



HAWAI'I CONSERVATION ALLIANCE

A Partnership Dedicated to Environmental Stewardship, Community Engagement, and Conservation Capacity

Making the Case for Community-Based Adaptive Collaborative Management in Hawai'i

A position paper adopted by the Hawai'i Conservation Alliance on July 24, 2018

Position Statement

In alignment with the “Hawai'i Commitments,” a product of the 2016 World Conservation Congress (IUCN, 2016), the Hawai'i Conservation Alliance (HCA)¹ contends that under proper enabling conditions, community-based adaptive collaborative management (CBACM) is a viable tool to reverse the decline of natural resources and the loss of the many services provided by healthy native ecosystems. The natural resources of Hawai'i face extensive threats from historical and present human activity. The limited human and financial capacity in resource stewardship agencies and organizations means that these threats are not adequately mitigated and are rarely eliminated. Globally, there is a growing body of knowledge on social-ecological linkages with sustainable use of natural resources (Carlsson and Berkes, 2003), which highlights the rich variety of management systems that aim to improve the condition of native ecosystems, incorporate place-based and cultural knowledge in resource stewardship decisions, and increase the overall well-being of human communities and their environment. Such diverse approaches and associated knowledge systems can be used to enhance our management of Hawai'i's lands and seas.

Collaborative management (co-management) presupposes that parties have, to some degree, agreed on an arrangement, and that this arrangement often evolves. It has been emphasized that co-management should be seen as a process rather than a fixed state (Beck, 2000). In Hawai'i, there is an emerging set of case studies in both fisheries/coastal management and community-based forest restoration that show this evolution offers promising results. Given expanding threats to Hawai'i's biodiversity with impacts to both natural and cultural resources, it is timely and prudent to engage approaches to conserving these biocultural resources that have a strong foundation in the values of Hawai'i, which can guide us in caring for our island home. Indeed, Hawai'i and the HCA have a unique opportunity to build on this foundation, enhance the enabling conditions, and support CBACM and the collective stewardship of our biocultural resources.

HCA has created a model of effective conservation (Figure 1), which identifies stakeholder involvement as essential to the conservation process. To this end, the success of resource stewardship in Hawai'i increasingly will rely on shared commitments to employ CBACM in conservation and resource management projects. Therefore, HCA is committed to supporting, and where appropriate, participating in CBACM. Adopting and implementing CBACM requires a change in paradigm for many organizations, including the HCA, which itself involves continued discussion of what it means philosophically, spiritually and operationally to support diversified partnerships and decision making. Here, we propose that HCA commits to: 1) formally adopting the position that CBACM is a critical resource management strategy; 2) assessing current policies and rules to determine appropriate approaches; and 3) better aligning collaboratively-developed conservation goals, tools, and practices with community needs.

¹ The Hawai'i Conservation Alliance is a collaboration of conservation leaders representing government, cultural, educational, and non-profit organizations that are responsible for safeguarding the biodiversity of Hawai'i's ocean, land and streams. The Alliance provides unified leadership and advocacy for Hawai'i's most critical conservation issues.



HAWAI'I CONSERVATION ALLIANCE

A Partnership Dedicated to Environmental Stewardship, Community Engagement, and Conservation Capacity

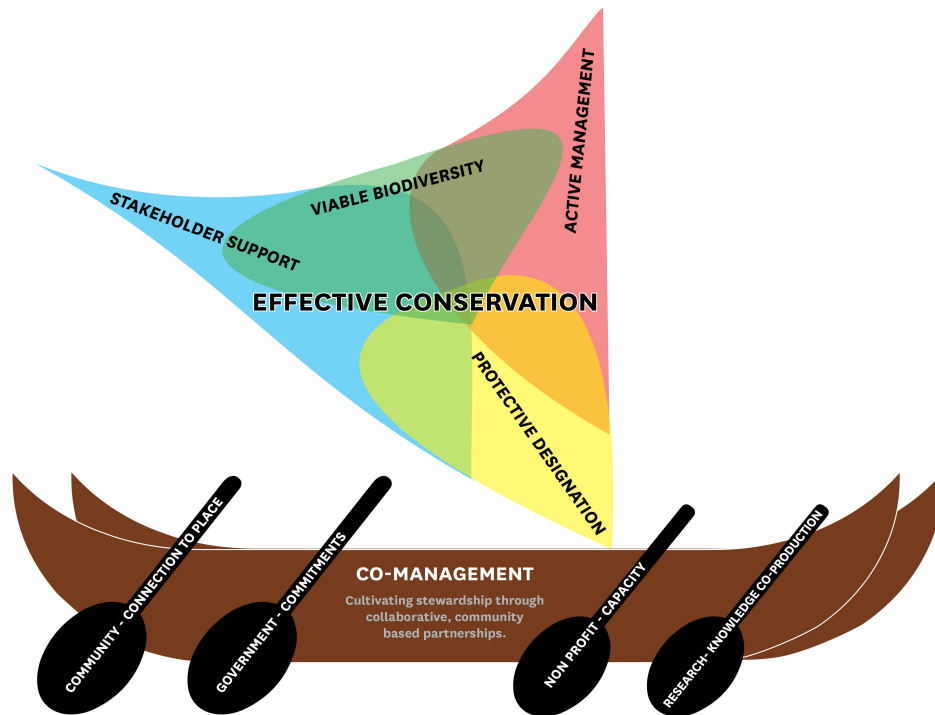


Figure 1. *Pupukahi i holomua* - Unite to Move Forward: A visual representation of co-management, using the culturally-important symbol of a double-hulled canoe, which encapsulates the approach to achieving HCA's vision for Effective Conservation. This vision is reflected by a Hawaiian proverb, which teaches that synergy and momentum are increased when all entities involved are paddling in unison to reach a common goal.

DEFINING ADAPTIVE COLLABORATIVE MANAGEMENT

The HCA recognizes that as collaborative management (co-management), community-based management, and adaptive management have become common terms of the conservation vocabulary, it is important to develop shared definitions. For the purpose of our work and this paper, we propose the following working definitions, recognizing that they should be periodically revisited as our understanding grows through research and practice.

Collaborative management (or co-management) occurs when individuals or groups representing cultural practitioners, community organizations, academia, state and federal agencies, non-profit organizations, and/or the business sector work together to achieve shared goals and objectives for natural resource outcomes. In such arrangements, two or more parties within the collaboration share decision making authority over common-pool resources (Berkes et al, 1991). The World Conservation Congress states via Resolution 1.42 that co-management is a "partnership in which government agencies, local communities and resource users, non-governmental organizations and other stakeholders negotiate, as appropriate to each context, the authority and responsibility for the management of a specific area or set of resources" (IUCN 1996). It is important to note that in a collaboration, not all members necessarily participate in decisions. For example, a researcher may wish to abstain from the decision making process in order to serve as a neutral information provider.

Community-based management describes a natural resource stewardship regime in which a



HAWAI'I CONSERVATION ALLIANCE

A Partnership Dedicated to Environmental Stewardship, Community Engagement, and Conservation Capacity

community comprised of an organized group of people with an ancestral, residential, and/or use-based relationship with a place is empowered through agreement, policy, or legal ownership to inform decision-making about how that place's resources are used and conserved. This definition encompasses a range of conditions, from a community playing a formal advisory role to a government agency, to a community exercising exclusive collective ownership.

Community-based co-management is a combination of community-based and collaborative management in which a community is one of two or more decision-makers working in a collaboration that could also include critical supporters and informants. This model empowers communities to take on a higher level of shared authority or leadership in resource management. This is currently the widely accepted state of management in larger Oceania, and Hawai'i is experiencing growing support for this approach.

Adaptive management is a process by which management decisions are first made using a foundation of cultural knowledge with the best available science, and then regularly evaluated and adjusted based on research and monitoring conclusions, as well as revived or reinvigorated cultural measures. Adaptive management incorporates existing and projected human uses as well as changing environmental conditions. Many community organizations in Hawai'i aspire to this approach.

Collaborative management, community-based management, and adaptive management may not all be feasible, practical or even desirable in every situation. However, HCA asserts that **community-based adaptive co-management (CBACM)** is the "sweet spot" framework for natural resource conservation in Hawai'i based on native ecosystem and community needs, available capacity, and existing governance structure. For this reason, we strive to incorporate this approach in our own work and to support its broader application across the archipelago.

Additionally, we propose that given increasing intensity of human pressure resulting in biodiversity loss worldwide (Jones et al., 2018), CBACM in Hawai'i is most likely to result in healthy ecosystems and healthy communities when it is: 1) grounded in Hawaiian values and cultural knowledge; 2) supported by appropriate and sufficient human, financial, and technical capacity; and 3) enabled by clear and effective policy and rules.

CONNECTING KNOWLEDGE SYSTEMS, BRIDGING COMMUNITIES, CULTIVATING STEWARDSHIP

Hawaiian cultural knowledge and practice are rooted in the reciprocal relationships among people and their environment. The health of one depends upon the health of the other. Community-based adaptive co-management should be guided by the values of *kuleana* (sacred responsibility), *aloha 'āina* (love of place), and *mālama 'āina* (stewardship of place). HCA views these values as essential to the long-term success of conservation in Hawai'i—being consistent with its position paper on Hawaiian Culture and Conservation in Hawai'i (HCA 2010) (<http://www.hawaiiconservation.org/images/uploads/resources/hawaiianculture.pdf>), which sets the foundation for achieving culturally grounded and place-based conservation. This is built on the Hawaiian concept of "*hoa āina*" (intimacy with place), and creates a framework that incorporates cultural, genealogical, place-based, and indigenous relationship in ecosystem management should be used in adaptive community co-management (Pascua et al., 2017).

CAPACITY FOR ADAPTIVE COLLABORATIVE MANAGEMENT OF NATURAL RESOURCES



HAWAI'I CONSERVATION ALLIANCE

A Partnership Dedicated to Environmental Stewardship, Community Engagement, and Conservation Capacity

Capacity for natural resource management includes: human capacity (time); technical capacity (knowledge and expertise); and financial capacity (money). For CBACM to function, one also needs to consider capacity for forming both formal and informal partnerships, which can more efficiently leverage human, technical and financial capacity. This focus on partnership is intended to ensure that members of the collaboration share a collaboratively developed purpose as well as mutually agreed upon understanding of roles and responsibilities. In Hawai'i, this larger definition of capacity lies within government entities with jurisdictional authority and responsibility, land owners with legal rights and responsibilities, community organizations made up of inter-generational stewards who care for and derive benefits from resources, non-profit organizations, academic institutions, and businesses. Clearly, capacity within conservation partnerships can be increased when communities are meaningfully involved.

Community Contributions to Capacity

Local communities of Hawai'i observe and pass-down knowledge about resources as well as traditional management practices involving these resources. Members of engaged communities also bring time, energy, and spiritual devotion to stewarding, and where needed, restoring ecological abundance. From traditional practices that maintain sacred relationship to place, to stewarding and restoring a land- or seascape by removing invasive species or out-planting native species, to monitoring effectiveness, communities play diverse and critical roles in fulfilling conservation obligations or commitments. Because members of local communities are often connected to place across generations, and operate from an epistemology of being connected to resources via vibrant bonds of kinship, partnering with communities and engaging in CBACM can be transformative for all partners, enhancing both appreciation for and commitment to stewardship across partners.

Partnerships

Community input can and should influence decision making by a government agency and private owners of conservation lands. The process of involving communities in the evaluation of management actions and in subsequent decision making often requires a formal partnership that establishes roles and responsibilities, and articulates how, when, and by whom decisions are made. Building formal partnerships between community and government (and sometimes other entities) improves coordination across partners, helps to reduce or even prevent conflict, and increases capacity for site-based resource conservation and restoration. Further, in the optimal case CBACM includes the collaborative production of: knowledge about the resources to be managed and management techniques themselves; outreach/inreach materials and strategies for engagement; management plans; indicators; and evaluation measures. CBACM also emphasizes inclusive and collaborative approaches to: implementation of management plans; execution of monitoring and surveillance strategies; interpreting collected monitoring data; adapting management to new information or conditions; and enforcement of existing natural resource rules and regulations. Researchers, non-profit organizations, and other stakeholders can play important roles in CBACM partnerships even when not in a formal partnership agreement, for example by providing technical, financial or human resource capacity.

Technical Capacity (knowledge and expertise)



HAWAI'I CONSERVATION ALLIANCE

A Partnership Dedicated to Environmental Stewardship, Community Engagement, and Conservation Capacity

Hawai'i has a significant wealth of knowledge required for natural resource management and conservation, derived from two important sources: researchers and monitors from academia, federal and state agencies, and non-profit organizations; and traditional and local practitioners from communities and community groups. Together, these two sources of complementary knowledge can provide the information necessary for effective CBACM. There are very few examples, however, highlighting how these sources of knowledge can be shared, pooled, analyzed, and or otherwise made available for effective CBACM. The goal of this paper is to both encourage and lend support to efforts that seek to overcome barriers, historic and contemporary, to the equitable and synergistic sharing or technical capacity to analyze and apply results to functioning and committed partnerships. Where knowledge is missing, it should be collaboratively generated with this knowledge supporting other aspects of CBACM including research and assessment, planning, implementation and enforcement, monitoring and evaluation, adaptation. On the technical side, every effort should be made to understand what resource data exist – from western knowledge sources, which may date back decades, or traditional knowledge sources which may date back centuries – and then compiling and sharing resulting information. This interdisciplinary approach of combining seemingly disparate data sources is particularly useful in better understanding climate change patterns, for example, as it expands our available data set (Businger et al., 2018). In the case of traditional knowledge systems, due diligence includes investigating sources that may or may not be published and may or may not be available in western science formats. For example, knowledgeable community members may share their baselines of what a restored forest landscape looked like and provide a benchmark or conservation target that new partnerships can aspire to achieve. Similarly, development and implementation biosecurity measures and controls can be more effective when informed through collaborations between agencies and the communities most familiar with a particular place or region.

POLICY AND LAW

A key enabling condition for successful CBACM is a supportive legal framework that recognizes and empowers communities to play a role in the sustainable use and management of natural resources. Hawai'i is fortunate in that there are existing laws and policies that are supportive of CBACM. The Hawai'i State Constitution recognizes the affirmative duty of the State to protect traditional and customary Native Hawaiian practice. Additionally, existing statutes such as 2013 Hawaii Revised Statute 188-22.6 authorizes the designation of community-based subsistence fishing areas (CBSFA), which provides avenues for implementing CBACM. More recently, Hawai'i's Governor, David Ige, announced at the IUCN's 2016 World Conservation Congress that 30% of Hawai'i's nearshore waters will be effectively managed by the year 2030, creating opportunities for communities to contribute to the collaborative attainment of this target. To date, there is a growing movement of CBACM being implemented in Hawai'i. Thanks to partnerships involving community advocates, willing agency staff, legal experts, and the dedication, persistence, and patience of communities across Hawai'i, success of CBACM efforts are starting to emerge. The legally-established Community-based Subsistence Fishing Area (CBSFA) in Hā'ena in north Kaua'i, for example, has to date represented an effective and diverse partnership with a central focus on the health of Hā'ena fisheries and fishers. This is a model of CBACM born out of a collaboration between the State of Hawai'i's Department of Land and Natural Resources and the community of Hā'ena, and is a partnership that is yielding



HAWAI'I CONSERVATION ALLIANCE

A Partnership Dedicated to Environmental Stewardship, Community Engagement, and Conservation Capacity

results. Biological monitoring has showing that fish abundances inside the CBSFA are significantly greater than recorded in surveys conducted prior to establishment of the CBSFA. In addition to monitoring results, communities are perceiving changes inside the CBSFA that are resulting in good to excellent populations of fish species of interest (Rodgers 2017). The CBSFA has already achieved the goal of supporting fishing and gathering for subsistence, religious and cultural purposes in a sustainable manner through effective management practices of local community and State management. As the number of these CBACM collaborations increase, and evidence-based monitoring is used to evaluate CBACM effectiveness, the promise of extensive CBACM will be realized. In the terrestrial realm, Hawai'i's Watershed Partnerships stand as other models for ACM. These are voluntary alliances of land owners and land managers united by a certain geography (for instance, a particular mountain) that pool funding, expertise, and other resources to protect watershed forests across landowner boundaries. The ten partnerships across the State represent over 75 different partners. This model of collaboration has proven to be highly successful as planning and management can focus on resources that most often span administrative boundaries rather than the boundary fragmented resource base. While large private landowners and government agencies represent most of the partners, and make decisions, there are real opportunities to increase the diversity and depth of how communities are integrated into management. Already, most watershed partnerships engage communities via educational programs and volunteer trips, and they regularly consult and seek assistance from community groups and members.

While there still remains a need to improve policy, enforcement, education and outreach, HCA believes that CBACM is very promising. Coordinated advocacy and comprehensive communication across all levels of natural resources management can positively influence political will and sustain our collective forward momentum. The “30 by 30” challenge set by Governor Ige following the WCC is a great start that will accelerate and heighten the collective impact of co-management efforts, which will benefit communities across Hawai'i.

MOVING FORWARD

HCA recognizes the value and the critical role that communities can play in conservation, and encourages and supports a collaborative and adaptive approach to resource management in Hawai'i. We share responsibility in advancing the scope, rigor and effectiveness of CBACM efforts. We are ready to engage in building partnerships with communities, agencies, and organization that express a desire to share responsibility for stewarding *ahupua'a*². The Community Watershed Snapshot project provided HCA with an opportunity to learn from and engage a series of communities across Hawai'i that are deeply committed to biocultural stewardship. These developing relationships may represent the beginnings of a long-term partnership between HCA and a network of communities from which HCA can explore how to develop a deeper commitment to place-based collaborative conservation. There is clearly a wide diversity of next steps.

HCA will continue to work towards the implementation of the following activities (organized thematically) within the HCA strategic plan and among themselves and their partners, communities and stakeholders, as

² A community-level Hawaiian land division, which often run from the mountains to the sea, that is managed at the local level.



HAWAI'I CONSERVATION ALLIANCE

A Partnership Dedicated to Environmental Stewardship, Community Engagement, and Conservation Capacity

their policies and mandates allow:

- Examine Hawaiian state and federal laws, statutes, regulations and precedents to protect traditional and customary rights of communities to co-management of biocultural resources and use resulting information and partnerships to shape changes that would facilitate co-management outcomes. For example, streamline the CBSFA application process and support legislation, laws, regulations and policies that encourage community involvement in resource management.
- Conduct an assessment of co-management in Hawai'i to explore how it is improving our communities and helping to conserve and steward our resources. Evaluate the scope and nature of existing co-management projects and how such efforts are helping to conserve resources and promote a conservation ethic in Hawai'i. Based on the assessment, further identify and articulate HCA's role in building capacity for co-management.
- Identify research priorities that align scientific interest with community needs. Serve as a bridge among community and external knowledge producers and the users of knowledge.
- Meaningfully engage with communities across Hawai'i that desire to have better programs and capacity to engage in and improve local resource management. For example, facilitate the public process required of communities to become the next generation of co-management pilots or serve as nexus to coordinate research, training and expertise towards community questions about resource management.
- Support and empower communities to pursue co-management pilot projects and place based conservation. Examples include, providing technical and financial support, sharing training opportunities, and providing support letters. Current shared HCA tools include providing access to available geospatial data via the HCA Arc GIS Online Tool, Watershed Health Public Maps. Further support could be provided by agencies and organizations through requests for specific types of technical assistance. Publicize HCA's support to co-management effort.
- Create awareness of, and adoption of, to the extent possible, the HCA's position paper on Hawaiian Culture and Conservation and this Position Paper on Co-management.
- Seek out and consult with knowledgeable *kūpuna* (elders) and community members for decision-making around resource stewardship; in the same manner, HCA should encourage the community to support bi-directional engagement on knowledge and planning co-production in the larger co-management process.
- Respectfully seek out and ask permission to incorporate Hawaiian place-based knowledge as a foundation for community-based co-management efforts including resource management and conservation, restoration, and biodiversity preservation.



HAWAI'I CONSERVATION ALLIANCE

A Partnership Dedicated to Environmental Stewardship, Community Engagement, and Conservation Capacity

This position paper was drafted by HCA member representatives currently working to support community-based adaptive collaborative management in their resource programs. As with all its position papers, the views expressed by HCA are not meant to exclude or censure any of its members. We recognize that organizational policies and mandates may preclude or limit implementation of any of HCA's recommendations by that member. Final draft approved by HCA on the 24th of July 2018.

Glossary of Terms:

Biocultural approach to conservation: conservation actions made in the service of sustaining the biophysical and sociocultural components of dynamic, interacting, and interdependent social-ecological systems (Gavin et al. 2015)

ahupua'a: a community-level Hawaiian land division, which often run from the mountains to the sea, that is managed at the local level.

kuleana: A right, privilege, concern, or responsibility. Refers to a reciprocal relationship between the person who is responsible, and the thing which they are responsible for.

aloha 'āina: literally means "love of the land", is a central idea of ancient Hawaiian thought, cosmology and culture. The concept is felt by many people in Hawai'i as a locus of ecological and cultural understanding

mālama 'āina: care for and nurture the land so it can give back all we need to sustain life for ourselves and our future generations

REFERENCES:

Beck, P. (2000). *Collaboration and Credible Commitments: Experiments Collaborative Resource Management in Uganda*. Paper presented at the 2000 Meeting of the International Association for the Study of Common-pool Property (IASCP), May 31-June 4, Bloomington, Indiana, USA.

Berkes, Fikret, P. George and R. Preston (1991). Co-Management: The Evolution of the Theory and Practice of Joint Administration of Living Resources. *Alternatives*, 18(2), pp. 12-18.

Businger, S., Nogelmeier, M.P., Chinn, P.W. and Schroeder, T. (2018). Hurricane with a history: Hawaiian newspapers illuminate an 1871 storm. *Bulletin of the American Meteorological Society*, 99(1), pp.137-147.

Carlsson, Lars & Berkes, Fikret (2003). "Co-management Across Levels of Organization: Concepts and Methodological Implications." Lead paper prepared for the Resilience panel at the Regional Workshop of The International Association for the Study of Common Property (IASCP), "Politics of the Commons; Articulating Development and Strengthening Local Practices", Chiang Mai, Thailand, July 11-14, 2003.



HAWAI'I CONSERVATION ALLIANCE

A Partnership Dedicated to Environmental Stewardship, Community Engagement, and Conservation Capacity

Gavin, M.C., McCarter, J., Mead, A., Berkes, F., Stepp, J.R., Peterson, D. and Tang, R. (2015). Defining biocultural approaches to conservation. *Trends in ecology & evolution*, 30(3), pp.140-145.

IUCN (1996). *Resolutions and Recommendations*, World Conservation Congress, Montreal, Canada, 13-23 October, 1996.

IUCN (2016). *The Hawai'i Commitments* (<https://portals.iucn.org/congress/hawaii-commitments>) at the World Conservation Congress—Planet at the crossroads. 1-10 September 2016, Hawaii, USA.

Jones, Kendall R.; Venter, Oscar; Fuller, Richard A.; Allan, James R.; Maxwell, Sean L; Negret, Pablo Jose, and Watson, James E.M. (2018). "One-third of global protected land is under intense human pressure." *Science* 360 (6390), 788-791.

Pascua, Pua'ala; McMillen, Heather; Ticktin, Tamara; Vaughan, Mehana; Winter, Kawika B., (2017). "Beyond services: A process and framework to incorporate cultural, genealogical, place-based, and indigenous relationships in ecosystem service assessments," *Ecosystem Services*, Elsevier, vol. 26(PB), pages 465-475.

Rodgers, Ku'ulei; Bahr, Keisha; Stender, Keoki & Yuko; Richards, Angela; Richards Dona; Weible, Rebecca; Tsang, Anita; Han, Ji-Hoon Justin; McGowan, Ashley (2017). *2016 Long-term Monitoring and Assessment of the Hā'ena, Kaua'i Community-based Subsistence Fishing Area*. A Hawai'i Institute of Marine Biology report prepared for State of Hawai'i Department of Land and Natural Resources Division of Aquatic Resources.