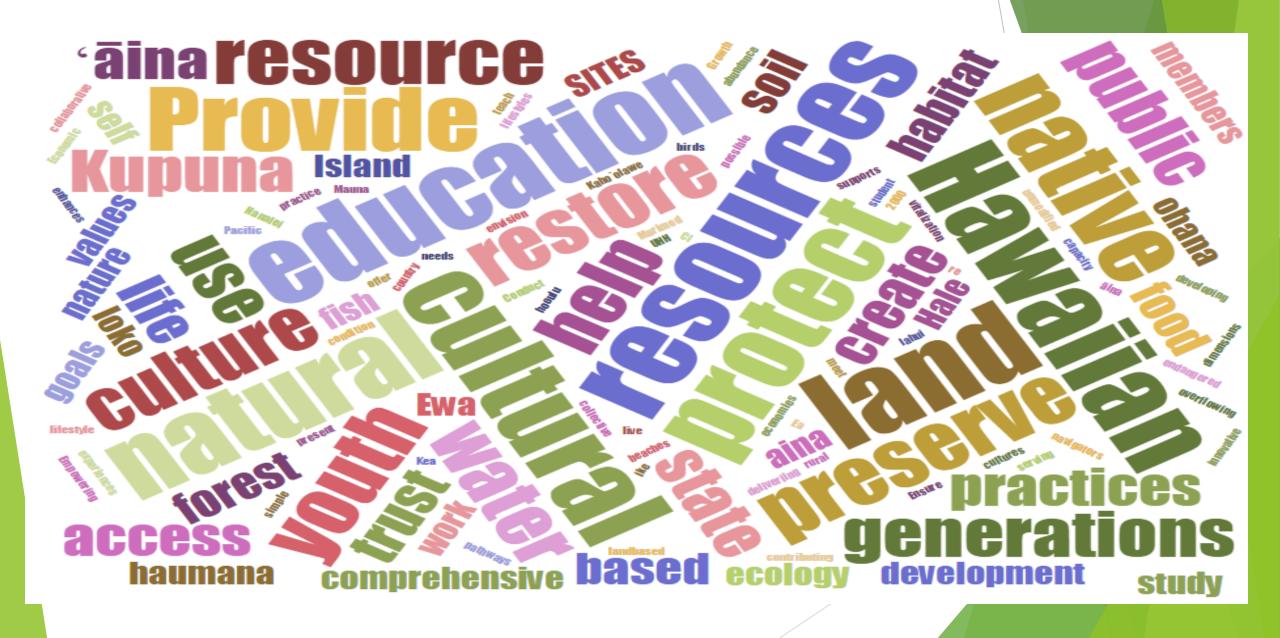
Conservation Intl x2
Hawaii Forest Industry Association
Island Conservation
Kaua'i Invasive Species Committee
Leeward Haleakalā Watershed Restoration
Partnership
Maui Invasive Species Committee
Pono Pacific x2
Surfrider Foundation
TNC x6

*On what island(s) is your org located?



Other: Borneo, Johnston, Palmyra, Lehua, Guam, Marianas, Other Pacific Islands, Global

What is the mission or main purpose of your org?



What is the mission or main purpose of your org? (Cont.)

ACTIONS

Educate/outreach/train/teach x44 Learning/Learners x7

Protect x32
Manage/management x24
Conserve/conservation x23
Preserve/preservation/preserving x18
Restore/restoration/restoring x16
Sustain/sustainable x12
Mālama x6
Stewardship/stewards x6

Help x9 Empower x8 Aloha x6

Research x6

TARGETS

Land/'Āina x37
Watershed/ahupua'a x14
Water x11
Fish/fishing/fishpond x9
Ocean/Kai/Makai x6
Forests x6
Agriculture/agricultural x5
Plants/replant x5

Environment/habitat x18 Ecosystem x9 Resources x24

Culture/cultural x22

Community/communities x27 Generations/generational x7 Youth/keiki x12 Kupuna x5

What is the mission or main purpose of your org? (Cont.)

"Scientific study"

"Restore Loko Ea Fishpond, use traditional 'ike to teach haumana, and supply sustainable food sources to the local community"

"Working with others to conserve, protect, and enhance fish, wildlife, plants, and their habitats for the continuing benefit of the American people"

"We envision an ahupua'a where the land, resources, and people are healthy, vibrant and overflowing with abundance"

"Feed the community"

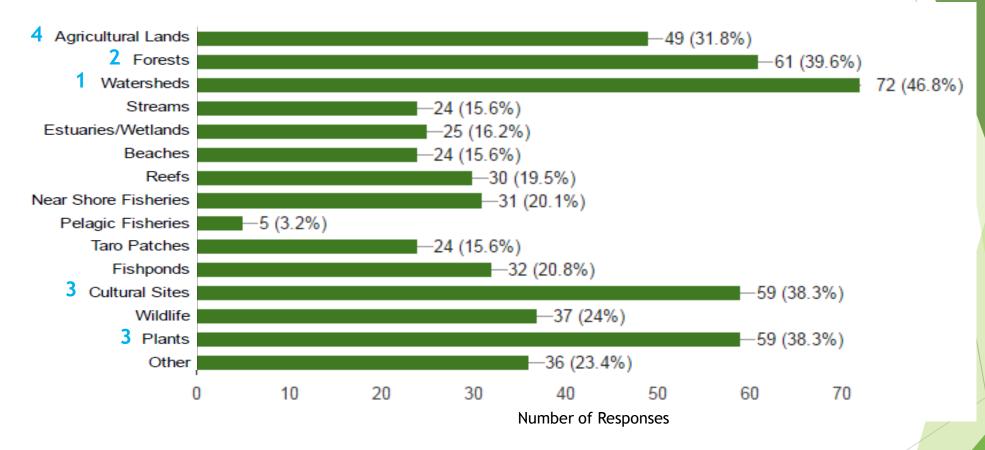
"Protection and enjoyment of the world's ocean, waves and beaches"

"To improve the condition of Native Hawaiians"

Please list 3 words that describe the core values of your org.



What are 3 main resources your org works with?



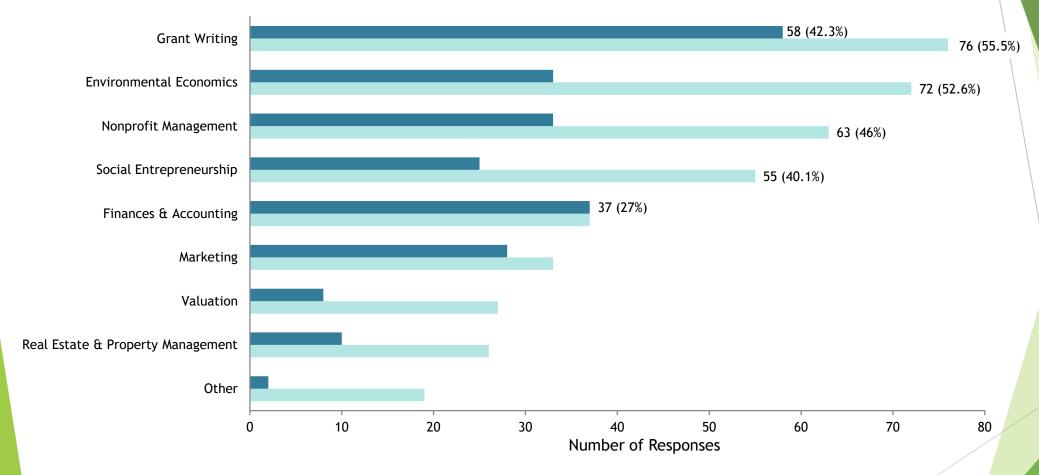
Other: Aquifers, Community, Ahupua'a, View sheds, Dark night skies, Natural soundscapes, submerged lands, mineral resources, renewable energy resources, ground and surface water, land documents, mo'olelo, urban landscapes, flora and fauna, geology, Kamehameha related resource sites

What are 3 key resource management related issues that you foresee your org facing in the future?

- 1. Climate Change (incl. coral bleaching, SLR, ocean warming, & drought) x57
- 2. Invasive Species x49
- 3. Securing Funding x33
- 4. Capacity Building & Participation x29
- 5. Land (erosion, desertification, wildfire, access & rights...) x26
- 6. Water (availability, quality, access & rights,...) x24
- 7. Sustainability (food production & alternative energy) x23
- 8. Knowledge (properly trained managers, general public,...) x20
- 9. Coastal Resources (overharvesting, marine debris,...) x16
- 10. Biosecurity (rapid 'ōhi'a death, avian disease,...) x13
- 11. Social Issues (user conflict, differing values, equity,...) x13
- 12. Regulatory Process (disconnected lawmakers, conflicting mandates,...) x12
- 13. Growth & Development (visitor pressure, residential intrusion,...) x11
- 14. Green Workforce Development x9

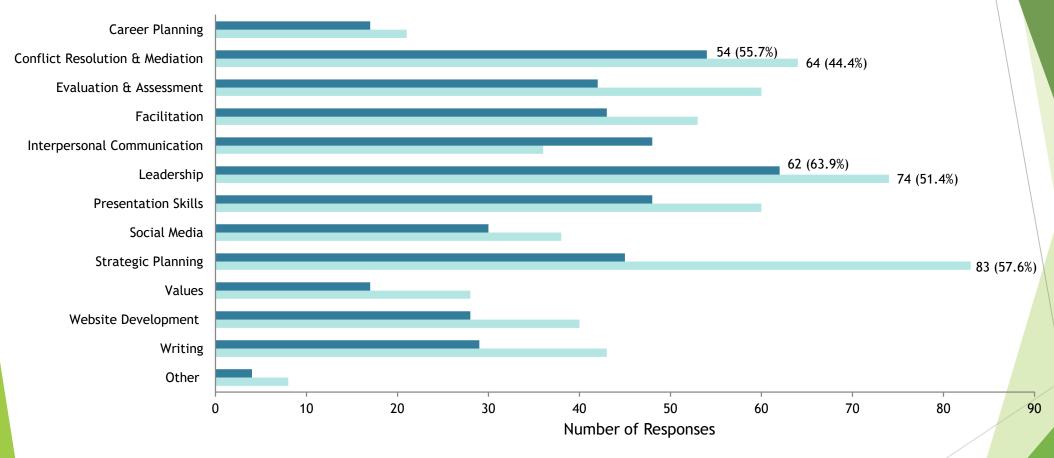
PROFESSIONAL DEVELOPMENT NEEDS

Training Needs: Business & Economics



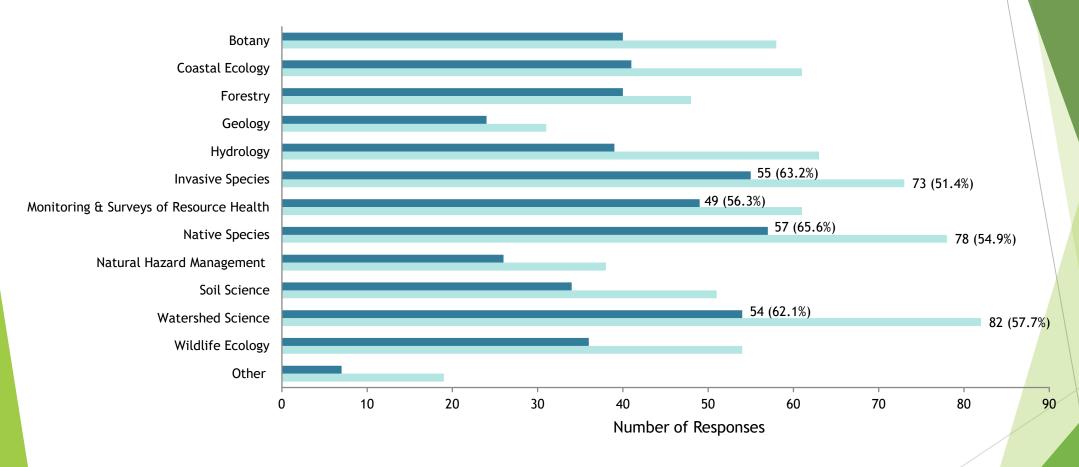
- Organization (88): Grant Writing, Finances & Accounting
- Individual (137): Grant Writing, Environmental Economics, Nonprofit Management, Social Entrepreneurship

Training Needs: Community & Organizational Development



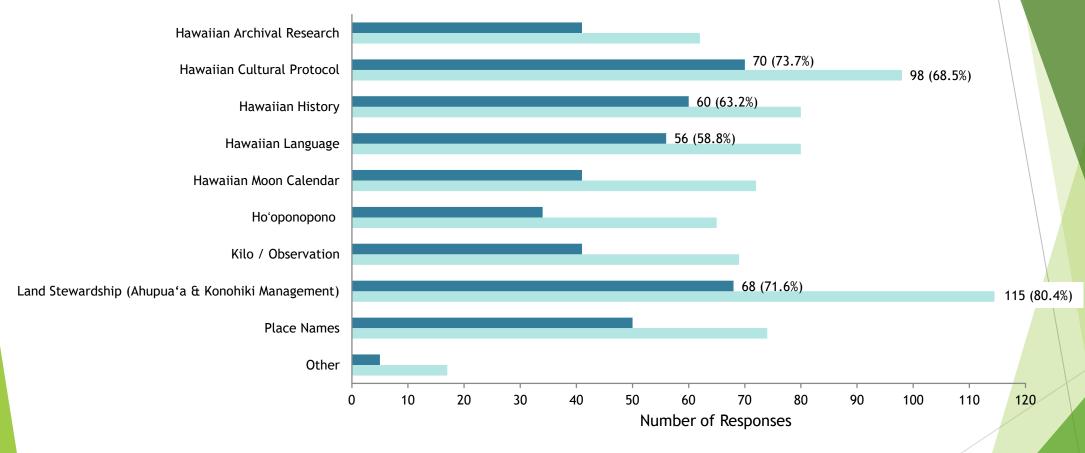
- Organization (97): Leadership, Conflict Resolution & Mediation
- Individual (144): Strategic Planning, Leadership, Conflict Resolution & Mediation

Training Needs: Environmental Science



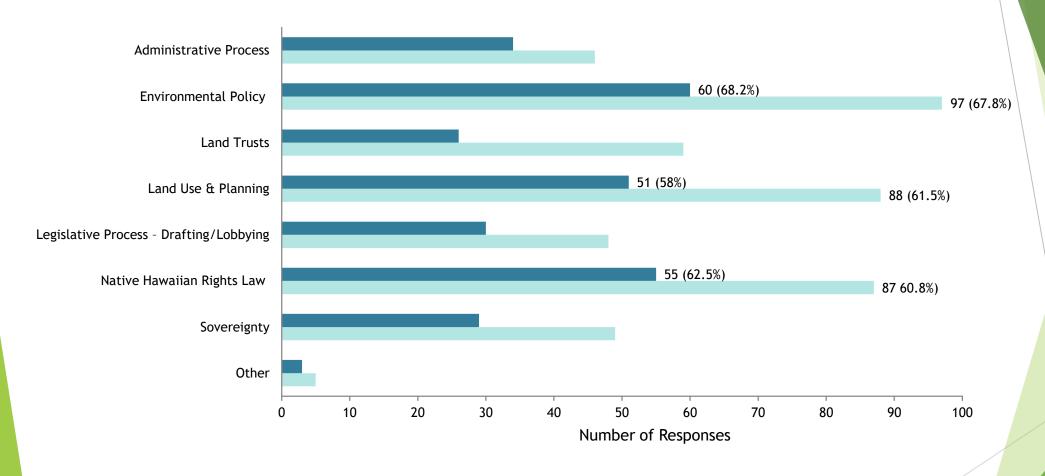
- Organization (87): Native Species, Invasive Species, Watershed Science, Monitoring & Surveys of Resource Health
- Individual (142): Watershed Science, Native Species, Invasive Species

Training Needs: Hawaiian Culture



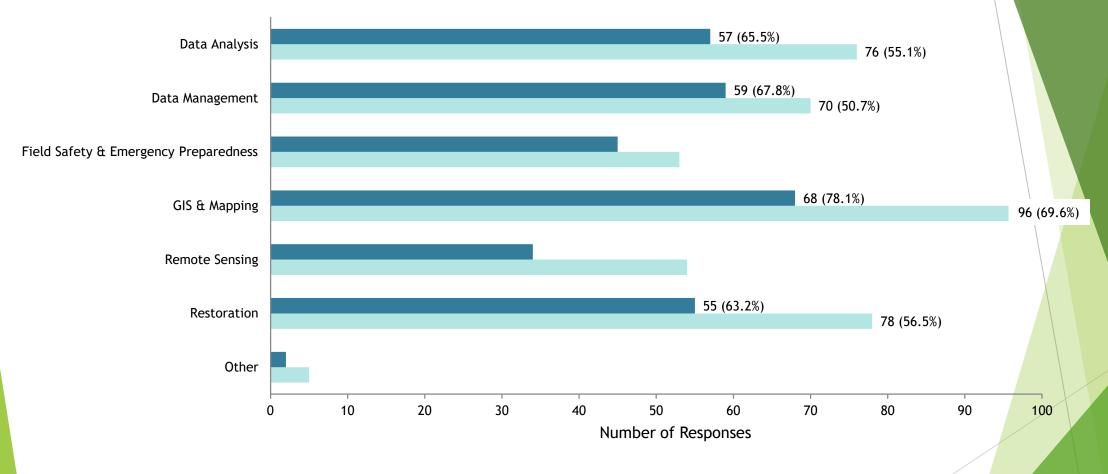
- Organization (95): Hawaiian Cultural Protocol, Land Stewardship (Ahupua'a & Konohiki Management), Hawaiian History, Hawaiian Language
- Individual (143): Land Stewardship (Ahupuaʻa & Konohiki Management), Hawaiian Cultural Protocol

Training Needs: Law & Policy



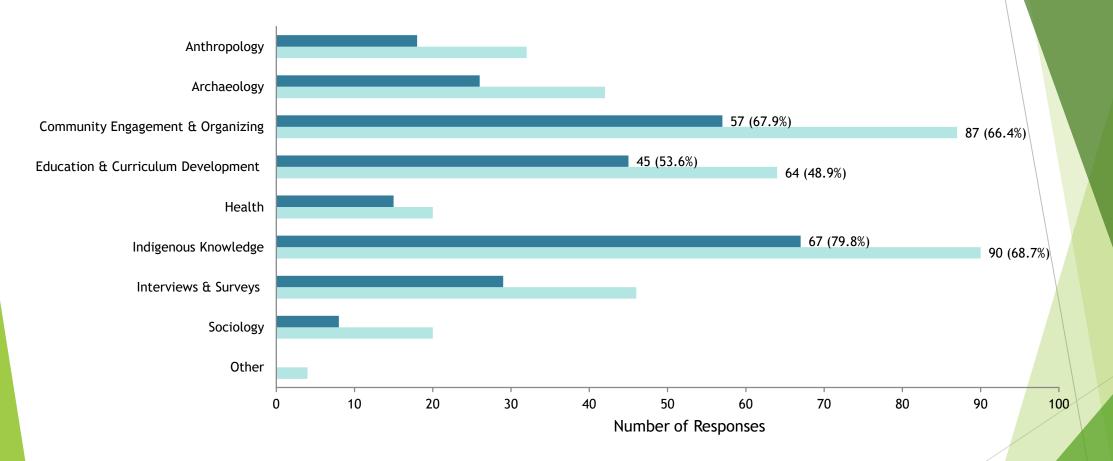
- Organization (88): Environmental Policy, Native Hawaiian Rights Law, Land Use & Planning
- Individual (143): Environmental Policy, Land Use & Planning, Native Hawaiian Rights Law

Training Needs: Resource Management



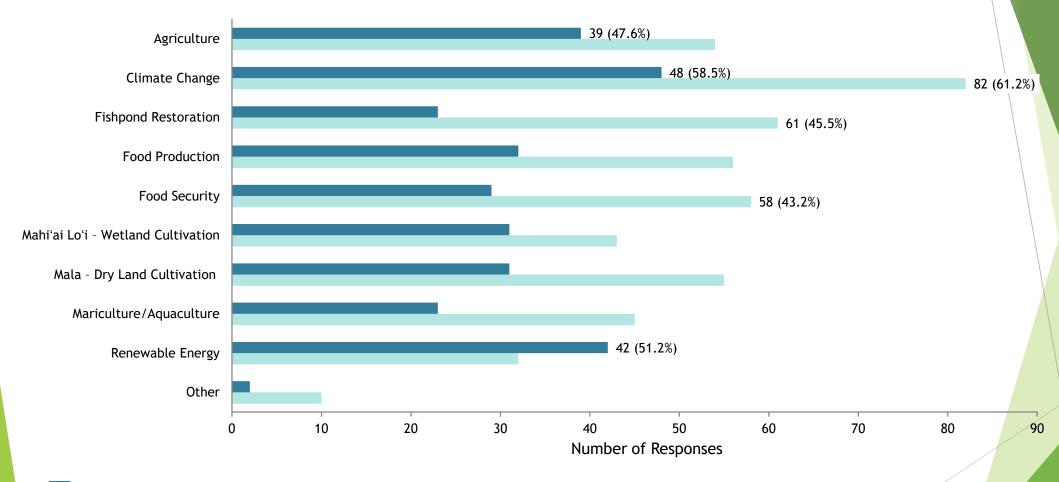
- Organization (87): GIS & Mapping, Data Management, Data Analysis, Restoration
- Individual (138): GIS & Mapping, Restoration, Data Analysis, Data Management

Training Needs: Social Science



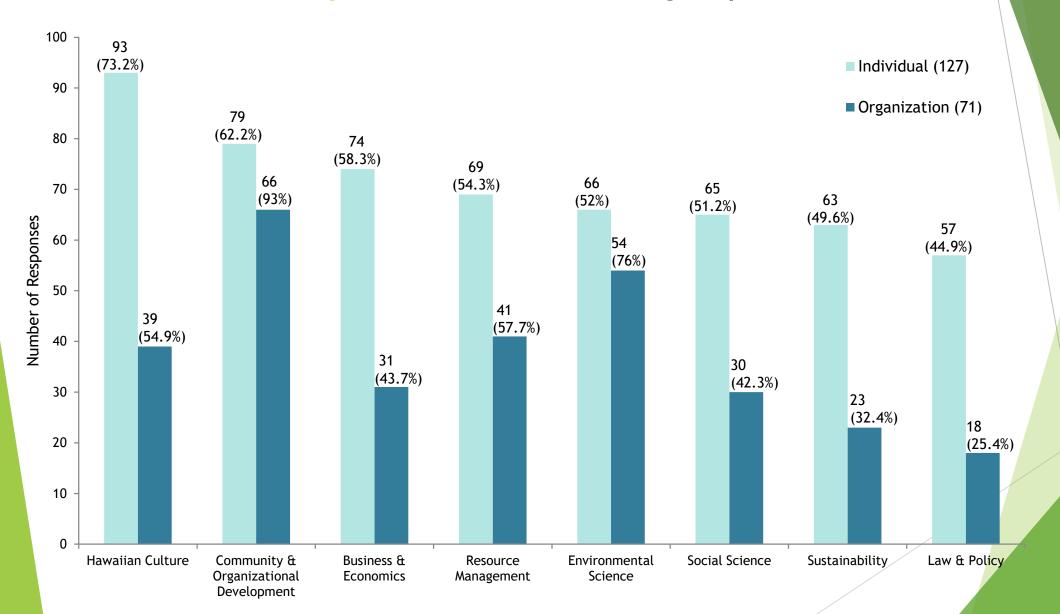
- Organization (84): Indigenous Knowledge, Community Engagement & Organizing, Education & Curriculum Development
- Individual (131): Indigenous Knowledge, Community Engagement & Organizing, Education & Curriculum Development

Training Needs: Sustainability

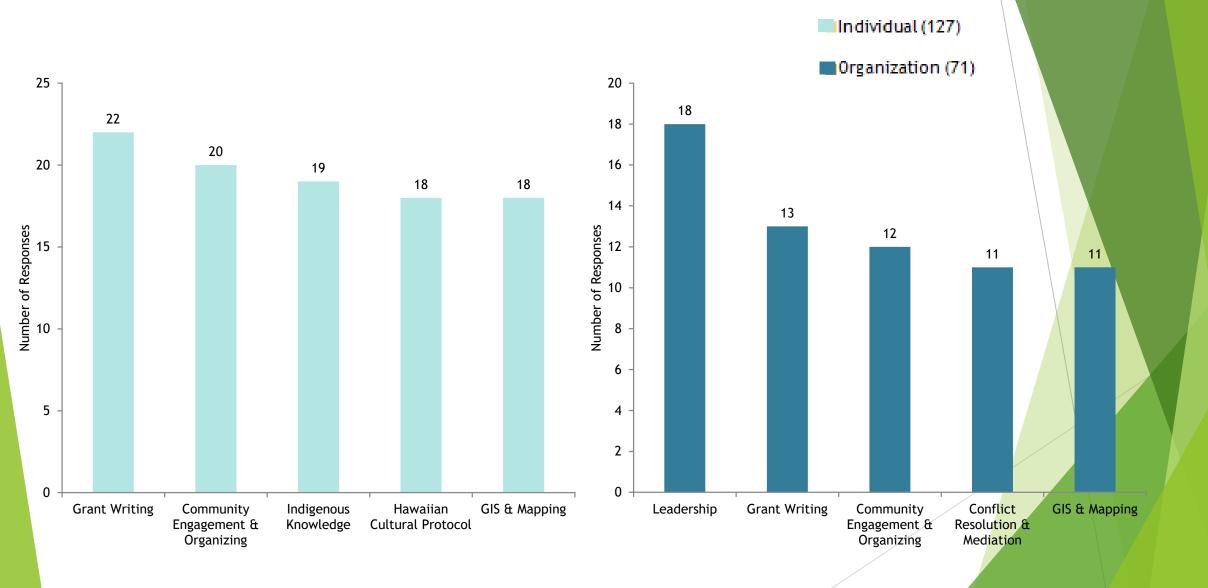


- Organization (82): Climate Change, Renewable Energy, Agriculture
- Individual (134): Climate Change, Fishpond Restoration, Food Security

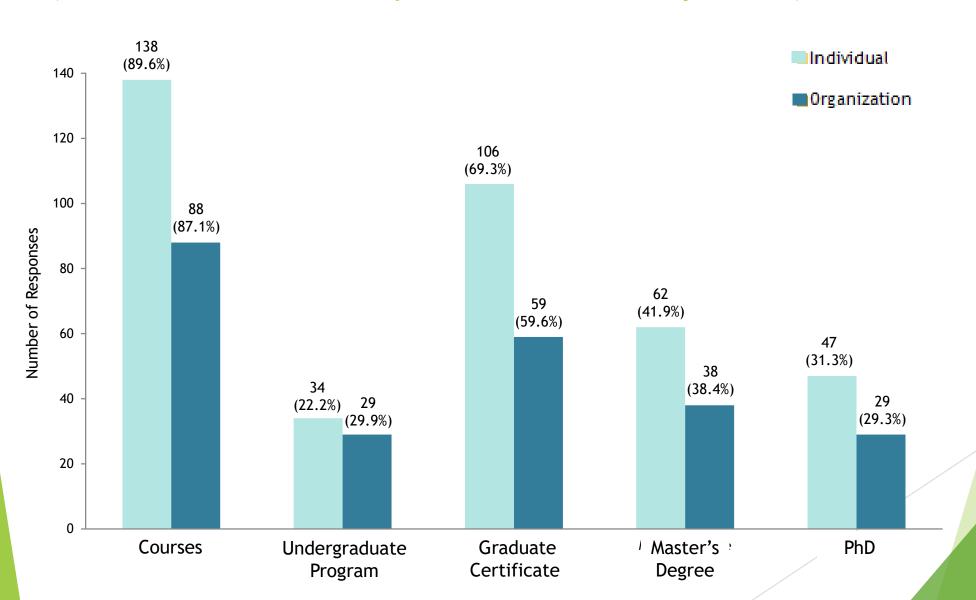
Rank of Training Needs: Overarching Topics



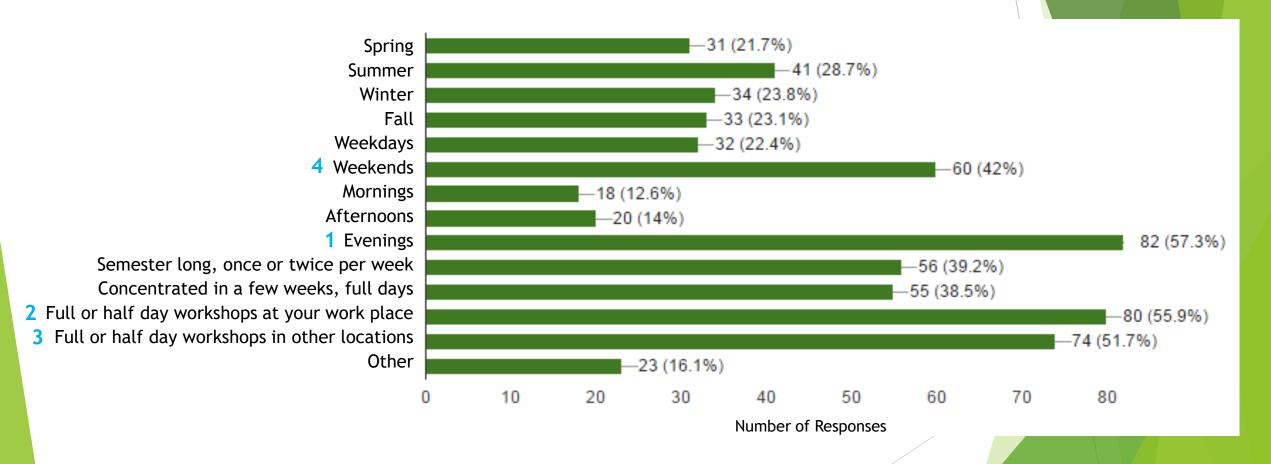
Top 5 Training Needs: Subtopics



Preferences for Furthering Education ("Interested" & "Very Interested" Responses)

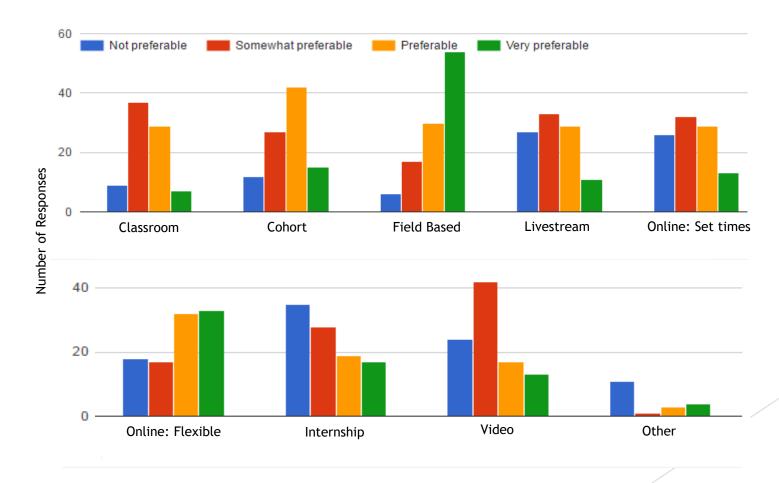


*What would be convenient TIMES for you to attend such a program?

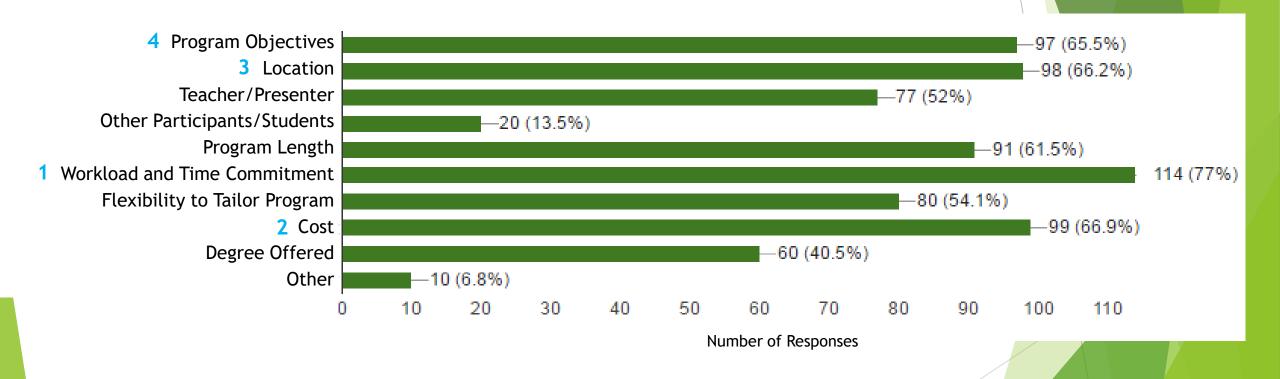


On a scale of 1 - 4, how preferable are the following educational formats for you?

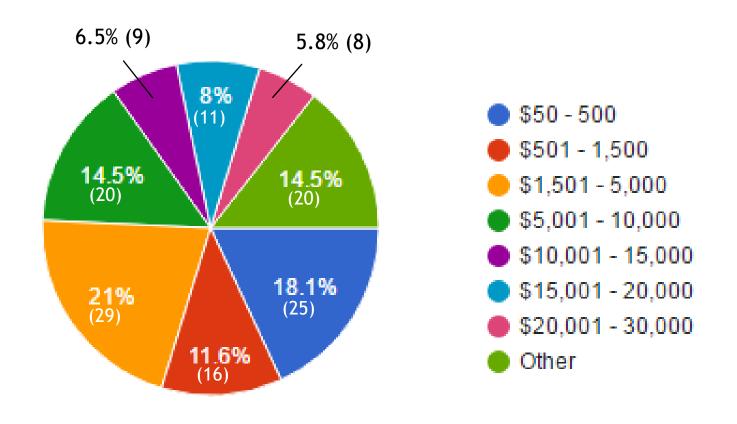
- 1 FIELD BASED: outdoor, hands-on, experiential learning opportunities
- 2 ONLINE: students individually log on and work on curriculum, times are flexible



*Which of the following would influence you to attend such a program?

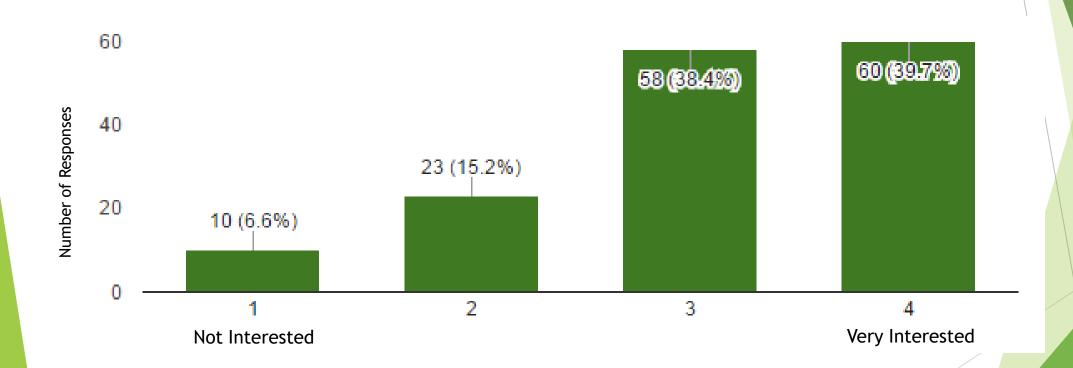


How much would you be willing to pay for yourself to attend such a program?

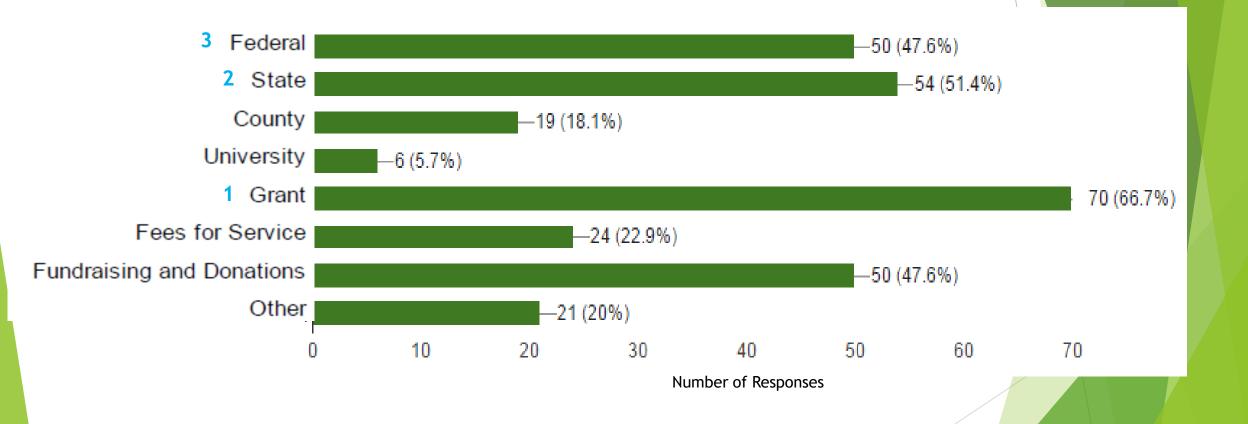


34.8% willing to pay \$5,000—10,000 20.3% willing to pay \$10,000—15,000

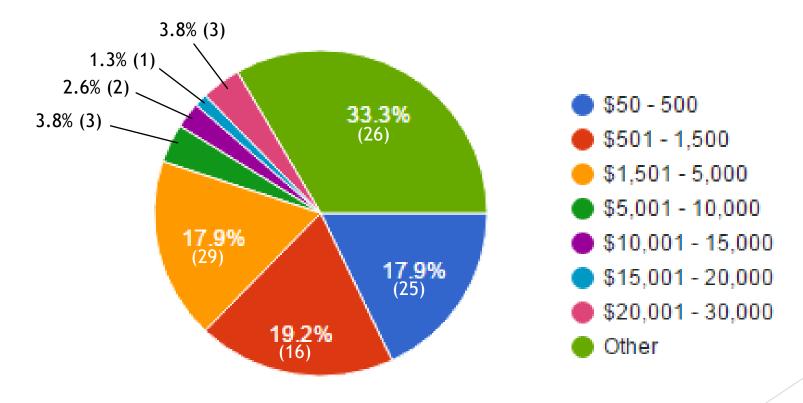
On a scale of 1-4, how interested would you be in helping to provide teaching, mentoring and expertise in such a program?



*What are your org's regular sources of funding?



Would your organization be willing to contribute funding to support such a program or for individuals from your organization to attend? How much per participant?



33.3% (26) "Other" translates to \$0 for most

What sorts of education and training does your org base promotion decisions on?

Education, subject matter expertise x24 Experience x11 Skills x9 Performance: achievements, quality of work x9 NOT dependent on education and training x6 Need & availability of employees x5 Work ethic x5 Capacity & learning ability x4 People skills & personality x3

Available funds x2

What are 3 main skills, areas of knowledge or traits you are looking for in hiring personnel for your organization?

Knowledge & skills related to field and of Hawaiian ecosystems and species E.g.; GIS, species i.d., ungulate fence installation, fishpond ecology, hydrology,...

Understanding of, sensitivity to, and respect for Hawaiian cultural values, knowledge and science

Ability to communicate and work well with others

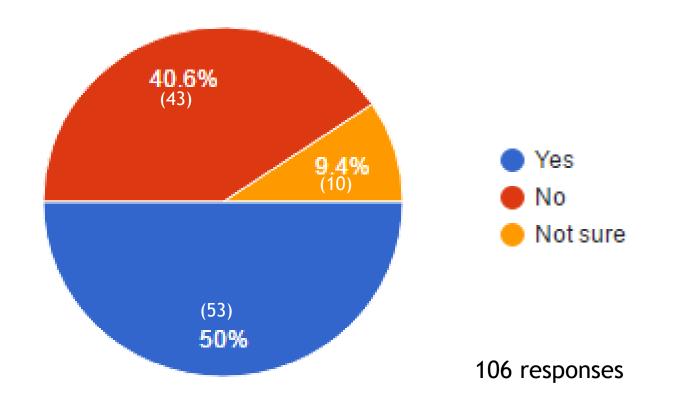
Program management skills - budgeting, fundraising, writing, organizing, partnering

Character: Positive, flexible, integrity, honesty, ha'aha'a, strong work ethic, passion for the place/kind of work

Desire to learn and ability to think abstractly, analytically, creatively

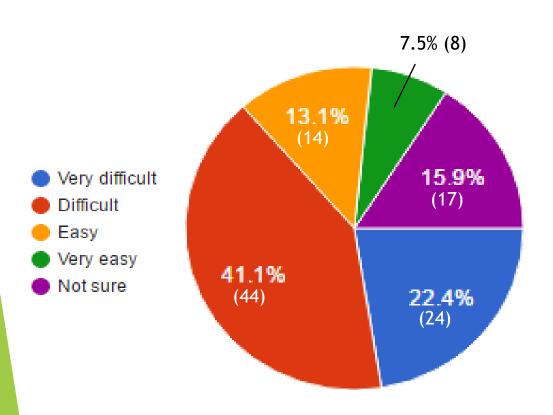
Community capacity building and organizing

Do you currently have job openings?



Average # of openings = 4, Mode = 2 (52 responses)

How easy is it for you to recruit qualified personnel to work in your organization?



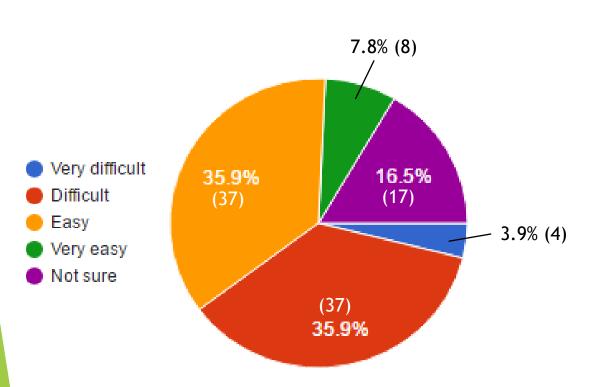
20.6% (22) Easy or Very Easy

- It's an amazing job
- It varies but qualified people are out there and want to work for us

63.5% (68) Difficult or Very Difficult

- Limited funding
- Remote areas are undesirable
- Hard to find locals with the education & skills
- Qualified applicants want higher pay
- Cost of living too high
- Work ethic and skill set of college graduates is hard to match with the demands of positions
- Lack of on-the-ground experience
- Mostly from the mainland, don't know Hawaiian culture or history, lack local knowledge

How easy is it to retain these personnel?



35.9% (37) Easy

- Easy if they are from the area
- Those who commit to our org. commit to this place, the ohana, and long term well-being of community
- Good wages/benefits & positive environment
- Work in a beautiful place with amazing people
- Horizontal leadership and involve all employees in decision making

35.9% (37) Difficult

- Non-competitive salaries
- High cost of living
- Can't guarantee positions with grant funding, puts stress on everyone
- Burnout from government bureaucracy
- Many people move back to mainland or go to Fed jobs

Final thoughts or suggestions for education and training to improve efforts to care for natural resources in HI

Keep costs low, and classes on days/times where working makua, kupuna, and students can attend. Mahalo.

Biocultural stewardship

...more ways that families who have long time inter-generational practices and knowledge be integrated into high PAID and RESPECTABLE positions of resource management. There are many families on Kaua'i whom have lived here for generations who know the resources they depend on very intimately. There needs to be a way where their knowledge and practice can be honored equally to that of a master or doctoral level degree.

Community based non-profits that manage wahi pana are in GREAT need of academic & research partnerships, that provide the professor and students with real world problems they can solve in class, or as a project each semester.

Need more HANDS ON LEARNING; less lectures, papers and theory.

More education on ecosystem restoration

The ability for outer island students (i.e., not Oahu). Especially Kauai, Molokai, Maui, Niihau, Lanai students who want to pursue BA/S, MA/S or PhDs the ability to do so remotely. Many people in Malama Aina jobs are there because of the great kuleana they feel for place. Their desire to remain and mālama those wahi (places), coupled with higher education being centralized in Hawai'i, is a bar to many potential haumana (students) from achieving advanced degrees.

Citizen science opportunities

Every elected official should be required to take these courses so that we (conservation professionals) don't have to explain to them why it's important.

A series of workshops (1-8 hrs each) during the business work week, near downtown, Kaka'ako or Makiki would be ideal..for professional development.

I would love to know when courses are being offered so I could sign up.

Make it happen

Mahalo for taking the time to participate.

