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*Research Note:*

## **‘Āina (Land), That Which Feeds: Researching Community Based Natural Resource Management at Home**

**Mehana Blaich Vaughan**

Department of Natural Resources and Environmental Management  
College of Tropical Agriculture and Human Resources  
University of Hawai‘i at Mānoa, 1910 East West Center Rd.  
Honolulu, HI 96822, UNITED STATES  
[mehana@hawaii.edu](mailto:mehana@hawaii.edu)

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*Huli nā lima i lalo, ‘ai ka waha.*

(When the hands are turned down, the mouth eats.)

Kupuna (Elder) Tommy Hashimoto, Hā‘ena, Kaua‘i

I study collaborative local-level natural resource management through a case study of a small in-shore fishery on my home island of Kaua‘i, Hawai‘i. My study site is 15 minutes’ drive from the town where I live and grew up. Giving back is a daily dilemma because I reside and raise my family among those I research, not just for a field season, but for life. We bump into each other in the grocery store and pick up our children from the same schools. Though my education and research are aimed at giving back to my community, I often worry day to day that I am taking more than I can give. As a young mother, first working to finish a dissertation at an institution 2,500 miles away, and now as a new professor commuting between islands, I often fall short of concrete, quick, or

complete reciprocation towards those among whom I live and conduct research. I make it to community meetings I need to observe, but rarely join Saturday workdays to weed, clear, plant, or otherwise touch the land I study. I spend hours alone at my computer sorting data into slowly emerging and not at all clear cut—much less clearly useful—findings, and take a year to return interview recordings. Guilt that I am not giving back enough sometimes leads me to turn my cart down a different aisle after spotting a research participant at the only local supermarket. Yet, as one of the fishermen I interviewed once told me, “Don’t worry, you are not going anywhere, we know where you live.” I have come to realize that the three main ways that I give back to the community I research, my home community, are all intangible and long term: researching meaningful community questions, sharing research results, and building collaborative research teams of community members and students.

### **1. Kokua Aku Kokua Mai (Help and be Helped): Researching Meaningful Community Questions**

I strive to conduct research that has potential to inform and improve ongoing community based resource management efforts. For my dissertation, specific research questions emerged directly from collaboration with community members. Local fishermen involved in community planning efforts for the near-shore fishery I study were curious about where fish harvested from the area end up. We designed a section of my dissertation research to track subsistence catch from the area, who and where it is distributed to, and for what purposes. A team of seven fishermen and other community members helped to articulate research questions, pilot catch logging forms, recruit participants, visit fishermen’s homes to fill in and collect data sheets, then analyze results. Their enthusiastic participation grew from genuine interest in the study’s results. Community members have asked me to share the research in settings such as a meeting with the head of the state’s resource management department.

My initial intent was to focus on a community generated question mainly as a means of giving back. This participatory approach turned out to be the most rewarding part of my dissertation, while also immeasurably improving the research. My own sense of data reliability as a non-fisher was questionable. However my research team, sitting together looking over log sheets, easily identified fishing events we had missed or mis-recorded. In beginning to analyze our data, relationships between fishers and fish recipients seemed to be important, but we had not been logging this data. My research team was able to go back through a year of data and fill in community relationships they knew by heart, relationships which turned out to be crucial to explaining sharing patterns of fish. For me, giving back is not a simple reversal of direction in the usual flow of research benefits, but a continual back and forth, benefitting both the researcher and researched in often unexpected ways.

### **2. Hanai Aku Hanai Mai (Feed and be Fed): Sharing Research Results**

I also strive to give back through multiple means of sharing research results. After a year and a half of interviews and catch logging for the fishing study, I delivered binders of fish

distribution maps to each fisherman who had participated. Some of these home visits lasted for hours as we huddled around a kitchen table discussing explanations for the patterns on each map. Wives and other family members often grew interested and joined in. This time-consuming approach elicited new layers of knowledge, for example, information on the shelf life, transportability, or preparation of certain species, that had not emerged in prior interviews. I was initially unprepared to document this new information, failing to bring along either a voice recorder or notepad because I thought data collection was finished, and that I was visiting only to give information back.

Group presentations and discussions were another, more efficient, means of sharing data. These allowed me to show results to many people at once, and gauge support from collective discussion for particular explanations of catch distribution patterns. I offered these presentations, at regular meetings of community groups who had been involved in the research. I also organized three community research sharing meetings, each attended by 38 study participants, supportive family and friends, members of the public, and policy makers. I publicized these meetings through fliers, Facebook, and community radio spots. Each meeting included food, time for informal introductions and interaction, a presentation on the research, time for questions and answers, and multiple opportunities for written and oral evaluation and feedback.

When I turned from collecting data to writing, I had even less time to interact with community members. With dissertation deadlines looming, I began to receive invitations to attend community meetings with government officials and speak about the research. I did so on a few occasions, but also started to dispatch compiled data, relevant literature reviews, and even draft dissertation chapters to community leaders via e-mail. Because my research offered the only documentation of 6 years of community meetings to create proposed rules for local coastal management, I shared a table of meeting dates, locations, and attendance. Through these efforts I discovered the value of giving back by compiling and sharing the best data I could, letting others decide its usefulness and interpret its meaning.

### **3. A‘o Aku A‘o Mai (Teach and Learn): Teaching Community Research Assistants**

Finally, I strive to give back by training two types of research assistants: individuals from the study area and community-minded researchers who come from and will go on to work in other places. Both groups are important because too frequently, researchers proceed with no awareness of the communities in which they work. At the same time, too few communities have local capacity to design and conduct their own research. For three consecutive summer fishing and fieldwork seasons, I built a diverse research team composed of undergraduates from Stanford University where I pursued my dissertation (some of whom were from Hawai‘i), undergraduates from Hawai‘i universities who grew up in or near the study area, and other local residents. I found that local college students helped forge connections between students from other parts of the country and the community members involved in our research.

I tried to devise a process to teach undergraduate research assistants to engage with communities respectfully and effectively. First, I provided an orientation to offer explicit suggestions for community interaction such as “work with your hands, close your mouth, observe with your eyes, and listen, then listen some more,” or “do not go everywhere in a big group.” I taught an *‘oli* (chant) and other culturally appropriate ways to enter places within our community. I also required students to volunteer in the community along with conducting research. Volunteer activities included trail building, community gardening, native plant restoration, litter clean-ups, and marching in a parade. I also paired each student with a non-profit community group to guide them in conducting research projects the group could not carry out on its own. These research projects included water quality testing, monitoring spread of invasive seaweeds, Google-mapping Hawaiian cultural sites and place names, and one master’s thesis analyzing public support and land preservation options for an undeveloped stretch of coast. Thus, research assistants, in addition to helping me to complete dissertation fieldwork, simultaneously provided assistance to understaffed and underfunded community conservation efforts. Community groups expressed their appreciation by organizing field trips for interns to experience the island before returning home, contributing small monetary donations towards students’ expenses for upcoming school years, organizing gatherings where students presented their projects, and holding “going away” parties for their interns. In turn, student evaluations of summer experiences unanimously expressed appreciation for having truly gotten to know the community of Kaua‘i, a popular visitor destination that most people who visit learn very little about. Students described their community work as the key to their learning.

I also try to build community research capacity and contribute to the local economy by writing grants to employ research assistants from the study area. In Kaua‘i’s tourism-based economy, most residents work multiple menial jobs such as cleaning and landscaping vacation rentals to afford high priced groceries and rising property taxes. I consider it is necessary to pay people who assist with my research on a regular sustained basis. Employing community members has yielded multiple unexpected benefits. In the fishing study, information on fishing traditionally shared only within families, was collected by family members. Family members were also present at interviews, increasing inter-generational transmission of cultural knowledge. Community researchers enjoyed working in the study because it engaged them in learning about and taking care of their home area. One research assistant in her early 50s said this study was the first time she had returned to the coastline where she grew up in over a decade, though she lives just a 10-minute walk away. While collecting data, community research assistants always brought others along—friends, family, children, or siblings—thus extending learning and community engagement. Five community researchers also participated in presenting our research at state and national conferences. Along with building skill and confidence in public speaking, these presentations engendered feedback and interest from diverse audiences, and opportunities to learn from others engaged in similar work.

Through building collaborative research teams of both student and community research assistants, I have glimpsed potential long-term benefits of giving back. I hope that my efforts might help to build future researchers’ ability to give back to communities in

which they work, while also building the ability of communities I work in to research and represent themselves.

#### **4. Ka Hopena (The Conclusion): Closing Thoughts**

In our fishing study, fishermen who shared fish from a harvest with their neighbors, extended family members, and friends, often returned home to find their door-steps laden with fresh fruit, vegetables, smoked pig meat, or pastry. Some fish recipients reciprocated over longer periods of time, with skills and not goods, setting up tents for a fishing family's baby party, mending torn nets, sending high-school-age children to baby-sit. At the core, my home community is one where people believe in giving back. However, the exact means and timing could vary. Selection of research questions, sharing results, and teaching are each long-term pursuits, which do little to relieve my day-to-day unease that my vocation, research, takes more than it gives. However, these avenues have potential to do far more than fulfill a responsibility to give back. They may build a community's potential to care for *'āina*, that which feeds the community, physically, intellectually, and spiritually. They may also build broader capacity for research that gives back to the communities in which it takes place. These efforts, each of which simultaneously gives back to both the researcher and the researched, also reveal that giving back never occurs in one fixed way, but continuously flows in all directions, whether we spend a short time, or a lifetime in the communities we research.

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