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public policy center

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“Sustainability Policies: Developing
Policy Issues and Program Actions for
a Sustainable Hawai‘i”***

Policy Issue Briefs

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A. Media and Citizen Democracy

Tom Brislin and Ira Rohter

Background

Growing Civic Disengagement

Many observers worry that American society, including Hawai`i, is experiencing a civic disengagement. The indicators are there: fewer citizens registering to vote; fewer still actually casting ballots. Public participation in the legislative process is supplanted by professional lobbyists and mega-buck campaign contributors. Those “common citizens” who do attend public hearings and submit testimony are often referred to as “the usual suspects” who can be counted on to show up, and their involvement discounted.

Some blame the loss of public forums and gathering places to exchange ideas. The Shopping Mall has replaced the Town Square. Even in the barbershop (where the first public opinion polls were taken), conversation has turned from politics to chitchat about fashion and pop TV shows.

Honolulu’s Neighborhood Boards have been one response to enhancing citizen dialogue on issues, but few people actually attend such meetings, perhaps because the degree to which that dialogue actually impacts legislation and policy making is problematic.

The Press’ Role in This?

Adherents of the civic, or public, journalism movement point, with varied force, to the press (newspapers and mainstream TV newscasts) as both the cause and solution to this dilemma of the polity.

Some in the extreme claim the press has lost its focus as voice of the community in favor of covering politics as personality, or of emphasizing politics over governance, or elitism, or of a general somnolence of infotainment and “dumbing down” content.

Others recognize and applaud the continuing watchdog role of the press, and the contributions of its public opinion polling, op-ed pieces and letters to the editor, and televised debates to enhancing the public policy process.

All agree that the press can be an ideal locus of helping to formulate, publicize and monitor a “people’s agenda” if there were more opportunities and avenues for the press and citizenry to connect.

Examples from the Public Journalism movement show some news outlets conducting public meetings and study groups to define issues and collaborate on strategies to address them to both the citizenry and to policy-makers. The general watchword in the movement is to become solution-oriented rather than problem-oriented, and to increase real dialogue between journalists and their publics, whether reading, viewing, listening or multi-media.

Some newsroom-public collaborative projects have been undertaken in Hawai`i. Their successes should be noted and built upon.

Any such project, however, would be doomed if operated under the assumption that the mainstream news media alone bears the responsibility for the degree of civic engagement in a community.

A variety of communication media can be called upon to assist in the reengagement of citizen and governance: Public TV, Public Access TV, In-School video programming, Citizen multi-media (internet, web-based) networks, etc. One university-community media collaborative group, for example, is exploring the possibility of creating a “Hawai`i C-Span,” to bring the coverage and process of governance into the home.

Media, by definition, “mediate.” They can be just as valuable creating links between citizens as they can be as mass communication of government action to citizens, and citizen reaction to government.

Issues

The purpose of this issue group will be to discuss the real and perceived gaps between the press and the citizenry, and how they can be bridged to increase collaboration on a “people’s agenda,” and how the mainstream news media can encourage and guide greater civic commitment and participation. The group will also explore how other media can be used to communicate to and among citizens in the governance and policy arenas.

B. Insuring a Healthy Hawai`i

Susan Chandler and Gerard Russo

Background

Policy Areas and Goals

The goal of the Work Session on Insuring a Healthy Hawai`i is to bring together policy makers, practitioners, stakeholders, consumers and researchers working in the area of health policy issues and begin a deliberative process which forms a common ground for action. There are several clear indicators on the horizon that will pose a challenge to communities desiring to insure that citizens receive the medical care and health insurance they need. The demographic indicators for the nation and Hawai`i point to a rapidly rising aging and disabled population over the next 20 years. Medicaid costs across the nation and in Hawai`i are rising substantially and states and the federal government are not able to meet the increased costs. In the public sector, states are reducing eligibility levels, freezing provider costs and or reducing benefit packages. Some states require co-payments on the poor who receive services. In the private sector, employers are reducing coverage or increasing employees' co-payments in response to increasing health insurance costs. Long term care costs are continuing to rise as are the costs of prescription drugs with no national coverage for consumers. Medicare and Medicaid are facing their strongest challenge to date. Can these programs be sustained? Will these programs survive?

With the increasing drain of federal, state and local dollars going into health care, other important issues of community interest may get delayed or ignored. Entitlements are difficult to reduce or revise. Increasing out of pocket costs for consumers and increasing costs for employers result in economic strain in the community. Important questions for this group include the following. How will the increasing costs of financing our health care system effect other essential issues in our community? What will the health care system look like in the next 10-20 years as demand outruns the community's ability to pay? How can the high quality of Hawai`i's health care be sustained in the future in the context of such a difficult future?

A policy summit sponsored by the Hawai`i Uninsured Project was held in Honolulu in November, 2001. The goal of that project was to examine methodologies for the state of Hawai`i to insure its uninsured with adequate health insurance. After significant dialog among a variety of groups, the Department of Health along with the University of Hawai`i, the Hawai`i Institute of Public Affairs and other community groups secured a federal grant to continue this dialog and conduct economic models to examine the cost-benefit analysis for several policy options and alternatives that are being developed. The Public Policy Center wants to support this innovative collaboration and support the process and outcome. This workgroup will be asked to look ahead and begin to prepare for the future when new opportunities for policy alternatives may arise.

Beginning Policy Thoughts:

In order to frame the dialog, we have begun to list some policy options for discussion. Our first task as a group will be to review this list and add others as needed. Some examples are analyzing:

- the existing federal health insurance programs
- state-only programs
- Hawai`i's employer based mandated coverage
- the existing health insurance market
- the safety net
- a single payor insurance system
- the Employer Retirement System
- a state (or federal) prescription drug coverage plan
- re-structuring Medicare
- re-structuring Medicaid
- State/private coordinating board for health data
- data sharing in the world of HIPAA
- future "partnerings"

Health Insurance Data

Recent tabulations by Russo et al. suggest that an estimated 9.6% of Hawai`i's population are without health insurance coverage during the entire year of 2001. This is about 117,000 people. While Hawai`i had been known as the Health State for many years, and had the lowest number of uninsured in the nation, this number, while perhaps not the lowest in the nation, is below the national average estimated to be about 15%. It is important to collect these data and design on-going partnerships to keep these data up to date and accessible for researchers.

Issues

It is hoped that this group will be able to look ahead and suggest continuing collaborations and strategies for on-going support of good policy initiatives. For example, we might want to discuss the need for the development of a state/private coordinating board for policy analyses, data repositories and on-going institutional supports. Where do we want to be 5 years from now and what are the next steps to getting there?

This policy group will exchange viewpoints, research and experiences on policy options from different perspectives. Hopefully, by bringing together a broad based group of interested and experienced people, we will be able to develop a policy agenda that addresses a few fundamental issues that are problematic to Hawai`i. If there is sufficient interest and commitment among the participants, the group may form a core of a long term collaboration of individuals dedicated to addresses these concerns and finding solutions.

The College of Social Sciences Public Policy Center would like to be available to facilitate and support this effort.

This policy group will bring together a collection of scholars and practitioners committed to improving the health care of Hawai`i's citizens. While each group member may come from a different perspective and has different experiences and expertise, the premise of bringing this

divergent group together is that each can learn from another and build problem solving constituencies.

The deliberative dialog format permits the synthesis of many different experiences and perspectives into a shared framework of understanding. Hopefully there will be time to explore pro and cons of options, get beyond the initial “positions” to learn about what people feel is truly valuable; weigh carefully the views of others and identify a shared sense of policy direction and range of action that are consistent with one another.

C. Diversifying Hawai`i's Economy

Sun-Ki Chai

For much of its unified history, Hawai`i has depended on a single industry to be the backbone of its economy, moving from sandalwood to whaling to sugar and, finally, to tourism. Nonetheless, economic diversification has long been seen as the path to sustained and more robust development. While there have been many achievements along the path to diversification within the past several years, dependence on tourism remains a fact of life. We will seek to analyze the barriers and opportunities for successful economic diversification in Hawai`i, focusing in particular (though not exclusively) on the following issues areas:

Systematically identifying Hawai`i's intrinsic socioeconomic attributes and tailoring policies to them.

Analyzing processes of social change in order to build long-term competitive advantage.

Broadly analyzing forward and backward linkages for emerging sectors and generating holistic policy recommendations.

Background

Recounting past economic diversification policies in Hawai`i is a daunting task, since government policies explicitly aimed at achieving diversification date at least back to the early days of statehood and probably long before then. Ever since the 1980s, much of the diversification effort has been centered around high technology, with subsectors including computer software, biotechnology, astronomy, alternative energy research, and ocean science each receiving their share of attention. During this period, there have been a number of visible and tangible policies aimed at promoting high tech, including funding of the High Tech Development Corporation in the early 1980s, as well as the Act 221 tax credit more recently. A certain amount of emphasis has also been placed on overlapping sectors such as diversified agriculture and entertainment. Nonetheless, the Hawai`i economy remains the 5th least-diversified among those of all U.S. states.

Rather than attempting to go beyond this very brief summary to review the often frustrating history of diversification in more detail, I will instead try to challenge participants in this conference to move beyond well-worn topics by considering three issues that deserve more, or at least more systematic, attention than they currently receive in the diversification debate. Along the way, I will present a number of unconventional and semi-polemical proposals, some perhaps of dubious merit, but all intended to provoke debate.

Issues

Hawai`i's Intrinsic Socioeconomic Attributes

Hawai`i's pluses and minuses as an investment destination, particularly the minuses, have been discussed to the point where they now often taken for granted. What is lacking, however, is much of

an attempt to go beyond physical and financial variables to look at a broader set of societal issues. In the debate over Hawai'i's base for economic diversification, too much attention is paid to "hard" economic attributes such as geographical location and natural resources and insufficient attention to "soft" ones such as human and cultural capital. A broader analysis is essential if we are to find ways to optimally leverage our unique attributes to maximum advantage rather than adopting generic solutions.

Despite earlier rhetoric, it is increasingly accepted that our location in the middle of the Pacific does not provide any major economic advantage (other than perhaps time zone) in the age of routine transcontinental flight and broadband communication. Moreover, beautiful scenery and pleasant climate, while definite pluses, are probably not going to play a crucial role in determining investment choices outside of the tourism industry. On the other hand, while a reduced tax burden on businesses is certainly relevant, low taxes are neither a necessary nor a sufficient condition for technology-fueled economic growth (think Northern California or Massachusetts).

On the other hand, the state does possess a set of unique assets whose economic importance is sometimes given short shrift. One is our cultural diversity, with its complex swirling and blending of Pacific, East Asian, and Western ethnicities. Arguably, no other place in the world contains the same concentrated variety of language, food, fashion, music, and arts within a comparably small space and population. This contrasts with our scenery and climate, for which there are (as much as we would like to think otherwise) plenty of competing destinations around the world. Moreover, our cultural diversity can have an economic impact far beyond that of drawing tourists to the islands. In the era of global corporations, multinational / multicultural workforces are becoming increasingly prevalent, particularly in high technology businesses. One consequence of this is the need for such corporations to locate facilities in areas that cater to the widely varying personal needs of educated employees from very diverse backgrounds. While some of the larger metropolitan areas on the mainland boast considerable cultural diversity, this diversity is typically segregated into relatively inaccessible ethnic enclaves. Hawai'i's offering of geographically concentrated, "one-stop" multiculturalism is an asset that can only increase in value as time goes on, and can be developed into a marketable commodity by selective promotion of businesses that involve sustained cross-national collaboration across the Pacific Rim.

Another asset is our strong cultural affinity towards technical education. Given the current crisis in public education within the state, this is a counterintuitive point to be making in our favor. Indeed, there is a frequent tendency to take a fatalistic or even derisive attitude towards the academic quality of the local population. However, once one takes into account the unusually high rate of private school enrollment and advancement to college (themselves indications of an academically-inclined economic culture), Hawai'i is statistically one of the best-performing of all states in S.A.T. math scores, and one of the fastest increasing with regards to both math and verbal scores. This performance is particularly impressive given the relatively large immigrant population in the state with limited facility in the English language, but is not surprising given the high percentage of our population drawn from cultures that regularly top of the world tables in math and science aptitude.

With improved recognition and cultivation, the technical talent of our local youth could become one of the state's major selling points.

Social Change

Successful diversification is a medium to long-term proposition rather than an objective that can be accomplished overnight. It follows that success depends on policies that anticipate international economic trends rather than simply adjusting to the status quo. Social science theories of social change posit a number of major international trends that relate to the long-term development of our local economy. Among them are the continued spread of global capitalism and the rising inter-availability of consumer goods across different countries. However, this rising efficiency in production and distribution is seen as having two countervailing cultural effects. The first is the emergence in high-income countries of a so-called "post-materialistic" culture based on self-actualization and cultivation of taste rather than on physical comfort and security. A related effect is the emergence of "identity" and more specifically, a self-conscious identification with locality, as a major factor in determining demand for consumer products.

These trends imply that Hawai`i would be well-served by leveraging its international image as a tropical paradise to produce and market products that appeal to the taste aspirations of this newer breed of consumer. In diversified agriculture, the high cost of labor can be compensated for by shifting production away from the commodity market, where declining terms of trade seem to be the norm, into the "designer food" market where the local product can be clearly differentiated from cheaper imports. For instance, for the cane industry, this means moving away from white sugar and towards locale-branded unprocessed raw sugars with unique flavor and aroma characteristics that could eventually be given a state-registered "appellation contrôlée" similar to that recently implemented for Kona coffee.

Another way to take advantage of these trends is to actively position Hawai`i as the premiere destination for overseas tertiary education by East Asian nationals. A rapidly growing number of students from Japan, South Korea, Taiwan, and other developed East Asian countries are choosing to pursue higher education overseas rather than in their home countries, a wave that is expected to explode to tsunami proportions over the next several years. This is due to the anachronistic but politically entrenched objective exam-based system of college admission used in those countries.

This system is at odds with the growing importance East Asian youth place on self-actualization and lifestyle issues, making them unwilling to tolerate the "exam hell" suffered by earlier generations. While Hawai`i's aforementioned cultural advantages have already helped it to attract a steady stream of students from East Asia, much more could be done to market the state as an education destination and to build an infrastructure for nurturing foreign students once they arrive.

Forward and Backward Linkages

The notion that sectoral policies cannot be created in isolation, that all economic sectors must be considered simultaneously as part of an interdependent whole, is a truism that is usually honored only in the breach. However, success in economic diversification depends not only on supporting infant industries directly, but on building linkages between them and mature industries, as well as developing capacities in supporting sectors.

For instance, there is a natural synergy between tourism and international education, something that HPU for instance has capitalized on in its advertising strategies. Youth who arrive from other countries on tourist visas are generally of the upper-middle and high-income categories that are likely to be candidates for overseas study. Hence a tourist audience is one to which we should systematically but subtly introduce the message that Hawai`i is not only culturally hospitable to foreign students, but also goes out of its way to ease their transition into education abroad. In addition, many of these students, if they study in Hawai`i, will eventually graduate to be bilingual and cosmopolitan entrepreneurs likely to found companies with the very kinds of multinational / multicultural workforces that will readily fit into local society.

However, a thriving high-tech sector requires not entrepreneurs with not only top-notch cultural skills, but cutting-edge technical skills as well. And, as the case of the Silicon Valley shows, the most reliable generator of technically innovative entrepreneurs is the presence of first-rate university engineering and applied science departments that attract the best local and international talent at both the graduate and undergraduate level. Given this, any money that can attract top-level faculty and students in these subjects to Hawai`i universities will be well spent, even if the money has to be taken away from other economic development programs.

What this short position paper envisions, then, is a relatively focused strategy in which Hawai`i's economic future is projected to center on its role as a multicultural arena for intellectual exchange and business collaboration among scientists and entrepreneurs from various Pacific Rim nations. Recognizing and maintaining this focus will allow us to more precisely target our development strategies, generating improved long-term results. While this is not the only possible vision for a truly diversified yet prosperous Hawai`i economy, it may be the most plausible one.

D. Developing Sustainable and Just Communities

Katherine Irwin and James Spencer

Background

Policy Area and Goals

The goals of the “Sustainable and Just Communities” group is to bring together policy makers, practitioners, stakeholders, and researchers working in two different policy arenas including economic sustainability and criminal justice. The challenge presented to this group is to take these two policy arenas that, to date, have been considered separate and unrelated and to look at them as connected and mutually reinforcing. In practical terms, this means that we will look at such community level problems as joblessness, the lack of affordable housing, the economic inequality of native Hawaiians, Pacific Islanders, and Southeast Asians in the state as related to the increased rates of incarceration in Hawai`i, the rise of drug use (especially “ice”) throughout many communities, and the recent political pressure to build new prisons in Hawai`i.

Economically Sustainable Communities

On the topic of economic sustainability, the goal of this policy group is to look at the term “sustainability” in new ways. In the past, sustainability initiatives have often evoked images of environmental conservation, land use planning, and alternative forms of transportation. Interestingly, in many areas of the country, policies designed to preserve the natural environment have negatively affected the poorest and most marginalized communities. As a result, policy makers around the country have had to build bridges between preserving the environment and providing widespread economic opportunities. In Portland, OR, for example, stakeholders learned that any regional sustainability agenda could not survive without the support of affordable housing advocates. Similarly, environmental policy makers in Atlanta learned that they could not craft effective initiatives without contributing to greater opportunities within low-income African American communities

Just Communities

Practitioners and policy makers throughout the country have also discovered the links between economic sustainability and crime and criminal justice initiatives. In the past several years in Hawai`i, crystal methamphetamine or “ice” use has quickly evolved into one of the most widespread social problems confronting the state. Not surprisingly, this drug tends to be rampant in the most marginalized and poorest communities. Although Hawai`i remains committed to avoiding an over-reliance on incarceration, the fact is that increased ice use, among other factors, has left this state with quickly growing corrections budget. The rising rate of incarceration has had a devastating impact on local communities. For example, incarceration spending often comes at the expense of education and job training programs that could provide viable opportunities for local youth. Without economic opportunities, adequate drug prevention, or drug treatment, youth and adults in economically disadvantaged communities have few non-drug related options. While Hawai`i

remains committed to providing treatment rather than incarceration for first time drug offenders (see SB 1188, 2002), the state straddles a delicate balance among the pressure to build new prisons, respond to community-level crime problems, and provide adequate community-based programs.

Issues

This policy group will exchange viewpoints, research, and experiences on community-level issues centered on the criminal justice system and economic opportunity, explore links between policy areas, and begin to formulate a policy agenda. The hope is that, by bringing individuals together from different policy areas, we can develop and implement a policy agenda that addresses the fundamental causes of a range of problems facing Hawai'i – in this case the causes of economic disenfranchisement, crime, and drug use. Towards this end, if there is sufficient interest and commitment among participants, the group may form the core of a long-term collaboration of individuals dedicated to addressing these concerns. An organization like the College's Public Policy Center could facilitate and logistically support this ongoing effort.

This policy group will bring together a collection of scholars and practitioners committed to improving the opportunities within poor and disenfranchised communities in Hawai'i, especially opportunities for youth. Each group member will have expertise in a particular area, but also be interested in discovering how others approach community-based problems. The premise of bringing such a diverse set of activists together is to explore how advocates of divergent policy agendas can learn from one another and build constituencies that facilitate and reinforce their existing work.

E. Sustainable Tourism in Hawai`i

Denise Eby Konan

Background

Tourism has been the mainstay of Hawai`i's economy. The number of visitors has grown steadily, increasing from 686,314 in 1965 to 4.8 million by 1985. With a resident population of 1.2 million, nearly 7 million people presently visit Hawai`i each year. Visitor expenditures account for \$11 billion, one-sixth of total expenditures in the state. They generate nearly a billion dollars in State and County tax revenues. About one-third of jobs in Hawai`i are related to the visitor industry.

Visitors are attracted to the beauty and uniqueness of Hawai`i's natural and cultural environment. Yet, excessive tourism growth may pose a threat to the very environmental and cultural assets that visitors seek. Visitors contribute to congestion on our beaches, trails, and roadways. They consume scarce water and energy and generate pollution, sewage, and solid waste. They create a demand for expansion and development of transient accommodations. This is particularly important as visitors are attracted to near-shore and pristine areas, where the environmental impacts of hotel and resort development are likely to be particularly high. Other impacts include increasing stress on public infrastructure including parks and recreation facilities. Conservation of Hawai`i's natural and human environment is critical not only to preserving the quality of life of residents but also of the visitor experience. Thus, a balance is sought between economic prosperity for residents, environmental preservation, and social well-being. Although the visitor industry has been an economic engine for the State, its growth must be carefully managed so as to offset or mitigate negative impacts.

Sustainability means different things to different people. Among economists, sustainability tends to refer to the preservation of a quality of life for future generations of consumers. Natural resources have an economic value in that they may be an input into production (lumber, petroleum) and may provide direct amenities to households (scenic views, clean air). A significant component of economics involves the valuation of non-market natural resources and the environment (hedonic pricing, travel cost analysis, contingent valuation). Sustainability thus involves an appropriate passing along of natural assets to future generations such that an appropriate quality of life may be maintained. To the extent that natural resources are extracted or degraded, human made capital or innovations may compensate to maintain acceptable levels of economic prosperity for future generations. In terms of the visitor industry in Hawai`i, the loss of a shoreline or deterioration in a hiking trail may be substituted with built amenities that would continue to attract visitors.

From the viewpoint of natural scientists, sustainability refers to the preservation of ecosystem quality. Ecosystems naturally evolve over time. Species evolve, land forms shift and change, environments respond to changes in temperature and climate. Yet, human interferences in natural areas have rapidly, and in some cases irreversibly, changed ecosystems. Sustainability thus involves the preservation of an acceptable quality of the natural environment. A pristine state of nature may be compared to various levels of ecosystem degradation that are associated with human interactions. Particularly relevant for Hawai`i are the uniqueness and the fragility of various micro-ecosystems of

the islands. Be it endemic and endangered species, delicate shorelines, or scenic vistas, Hawai`i's ecosystems are precious. In this view, the focus is on how infrastructure might be used to offset the negative aspects of visitor industry growth. Important infrastructure demand elements include water, waste water, solid waste and energy. The role of open space in preserving environmental quality is relevant. Land-use planning becomes a particularly important tool of sustainable policy as certain environmentally fragile areas may be designated as unsuitable for development.

Another perspective on sustainability becomes one of culture. Traditional ways of life may be eroded with the introduction of foreign influences. Traditional gatherings or practices may become difficult to maintain if development interferes with access to culturally important public spaces. In adapting to the presence of outsiders cultural influences, both positive and negative, may alter cultural traditions. In Hawai`i, this is of particular concern to the indigenous people of the land whose way of life and values have been required to respond quickly to Western influences.

Tourism industry experts focus on the sustainability of industry demand and output. The visitor industry in Hawai`i is a mature one, well developed with an extensive inventory of assets including hotels, restaurants, retail, transportation, and entertainment amenities. Hawai`i's reputation is well-established and widely recognized worldwide as an exotic, romantic, exciting, and yet comfortable destination. Alternative destinations are increasingly becoming available as competing destinations enhance investments in the visitor inventory. Travelers are also seeking new, exotic, and increasingly remote destinations. Many middle income and developing countries are able to provide attractive holiday packages at relatively low prices. Sustainability of the industry involves continued enhancements in the quality of the visitor experience through public and private investments. Environmental quality and cultural quality become important in that they provide amenities that tourists demand.

Issues

There may be other concepts of sustainability, and this working group will be involved in formulating such concepts. The group will discuss the degree to which alternative paradigms of sustainability complement are in conflict. Additionally, this working group will jointly identify the various pathways and linkages by which the visitor industry contributes to or distracts from sustainability in Hawai`i. We will work to categorize these pathways. We will seek to identify the choices and tradeoffs that our society faces in relation to tourism. In addition to articulating the issues and concerns, we will prioritize the opportunities and threats facing our community.

F. Ensuring Sustainable Energy Resources

John Harrison, Sharon Miyashiro, and Regina Gregory

Background

Introduction

Energy is generally divided into renewable and non-renewable resources. Renewables include solar, wind, hydropower, biomass, biogas, etc. whereas non-renewables include fuels such as petroleum and coal. Non-renewables are, strictly speaking, not sustainable. Sustainability for Hawai'i's energy economy will require a reduction in energy consumption and a shift to renewable resources. With its strong sun, steady tradewinds, mild climate and year-round growing season, and the highest electric rates in the country, Hawai'i would seem ideally suited for such a transition.

Hawai'i's energy situation

In ancient times, Hawaiians relied on biomass, which is sustainable so long as harvesting does not exceed the rate of regrowth. In the nineteenth century, 'Iolani Palace had electricity from a small hydropower plant (even before anyplace in the U.S. did), also a renewable resource. Shortly thereafter, gas lamps were installed for street lighting. By 1960, about 82% of Hawai'i's energy was from petroleum, about 17% was from biomass (mostly sugar cane residue), and the remainder (less than 1%) from hydropower. By 2000, biomass declined to only 2.2% due mainly to the demise of the sugar industry. Renewable resources were diversified with the addition of geothermal (0.8%), solar hot water (1.1%), wind (0.1%), and municipal solid waste (1.6%), but these were far outweighed by growth in fossil fuel consumption, with petroleum now providing 89.2% and coal 4.8% of Hawai'i's energy. In other words, Hawai'i is 94% dependent on non-renewable energy resources. Of Hawai'i's petroleum consumption, 31.5% is used to generate electricity; 35.7% is for air transportation, 19% for ground transportation, 7.1% for marine transportation. 6.3% is used in commercial/industrial applications and direct residential use accounts for 0.3%. Of the coal, all is used for electricity.

Hawai'i's energy policy

Hawai'i, like several other states, has had an energy policy that calls for reducing dependence on imported fossil fuels and increasing energy efficiency and the use of renewable energy. Hawai'i Revised Statutes §226-18 states the following objectives for Hawai'i's energy facilities:

1. Dependable, efficient, and economical energy systems capable of supporting the needs of the people
2. Increased energy self-sufficiency where the ratio of indigenous to imported energy use is increased
3. Greater energy security in the face of threats to Hawai'i's energy supplies
4. Reduction, avoidance, or sequestration of greenhouse gas emissions

§226-18 goes on to say that to achieve these objectives, it is state policy to:

1. Support research and development and promote the use of renewable energy resources
2. Ensure that the combination of energy supplies and energy-saving systems is sufficient to support demand
3. Base decisions on least-cost supply-side and demand-side options where least-cost is determined by a comprehensive, quantitative and qualitative accounting of long-term, direct and indirect economic, environmental, social, cultural, and public health costs and benefits
4. Promote all cost-effective conservation of power and fuel supplies
5. Ensure to the extent that new supply-side resources are needed, they utilize the least-cost energy supply option and maximize efficient technologies
6. Support research, development, and demonstration of demand-side management
7. Promote alternate fuels and energy efficiency in transportation
8. Support actions that reduce, avoid, or sequester greenhouse gases.

In the early 1990s, Hawai‘i developed an integrated energy plan with leadership from the Department of Business, Economic Development and Tourism (DBEDT). This was followed by the initiation of an Integrated Resource Planning (IRP) process under the auspices of the Public Utilities Commission. The IRP system was intended to incorporate the full range of energy alternatives into electric utility regulation, including demand side management and the use and pricing of renewable energy. This did result in a significant demand-side management program for both residential and commercial electric customers. It is not certain, however, that the broad definition of “least-cost” under #3 above has been applied to new generating facilities.

Issues

Looking forward, Hawai‘i will need to develop its long-term strategy within the context of national and global energy, environmental, and regulatory trends. These trends include the following: (1) rapid advances in energy technology; (2) new policy and regulatory approaches that may make renewable energy more cost competitive; (3) changing patterns of global fossil fuel supplies and costs; and (4) national and international requirements to curb greenhouse gas emissions. This strategy must lead to energy policies that are technically, economically, and politically feasible.

Given that the government does not actually own any energy facilities, its options for direct action are rather limited. It can, for instance, implement energy conservation programs in government buildings, acquire alternative fueled vehicles for the state fleet, etc. Legislation has also been proposed that would allow the government to sell bonds to directly invest in renewable energy production.

Most policy options for all the “promoting” and “supporting” mentioned above fall into two basic categories: incentives and mandates. Incentives include items such as direct funding (e.g. for ocean thermal research); tax credits (e.g. for solar water heaters); fee exemptions (e.g. for alternate fueled vehicles). Mandates include strategies such as instructions to the Public Utilities Commission; building codes for energy conservation; and requirements placed on electric utilities such as renewable portfolio standards and net metering.

Some of the main obstacles that need to be considered are: (a) technical problems (for instance, improving the “firmness” of intermittent sources like wind); (b) economic problems (chiefly the high cost of renewables compared to oil and coal); and (c) opposition from those on whom mandates would be imposed.

Our new governor has raised hopes by stating a goal of 20% renewable energy by the year 2020. However, the governor’s legislative package includes only a 4-year extension of the renewable energy tax credit. The House and Senate, on the other hand, have proposed a large number of additional measures. These include: funding for alternative energy systems on Kaho‘olawe and hydrogen research; tax incentives for clean fuel vehicles, fuel efficient vehicles, biodiesel fuel, and geothermal-to-hydrogen systems; requiring biodiesel in government vehicles; bonds for energy efficiency and renewables in state facilities; increased net metering; and a statewide energy audit.

G. Hawai'i's Cultural and Natural Resources

Davianna McGregor

Background

Policy Area and Goals

In Hawai`i, protecting the unique cultural and natural resources of our islands is a prerequisite for economic sustainability. The Hawai'i State Supreme court ruling in *Ka Pa'akai O Ka 'Aina v. Land Use Commission* (94 Haw. 31 (2000)) affirmed the necessity of identifying and protecting natural resources which are integral to cultural practices. In 2000, the Hawai`i State Legislature passed Act 50 as an amendment to HRS 343-2 in order to include the effects of economic development on the culture of Hawai'i's communities. One of the goals of this workshop is to identify and discuss policies and available resources which can be used to help communities protect unique and important cultural and natural resources in their district. Another goal is to identify the elements of a methodology to conduct cultural and environmental impact assessments and studies.

Sustaining Hawai'i's Natural Resources

Located midway between the American and Asian land masses, the islands of Hawai`i are the most isolated land mass in the world. They are home to diverse and unique endemic species of plant and animal life. By the end of the 20th Century, Hawai`i had the largest number of extinct and endangered endemic species of flora and fauna of any place in the world. Traditionally, Hawaiians were the caretakers of resources and ecosystems that lie within or adjacent to their communities. They practiced a system referred to as kapu which carried highly proscriptive norms related to resource management. For example, fish and limu (seaweed) were harvested seasonally and not during spawning season. When it was deemed that resource levels were declining, the area was designated off-limits to fishers and harvesters. Violators were severely punished. Throughout the islands subsistence livelihoods thrive in particular rural communities. Surrounding these communities are pristine and abundant natural resources in the forests, streams, and oceans. These rural Hawaiian communities were bypassed by mainstream economic, political, and social development. Hawaiians living in these communities continued as their ancestors before them, to practice subsistence cultivation, gathering, fishing, and hunting for survival. Thus, we find that the natural resources in these areas sustained a subsistence lifestyle and a subsistence lifestyle, in return, sustained the natural resources.

Sustaining Cultural Resources

The practice of Hawaiian culture is tied directly to the quality of, and access to, native flora and fauna and the integrity of cultural sites and use areas. Hawaiian communities are particularly vulnerable to development which alters the conditions of, or access to, native natural resources and habitats and/or cultural sites and use areas. The long-term effects of inappropriate development upon Hawaiian peoples and lands are reflected in the varying degrees of cultural dissolution and social problems. When a planned development will impact the condition of or access to natural and cultural resources, an analysis of cultural impacts is requisite part of a social impact assessment.

Issues

Many communities have been involved in initiatives to empower themselves through community-based planning processes, engaging multiple constituencies in a dialogue to develop a vision for the community. □ This process is informed by Native Hawaiian concepts of stewardship of the land (malama aina) and land management systems wherein the ahupuaa or watershed is the basic resource management unit. □ Mapping techniques are often used to identify services, resources, and other qualities that lie within the community. □ It is a means to assess deficits and strengths as a basis for developing a strategic plan. □ The group will also discuss policies which can help to promote this process, incentives such as tax breaks to protect significant cultural resources, on site management of public lands, and resources which can be made available to communities to pursue such projects.

One approach to doing this is Cultural Impact Assessments (CIA), which have become a major legal requirement in the permitting/approval process for development in Hawai`i. Numerous laws at the federal, state and county levels affect the legal compliance and defensibility of CIAs (Federal Clean Water Act, National Register Bulletin, Hawai`i Revised Statute 343). Despite such legal requirements, CIA guidelines continue to be amorphous and vary in terms of how they are conducted. Commensurate with establishing new guidelines for CIAs is the development of new methodological approaches to conducting them. A multi-methods approach that includes community surveys, ethnographies, archival research, GIS mapping, and assessments of access rights and natural resources are some of the critical methods and approaches that should be considered. One of the goals of the workshop is to identify key elements of a Cultural Impact Assessment and multiple methodologies which can be used to conduct a CIA. Another goal is to design a manual on how to conduct a CIA.