
COMMUNITY INPUT: PROCESS, COMMENTS AND RESPONSES

The community-input process was multi-tiered and very involved. It began with the formation of a Mauna Kea Advisory Committee established by President Mortimer. Twenty-four members were appointed. Nine of these members were part Hawaiian. This committee met for 15 months (often twice a month), participated in field trips and heard expert testimony from IfA, advisory committee members and a panel of cultural experts.

The advisory committee held two series of public meetings. The first set of meetings were a preliminary set of informational hearings in September of 1998. These meetings were held in Hilo, Waimea and Kona. The committee held another series of public meetings at the same communities after a draft 2 of the Plan was developed in May of 1999. Input was received at both sets of public meetings.

Input from the committee played a major role in shaping the Master Plan. The committee approved draft 2 for circulation and review in the community. The committee later recommended the proposed new management structure but voted to withhold recommending the draft 3A version of the Plan until the management plan was in place and native Hawaiian cultural issues were addressed further.

A committee recommendation was drafted on June 2, 1999 and reiterated in a final letter to the Board of Regents in August 25, 1999. The final recommendation stated,

“Our committee was charged in June of 1998 to provide needed input to the University of Hawai‘i regarding the conditions under which future development should occur on Mauna Kea on the Island of Hawai‘i. Our committee has collected important input regarding Mauna Kea. A considerable portion of this information has been incorporated into Draft #3 of the Mauna Kea Science Reserve Master Plan developed by Group 70.

It is our recommendation that any future development on Mauna Kea be coordinated closely with the community. This coordination of community input should be via the Mauna Kea Advisory Board and the Kahu/Kupuna Advisory Committee in a formal and permanent manner. Along these lines, we reiterate our recommendation of June 2, 1999 that there be no further construction until a plan is approved, the Mauna Kea Management Authority is funded and the Mauna Kea Advisory Board is established. The Mauna Kea Science Reserve Master Plan might be approved by the Board of Regents upon further attention to Native Hawaiian concerns.”

Throughout the planning period the project team met with other organizations and gave individual presentations as requested. Groups that were contacted included the Hawaiian Civic Clubs, DHHL homestead associations in Keaukaha, Waimea and Kona, Hawai‘i County Mayor’s office, State and local units of the ILWU and Big Island Labor Coalition, Hawai‘i Environmental Coalition and business organizations such as the Hawai‘i Economic Development Board and the Kona Kohala Chamber of Commerce. The team also spoke to many individuals.

As part of the master planning process an ethnographic study was commissioned and an 800 ± page oral history report compiled representing 25 interviewees.

Additionally, the EIS process provided another avenue of input for public comments. The EIS was completed prior to the finalization of the Master Plan.

Recognizing the complexity and depth of the Master Plan, the need for a vehicle for broad public dissemination of the Plan was expressed in a summary circular (Appendix O). This 8-page, newsprint, graphic format document highlights the educational, management and physical elements of the Master Plan, and it incorporates community voices expressed during the evolution of the Final Plan.

Mauna Kea inspires all who work and live on the mountain, feel its shadow and view it from afar. This is true of those who favor development or oppose it.

While a detailed listing of the issues, questions, concerns and comments would be too voluminous, the following is a summary of major comments and how they were addressed in the planning process.

Cultural Sensitivity: Issues of cultural sensitivity were raised repeatedly. The sensitivity of the plan to Hawaiian cultural values was mentioned and questions were raised as to whether community voices would be heard. Also, the initial plans were criticized for showing the location of burial sites identified from studies conducted by the State Historic Preservation Division. Part of this criticism was based on the perception that native Hawaiian voices were not part of the advisory or decision making agencies. At the same time some native Hawaiians mentioned that the voices that were loudest did not necessarily represent the majority of the community.

The Master Plan responds to these concerns in many ways. First, responding to comments about the cultural and spiritual importance of the mountain, the Plan reduced the potential area for astronomy development from the full Science Reserve of 11,288 acres to an astronomy precinct of 525 acres. Further, specific siting areas for telescopes were designated comprising 150 acres of land within the Astronomy Precinct. This is a reduction of 10 acres from the areas specified in the 1983 Long Range Development Plan for telescope siting.

The remaining area is proposed as a natural cultural preserve where astronomy facilities would not be developed. The auditor's report had suggested a "no build" line but the initial view was that this would be excessively restrictive to astronomy. Upon further review and responding to the input on the cultural importance of the summit area, the idea of the precinct was developed. The precinct is essentially the boundaries of a no build line for astronomy to contain its impact on the cultural landscape of the summit. The shape of the precinct was specifically tailored to avoid historic sites, preserve view corridors related to possible cultural lines of sight and maintain the integrity of the cultural landscape as much as practicable. The southern boundary was moved northward

to create greater distance from Lake Wai‘au, which is clearly one of the most significant sites in the summit region. The northern boundary was pulled back to avoid the ring of shrines at the 13,000 foot elevation. The line was adjusted to leave Pu‘u Poli‘ahu out of the precinct. The eastern boundary was pulled back to reduce the potential visual impact from the Hilo side of the mountain.

Second, the Master Plan gives greater sensitivity to historic sites, cultural values and Native Hawaiian issues. The designation of the vast majority of the Science Reserve as a natural cultural preserve is a recognition of the cultural resource value of the mountain. All designations of burials were removed from the Plan. Where known, earlier indigenous place names are used instead of English names or Hawaiian names of later derivation. An example of this is the use of the name Kūkahau‘ula for the summit cone. Historic trails are identified and marked for preservation. Larger Shrine complexes are identified for better protection and management. An ethnographic study and archaeological study were specifically commissioned for the master planning process. Both studies were the most extensive studies of their kind on the mountain to date.

Third, the Plan protects all undeveloped summit pu‘u. As mentioned previously, Poli‘ahu was deleted out of the astronomy precinct even though it is recognized as an excellent observatory site and a roadway and test telescopes were previously placed on the cone. The Plan specifically identifies undeveloped pu‘u as features that need special consideration. The recognition that these pu‘u were seen as the kino, physical manifestation, of akua played a role in this special consideration. The potentially negative visual impact on the cultural landscape of development on the ridges and pu‘u was also a consideration in this decision.

Finally, to maintain sensitivity to these issues, the master plan proposes a Mauna Kea Management Board as an integral part of the management of the mountain. These community voices will play an important role in keeping a broad management perspective. Beyond the Board, the Master Plan recommends that a Kahu Kūpuna Council be established to assist the Office of Mauna Kea Management in addressing these issues. This is a recognition that Native Hawaiian concerns are of special value and require special knowledge and wisdom to address appropriately. This committee will be composed of experts in Hawaiian culture and practice and will advise the Office in developing appropriate protocols and programs for the mountain and its management. Docent programs and training sessions will be developed to improve the cultural management skills of staff and broaden the sensitivity of workers and visitors.

Land Ownership: The question of land ownership was brought up many times in different forms. The summit of Mauna Kea is State land controlled by the Department of Land and Natural Resources and leased to the University of Hawaii. Sometimes the comments would focus on the ceded lands issue and how this meant that OHA or some other representative organization of kanaka maoli should receive rent for the land and have decision making authority over the land. Comments were made that Mauna Kea is not “your” land, it is Hawaiian land, and that ceded land is just a legal euphemism for stolen colonized lands.

The Master Plan does not respond to comments on sovereignty, ceded land revenues and the public trust because these issues are larger than the Mauna Kea Science Reserve Plan or the University of Hawai'i. They are beyond the scope of the Plan. The Plan is based on the 1968 lease from the Department of Land and Natural Resources (Lease No. S-4191) to the University of Hawaii and the provisions contained in that lease.

Regarding ceded land, current negotiations between OHA and the State of Hawai'i will set the tone for the manner and type of compensation. Also, the University, as an educational institution, is a beneficiary of the trust and is exempt from the payment of the 20% revenues to Native Hawaiians. As a co-beneficiary, the University is also a recipient of public trust revenues. Additionally, the position that the land belongs to native Hawaiians and not the broader public, as represented by the State of Hawai'i, is not addressed in the study because that issue is also beyond the scope of this plan.

Sacredness of the Mountain/Summit: Along with reverence for the beauty and grandeur of Mauna Kea there is a broad sentiment about the sacredness of Mauna Kea as the piko (highest point) in the Hawaiian Islands and the Pacific Basin. Also, the mountain's association with Wākea the sky father and the snow goddess Poli'ahu and her kin add to this belief. The shrines on the summit area enhance the sense of sacredness, as do the one known and three suspected burial sites on the upper slopes. There has also been oral testimony about burials of important ancestors in the summit area. Others have said that the region is wao akua, the realm or wilderness of the gods. Some have stated that construction on the summit should stop because it is a desecration of the sacred mountain. Some have claimed that development has disturbed the iwi of ancestors. As a comparison it has been questioned whether astronomers would build on the sacred sites of other people.

These sentiments have been some of the most difficult to resolve. Distinctions between the sacred and the profane are not the same in Hawaiian culture as they are in western societies. Wao aku is not heaven as the literal translation would imply. It did not mean people did not do things or build things in the sacred place. If this were so, the existence of Keanakāko'i in the summit region would not make sense. Keanakāko'i is the largest known paleolithic adze quarry in the world. The adze quarry is literally a manufacturing place for stone implements with shelters, work stations and shrines. What seems important is the protocol, the attitude of respect and appreciation for nature and gods. Worship and daily life were one in the ancient culture. One asked permission of the gods and the aina before one took or used the resource and then thanked the gods for their forbearance and generosity.

Process is as important as substance in this situation. Each situation must be viewed individually with the appropriate sensitivity. The Master Plan responds to these concerns by creating a new management office and Kahu Kūpuna Council. The Office of Mauna Kea Management should develop new protocols that express this attitude. These protocols should be developed with the advice of the Kahu Kūpuna Council and include broad representation from the Native Hawaiian community. These protocols are

appropriately a part of the management rules and regulations that will be adopted pursuant to Chapter 91. The rule making process is separate from the Master Plan process and takes anywhere from one and a half to two years to complete. We already know that the values of aloha 'āina, lōkahi and malama pono need to be respected. Ahupua'a management principles should also be used as guides where they are appropriate. The incorporation of these values into the rules and management structure of the mountain will be the responsibility of the Office of Mauna Kea Management.

Traditional Cultural Practices: Concerns have been expressed in public testimonies that traditional cultural practices will be restricted and sites desecrated. Some of this fear and anger stems from an unfortunate incident that occurred because of misdirected policy on the part of a member of the University of Hawai'i maintenance staff. A current cultural practitioner had created new ahu type shrines with special stones, pōhaku, in the summit region. Maintenance staff removed the rocks. Apologies have been made and the staff instructed to leave such features alone in the future, but suspicion and hurt feelings remain. Other comments stem from the implications of the State Supreme Court's PASH decision and what this means for cultural resources in the Science Reserve. A specific example that has been raised is the modern day removal of adze material from Keanakāko'i to make adzes and other stone tools. Another example is the alternation of shrine sites in renovation and repair efforts as modern practitioners re-use these sites in revivals of earlier worship activities.

In early discussions there were suggestions that modern cultural practitioners be given designated areas to engage in cultural practices. This suggestion was rejected because it was felt that there was no reason to place such restrictions on cultural practitioners.

The Master Plan does not restrict traditional cultural practices anywhere in the Science Reserve. The single exception is to activities that may impact known historic sites. The responsibility for protection of historic sites rests with the State Historic Preservation Office and they are statutorily required to protect these sites. These procedures will be incorporated into rules and regulations that will be guided by Dr. Holly McEldowney's Historic Preservation Plan which was commissioned for the Master Plan. DLNR does not have enforcement personnel on the mountain and will rely on the management staff of the University of Hawai'i to assist in this mission. Additionally, staff training programs and docent programs will raise the awareness level of all people who would be involved in some aspect of the management of Mauna Kea. Finally, while the common perception is a fear of restrictions on traditional practices, in reality the Plan represents a restriction on astronomy development.

Historic Sites: Charges have been made that historic sites have been damaged and bones have been desecrated. Others have stated that only a portion of the summit area has been surveyed and a complete inventory is needed. The concept of viewing the summit region as a cultural landscape rather than scattered distributions of individual sites has taken on greater value. Comments have often noted that landforms are often significant features and that the relationships between forms is as important as the features themselves; including areas that are devoid of features.

One incident of the disturbance of a lithic scatter site near Hale Pōhaku has been documented. The State of Hawaii has not been able to verify charges relating to the desecration of bones because the people making the statement have not disclosed the locations where the incidents took place. Also, no reports about bones being exposed were filed during construction of the observatories to verify the charge. Finally, the archaeological survey conducted by DLNR for the master plan did not identify any burial sites impacted by construction. Without information it has been impossible to verify or deny the charge. However, these comments have been persistent. The veracity of this criticism is difficult to assess since cultural protocols often prohibit knowledgeable people from disclosing this information.

The Master Plan response was to commission DLNR to conduct an archaeological survey, evaluate the cultural significance of the summit area and develop a management plan for the cultural resources. These studies were commissioned a year and a half ago. The completed inventory is the most extensive study of its kind done to date. The management plan is still in a preliminary draft stage. While a more comprehensive inventory would be good to have, due to limitations of time and funding the study focussed on the areas that have greater potential of being impacted. The university will institute a monitoring program for historic sites and encourage future studies in this area.

Based on the study commissioned for the Master Plan, DLNR is considering designating the summit region as a traditional cultural property, with appropriate regulatory criteria, which have not yet been developed. The Office of Mauna Kea Management will need to consider these criteria in developing their rules and regulations. The Master Plan recognized the concept of natural landforms being the kino or physical embodiment of gods and spirits and the plan protects all undeveloped pu‘u. The concept of the cultural landscape is recognized in the designation of the vast majority of the Science Reserve as a natural cultural preserve. The Astronomy Precinct was deliberately framed to maximize the visual panorama of the cultural landscape.

Environmental: Testimony on environmental mismanagement has covered a broad range of issues but centered mostly on three areas: the decline of the wēkiu bug population and the destruction of its habitat, the lack of adequate information and monitoring programs and the lack of carrying capacity studies of the summit. The decline of the wēkiu population has been noted in many comments. Some comments express concern about the Palila habitat at the Hale Pōhaku elevation.

Much of the known information about environmental resources is a result of studies commissioned for master planning efforts in the early 1980s and the current effort. Recent studies commissioned for the Master Plan show a significant decline in the population of the wēkiu bug. While the reason for the decline in population is not known (several theories have been postulated from lack of snowfall, loss of habitat to new alien predators) future monitoring programs are expected to provide more information that will address the question and suggest solutions. The habitat of the endemic wēkiu bug is the cinder cones in the summit plateau region. Destruction of

some prime wēkiu habitat was expected to occur during the development of the ridge sites for observatories.

The Master Plan responds to the issue by minimizing the potential destruction of additional sites by protecting undeveloped summit cones (the primary wēkiu bug habitat) from future development. Additionally, within the existing developed summit ridge, construction will be limited to recycling of existing sites, which are already impacted to minimize areas of disturbance. It should be noted that in the most recent study, more wēkiu were found near disturbed sites close to the observatories than in relatively undisturbed sites along the summit cone.

Carrying capacity is a broad, vaguely defined concept that refers to the capacity of a place to receive or “carry” an activity or population. This capacity is often defined in terms of density related to the supporting infrastructure or resource base. The term originates from biological population studies of animal and plant species, which proliferate beyond the ability of the resource base to support them and the population crashes. It is closely related to the notion of sustainable yield. Others have suggested measures such as social carrying capacity but these concepts are vague, culture bound and highly subjective. There is no clear consensus about what social or cultural carrying capacity should measure and how they should be measured. Without identified criteria or methodology it was decided that defining social or cultural carrying capacity would not be a fruitful exercise to pursue further. Therefore, a carrying capacity study was not conducted because it was clear that regarding physical carrying capacity, the mountain is huge, existing infrastructure has available capacity and the site’s physical capacity far exceeded what was proposed for the mountain. The Plan responds to the concern behind the question by severely limiting telescope development well below physical limitations and regulating development of facilities.

Visual Impact: Many comments were made about the visual impact of the observatories. Some said they were ugly like pimples on the mountain. A few thought they were beautiful and inspiring. Others said the scale was inappropriate to the mountain and they alter the natural pristine quality of the landscape with an industrial look. Some suggested burying sections of the observatories to reduce visual impact.

The Master Plan responds to these issues by recommending color changes, directing material selections, recommending design solutions and other methods to reduce impact. Top scientists and technicians have been contacted and they have indicated a willingness to address the challenge of reducing the visual impact of observatory facilities. In addition, the master plan has set up design criteria and a design review process that will ensure designs that minimize visual impact. The criteria and guidelines that have been recommended are the most challenging in the world for astronomy facilities.

Commercial Activity: Some have expressed concern about commercialization of the mountain. People seem generally opposed to commercial uses of the Science Reserve. Some have stated that astronomy is a commercial activity. Others have said 20% of revenues from commercial uses should be given to OHA.

Other than minor concession operations and the possible periodic rental of cabins at Hale Pōhaku no commercial operations are proposed in the Master Plan. The University of Hawai'i views astronomy as an educational and research activity, not a commercial activity. Under current DLNR licensing procedures, purely commercial uses will pay 20% to OHA.

The Master Plan establishes the Office of Mauna Kea Management to address commercial activities and their coordination with the Department of Land and Natural Resources.

Hunting: The Master Plan places no restrictions on hunting. It should be noted that DLNR continues to retain all jurisdiction over hunting from the forest reserve to the summit in the lease of the Science Reserve to the University. At an early stage in discussion there were suggestions of placing a fence around the summit at a certain elevation to reduce the impact of feral ungulates. However, this suggestion was not accepted as part of the Master Plan.

Positions on Development: Many voices in the public hearings and the oral history interviews expressed the sentiment that there should be no more expansion of facilities. A smaller number have supported expansion of quality facilities and the needs of astronomy. Some have called for the dismantling of what is there. Others have said it is a clean industry providing good jobs. Others have said that while astronomy is good development has been unbalanced toward astronomy and other disciplines not supported.

The goal of the Master Plan has been to balance the various interests and uses on the mountain. A no-build option would have a severe negative impact on astronomy. Like any high technology enterprise, astronomy must continually upgrade and innovate in order to remain competitive. On the other hand, the possibility of development occurring anywhere in Science Reserve (VLBA is an example) was also changed because that position unbalances the scale too much in astronomy's favor to the potential detriment of other interests such as cultural and environmental resources. The Master Plan response was to designate the remainder of the area outside the Astronomy Precinct as a natural and cultural preserve. During discussions in the Advisory Committee some people felt recreational snow play and skiing were inappropriate in a sacred area. However, the Plan accommodates recreational uses with a support facility near the "poi bowl" area of the summit. The Plan hopes to achieve a balance that protects resources and promotes valuable uses.

Management: Many concerns about management were raised in the various meetings. Issues ranged from poor trash removal to hours of operation of the visitor center; non-management of cultural and environmental resources was raised. Most of the complaints were about what was not done and the lack of resources provided to achieve the management responsibilities. A related issue was a perception of confusing and overlapping jurisdictions resulting in certain functions being neglected. Inadequate safety measures and lack of enforcement of CDUA conditions and lack of oversight over

construction practices and a number of similar issues were raised. Lack of local decision making authority was frequently cited in the early discussions. Some concern was raised about the mountain being controlled by foreign, national and international agencies. Criticism was raised that IfA only took care of the interests of the astronomy community to the detriment of other interests.

The master planning process responded to the suggestion of alternative management schemes very early in the process. Due to multi-agency responsibilities a third party alternative that supercedes UH and DLNR was suggested. The independent third party commission modeled after the Kaho'olawe Commission was seriously considered and ultimately dropped as infeasible by the Advisory Committee because it would take legislation to authorize, create a whole new bureaucratic organization and require the agreement of the Board of Regents and the Land Board to implement. Also, preliminary discussions with the Board of Regents and the Board of Land and Natural Resources indicated that neither Board was willing or able to delegate the authority necessary to create a new agency with the suggested authority. Other management options that were discussed included DLNR taking complete responsibility for management but this idea was dropped when it was pointed out that DLNR's Statewide responsibility made it unlikely that sufficient resources would be available and dedicated to Mauna Kea. The idea of the University of Hawai'i taking full responsibility was also suggested but objections related to off island decision-making and lack of accountability to the local community resulted in this option being dropped. There were suggestions of the UH hiring the equivalent of a third party land manager, like a property manager, to manage the land. RCUH and the Nature Conservancy were mentioned as possible management entities. Questions of accountability were raised and some of the agencies suggested were not eager to take on the responsibility. A final option mentioned was to treat the mountain like a park. Some even considered moving the mountain into the National Park Service jurisdiction and letting the Service manage the mountain like Volcanoes National Park. Committee members cooled to the idea when they considered the loss of local control and the change in the mission of the managing entity.

The Master Plan proposes the creation of the Office of Mauna Kea Management out of the Office of the Chancellor of UH Hilo. By placing the Office under the Office of the Chancellor it becomes a visible and integral part of the University system and represents a more permanent and direct commitment. The lack of funding commitment to management was addressed by President Mortimer in a letter to the advisory committee wherein the administration stated that \$400,000 dollars would be committed toward the establishment of the Office of Mauna Kea Management upon adoption of the Plan. The importance of managing the broad resources of Mauna Kea is now well understood. This was not the case earlier as management was conducted with a more narrow focus. This broadened focus also creates the potential for other revenue sources. The creation of the Mauna Kea Management Board also maintains a community voice that will insist on maintaining the proper funding priorities and commitments and retaining a broad view of the mountain's resources.

The issue of local authority is addressed by placing the management office in the Office of the Chancellor of UH Hilo. While policy authority remains with the Board of Regents, management authority is now delegated to Hilo. Issues and concerns can now be addressed locally. Community input will have a clear and singular doorway through which its concerns can be addressed rather than the amorphous and remote structure that is currently in place. The suspicions about foreign control of the mountain will be addressed when the public realizes that the Office has real authority on the mountain and the observatories develop more outreach programs into the community.

Lack of Trust: Lack of trust is a special problem closely related to management but different and associated with specific past experiences and history of relationship between the University of Hawai'i, DLNR and the public. Many comments expressed skepticism about the commitment of the responsible agencies to the task of managing the resources of Mauna Kea. Both the University of Hawai'i and the Department of Land and Natural Resources were faulted. Lack of funding commitment for management purposes raised skepticism about the current promises. The issue of local control is also connected with the issue of trust. Reasons cited for this lack of trust included the following:

- Prior advisory committee was never convened.
- Previously promised monitoring was not conducted.
- Prior ranger positions never funded and the positions were cut during budget cutbacks.
- Trash control measures were not enforced and clean-up efforts were inadequate.

The Master Plan response is the creation of the Mauna Kea Management Board and the establishment of the Office of Mauna Kea Management on the Big Island. This should go a long way towards restoring trust as there will now be a face and physical presence with authority to address community concerns. The new agency exists outside IFA and has a broader mandate. The Management Board will be staffed and the Office will have rangers on the mountain to educate users and manage resources. The visitor center director will coordinate community programs on the mountain while the Hilo office will interface with the broader community. Additionally, trash clean-up has been greatly improved and the old equipment have been removed.

Access: The question of access has been raised many times: in committee, in public meetings and in individual presentations to special groups. Concerns included fears of restrictions for traditional practices, hunting and recreation.

In a rare unanimous vote the Advisory Committee recommended managed access as opposed to completely unrestricted access or restricted access. Unrestricted access was rejected because committee members clearly understood the safety issues involved when uniformed people travel into the high altitude environment. They also understood the potential damage to cultural and natural resources, especially through the use of all terrain vehicles and recreational activities that take people off the summit road.

Restricted access was not supported because members viewed the mountain as a resource for all the people of Hawai‘i and there was strong belief that it should remain open to the many interests that exist.

The Plan repeatedly states that access will be managed, not restricted. Managed access means that visitors will need to register at the visitor center, receive an orientation about safety issues and the value of the resources on the mountain, receive information about any applicable rules and then be sent on their way. The purpose of the managed access is to protect resources and enhance public safety. Rules are suggested to prohibit the use of off-road vehicles. Weather conditions, repairs and emergencies will also dictate some level of management. Suggestions for nighttime vehicular movement also indicate additional guidelines.

Hazards: The following concerns about hazards have been expressed:

- High altitude can make people sick; they should be informed.
- The summit road is steep and unsafe for normal cars; brake failure is common.
- Weather changes quickly and can kill.
- Hypothermia and snow blindness are real dangers.
- Fires around Hale Pōhaku can be hazards to people and natural resources.
- Construction at high altitudes has special hazards such as pulmonary edema and lack of concentration due to low oxygen.

The Master Plan responds to hazards with the registration/orientation program and an emergency response system implemented by rangers. Management of access will also help address these concerns. A single point of management authority will also allow for oversight into construction and operational safety practices in the Science Reserve.

Process: The master planning process was criticized as exclusive, confusing and insincere. Keeping the Advisory Committee meetings closed generated suspicion and resentment. The multiple drafts have been confusing and there have not been enough copies for review. Some have stated that the approval process should stop while the community discussions are taking place; otherwise the effort is not genuine. The credibility of the consultants has been questioned. Others have said the results were foregone conclusions.

The closed meetings of the Advisory Committee was a decision made by the Committee early in its proceedings but the purpose was for manageability not exclusivity. The composition of the group is proof that it was not meant to be exclusive. The accessibility of documents was a problem and draft 3A was placed on the UH web page to increase its accessibility. The multiple drafts were the result of trying to keep the public informed of an evolving document. Normally, these would have been internal drafts not available for public review. Although some have viewed the process with suspicion, the efforts to create an open process added to the confusion.

Benefits to the Public: The benefits of the development on the mountain was the subject of a number of testimonies. People recognize the general economic, scientific and research benefits of astronomy. Local residents, including part Hawaiians, increasingly fill these jobs as the workforce receives training. However, many Native Hawaiian speakers questioned the value of the development to Native Hawaiians. Some questioned the quality of jobs given to local people.

The Master Plan creates a physical plan and management structure that seeks to preserve a balance that allows astronomy to continue its evolution as a premier ground based viewing location and its associated economic benefits. At the same time, the Plan protects cultural, environmental and recreational interests. It provides resource protection and improves safety on the mountain for all users by the placement of rangers on the mountain and opening Hale Pōhaku to more users.

Regarding direct benefits to the Native Hawaiian community, the Master Plan does not specifically address the issue as a separate topic. It is an area of ongoing discussion. The master planning process has heightened awareness about the need for more proactive programs in this area. Several are now being reviewed and considered. A positive note from the public testimony is the number of local people working in good jobs in the astronomy industry. Many young, part Hawaiian residents are part of this growing workforce. The October 1999 edition of National Geographic highlighted the role of local resident Gary Puniwai and his important role as operator (equivalent to ship's captain) of the Keck telescopes.

More work beyond the Master Plan needs to be done. This should be one of the major focus areas for the Office of Mauna Kea Management, UH Hilo, UH, astronomers and the Hawaiian community.