

**An Assessment of Sociocultural Factors Influenced
by the Implementation of the Moloka`i Agricultural
Community (MAC) Project, Moloka`i, Maui
County, Hawai`i**

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Introduction

The purpose of this investigation was to gain a better understanding of the sociocultural impacts on Moloka`i that may be attributed to the implementation of the Moloka`i Agricultural Community (MAC) development program. The MAC program is administered through the Moloka`i-Lanai Soil and Water Conservation District (MLSWCD), and is assisted by the NRCS and a sister agency, the USDA Farm Services Agency (FSA).

On June 4 and 5, 1997, Dr. Frank Clearfield, Director of the Social Sciences Institute (SSI) of the USDA Natural Resources Conservation Service (NRCS), and Michael Johnson, Anthropologist on the Social Sciences Institute staff, visited the island of Moloka`i, Maui County, Hawai`i. They were accompanied by Ken Kaneshiro, NRCS State Conservationist for Hawai`i, Nathan Varns and Denise Light, NRCS employees at the Molokai field office, and Debbie Kelly, Moloka`i Agricultural Community (MAC) Project Coordinator, provided expert local assistance.

Moloka`i is not as dependent on tourism as are most of the other Hawai`ian islands. The majority of the population of Moloka`i is considered to be rural, although farming currently is not a major occupation on the

island. Household and per capita income for most residents of Moloka'i is relatively low.

The Hoolehua area of Moloka`i is also the location of multiple homesteads of native Hawai`ian people who have leased land through the Department of Hawai`ian Homelands (DHHL). These parcels are leased to persons of at least 50% native Hawai`ian ancestry for one dollar (1\$) per year for periods up to 99 years. Parcels range in size from 5 to 40 acres.

The MAC program provides up to fifteen thousand dollars (\$15,000) per applicant as cost share money. The cost share portion of the MAC program is 80%, with 20% paid by the farm operators. The operator's portion may not necessarily be cash payment; it may be based all or partly on an "in-kind" match, such as the value of labor.

The MAC program has primarily granted to Hawai`ian homesteaders for agricultural development of their leased lands. All residents of Moloka`i who wish to install agricultural improvements on their lands can apply for MAC program monies. Hawai`ian homesteaders, however, constitute the majority of recipients of financial assistance at this time.

Methods

Fourteen individuals were interviewed during the course of the visit to Moloka`i. All interviews were set up locally, either by Debbie Kelly or Denise Light. Each interview took place either on lands being developed with MAC monies, or at the interviewee's home or place of business. In the

case of several of the interviewed Hawai`ian homesteaders, the home and the place of business were one and the same.

Each interview addressed a common set of questions, such as how the interviewee felt about the MAC program; what the interviewee intended to do with the developed acreage (if a homesteader); the effect their participation had on themselves, their families, and their community; and what factors the interviewee saw as advantages and disadvantages in participating in the MAC program. Each interview also addressed concerns or issues that were unique to each person interviewed. These topics ranged from development of native plant and tree stocks through the identification and planning of basic economic infrastructure issues.

The investigators took written notes during most of the interviews, recording the interviewees concerns or issues. Each interview was also recorded using a digital video camera. This type of recording captures both a video and audio record of what is discussed, allowing the interviewers to make more accurate assessments of material. In addition, the video record can be used to generate other products, such as videos intended for outreach and education. Interviews generally lasted between one and two hours, and were very informal in structure and setting. Most discussion was between Clearfield, Johnson, and the interviewees, with the other members of the visiting party providing input only occasionally.

Six interviewees (Adolf Helm, Wilfred Spencer, Nani Brandt, Harry "Tuddie" Purdy, Moke Kim, and Paul Elia) are Hawai`ian homesteaders and

participants in the MAC program. Also interviewed were Alton Arakakai and Glenn Teves (both of the University of Hawaii-Cooperative Research Education and Extension Service (CREES)), Tom Matayoshi (Hawaii Department of Agriculture/Moloka`i Irrigation System [DOA/MIS]), and Tim Stack, a former NRCS employee who was district conservationist at the time of the inception of the MAC program, and who is now working in the private agricultural sector on Moloka`i. Ken Kaneshiro, Nathan Varns, and Denise Light, all NRCS employees, provided a great deal of information throughout the visit to Moloka`i, as did Debbie Kelly, MAC program coordinator. All interviews were performed individually with the exception of Arakakai and Teves, who were interviewed at the CREES office, and Stack and Elia, who were interviewed simultaneously at Elia's home.

Moloka'i: A Comparative Description

In order to provide a context for further discussion and description of the MAC program, this section provides a series of comparisons of income levels and ethnic/racial distributions between Molokai, Maui County (which Molokai is part of), and the state of Hawaii'i.

Population

As can be seen from Table 1, Population, Moloka'i has a relatively small population, compared to the majority of the other Hawai`ian islands. Moloka`i also exhibits a population dispersal that is the opposite of both Maui County and the state of Hawaii, in that the majority of the population

of the island is considered rural. Moloka`i has no large population centers. The largest town on the island, Kaunakakai, has a population of less than 4,000, and one of the first things a visitor is informed of is there are no traffic lights on the island.

Table 1.
Population.

| Population | Molokai (%) | Maui County* (%) | Hawaii (%) |
|------------|--------------|------------------|-----------------|
| Total | 6,687 (100) | 91,286 (100) | 1,108,229 (100) |
| Urban | 2,623 (39.3) | 75,416 (82.6) | 985,819 (89) |
| Rural | 4,064 (60.7) | 15,870 (17.4) | 122,410 (11) |

*Exclusive of Molokai.

All data derived from 1990 US Census (Geolytics 1996).

Racial/Ethnic Characteristics

Once again, Moloka`i exhibits a trend different than both Maui County and the State of Hawai`i in the distribution of racial/ethnic groups.

Asian/Pacific Islanders form an overwhelming majority on Moloka`i (see Table 2, Racial Distribution). This is in part due to the large numbers of native Hawai`ian homesteaders and their families on Moloka`i. The preponderance of residents of native Hawai`ian or Asian background strongly influences the culture of the island, and also places these racial groups in majority positions in democratic decision making processes.

Table 2.
Racial Distribution

| Race | Numbers of Persons in Each Category | | |
|----------------------------|-------------------------------------|-----------------|--------------|
| | Molokai(%) | Maui County*(%) | Hawaii(%) |
| White | 1,237 (18) | 38,395 (39) | 370,270 (31) |
| Black | 7 (< 1) | 450 (< 1) | 26,669 (2) |
| American- Indian | 11 (< 1) | 487 (< 1) | 5,596 (< 1) |
| Asian/Pacific- Islander | 5,284 (77) | 50,593 (51) | 686,391 (58) |
| Hispanic Origin | 301 (4) | 7,158 (7) | 78,742 (7) |
| Other Races | 38(< 1) | 1,360 (1) | 19,303 (1) |

*Exclusive of Molokai.

All data derived from 1990 US Census (Geolytics 1996).

Socioeconomic Characteristics

Comparing household and per capita income levels shows that Moloka`i is substantially lower in both categories than either Maui County or Hawai`i state (refer to Tables 3 and 4). Unemployment is also higher on Moloka`i (ca. 6%) than in the state of Hawai`i (ca. 3.5%) (U.S. Census Bureau 1992). While Asian/Pacific Islanders form the majority of the population, the per capita income for this racial/ethnic group is substantially lower for all three areas compared. Additionally, the majority of households on Moloka`i are below the median household income level for the state of Hawai`i by roughly 33%.

Table 3.
Distribution of Households Based on Income Levels

| Subject | Number of Households | | |
|-----------------------|----------------------|-----------------|---------------|
| | Molokai (%) | Maui County*(%) | Hawaii(%) |
| Total n of Households | 2013 (100) | 30,253 (100) | 356,748 (100) |
| n Households: | | | |
| < \$15000 | 563 (28) | 4,075 (13) | 53,061 (15) |
| \$15000-24999 | 419 (21) | 4,093 (14) | 53,305 (15) |
| \$25000-34999 | 318 (16) | 4,488 (15) | 52,186 (15) |
| > \$35000 | 713 (35) | 17,597 (58) | 198,196 (55) |
| MHI** | \$25,923 | \$38,464 | \$38,829 |

*Exclusive of Molokai.

**Mean Household Income (in dollars)

All data derived from 1990 US Census (Geolytics 1996).

Based on mean household income levels, it is apparent that the majority of people on Moloka`i probably have little disposable income. In the case of Hawai`ian homesteaders, there appears to be little doubt that there is simply not the income available to provide capital for large or expensive development or conservation efforts.

Table 4.
Per Capita Income by Location and Race
Per Capita Income

| Race | Molokai | Maui County* | Hawaii |
|-----------------|----------|--------------|----------|
| White | \$13,920 | \$18,440 | \$18,598 |
| Black | \$10,000 | \$ 9,850 | \$10,607 |
| American Indian | \$ 6,898 | \$11,740 | \$12,415 |

| | | | |
|---------------|----------|----------|----------|
| Asian/Pacific | | | |
| Islander | \$ 8,520 | \$13,293 | \$14,616 |
| Other Race | \$10,166 | \$10,401 | \$10,667 |

*Exclusive of Molokai.

All data derived from 1990 US Census (Geolytics 1996).

In summary, Moloka`i may be described as an island relatively low in population (which is primarily rural), with a relatively low household and per capita income level. In addition, the majority of the population is of Asian or Pacific Islander descent, and the income level of this particular racial/ethnic group is substantially lower than “white” residents of the island.

Characteristics and Impacts of the MAC Program

The MAC program appears to be adding a needed component to the expanding Hawai`ian homesteader efforts on Moloka`i. As noted earlier, those persons qualifying as Hawai`ian homesteaders are able to lease land for one dollar an acre for up to 99 years. This type of long-term lease allows for sound natural resources planning. One condition of eligibility for the MAC program is the establishment of a NRCS conservation plan on the lands intended for cost-share. NRCS conservation plans are intended to be holistic and systemic, and are intended to provide sound and sustainable methods to achieve natural resource conservation.

A number of benefits were observed that are attributable to the implementation of both the Hawai`ian homesteading program and the MAC program. The wide variety of agencies and organizations that are involved with the MAC program (NRCS, FSA, MLSWCD, DHHL, CREES, MIS, etc.)

encourages partnering between agencies, and also increases the visibility and accessibility of such agencies and organizations.

There also appears to be a well thought-out organization for the consideration and granting of MAC program funds. A voluntary group of landholders and other knowledgeable people, the Moloka`i Agricultural Community Committee (MACC), reviews and prioritizes requests for financial assistance through the MAC. This prioritization system is based on predetermined criteria. Each member of the committee rates each request, and a resulting score is assigned to each request, limiting the influence of any one MAC committee member in prioritizing requests. Persons desiring assistance through the MAC program must reapply annually in order to be considered. This feature of the application process encourages people to take an active role in attempting to gain MAC assistance. The MAC does not allow individuals to receive financial assistance in consecutive years, limiting possible favoritism. In addition, all members of the community are eligible for assistance through MAC, although Hawai`ian homesteaders are the majority of grantees to this point (MLSWCD 1996).

The MAC program coordinator provides assistance to people who may want to participate in the program. The program coordinator (Debbie Kelly) is known in the community, and has built a foundation of trust over a period of several years. In a community such as Moloka`i, where everyone knows everyone, and outsiders are immediately recognized and "kept at arms length", such trust is invaluable to the successful implementation of any

program. Debbie provides specialized assistance to prospective participants that are hindered by language or educational barriers. This individualized assistance has increased both the popularity and accessibility of the MAC program.

MAC monies appear to provide an effective way for people to become actively involved in improving small acreages; sometimes as little as five acres. These people are allowed to substitute "in-kind" costs, such as labor, for cash in order to meet their 20% of the cost-share portion. Given the relatively low income levels on Moloka`i, this type of flexible policy is vital to program success. The improvements made with the use of MAC financial assistance include clearing of brush, construction of fences, and the installation of irrigation systems. These types of improvements are tangible and visible, and serve to encourage other landholders to apply to the MAC program.

Several intangible benefits were noted during the interviews of several MAC program participants. Nearly all of those people interviewed who have or are currently participating in the MAC program wish to pass their land to their children, and consider the improvements that are being made now to be an investment in the future. These people noted that working to implement the provisions of their conservation plans was a family effort, and the work seemed to bring members of the family closer together. Many interviewees thought that the community is being strengthened through the implementation of the MAC project. An example of this is the informal

information sharing network that is evolving as the MAC program matures. As MAC participants discover new and better ways to do things, such as build fence or clear brush, they tend to share their experiences with more recent applicants to the program. This practice appears to be engendering an informal system of “neighbors helping neighbors” to get work done in the shortest amount of time. As MAC participants determine needs, groups of neighbors and friends gather to perform some types of work, such as fence building. These gatherings build familiarity and respect within the community, and may serve as the basis for an evolving system of achieved status. Under a system of achieved status, an individual’s standing in a community is based on ability and knowledge, rather than an ascribed position, such as political office.

Many of the interviewed MAC program participants stated they are using their improved lands to educate children about a number of different values. Various, these were noted to be the values of farming as a way of life; the role of farming in traditional native Hawai`ian culture; and the value of respecting the land, both as a commodity and as part of a spiritual/religious system. Several of the people interviewed also noted that they intended to use their lands to teach children about traditional native Hawai`ian farming methods and land values. This explicit desire to preserve and pass on traditional cultural values is an intangible benefit of the MAC program that should be strongly encouraged.

Several other “intangible” benefits also appear to be a result of implementing the MAC project. In several instances, both personal and community solidarity was increased. One person (H. Purdy) summed it up nicely by saying “Wow, man, I can’t believe I did it!”, referring to his successful completion of his MAC project commitments. The MAC project is allowing the people of Moloka`i to experience a sense of control over their natural and social environments, and appears to be instilling a certain degree of pride in both living on the land and in participating in the community.

A similar sense of pride and independence was exhibited by at least one participant in the MAC program who is trying to develop a subsistence farming base for his family. This individual is making an explicit effort to produce enough on his homestead acreage to sustain himself and his family, in both cash and food stuff production.

Some of the people interviewed expressed long-term hopes, such as eventual reforestation of the island with native hardwoods, and the re-establishment of native fish-pond aquaculture. This type of long-term planning does not usually take place in an atmosphere where there is little thought or hope for the future. Even people who are innovators within their communities would hesitate to think of such large-scale ideas without community support and confidence in the future.

The MAC program had contributed to increased individual pride, family closeness, and community solidarity, coupled with both development and

conservation of natural resources. These results speak well for the MAC project.

Projected Needs for Sustainability

The MAC project appears to be successful in providing cost-share monies to people wishing to develop small acreages for agricultural purposes. For this project and the agricultural/rural lifestyle of Moloka`i to continue, however, several additional factors are needed.

According to the project coordinator and a member of the MACC, there are many more applicants than there are monies available under the MAC program. While this may be an indication of the popularity of the program, it may also be a cause of dissatisfaction among applicants who are passed over several times due to a lack of money, rather than a lack of merit.

Several people noted that while raising cattle on their lands would be a preferred use, there was no market for the cattle. To this end, there is already a community effort underway to construct a slaughterhouse on the island. This effort should be supported, as use of cleared land for pasture would aid in preventing brush reinfestation.

Due to the lack of marketing facilities for livestock, as well as other agricultural commodities on the island, there is no real income currently being generated by those lands treated with MAC monies. This may not be

an immediate problem, depending on the desires of the landusers. If the majority of landusers continue to use their lands to practice subsistence level traditional agriculture, then market and income development may not be a pressing concern. Alternatively, given the relatively low income levels on Moloka`i, the development of markets to generate cash income may be preferred by future participants in the MAC program.

The lack of markets to generate short term capital for producers on Moloka`i also results in a lack of capital for equipment purchases. Several times during fieldwork, it was noted that heavy equipment is necessary for efficient clearing of the heavy brush infestations present on most of the homesteader lands. There is little capital available to either purchase or lease such equipment.

The current focus of the MAC project is on development of natural resources, rather than strictly on conservation. There has already been severe soil erosion on Moloka`i, with ensuing disruptions of the shoreline ecosystem. It might be advantageous to all concerned parties to consider using some funding for conservation of soil and water on the island. Without such conservation, any talk of developing infrastructure and markets may be moot.

An associated concern is the current emphasis of the MAC program on relatively high-profile, single, practices, such as brush clearing followed by fencing. While these practices have some benefit in natural resource conservation activities, they should be viewed only as the initial steps in the

formulation of a Resource Management System (RMS) with each participant. An RMS level of planning would allow for sustainable use of all natural resources within the planning unit (NRCS 1996. MAC program participants currently need an approved NRCS conservation plan in place to receive MAC assistance. Most of these plans, however, are currently not at an RMS level. The MAC coordinator and NRCS field staff need to inform participants of the need to achieve an RMS level of conservation plan through the use of progressive planning. Information about long term RMS conservation plans should be communicated to participants during initial planning. This is also an excellent opportunity for NRCS planners to account for the different cultural preferences of Native Hawai`ian people during planning.

Success Factors and Challenges: A Summary

Successes

Several factors appear to contribute significantly to the success of the MAC project. These factors may well be common to most public/private partnerships (Toupal and Johnson, in press). Some of these success factors are:

- The project has a clearly defined objective.
- There is a clear need for conservation and on-farm improvements
- There is a clearly defined application and rating method in place.
- The makeup of the committee which prioritizes requests is composed of local people who are trusted by other members of the community.
- All community farmers may receive assistance (no exclusionary clauses).
- A limited but steady stream of financial, technical, and other resources are available.

- Community members can participate through “sweat equity”; i.e., providing their portion of cost share through “in-kind” work.
- Partnerships are effectively operating between the community and the public sector.
- The project coordinator is long term member of the community and is trusted within the community.
- There are tangible proven successes as a result of the project.
- Local community members apparently feel a great deal of “ownership” toward the program.
- Conservation planning and education of future generations are part of the projects.
- Individual projects have increased personal and family pride.
- The project tasks have encouraged neighbors to ask for and receive help from neighbors and friends. These actions have instilled a “barn raising” mentality and a sense of community accomplishment and pride.
- There appears to be some movement toward subsistence farm production for some participants.

Challenges

Several factors were noted that may also limit the effectiveness of the MAC program. Some of these factors are:

- Community and individual needs outweigh available assistance - technical, educational, and financial.
- Community infrastructure projects are needed (e.g., slaughter house, perimeter windbreaks).
- Individuals do not have the capital to purchase and maintain the necessary farm equipment to be productive.
- Farmers are receiving little to no income from the practices that have been implemented.
- Some cost shared practices have a low conservation and production value.
- Projects emphasize individual practices rather than Resource Management Systems.

The success factors given above correspond to several noted during recent research into partnership success (Toupal 1997; Toupal and Johnson, in press). It appears that these success factors may be necessary to the

success of most types of partnerships that intend to initiate and influence positive change in areas such as conservation and land use.

Examples of locally led conservation efforts, such as the MAC program, will provide excellent “real-world” models for other efforts that combine client and customer needs with Federal natural resource conservation efforts.

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