



Pae ‘Āina Sustainability Grants

FY2014 to FY2015

Kokua Kalihi Valley
Kāko‘o ‘Ōiwi
Waimea Hawaiian Homesteaders
Kua‘aina Ulu ‘Auamo
Ka‘ala Farm
HACBED

Evaluation Report

December 2016

Table of Contents

Executive Summary	3
Introduction.....	6
History.....	8
Program Activities.....	9
Program Results.....	11
Baseline Data.....	16
Lessons Learned.....	17
Findings	17
Recommendations.....	18
Appendices.....	20

EXECUTIVE SUMMARY

Program Summary

The Office of Hawaiian Affairs (OHA) selected six grantees under the Pae ‘ Āina Sustainability strategic plan and provided almost \$1.4 million to promote responsible stewardship of land and water in Hawaii over a two year period. The following is a list of those organizations:

Kokua Kalihi Valley #2907	\$ 280,000
Kāko‘ o ‘ Ōiwi #2886	266,000
Waimea Hawaiian Homesteaders #2918	262,820
Kua‘ aina Ulu ‘ Auamo #2928	228,654
Ka‘ ala Farm #2916	199,889
HACBED #2902	<u>160,000</u>
Total:	\$1,397,363

Most of these organizations had several common goals including restoring agricultural lands back into productivity, reforestation, developing stewardship plans, and fishpond restoration. Each organization had varying activities but the most common ones dealt with producing food for its participants and the community at large.

Purpose of the Evaluation

This evaluation is to determine: (1) how different pae ‘ āina Grantees focused on similar goals; (2) how any Grantee created outcomes that exceeded others in the group; (3) what else could OHA define as their pae ‘ āina goal; (4) how reporting can be improved; and (5) whether the accomplishments of these six organizations established baseline data that could demonstrate changes over time from a point of reference.

The manner in which each organization chose to perform their activities may affect the end result and produce different outcomes. A comparison of results may reveal techniques organizations implemented successfully to improve their process and increase benefits to the Native Hawaiian community.

A comparison of proposed outcomes can help determine how future grantees should be categorized for the purpose of continuing baseline data for land and water sustainability.

This evaluation is not on the performance of each Grantee, but rather to identify any baseline data for OHA administrative purposes. Therefore, Grantees were not notified of this evaluation, nor will this evaluation be offered for their review and comment.

Evaluation Questions to be answered

- 1 How are resources being preserved for future generations?
- 2 Are these programs increasing *kīpuka* (areas) within *ahupua‘a* (large land division)?
- 3 How are environmental resources being managed?
- 4 How was the community impacted by these programs?
- 5 Did Grantees collaborate with other organizations to achieve their goals?

FINDINGS

These findings reflect an overall assessment of baseline data from six organizations qualified under OHA Grants Solicitation No.: OHA14-06 to achieve pae ‘āina sustainability by supporting sustainable resource management and responsible stewardship practices:

Performance measures were scaled to record volumes, not *levels* of performance. Grantees were successful in performing activities with good results but were not required to report on their farming techniques that might have shown comparisons between the Grantee’s final productivity.

Grantee reports were insufficient with qualitative data. Grantees need guidance in writing reports with substance. Some reports did not describe the *level* of achievements and participation; the outcome of their activities; and methods used to define the effects on participants, environment, and community. Some reports were inconclusive, while others reported on activities that were not in their proposal and not in their Contract deliverables, making it difficult to draft a sound evaluation report.

Additional measures are needed to ensure quarterly reports are complete and match final reporting numbers while more qualitative data is needed to define the programs’ cause and effect.



3 Grantees were farming the land...

Identifying baseline data for the group could not be achieved through commonalities. While the intent of this evaluation was to gather baseline data from six grantees as a whole, the range of activities and varying goals was too diverse to produce commonalities set by the three components of sustainable resource management (economic, culture/history, environment), as referenced in the OHA Grants Solicitation - Pae ‘Āina Sustainability and the attached Appendices. Three of the six Grantees were farming for profit while others engaged in more cultural preservation for the benefit of their community.

Contract requirements were extensive when defining terms and conditions. The six contracts refer to voluminous attachments, which by reference to, become part of a legal, binding contract. Scattered throughout these documents, which can exceed 140 pages *per applicant*, are additional contract requirements not captured in the contracts’ scope of services. The result was a massive amount of information which could have been streamlined to work toward creating baseline data.

OHA believes the future of Native Hawaiians lies in their ability to resurrect the ancient practice of managing resources in an ahupua‘a. These include arable lands, freshwater sources, upland resources, and fisheries for the communities within from mauka to makai and for trade with other ahupua‘a.

Quarterly Reports can be improved for more accurate tabulations. A common occurrence was a misinterpretation by the Grantee of the required data - whether to report individual quarterly numbers, or add

them to the next quarter. The lack of year-end totals further signified uncertainty even though there was evidence of technical support from the contract monitor to ensure timely, accurate reports.

Pae ‘Āina sustainability is defined by three major components: a) economic; b) environmental; and c) culture/history. For Grantees who attempted to incorporate all three into their project, it resulted in spreading their resources thin and results might have been better if projects had concentrated on one component.

Current performance measures could not be used to determine whether OHA is increasing the sustainability of land and water in Hawaii. Data from Grantees show all lands are being maintained and productive, but it is uncertain how many areas have been increased sustainably.

RECOMMENDATIONS

This evaluation is not for public distribution as it was an internal assignment to identify the effectiveness of the current OHA process for baseline data gathering from pae ‘āina grant awards.

Administrative Only

1. Applicants should consider selecting one component under pae ‘āina sustainability and narrow their focus to ultimately generate baseline data that would demonstrate change over time consistent with OHA strategic results.
2. Extract key information from the Grantee Proposal to create the grant agreement’s scope of service and cease referencing the OHA Solicitation and Grantee Proposal as being part of the contract.
3. Streamline and standardize performance measures across Grantees and provide additional assistance to Grantees in drafting their narrative reports to reflect more qualitative outcomes that are measurable.
4. OHA needs to consider what it’s goals are for maintaining a viable base for land and water resources and should consider increasing preservation efforts through legislative and administrative rules and regulations.

INTRODUCTION

Purpose of the Evaluation

This evaluation is to determine: (1) how different pae ‘āina Grantees focused on similar goals; (2) how any Grantee created outcomes that exceeded others in the group; (3) what else could OHA define as their pae ‘āina goal; (4) how reporting can be improved; and (5) whether the accomplishments of these six organizations established baseline data that could demonstrate changes over time from a point of reference.

The manner in which each organization chose to perform their activities might have affected the end results and produced different outcomes. A comparison of results may reveal techniques organizations implemented successfully to improve their process and increase benefits to the Native Hawaiian community.

Scope of the Evaluation

This formative evaluation covers contracts between the Office of Hawaiian Affairs (OHA) and six organizations funded under OHA’s pae ‘āina sustainability priority for the period from July 1, 2013 to June 30, 2015.

Methodology

Data was retrieved from the final performance measures and quarterly narrative reports of six pae ‘āina Grantees and will be analyzed to determine if different methods used to obtain the same goals showed some methods to be more effective than others.

This evaluation is not on the performance of each Grantee, but rather to identify any baseline data on pae ‘āina sustainability for OHA administrative purposes. Therefore, this evaluation was not submitted to any of the Grantees for review and comment and no interviews were conducted with key personnel.

Evaluation Questions to be answered

- 1 How are resources being preserved for future generations?
- 2 Are these programs increasing *kīpuka* (areas) within *ahupua‘a* (large land division)?
- 3 How are environmental resources being managed?
- 4 How was the community impacted by these programs?
- 5 Did Grantees collaborate with other organizations to achieve their goals?

OHA Strategic Priority

Each of the six organizations was funded under the ‘Āina (Land & Water) Strategic Priority: *“To maintain the connection to the past and a viable land base, Native Hawaiians will participate in and benefit from responsible stewardship of Ka Pae ‘Āina O Hawai‘i.”*

The main goal of pae ‘āina sustainability has many facets, all of which lead to increasing the amount of land and water being managed in a more sustainable manner. The OHA Solicitation offered applicants a list of suggestions for pae ‘āina activities, if needed, to help them shape their performance measures.
(See Appendix #1)

The solicitation also offered a list of suggestions for “Outputs and Outcomes” which ranged from culture, farming, preservation, organizational structuring, to eradicating invasive species.
(See Appendix #2)

HISTORY

Office of Hawaiian Affairs (OHA)

In 2010, OHA identified stewardship of land and water in Hawaii as a strategic priority and required certain results based on the needs of its beneficiaries. There is no baseline data from 2010 to present, and at least five small farming and cultural preservation projects were awarded one year grants totaling almost \$120,000 up until 2012.

In 2013, pae 'āina sustainability grants began with \$97,585 being awarded to one project to restore the watershed health in a valley and revitalize their lo'i. The following grant cycle moved to awarding 2-year grants and six projects were awarded a total of almost \$1.4 million. The priority was to maintain a connection to the past where Native Hawaiians could participate in and benefit from responsible stewardship of land and water in Hawaii.

It is uncertain whether those activities increased the percentage of ahupua'a being managed sustainably. To answer that question, OHA needs statistics and in-depth narrative from the Grantees and an explanation on *how* they were able to achieve their goals.

Gathering pae 'āina baseline data was contingent upon asking the right questions and ensuring the Grantees understood what was needed from them. When OHA needed to know, for comparison, what type of farming methods were employed, or what the annual crop was compared to previous years, those questions needed to be asked in the quarterly reports. At present, quarterly reports use standardized questions for everyone rather than one specific to the project.

The bigger question remains on *how* these actions are increasing sustainability of natural resources and whether OHA can pursue land and water sustainability through other avenues.

It also may have revealed little interest in farming and preservation versus employment to support basic family needs.

OHA funds organizations relative to one of the six Strategic Priorities and offers suggested performance measures that could apply to their service activities. Most grant applicants combined some, or all, of these suggestions into their work plan to achieve pae 'āina sustainability and were required to identify the target area(s), the needs of their targeted population, and how they would provide services to meet their objectives.

Native Hawaiians have always practiced sustainable resource management to benefit entire communities and ensure adequate resources for future generations. However, Western influences took a toll on traditional Hawaiian practices and changes in land tenure resulted in Hawaiians being alienated from their lands. The purpose of the pae 'āina solicitation was to support sustainable resource management and responsible stewardship practices.

This evaluation reviewed the three components of sustainable resource management as defined by OHA Grants: (1) management of economic resources; 2) management of environmental resources; and 3) management of cultural and historical resources. A comparison of proposed outcomes in either of these areas can help determine how future grantees should be categorized for the purpose of recording baseline data for land and water sustainability.

Economic Resources

Half of the Grantees were farmers working to increase economic gain for their families and communities while striving to implement Hawaiian culture by planting and harvesting traditional foods using the Hawaiian moon

calendar. None of the farmers were novices and all were successful, but a review of their performance measures reports lacked certain factors in determining *levels* of success. In order to determine whether their goals were realistic required knowing the acreage being farmed, prior production for the past two to three years, what methods were employed, and other data.

Farmers were asked to estimate their food production by poundage according to specific crops and some stated their crop value while others did not. To make measurable comparisons, more factors are needed to determine success and impact.

Environmental Resources

Stewardship for pae ‘āina sustainability encompasses a broader spectrum than just preservation of natural resources and a connection to the past. It includes managing resources for economic value and subsistence, providing cultural and social opportunities for Native Hawaiians, and increasing the percentage of ahupua‘a being managed sustainably. Examples of this can be seen in the efforts of Grantees working to preserve and protect fishponds, estuaries, and ancient water irrigation systems. Increasing the water supply to farmlands has effectively increased kīpuka and restoring fishponds has led others to do the same in different areas throughout the islands.

Cultural and Historical Resources

Grantees were encouraged to create projects dedicated to preserving or restoring cultural, historical, and archaeological sites to promote Hawaiian cultural practices, and expand stewardship of these sites throughout the islands. This included farms providing access to resources for cultural practitioners in *lā‘ au lapa‘ au* and *hō‘ ike* intent on passing on knowledge to future generations.

Five of the six Grantees were active in preserving cultural/historical sites and practices while one Grantee focused on fishpond preservation throughout the islands. However, the extent of their involvement was not conclusive enough to be measurable.

Pae ‘Āina Sustainability Grantees

Proposal Applications were submitted to OHA according to requirements of OHA Grant Solicitation No.: OHA 14-06 Pae ‘Āina Sustainability. Grant review panels selected six organizations for the FY2013-2015 period and awarded grants under *pae ‘āina* totaling almost \$1.4 million with the shared goal of increasing the percentage of ahupua‘a being managed sustainably. How each organization chose to meet that goal was expressed in some similar but mostly different ways. The following table compares what the grant applicant proposed and what was collated into the OHA contract, clearly showing the depth of their activities designed to increase the sustainability of their particular ahupua‘a:

Table 1. Program Activities

PROPOSAL vs. CONTRACT

Hui	Proposal	Contract
Ka'ala Farm	Land base for cultural practitioners; Community farms; Sustainable workshops; Cultivated land increased; Families have sustained work on small plots.	Ahupua'a management training; Land base for cultural practitioners; Cultivated land increased for community.
Kua'aina	Network, organize fishpond consortium (hui); Develop in-house Hui coordinator; Leverage opportunities for restoration work; Food self-sufficiency; Preserve traditional values & practices; Regenerate near shore fisheries; Preserve health of coral reefs; Streamline permit process for fishponds, merging federal & state processes.	Land base for cultural practitioners; Restore fishponds; Food self-sufficiency; Increase cultural practitioners statewide.
Kako'o'Oiwi	Increase economic agriculture production; Expand Native Hawaiian culture; Land base for cultural practitioners; Restore & preserve native habitats; Partner with other community-based orgs.	Restore agricultural productivity; Restore ecological productivity; He'eia ahupua'a for culture/community; Land base for cultural practitioners.
Kokua Kalihi	Reforestation; education on organic caring of the land and Native Hawaiian forestry practices; Pōhaku workshops quarterly; cultivate kalo and lā'au lāpa'au; Hydrology research, story based evaluation; Construct a hale for community gathering and cultural preservation.	Reforestation; Revitalize lo'i kalo; pā pōhaku; Hydrology research; Build community stewardship to increase sustainability of Kalihi, O'ahu. Land base for cultural practitioners.
HACBED	Partner with original cultural group, NKNKHI, to provide technical support for administration and program operations; Provide fiscal and management training to conform with government regulations; Assist in gathering program outcome data; Assist in creating a plan for income generating activities; Increase outreach activities & partnerships; Establish a STEM internship program with Kapiolani Community College; Expand development of cultural interpretations of Hālawa Valley and educational programs.	Assist NKNKHI in expanding 'āina and cultural activities; Develop stewardship and sustainability plans; Build organizational capacity for Hālawa; Land base for cultural practitioners.
Waimea Hawaiian Homesteaders	Train lessees how to farm and build a greenhouse on their property, plant and market their produce.	Assist Hawaiian homeland lessees to revive historically productive agricultural lands and increase pae'āina sustainability of Pu'ukapu. Land base for cultural practitioners.

Listed within each of these OHA Contracts, but outside of the Scope of Services, is a statement that says “...the project proposed by the GRANTEE, is designed to meet the needs of the Hawaiian community by providing a tangible and accessible land base for cultural practitioners to practice, develop, and share their skills and knowledge” which was acknowledged by all Grantees but not necessarily made part of their goal.

The OHA Solicitation offered grant applicants several suggestions to consider for “Activities, Outputs and Outcomes” for the Performance Measures table which was made part of the contract deliverables for pae ‘āina sustainability.

Kua‘ aina Ulu ‘ Auamo (KUA) and HACBED activities were quite different from the other four groups who were basically farming. KUA worked with government agencies to reduce the permitting and planning process for a Hui of statewide fishpond organizations and facilitated their meetings, while HACBED partnered with a grassroots group that needed assistance organizing their entire operation which included fiscal and personnel training, selecting new Board members, developing a stewardship plan, creating a STEM program for student interns, soliciting for volunteers, and expanding land and culture preservation activities.

Program Results

The Performance Measures tables were not scaled to reflect *levels* of performance, but rather to record volume, and farming techniques were not specified so they could be compared to show one better over the other. The OHA Solicitation activities and performance measures can be viewed in the attached Appendices 1 & 2. Listed below is a table of comparisons between the Grantees which shows a few similarities but no distinct pattern that binds any of them or establishes baseline data for land or water resources:

Table 2. Grantee Comparisons

ACTIVITY	KĀKO‘O	KUA	KKV	WHHA	HACBED	KA‘ALA
Key Personnel science background	Yes	Yes	No	No	No	No
Years of Experience	10	13	11	19	24	33
Acres Developed Managed/Leased	405	30 loko‘ia –fishponds	100	N/A	2	1,212
Acres cultivated with this grant	5	N/A	2	7.5	N/A	6
Established markets for crop sales?	Yes	N/A	N/A	Yes	N/A	Yes
Farm methods used?	Not defined	N/A	Soil remediation, Hawn Moon calendr ,Constellation.	Greenhouses; organic farming pest control; pros/ university training; soil types/ nutrients; match crops to soil & climate	N/A	Aquaponics; sells ‘opelu fingerlings;
# Volunteers	5,886	N/A	2,129	N/A	1,688	875
# times cultural practitonrs given access- resources?	121	151	119	N/A	N/A	N/A
Food produced (lbs.)	13,074	N/A	N/A	135,000	N/A	3,815

ACTIVITY	KĀKO‘O	KUA	KKV	WHHA	HACBED	KA‘ALA
Environmental Activities	Eradicate invasive species;	Eradicate invasive species	Eradicate invasive species	Teach alternative growing methods,organic pesticides.	N/A	N/A
Cultural/Historical Activities	archaeologi inventory survey	Maintained 2 fishpond walls,gates	Restored 5 pōhaku sites	Wahi pana presentations; workshops on making Hawaiiin instruments.	Preserve, maintain cultural and historical sites -5.	Makahiki Festival activities
Ecological Activities	Estuary fish, etc., water birds, vegetation surveys, eradicate invasive species.	Eradicate invasive plants	Eradicate invasive species	N/A	Eradicate invasive species	Water ditch restoration
Offer Educational Opportunities?	Yes	Yes	Yes	Yes	Yes	Yes

The majority of pae ‘āina grantees were successful in accomplishing their chosen goals while others who chose to embark on numerous tasks, may have found themselves needing more completion time. All professed to provide land base access for cultural practitioners, although it was not a requirement listed in the scope of services. In addition, their activities and impact on the communities were not well defined.

The extent to which each accomplished the same mission was not defined in such a way to draw enough similarities to create a baseline assessment of pae ‘āina sustainability. Together, their activities fulfilled several strategic results from creating economic value, to preserving cultural and natural resources and increasing the percentage of ahupua’a being managed sustainably.

The manner in which each organization chose to perform their activities was dependent upon their goal which varied. Therefore, a comparison of results could not reveal techniques used successfully that could be shared with the others.

Tracking commonalities was not possible, as vital information was not provided by all groups and not all quarter and final reports were available or contained the information needed to compare results. If basic data, such as crop sales value and crop donation values had been reported separately, it would have revealed whether the farm operation was self-sufficient or underproductive. It may have shown more expertise, or volunteer workers, were needed, or it may have shown a highly productive farm operation steadily increasing production. Instead, some chose to combine crop sales with crop value distributed to the community.

One group practiced soil remediation techniques such as organic amendments, planting nitrogen-fixing cover crops, sheet mulching, and rotating crops which might have confirmed why their lo‘i crop was healthier than the other organizations, but they did not report the results. Planting and harvesting according to the Hawaiian moon calendar and the constellation were also implemented, but again, the results were not reported.

Fifteen activities were taken from Performance Measures reports, as shown in Appendix #3, showing what might be considered commonalities between the pae ‘āina grantees. What was missing from the Grantee reports were the details on how activities were conducted and the level of achievements. Listed below are particulars and end results for each grantee:

Ka‘ala Farm, Inc. (KFI) acquired over 1,200 acres and was working to restore portions of the ancient ‘auwai (ditch) system which sends water needed to expand land cultivation in Wai‘anae Valley. Families in Wai‘anae and Nānākuli were given the opportunity to work small plots of land on a community farm with a cultural foundation to supplement their family table and share with others. It had at least 5 of the 15 activities in common with several grantees. Contract 2916 - \$199,889)

Goal: To restore and expand the ‘auwai (ditch) system in the Wai‘anae ahupua‘a in order to expand lo‘i cultivation and other healthy cultural foods using traditional ahupua‘a management.

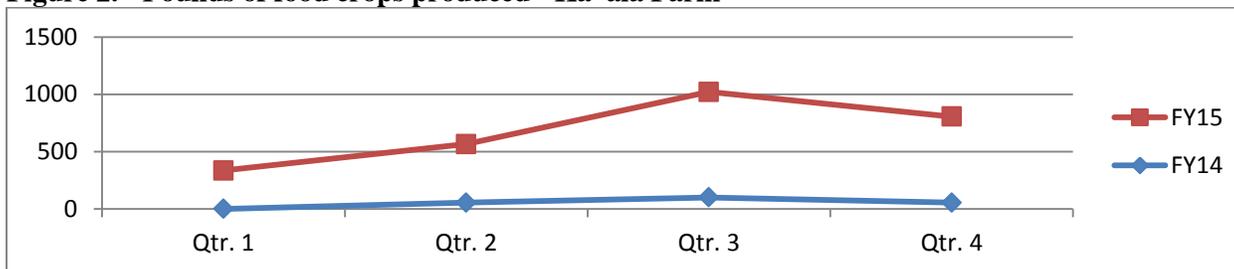
Result: Ka‘ala Farm was able to clear and cultivate six of the proposed nine acres of farm land and exceed the number of individuals farming by 150%, but was 4-6% below projection for food production and distribution. Plans for a Cultural Learning Center were developed and sustainability educational workshops were provided.

Ka‘ala Farm was to produce and distribute a healthy cultural cookbook and a development plan for community farms. They were able to produce postcard recipes and completed the activities needed for their development plan which is pending.

The concept of families caring for a plot of land, harvesting, replanting, and creating meals to be shared with others is appealing, but the reality of continuous labor combined with full-time jobs and family time is diminishing the number of committed families and is reflected in the results of food production in Figure 2. Consideration is now being given to recruiting families using a different objective.

Food crops included kalo which met 29% of its goal, and bananas which met 35% of its goal. However, in the 2nd year, kalo leaves were added which was more successful at reaching 68% of its goal. The results of their initial food crop production for FY14-15:

Figure 2. Pounds of food crops produced - Ka‘ala Farm



Kāko‘o ‘Ōiwi (KO) is working to restore agricultural and ecological productivity on 405 acres in the He‘eia ahupua‘a for cultural and community use. This grant allowed them to cultivate additional acreage and plant more food crops while working the wetlands to restore native habitats which in turn, benefitted ocean marine environments including the 80-acre He‘eia fishpond. It had at least 6 of the 15 activities in common with several grantees. (Contract 2886 - \$266,000)

Goal: Increase agricultural production, teach others how to interact with physical resources to perpetuate the Hawaiian culture and restore the native habitat in He‘eia wetlands on O‘ahu.

Result: KO was successful in increasing agricultural productivity by clearing and cultivating five more acres of land for crops, producing almost 27,000 lbs. of food. It completed a *draft* of an Archaeological Inventory Survey while working on wetlands ecology focused on culturally significant aquatic species and eradicating almost 3 acres of invasive species.

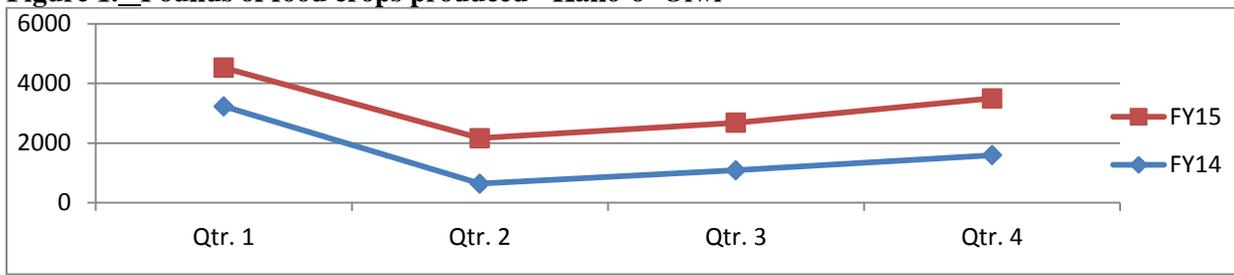
Kāko‘o ‘Ōiwi proved to be highly proficient as farmers in cultivating once fallow acreage into food crop production and distribution. Their work on wetlands ecology has encompassed vegetation surveys, interviews with kupuna regarding culturally significant vegetation and water birds in their area to perpetuate their continued existence.

Two graduate researchers are studying fish, shellfish, and other culturally significant aquatic species in the estuary and mouth of the stream to include in the Natural Resources Guide while KO works with the landowner (HCDA) and their contractors to complete an archaeological inventory survey. Together with the University of Hawaii Institute for Marine Biology, and other collaborative partners, they have made progress in their application to designate He‘eia as a National Estuarine Research Reserve, the first on O‘ahu.

It was not possible to confirm accurate performance measures without requesting a review and resubmittal from Kāko‘o ‘Ōiwi as totals for FY14 were not listed and FY15 totals were inaccurate. However, many of the quarterly numbers, if correct, show they exceeded all of their targets.

One of the commonalities shared by these six organizations was their success in producing food crops for the community and increasing their economy. KO made improvements in their 2nd year but the quarterly highs and lows remained the same due to weather and the availability of heavy machinery needed for wetland conditions. Results of two-year grant in main food farm activity:

Figure 1. Pounds of food crops produced - Kāko‘o ‘Ōiwi



Waimea Hawaiian Homesteaders Association (WHHA) taught homesteaders how to successfully farm once fallow, agricultural land and market their crops to attain economic self-sufficiency. Within two years, it was able to increase the number of farms from 4 to 39, thereby increasing the percentage of lands being managed sustainably. It had at least 3 of the 15 activities in common with several grantees. (Contract 2918 - \$262,820)

Goal: To assist homesteaders revive historically productive agricultural lands and increase economic sustainability on their own land.

Result: Twenty-one (21) Hawaiian families were able to revive their once fallow, homestead, agricultural lands in Kamuela on the Big Island by learning how to build a greenhouse and grow selective crops. Families were able to improve their lifestyle and increase their income by producing almost 60,000 lbs. of crops a year. Comparing annual food crop production was not possible as quarterly amounts were not provided.

Training included workshops featuring professionals who showed participants how to grow, fertilize and weed organically, how to market their product, and how to select their crop according to their targeted market. These lands were quickly transformed into productive farms involving the whole family. Homesteaders were able to retain their regular full-time jobs while farming part-time.

Those that completed the program were required to return and share their knowledge with the next group of new farmers, thus reducing costs for the program. The return rate was about 50%, but nonetheless, the program was highly successful.

Kokua Kalihi Valley (KKV) has been sustaining and developing 100 acres in Kalihi Valley since 2004 by working to restore a healthy watershed, reviving lo' i kalo production, rebuilding pā pōhaku (stone walls/agricultural terraces) and creating a hale for community gatherings and cultural preservation. It had at least 5 of the 15 activities in common with several grantees. (Contract 2907 - \$280,000)

Goal: Restore the health of the Kalihi ahupua'a through reforestation, revitalization of lo'i kalo and pā pōhaku (stone walls), through hydrology research, and building community stewardship.

Result: KKV held workshops to teach hundreds of people to learn how to build stone walls (pā pōhaku) in the taro patches (lo' i) in such a way the water was able to move with minimal erosion. Within the lo' i, they practiced soil remediation by planting nitrogen-fixing cover crops, using organic additives, sheet mulching, and by rotating the crops.

KKV defined success as having continuous taro production and embarked on this mission by setting rhythms for planting and harvesting while removing invasive plants, gathering data from rain gauges, and growing native plants to be shared with over 2,350 community workers.

KKV worked to educate the community through culture-based sustainable resource management to improve and maintain the health of the valley watershed with the goal of creating stewards of the environment.

Constructing a *hale* (house) for community gatherings began with gathering *la' au* (trees, wood, plants), stripping bark for the joints, preparing the structural components, gathering and bundling the pili grass, doing dry stack masonry, and learning *oli* (chant) for preparing the site and protecting the land. The hale was completed and dedicated at the end of the grant period in June 2015.

Throughout their two-year program, KKV infused native intelligence in their work ethics and evaluation of their progress, relying on ulu hōkū (Constellation) for guidance in planting, gathering, and harvesting cycles.

Although their work was sustaining the land, culturally and environmentally, KKV did not farm for economic gain like the others, but rather to share kalo and garden harvests with the community.

Kua' aina Ulu ' Auamo (KUA) was organizing and facilitating organizations, mālama ' āina practitioners, and supporters who gathered to empower each other by leveraging their skills, knowledge and resources. This organization was focused on restoring loko i' a (fishponds) throughout the state by trying to streamline the permitting process with federal and state agencies. KUA represents a Hui of fishpond practitioners working together to share a system-level outcome that would have been more difficult and time consuming if undertaken alone. It had at least 2 of the 15 activities in common with several grantees. (Contract 2928 - \$228,654)

Goal: To increase fishpond restoration and build capacity towards food self-sufficiency from fishponds.

Result: KUA provided an accessible land base for cultural practitioners and acted as facilitator for fishpond (loko i'a) hui membership across the State to build capacity and develop baseline assessment of fishpond restoration.

The main function of this group is to be the facilitator for the statewide membership of loko i'a and work with various government agencies to improve permitting processes for the Hui. Their annual meeting allows face-to-face sharing of knowledge and latest techniques.

They convened and facilitated 24 loko i‘a at their annual Hui Mālama Loko I‘a gathering in 2014 in Hāna, Maui and in 2015, 30 gathered again in Kahana, O‘ahu.

Kua‘aina gathered baseline data from Hui members on their restoration activities to incorporate into their 2015 Hui agenda booklet which contains information on each fishpond relating to size, stewardship, types of activities being offered, invasive removal, maintenance, and repairs.

Work continues with State representatives to implement the State Programmatic General Permit on fishpond restoration.

Hawai‘i Alliance for Community-Based Economic Development (HACBED) partnered with a grass-roots group striving to document cultural history and perpetuate kīpuka within the ahupua‘a of Hālawā Valley, O‘ahu. HACBED was needed to build organizational capacity for the group, provide technical assistance, and fiscal management. It had at least one of the 15 activities in common with several grantees. (Contract 2902 - \$160,000)

Goal: To build the organizational capacity of the grass roots group, *Nā Kūpuna A Me Nā Kāko‘o o O Hālawā* (NKNKHI) which is dedicated to documenting and perpetuating the spiritual power of *Hale o Papa* within the ahupua‘a of Hālawā on O‘ahu and increasing the cultural knowledge of its’ caretakers.

Result: HACBED expanded ‘āina and cultural activities for naturalists, bird watchers, hunters, hikers, etc. and developed cultural, historical, environmental curricula. It was able to complete a 60-page Stewardship Plan but is still developing a STEM Program for Hawaiian student interns and working on organizational capacity.

HACBED partnered with NKNKHI to assist them in obtaining 501(c)3 non-profit status by training NKNKHI staff and board members in their roles, concentrating on basic accounting and computer skills with the goal to eventually do their own payroll, billing, and related tasks. HACBED monitored administrative management of the NKNKHI program which included documentation of oral history and perpetuation of the *Hale O Papa* site. Securing new board members proved to be difficult due to personal liability concerns, lack of insurance coverage, and the inability of prospective members to devote quality time.

HACBED was able to collaborate with O‘ahu universities, colleges and high schools, UCLA, Michigan State University, the State Department of Public Safety and T.J. Mahoney & Associates, to obtain students, prisoners, and volunteers to help in clearing cultural sites and rebuilding a lo‘i, but there is no data on what training or cultural knowledge was provided to these groups, other than clearing vegetation.

The group with volunteer support from educational institutions and government entities, continues to provide cultural tours, maintain five historical sites, plant kalo, and work on reforestation in the valley. Their focus does not correlate to farming like the other pae ‘āina grantees.

Establishing Baseline Data

Appendix #3 defines the activities associated with the categories under sustainable resource management which Grantees used as suggested activities to provide performance measures. It clearly shows an ability to begin baseline data in some categories and the need to pinpoint results by minimizing the field. It also shows one performance, *lā‘au lapa‘au* was initiated by all six organizations, but reporting details of their activities and results was insufficient to draw any conclusions as to their impact or to make recommendations on how to improve the results.

Performance and Outcomes Measurement Tables contain “Additional Reporting Requirements - Qualitative Information” which requires a greater level of reporting details from each Grantee. Most of these additional requirements pertain to one Grantee, but not all, which would have been valuable for baseline data if it had been required of each Grantee.

Of more importance would have been reporting the effect such data had on the project. As an example, to simply list the plants being out planted is a good start but needs to state if the plants thrived, or were affected by invasive species, or needed to be moved to another site where they were either successful or not. The chart shows almost no correlation between the six Grantees.

Grantees completing similar activities with different outcomes can provide valuable data to others to improve their endeavors. For example, Grantees could have defined what farming methods were used, whether it was indoor gardening, organic farming, planting and harvesting by the moon calendar, or other methods to use for comparison and learn how one process was more successful than the others. Baseline data is invaluable when shared with similar type enterprises and especially under pae ‘āina sustainable resource management.

Lessons Learned

Defining the term pae ‘āina sustainability and what programs qualify for this type of grant is largely interpretive as there are three different components that meet the specifications. Sustainable resource management could be categorized under Economic, Cultural/Historical, and/or Environmental. The majority of Grantees chose three components with similar but different activities making it impossible to create baseline data.

FINDINGS

These findings reflect an overall assessment of baseline data from six organizations qualified under OHA Grants Solicitation No.: OHA14-06 to achieve pae ‘āina sustainability by supporting sustainable resource management and responsible stewardship practices:

Performance measures were scaled to record volumes, not levels of performance. Grantees were successful in performing activities with good results but were not required to report on their farming techniques that might have shown comparisons between the Grantee’s final productivity.

Grantee reports were insufficient with qualitative data. Grantees need guidance in writing reports with substance. Some reports did not describe the *level* of achievements and participation; the outcome of their activities; and methods used to define the effects on participants, environment, and community. Some reports were inconclusive, while others reported on activities that were not in their proposal and not in their Contract deliverables, making it difficult to draft a sound evaluation report.

Additional measures are needed to ensure quarterly reports are complete and match final reporting numbers while more qualitative data is needed to define the programs’ cause and effect.



3 Grantees were farming the land...

Identifying baseline data for the group could not be achieved through commonalities. While the intent of this evaluation was to gather baseline data from six grantees as a whole, the range of activities and varying goals was too diverse to produce commonalities set by the three components of sustainable resource management (economic, culture/history, environment), as referenced in the OHA Grants Solicitation - Pae 'Āina Sustainability and the attached Appendices. Three of the six Grantees were farming for profit while others engaged in more cultural preservation for the benefit of their community.

Contract requirements were extensive when defining terms and conditions. The six contracts refer to voluminous attachments, which by reference to, become part of a legal, binding contract. Scattered throughout these documents, which can exceed 140 pages *per applicant*, are additional contract requirements not captured in the contracts' scope of services. The result was a massive amount of information which could have been streamlined to work toward creating baseline data.

OHA believes the future of Native Hawaiians lies in their ability to resurrect the ancient practice of managing resources in an ahupua'a. These include arable lands, freshwater sources, upland resources, and fisheries for the communities within from mauka to makai and for trade with other ahupua'a.

Quarterly Reports can be improved for more accurate tabulations. A common occurrence was a misinterpretation by the Grantee of the required data - whether to report individual quarterly numbers, or add them to the next quarter. The lack of year-end totals further signified uncertainty even though there was evidence of technical support from the contract monitor to ensure timely, accurate reports.

Pae 'Āina sustainability is defined by three major components: a) economic; b) environmental; and c) culture/history. For Grantees who attempted to incorporate all three into their project, it resulted in spreading their resources thin and results might have been better if projects had concentrated on one component.

Current performance measures could not be used to determine whether OHA is increasing the sustainability of land and water in Hawaii. Data from Grantees show all lands are being maintained and productive, but it is uncertain how many areas have been increased sustainably.

RECOMMENDATIONS

This evaluation is not for public distribution as it was an internal assignment to identify the effectiveness of the current OHA process for baseline data gathering from pae 'āina grant awards.

Administrative Only

1. Applicants should consider selecting one component under pae ‘ āina sustainability and narrow their focus to ultimately generate baseline data that would demonstrate change over time consistent with OHA strategic results.
2. Extract key information from the Grantee Proposal to create the contract’s scope of service and cease referencing the OHA Solicitation and Grantee Proposal as being part of the contract.
3. Streamline performance measures and provide additional assistance to Grantees in drafting their narrative reports to reflect more qualitative outcomes that are measurable.
4. OHA needs to consider what it’s goals are for maintaining a viable base for land and water resources and should consider increasing preservation efforts through legislative and administrative rules and regulations.

APPENDICES

Appendix #1

OHA Grants Solicitation No.: OHA-14-06 Pae ‘Āina Sustainability

III. Scope of Work

The scope of work encompasses the following tasks and responsibilities:

A. Service Activities

In Section 3, IV. Service Delivery, the applicant shall describe in detail the target area(s), target population(s), need of the target population(s) in the proposed service area(s), and how the applicant would provide the required services. **Applicants may propose programs that support one or more of the following:**

- Promote sustainable management of resources within an *ahupua‘a*
 - Foster collaborations among community groups and agencies to manage resources within an individual *ahupua‘a*
 - Support existing sustainability of *kīpuka* within an *ahupua‘a*
 - Support development of new *kīpuka*
 - Promote sustainable management of economic resources to maximize production or gathering of food
 - Support restoration of cultural or historical sites
 - Promote sustainable management of cultural or historical resources to promote cultural practices
 - Support stewardship of cultural, historical, and archaeological sites
 - Promote sustainable management of environmental resources
 - Protect and/or restore native habitats for native plants and animal species
 - Increase awareness of cultural uses of natural resources and historical sites
 - Increase availability of and access to cultural knowledge
 - Or other program services that may promote sustainable management of resources
-

Performance Outputs and Outcomes Measures – The applicant shall set forth, using the table in Section 5, Attachment D, the amount of performance outputs and outcomes that it expects to achieve. Program outputs and outcomes reported to OHA for each specific activity must be a direct result of OHA’ funding for this program and may include the following:

a. Outputs

- Number of Native Hawaiians participating in program
- Number of individuals farming
- Acreage cleared (land/water)
- Acreage cultivated (land/water)
- Amount of “crop” produced
- Amount of food distributed and/or consumed
- Amount of “crop” sold
- Amount of invasive species eradicated
- Number of community work days
- Number of community volunteers
- Number of cultural practitioners provided access to natural and/or cultural resources
- Number of cultural sites preserved/protected

b. Outcomes

- Stewardship plan for *ahupua‘a/kīipuka* resource management
- Stewardship plan for cultural/historical site management

The applicant may also propose other measures of effectiveness.

Please use the “**Performance Outputs and Outcomes Measurement Table**” located in Section 5, of this solicitation, and **include it** in the **Service Delivery** section of your proposal application.