Hawai‘i 2050 Sustainability Plan

Charting a course for Hawai‘i’s sustainable future

Hawai‘i 2050
Sustainability Task Force
State of Hawai‘i
January 2008

Table of Contents

Foreword by the Auditor iii

Message from the Chair v

Hawai'i 2050 Sustainability Task Force Members vii

Former Hawai'i 2050 Sustainability Task Force Members vii

Executive Summary 1

Background and Origins of Hawai'i 2050 5

- Critical Concepts: A User's Guide to Hawai'i 2050 8

The Hawai'i 2050 Sustainability Plan 11

What Is Sustainability? The People's Definition 13
- Definition
- Vision
- Guiding Principles

Goals, Strategic Actions and Indicators 15
- Goal One: A Way of Life 19
- Goal Two: The Economy 25
- Goal Three: Environment and Natural Resources 33
- Goal Four: Community and Social Well-Being 45
- Goal Five: Kanaka Maoli Culture and Island Values 55

Priority Actions and Intermediate Steps: Target Date 2020 63

From Planning to Action: Sustainability Council 69

- Recommendation One: Focus on and Implement Hawai'i 2050 Priority Actions
- Recommendation Two: Establish Sustainability Council
- Recommendation Three: Create Sustainability Index
- Recommendation Four: Issue a Report Card

Planning Principles and Approach to Hawai'i 2050 75

Community Engagement Philosophy and Results
- Principles for a Community-based Planning Process
- Candid Feedback from Hawai'i's Leaders
- Voices from the General Public
- Summits and Forums
- Community Engagement Attendees and Responses
- Lessons and Observations

Fact- and Research-based Approach to Sustainability

Appendix A 81

Appendix B 85

Mahalo 87

Printed on Recycled Paper

Foreword by the Auditor

HAWAI'I VISITORS AND CONVENTION BUREAU

In the 1970s, the State of Hawai'i was one of the pioneers in long-range planning. The visionary Hawai'i State Plan and its related functional plans were among the first planning documents in the nation that provided integrated, far-reaching policies for the economic, social and environmental future of an entire state.

Now, a generation later, it has been my pleasure to work with the Hawai'i 2050 Sustainability Task Force, per Act 8 of the 2005 Hawai'i State Legislature, to develop a statewide sustainability plan for the 21st century – the Hawai'i 2050 Sustainability Plan. This two-year effort has solicited input from citizens throughout our islands using tools ranging from community meetings to Internet communications to scientific polling techniques. It is the most comprehensive statewide planning process in over three decades.

This report to the Legislature is the result of our collective efforts in creating a long-term plan for Hawai'i's sustainable future.

On behalf of the Hawai'i 2050 Sustainability Task Force, we express our appreciation for the thousands who shared their views and opinions about sustainability and the future of this state. The expertise and input from stakeholders groups were of great value as well. We also thank our technical consultants, the Hawai'i Institute for Public Affairs ("HIPA"), and its research partner, the University of Hawai'i's College of Social Sciences Public Policy Center, for their assistance and dedication.

It is with great pleasure that I submit the Hawai'i 2050 Sustainability Plan to the Hawai'i State Legislature.

Sincerely,

Marion Higa
State Auditor

Message from the Chair

ʻAʻohe hana nui ke alu ʻia.
No task is too big
when done together by all.

—Mary Kawena Pukui, ʻŌlelo Noʻeau - Hawaiian Proverbs and Political Sayings, Bishop Museum Press, 1983.

Aloha!

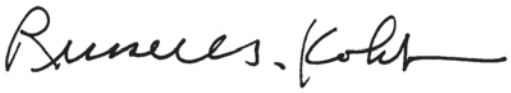
On behalf of the Hawai'i 2050 Sustainability Task Force, it is with great pleasure that we submit for your review the Hawai'i 2050 Sustainability Plan. This document embodies the expressed thoughts, opinions and values of communities across our islands. The Hawai'i 2050 Sustainability Plan is truly the "people's plan."

The Hawai'i 2050 Sustainability Task Force believed steadfastly that the Hawai'i 2050 Sustainability Plan should reflect the will and sentiments of its citizenry. Our outreach has been extensive and rigorous. Three rounds of statewide meetings drew thousands of residents. We conducted two statistically sound general population surveys. We met with county planning directors, policy makers, and experts, as well as dozens of youth, community, business, environmental, labor and other stakeholders and organizations. In total, more than 10,500 participants provided input to Hawai'i 2050.

The Hawai'i 2050 Sustainability Task Force has learned that the overwhelming majority of people in Hawai'i want a balanced approach to Hawai'i's future, where economic, social and environmental goals are in balance. Our citizens inherently recognize that these three pillars of our society are interdependent. We want a vibrant, diversified economy; a healthy quality of life that is grounded in a multi-ethnic culture and Kanaka Maoli values; and healthy natural resources..

The "triple bottom line" concept – where our economic, community and environmental goals are in balance – is the foundation of the Hawai'i 2050 Sustainability Plan. It is the Task Force's hope that this approach will guide all of us as we collectively determine the preferred long-term future of our state.

Sincerely,



Senator Russell S. Kokubun
Chair

Hawai'i 2050 Sustainability Task Force

MEMBERS

Russell S. Kokubun
Chair
State Senator

Lyla B. Berg, Ph.D.
State Representative

Pono Chong
State Representative

Ian Costa
Director, Department of Planning
County of Kaua'i

Henry Eng
Director, Department of Planning
and Permitting City and
County of Honolulu

Mike Gabbard
State Senator

David Goode
President, KSD Hawai'i

Marion M. Higa
State Auditor

Jeffrey Hunt
Director, Department of Planning,
County of Maui

Karl Kim, Ph.D.
Professor and Chair,
Department of Urban and Regional
Planning, University of Hawai'i at Mānoa

Millicent Kim
Consultant

Keith Kurahashi
President, Kusao and Kurahashi, Inc.

Brad Kurokawa
Deputy Planning Director
County of Hawai'i

Ron Menor
State Senator

Colleen Rose Meyer
State Representative

Keith Rollman
Special Advisor, Department of
Information Technology
City and County of Honolulu

Vacant
Office of Planning, State of Hawai'i

James Spencer, Ph.D.
Assistant Professor,
Department of Urban and Regional
Planning, University of Hawaii at Mānoa

Jane Testa
Director of Research and Development
County of Hawai'i

Stacie Thorlakson
Consultant

Beth Tokioka
Director of Economic Development
County of Kaua'i

Jill Tokuda
State Senator

Michael Tresler
Vice President
Grove Farm

Pamela Tumpap
President
Maui Chamber of Commerce

Ryan I. Yamane
State Representative

FORMER MEMBERS

Corinne W.J. Ching
State Representative

Suzanne Chun Oakland
State Senator

Michael Foley
Former Planning Director, County of Maui

Donald Fujimoto
County Engineer,
Dept. of Public Works, County of Kaua'i

Alan Garson
Hawai'i County Workforce
Investment Board

Fred Hemmings
State Senator

Gary Hooser
State Senator

Kem Lowry, Ph.D.
University of Hawai'i at Mānoa

Roy Takemoto
Executive Assistant to the Mayor,
County of Hawai'i

Laura Thielen
Former Director, Office of Planning
State of Hawai'i

Christopher J. Yuen
Planning Director, County of Hawai'i

Executive Summary

We choose to go to the moon in this decade and do… other things, not because they are easy but because they are hard, because that goal will serve to organize and measure the best of our energies and skills, because that challenge is one that we are willing to accept, one we are unwilling to postpone, and one which we intend to win.

—President John F. Kennedy, in his speech on the Nation's Space Effort, Rice University, September 12, 1962. Kennedy pledged that the goal was to leave the Earth's atmosphere and land on the moon, which inspired many people around the world that day. Although Kennedy was assassinated the following year, on November 22, 1963, his dream of winning the space race was fulfilled on July 20, 1969, when NASA's Apollo XI mission successfully landed the first men on the moon.

What do the people of Hawai'i want for the future of our islands in the 21st century? What is the community's will for the future of our economy, society and environment? What steps can we take now to achieve that preferred future for our children and their children?

In 2005, the Hawai'i State Legislature sought answers about the long-term future of our state. In the past, state leaders and decision makers have been ably guided in these matters by the Hawai'i State Plan. But with a new century comes a new generation, new opportunities and new challenges. A new plan is needed.

In response, the Legislature created the Hawai'i 2050 Sustainability Task Force, a group of 25 citizens with a diverse range of experience in planning, community, business, the environment and government. They were charged with developing the Hawai'i 2050 Sustainability Plan, the State's first long-range plan in 30 years. In creating the plan, the Task Force placed the wisdom of our communities first. The Task Force initiated and implemented one of the most comprehensive and inclusive planning processes in our state's history.

A community-based planning effort

A two-year planning process engaged thousands of residents through multiple rounds of community meetings on every island, Internet outreach through a website and online surveys, and dozens of focus group meetings with stakeholders and experts. More than 10,500 participants provided input on the Hawai'i 2050 Plan.

Data was also collected through public opinion polls and the Hawai'i 2050 Issue Book, which contains extensive research on many aspects of sustainability such as natural resource use, population, economic development, water and social issues.

The Task Force used its resources to gather the mana'o of everyone with a stake and an interest in Hawai'i and to include their voice in the conversation.

What did the Task Force find? What is Hawai'i 2050?

The State's first definition of sustainability

A Hawai'i that achieves the following:

- Respects the culture, character, beauty and history of our state's island communities
- Strikes a balance among economic, social and community, and environmental priorities
- Meets the needs of the present without compromising the ability of future generations to meet their own needs

This definition is the foundation of Hawai'i 2050. It is the beginning of a shared vocabulary about sustainability and the future of our state.

The five goals for Hawai'i 2050

The Hawai'i 2050 goals are integrated philosophies that express the sustainable future of Hawai'i. They reflect a deeply held sense of where Hawai'i should be headed.

- Living sustainably is part of our daily practice in Hawai'i.
- Our diversified and globally competitive economy enables us to meaningfully live, work and play in Hawai'i.
- Our natural resources are responsibly and respectfully used, replenished and preserved for future generations.
- Our community is strong, healthy, vibrant and nurturing, providing safety nets for those in need.
- Our Kanaka Maoli and island cultures and values are thriving and perpetuated.

Strategic actions to implement these five goals, and indicators to measure success or failure

More detailed strategic actions and indicators are contained in Hawai'i 2050. They serve as a guide towards meeting our sustainability goals.

Priority actions: Intermediate steps for the year 2020

Once this planning and community engagement process was complete, the Task Force recognized that while the community respected the vision of 2050, residents also wanted a sense of urgency. People desire tangible targets and benchmarks. In response, the Task Force established priority actions for the year 2020 in these areas:

1. Increase affordable housing opportunities for households up to 140% of median income.
2. Strengthen public education.
3. Reduce reliance on fossil (carbon-based) fuels.
4. Increase recycling, reuse and waste reduction strategies.
5. Develop a more diverse and resilient economy.
6. Create a sustainability ethic.
7. Increase production and consumption of local foods and products, particularly agriculture.
8. Provide access to long-term care and elderly housing.
9. Preserve and perpetuate our Kanaka Maoli and island cultural values.

The Sustainability Council would help to promote sustainability, determine intermediate and long-term benchmarks, measure success, coordinate cross-sector efforts and dialogue, and report to government and private sector leaders on progress.

NEXT STEPS: RECOMMENDATIONS FOR ACTION

Focus on priority actions

The Hawai'i 2050 planning process unveiled nine (9) priority actions that need to be addressed immediately. These action items were identified through an extensive community engagement process, and are needed to kick-start Hawai'i's sustainability process. Take action on those items, and we're on our way toward a sustainable future.

Establish a Sustainability Council

The Task Force recommends that an implementing entity – the Sustainability Council – be established to implement Hawai'i 2050. This is critical to the success of this plan. This non-regulatory government body would be in charge of coordinating, marketing and implementing Hawai'i 2050 initiatives and recommendations. Similar in concept to the State's Council on Revenues, it would help to promote sustainability, determine intermediate and long-term benchmarks, measure success, coordinate cross-sector efforts and dialogue, and report to government and private sector leaders on progress.

Develop sustainability indicators

Hawai'i 2050 indicators would be an annual aggregation of the data that will tell us how we are doing. While our state measures its economic position mostly by tax revenues, building permits and visitor arrivals, Hawai'i 2050 indicators will be the primary measure of the overall progress of our society. There are 55 recommended indicators to measure Hawai'i's overall economic, environmental, community and cultural characteristics.

Report on progress

We need to be held accountable to these goals and objectives, so we recommend an annual report card be produced by the Sustainability Council and presented to government and other leaders.

What's next?

In January of 2008, Hawai'i 2050 will be submitted to the Hawai'i State Legislature. We recommend the immediate establishment of the Sustainability Council and statutory guidelines for its role. By law, the Task Force ceases to exist in the summer of 2008, so the Sustainability Council must be given the authority to continue these efforts by the end of the 2008 session.

Through Hawai'i 2050, we have developed the most comprehensive, forward-looking, data-driven guide to achieve Hawai'i's preferred future.

What kind of jobs will our children and grand-children have?
What will Hawai‘i be like in 2050?
Can our children and grandchildren afford to live in our Islands?
How will we care for our lands and oceans?
Can we sustain the Aloha Spirit and our unique Island values for future generations?

Background and Origins of Hawaii 2050

The 25 member Task Force has a mix of public and private sector representatives with a diverse range of experience.

How did Hawai'i 2050 come about?

The 2005 Legislature expressed its belief that government is responsible not only for resolving daily and pressing issues and public needs, but also for providing guidance to assure that the preferred future of our state is met. Recognizing that present and subsequent generations must address sustainability issues essential to Hawai'i's quality of life, the Legislature enacted Act 8 (SSLH 2005), which provided for the development of a sustainability plan to address the vital needs of Hawai'i through the year 2050.

Act 8 established the Hawai'i 2050 Sustainability Task Force (hereinafter "Task Force") to review the Hawai'i State Plan and the State's comprehensive planning system, and it required the Office of the Auditor to create the Hawai'i 2050 Sustainability Plan (hereinafter "Hawai'i 2050").

Specifically, the purpose of Act 8 is to:

- Establish a Hawai'i 2050 Sustainability Task Force to review the Hawai'i State Plan and other fundamental components of community planning, and to develop recommendations on creating the Hawai'i 2050 Sustainability Plan; and
- Require the auditor to prepare the Hawai'i 2050 Sustainability Plan to define and implement state goals, objectives, policies and priority guidelines, incorporating some or all of the recommendations of the Hawai'i 2050 Sustainability Task Force to aid in the future long-term development of the state.

The 25 member Task Force has a mix of public and private sector representatives with a diverse range of experience. Its members include representatives appointed by or representing the Governor, Speaker of the House, Senate President, the Mayors of the counties of Hawai'i, Kaua'i, Maui and Honolulu, the director of the Office of Planning, the University of Hawai'i Department of Urban & Regional Planning, and the State Auditor.

Hawai'i at a crossroads

Creating Hawai'i 2050 comes as the state faces a growing number of pressing issues. The steady deterioration of public infrastructure, lack of affordable housing, continued reliance on a service-based economy, the vulnerability of Hawai'i in a volatile global energy market, possible interruptions in travel and critical food supplies, threats to our fragile island ecosystems, and the ever increasing numbers of residents and visitors all raise questions about the direction of our state, the long-term limits of growth on these islands and the need to plan and act now to assure that the preferred future for the people of Hawai'i is met.

The signs are evident. The average cost of a home is $650,000, well beyond the means of most. The price of oil is heading towards $100 per barrel.

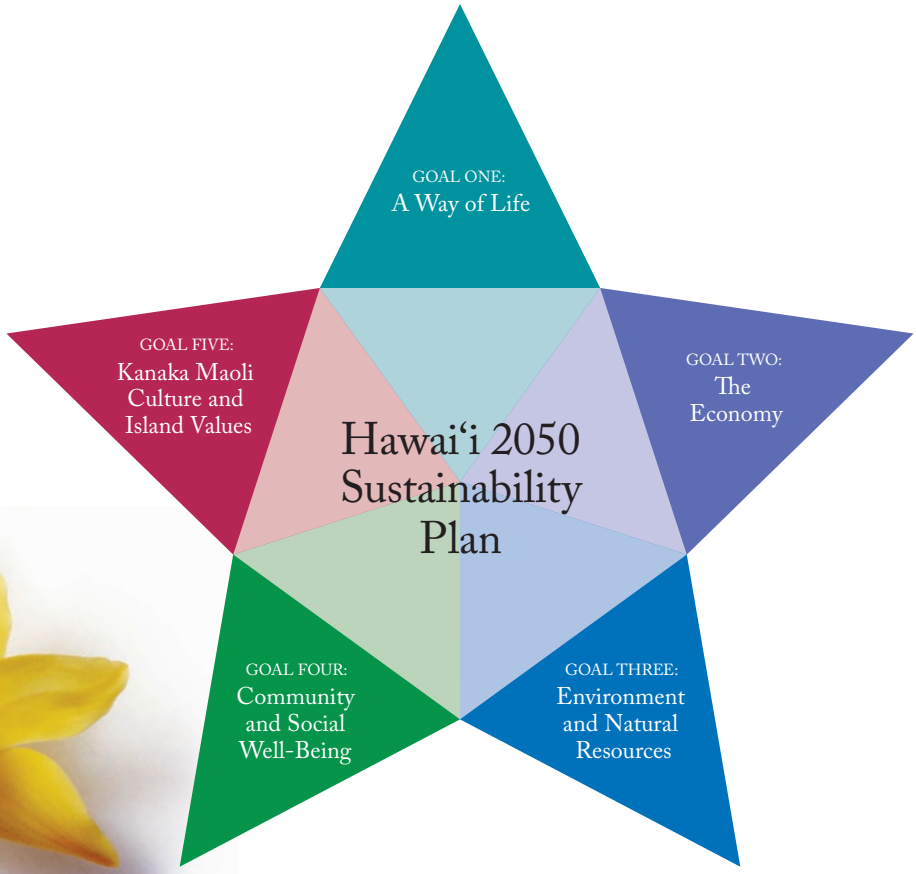
We're sitting in traffic much too long. We can't find a parking space just to go to the neighborhood grocery store. Our options to care for the elderly are severely limited. In 2006, we were forced to dump 50 million gallons of raw sewage into the Ala Wai Canal due to old, cracked sewer lines. We are over-reliant on outside sources, importing about 85 and 95 percent of our food and fuel, respectively.

And, intuitively, these pressures are gnawing at us. Some are questioning whether our aloha spirit is eroding. Tempers are flaring a little more than they used to a decade ago. Comments that "Hawai'i is not what it used to be" are becoming noticeably more frequent. The disputes between the sectors are a bit more fierce, most recently with the Hawai'i Superferry incident where the issues of growth and access between our islands were in conflict.

Where are we going?
What is
Hawai'i's preferred future?

Furthermore, no discussion of Hawai'i's future would be complete without addressing the most basic question we have in our island state: What is our carrying capacity? We anticipate thousands of new homes coming online, tens of thousands of additional residents to move here, millions of tourists every year, and yet no serious look at our overall capacity has been undertaken recently.

These concerns, observations and feelings all lead to the two most commonly questions asked: *Where are we going? What is Hawai'i's preferred future?*



Before Hawai'i 2050: The Hawai'i State Plan

The predecessor to Hawai'i 2050 was the Hawai'i State Plan, Hawai'i's first attempt at comprehensive long-range planning for our islands. Conceived in the mid-1970s, the Hawai'i State Plan was developed under the leadership of Governor George R. Ariyoshi. It was a visionary effort to provide balanced guidance to government officials as well as the private sector in the use of our state's precious natural and cultural resources.

The Hawai'i State Plan was complemented by 12 functional plans that provided the vision and goals in priority areas for our state such as agriculture, conservation lands, employment, energy, health, higher education, historic preservation, housing, recreation, tourism, transportation and water resource development. As part of its development, citizens and public advisory committees were formed for each functional plan, engaging thousands of government, business and community leaders and public citizens who deliberated the future of Hawai'i.

The State Plan process resulted in many key directives for the state such as making Hawai'i a world-class tourism destination; investing in public infrastructure like airports, harbors and roads to support Hawai'i's development; expanding and strengthening the University of Hawai'i system; and implementing community initiatives like the Pre-paid Health Care Act which serves as the foundation for healthcare in Hawai'i. Hawai'i 2050 honors the work of the Hawai'i State Plan and builds upon its foundation for developing a strategic approach to Hawai'i's preferred future.

In the years after Governor Ariyoshi left office in 1986, the Hawai'i State Plan fell into disuse. Over time it has become outdated, and awareness of the State Plan and its goals has dwindled. The last comprehensive review and revision of the Hawai'i State Plan occurred in the mid-1980s. The State Functional Plans were last updated in 1991, and over the years, comprehensive statewide planning, which integrates all the disciplines of Hawai'i's long-range future, has languished.

Hawai'i 2050 is the most comprehensive statewide planning process conducted in over three decades.

Critical Concepts: A User's Guide to Hawai'i 2050

It is important that Hawai'i's community be engaged and committed to the concept of sustainability, and be an active partner in ensuring Hawai'i's sustainable future.

About the term Kanaka Maoli

Throughout this plan, you will see the term Kanaka Maoli. This term is a more appropriate description for Hawai'i's indigenous people – Native Hawaiians. This description of Native Hawaiians was suggested by Kanaka Maoli leaders who participated in the Hawai'i 2050 process, and subsequently was adopted by the Task Force.

Ahupua'a: An overarching metaphor

Our Hawaiian islands are blessed with a Kanaka Maoli tradition and heritage that make our state uniquely special. The Task Force is committed to integrate the values and principles of the traditional Kanaka Maoli concept of the ahupua'a resource and behavioral management system as a philosophical basis for a sustainable Hawai'i. The values of the ahupua'a system ensure that people respect the air, land, water and other scarce natural resources that make life sustainable from the mountains to the sea.

Education is key for a sustainable Hawai'i

A major premise of Hawai'i 2050 is that education and awareness of sustainability is essential to the plan's success. It is important that Hawai'i's community be engaged and committed to the concept of sustainability, and be an active partner in ensuring Hawai'i's sustainable future. Such public acceptance, including the need to change social behavior, requires an aggressive effort to educate Hawai'i's people on the value and necessity of sustainability.

The Task Force also recognized the need to educate Hawai'i's people by integrating the concepts of sustainability within Hawai'i's educational curriculum. This involves teacher preparation, professional development, curriculum development and assessment, and course requirements in sustainability. Such core concepts could provide the foundation for lifetime awareness about sustainability in the same way that Hawai'i's students learn about math, reading and history.

There may be important strategic actions not included in this plan

While Hawai'i 2050 consolidates key actions and indicators, we may have missed a few important elements or action items. We did our best to include those that were identified by the community, stakeholders and experts, but some may have been omitted. Likewise, some strategic actions may have been left out because they were not identified as a priority at this time. This plan is a beginning, not the end, of the conversation about strategic actions relating to Hawai'i's future. The intent is for this plan to be revised periodically, making it continually relevant and applicable in the years ahead.

No plan can predict or control the future, so we must plan to adapt

In ten or twenty years, some of the strategic actions identified in this document may not fit because of changing priorities, technologies or other environmental, political or economic conditions, so we must be prepared for change.

What about other planning efforts? How does Hawai'i 2050 fit in?

There are many long-term strategic initiatives already in place, ranging from coastal zone and water resource management strategies, to county general and development plans, to economic development and visitor industry plans. Hawai'i 2050 is different from other government plans in that it creates a long-term action agenda for achieving sustainability for our state. Hawai'i 2050 consolidates into one document key goals and initiatives that will – over time – create a Hawai'i that is stronger, more diverse and resilient because of its balanced approach to implementing sustainability goals and strategies.

Hawai'i 2050 does not replace the Hawai'i State Plan. Similarly, Hawai'i 2050 does not "trump" other governmental plans, including the county general and development plans. The Task Force is respectful of and is cognizant that each county has its own comprehensive planning process and plans.

Hawai'i 2050 provides over-arching State goals that the counties can use as a guide to further their sustainability efforts. With representation on the Task Force by all four counties, Hawai'i 2050 has had direct input from county government officials and residents. Each mayor appointed three members from their county to be on the Task Force. Hawai'i 2050 is intended to augment and complement other existing government plans, and provides an action agenda that is oriented towards achieving sustainability goals and principles.

Hawai'i 2050 provides over-arching State goals that the counties can use as a guide to further their sustainability efforts.

The Hawai'i 2050 Sustainability Plan
Charting a Course for Hawai'i's Sustainable Future

The Hawai'i 2050 Sustainability Plan is a blueprint for Hawai'i's preferred future. It is the most comprehensive planning process since the Hawai'i State Plan was developed over three decades ago. This plan reflects the hopes and aspirations of Hawai'i's people. They represent the heart and soul of our islands. Listen to their voices. There is a yearning for a more cohesive and planned future. Hear their calling. They want leadership and action. Give them hope. Help create a preferred future for Hawai'i for generations to come.

To put Hawai'i 2050 in to context, we offer these insightful words from one who came before us . . .

> *The Hawai'i State Plan is not the end, it is a beginning. It is the beginning of us finally taking control of our destiny. It will serve notice that we know what is good for this State, what is proper and what is achievable.*
>
> *We share an awesome responsibility, you and I, a responsibility that transcends this time and this place.*
>
> *Direction comes only from an awareness of future problems and future needs and a willingness to step forward and address that future – as difficult and as overwhelming as that may sometimes be.*
>
> —Governor George R. Ariyoshi in his State-of-the-State Address to the Ninth State Legislature in Joint Session, State Capitol, Honolulu, January 23, 1978. Governor Ariyoshi stated that as representatives of the people of the state of Hawai'i, it is the responsibility of the Legislature to find the right direction; the direction which will leave Hawai'i in a better place than they found it.

What is Sustainability? The People's Definition

We needed a common language and understanding.

When the Hawai'i 2050 Sustainability Task Force first asked the public what "sustainability" meant, it received a variety of answers. To some, it was about protecting the environment. To others, it meant creating agricultural self-sufficiency and self-reliance – living in a self-contained system. Others viewed it as a matter of economic resilience.

We needed a common language and understanding. To achieve this, thousands of residents participated in nearly fifty public meetings across the state. Citizens from neighborhood boards, businesses, environmental groups, labor unions, high schools and colleges came out after work and on weekends to offer their vision for a sustainable Hawai'i in 2050.

The meetings revealed that most Hawai'i residents want balance between economic, cultural and environmental concerns because they understand that these three parts of our society are interdependent.

In a sustainable society, systems replenish themselves. They don't rely on the consumption of economic, social and environmental assets for progress. Focusing on Hawai'i's main assets – economy, society and environment – and how to make them self-sustaining is not an academic or political exercise; it is a matter of the survival of Hawai'i as we know it.

The following definition, vision and guiding principles of Hawai'i 2050 are deeply grounded in the voices of our citizenry. They were not conjured by a blue-ribbon committee or adapted from another state, but given to us by Hawai'i's people.

Definition of Sustainability in Hawai'i

A Hawai'i that achieves the following:

- Respects the culture, character, beauty and history of our state's island communities
- Strikes a balance between economic, social and community, and environmental priorities
- Meets the needs of the present without compromising the ability of future generations to meet their own needs

Hawai'i's Vision for Sustainability

The year is 2050 and Hawai'i is a sustainable community.

Living responsibly and within our own means is top-of-mind for all individuals and organizations. We learn about the virtues and values of a sustainable Hawai'i. As a result, our goals of economic prosperity, social and community well-being, and environmental stewardship are in balance and achieved.

HAWAII VISITORS AND CONVENTION BUREAU

Our Kanaka Maoli culture and island values are perpetuated. We have a vibrant, clean, locally based and diversified economy that supports a living wage for island residents. Workforce development affords economic and career opportunities for our children. Our land, water and natural resources are used responsibly, and are replenished and preserved for future generations. We respect and live within the natural resources and limits of our islands.

In 2050, the energy we use is clean, renewable and produced mostly in Hawai'i. Much of the food we consume is produced locally. We minimize waste by recycling. We are a strong and healthy community with access to affordable housing, transportation and health care. Our public education system prepares our people for productive, meaningful and fulfilling lives.

We no longer measure economic vitality solely by statistics such as the number of building permits issued or by tax revenue, but by much more balanced sustainability indicators that guide the actions of the public and private sectors. Every year, these indicators tell us how we are doing, and guide future action.

In 2050, Hawai'i is where our hopes and aspirations as individuals, families and as a community are realized now and in the future.

Guiding Principles of Sustainability

- We balance economic, social, community and environmental priorities.
- We respect and live within the natural resources and limits of our islands.
- We must achieve a diversified and dynamic economy.
- We honor the host culture.
- We make decisions based on meeting the present needs without compromising the needs of future generations.
- The principles of the ahupua'a system guide our resource management decisions.
- Everyone — individuals, families, communities, businesses and government — has a responsibility for achieving a sustainable Hawai'i.

The Triple Bottom Line Approach:
Where economic, community and environmental goals are in balance.

Goals, Strategic Actions and Indicators

These goals reflect the "triple bottom line" that resonated from our meetings with thousands of citizens, stakeholders and experts.

How is the Hawai'i 2050 plan organized?

There are five major goals designed to achieve our preferred future by 2050. Each goal has a set of specific strategic actions that must be implemented in order to achieve each goal. Under each goal and strategic actions are indicators, which are quantifiable measures of progress.

Having indicators is critical, because without them, we will not be sure about our progress in implementing the plan. These statistics hold us accountable to deliver results.

Goals: What we want to achieve
Strategic Actions: How we will achieve our goals
Indicators: How we measure our progress

Goals for Hawai'i 2050

- Goal One. A Way of Life – Living sustainably is part of our daily practice in Hawai'i.
- Goal Two. The Economy – Our diversified and globally competitive economy enables us to meaningfully live, work and play in Hawai'i.
- Goal Three. Environment and Natural Resources – Our natural resources are responsibly and respectfully used, replenished and preserved for future generations.
- Goal Four. Community and Social Well-Being – Our community is strong, healthy, vibrant and nurturing, providing safety nets for those in need.
- Goal Five. Kanaka Maoli and Island Values – Our Kanaka Maoli and island cultures and values are thriving and perpetuated.

These goals reflect the "triple bottom line" that resonated from our meetings with thousands of citizens, stakeholders and experts. They reflect a deeply held sense of where Hawai'i should be headed. These goals are in no particular order or priority. They are of equal importance, inter-related and inter-dependent of one another.

The goals seem interdependent. Why separate them into five categories?

Balance and integration are critical to this plan. Hawai'i 2050 strives not only to achieve the goals of each of the components of sustainability, but to reach the necessary balance between goals. The sustainability components are inter-related and inter-dependent. We divided the goals into five separate sections

We chose to integrate education into each of the five goals, rather than have it stand alone.

because that structure makes it easier to understand for the reader. In reality, and for implementation purposes, all goals and actions work together.

For example, for higher wage jobs, we need a qualified work force, which requires strengthening our public schools, which includes addressing Hawai'i's high school drop-out rate. These strategic actions cut across several of the goals of Hawai'i 2050 and must be coordinated and conducted simultaneously. The actions and outcomes of each component impact the other.

Why doesn't education have its own goal?

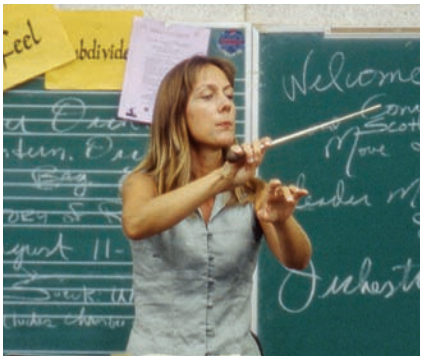
Education is a critical component of Hawai'i 2050. We chose to integrate education into each of the five goals, rather than have it stand alone, because separating it out would not do justice to the fact that education is fundamental to the accomplishment of each goal, and is not distinct from them. It is certainly important enough to merit its own category, but our choice was to make education an integral part of all of the goals.

What are indicators? What do they do?

Measuring progress for Hawai'i 2050 is a parallel to companies measuring performance through financial statements or program evaluations. Similarly, employee performance reviews, student report cards, and management audits all provide mechanisms to understand where we are in relation to goals and standards.

More than anything, measures of progress set Hawai'i 2050 apart from previous long-term statewide planning initiatives. In our review of the best practices of other state and municipality sustainability plans, some sort of public report card is a crucial element in ensuring that the public, lawmakers and opinion leaders know and understand both progress and failings relative to sustainability goals. We recommend 55 indicators which measure the overall economic, environmental, cultural and community well-being of our state.

We believe performance indicators are a crucial component of Hawai'i 2050. A good indicator helps the public understand the current status of an issue, whether the situation around it is improving or worsening, and how far we are from success. Effective indicators are relevant, easy to understand, reliable and based on accessible data.


Welcome

A Way of Life

Living sustainably is part of our daily practice in Hawai'i

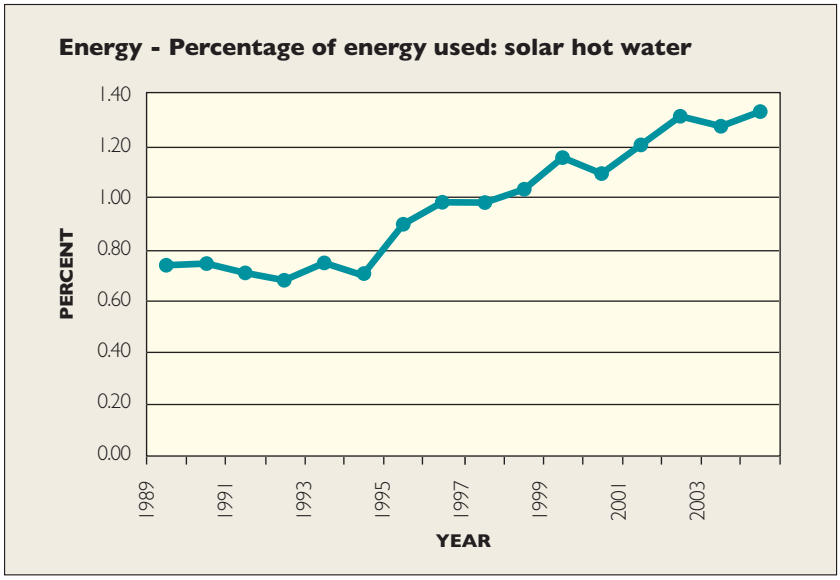
A new way of embracing Hawai'i and the world

By 2050, our goal is that sustainability will be a way of life for all Hawai'i residents; not a technical term used by environmentalists, planners and political leaders. Integrating this ethic cannot be confined to government policy, but rather it is a fundamental shift in our understanding of our economy, society and environment. This goal, more than any of the others, requires the collective action of all.

Responsibility of all

All sectors and individuals must play an active and vital role. Individuals in their role as consumers must be conscious about how their actions impact our economy, community and environment. The informed and responsible person can determine what products and services are purchased, what kind of energy is used, how much water is consumed, and how the environment is managed. In many respects, our individual daily practices can determine whether we achieve a sustainable Hawai'i.

This goal, more than any of the others, requires the collective action of all.



SOURCE: UHERO

Government must lead and set an example. Government is the largest employer and consumer in the state. Its actions and policies can make dramatic shifts on whether we meet our sustainable future, including retrofitting old facilities, purchasing hybrid cars, and buying biodegradable products. The business community can also lead in finding opportunities to move towards sustainable practices. In the long-run, it can be more profitable, and consumers who are rapidly purchasing "green" products and services will likely respond accordingly.

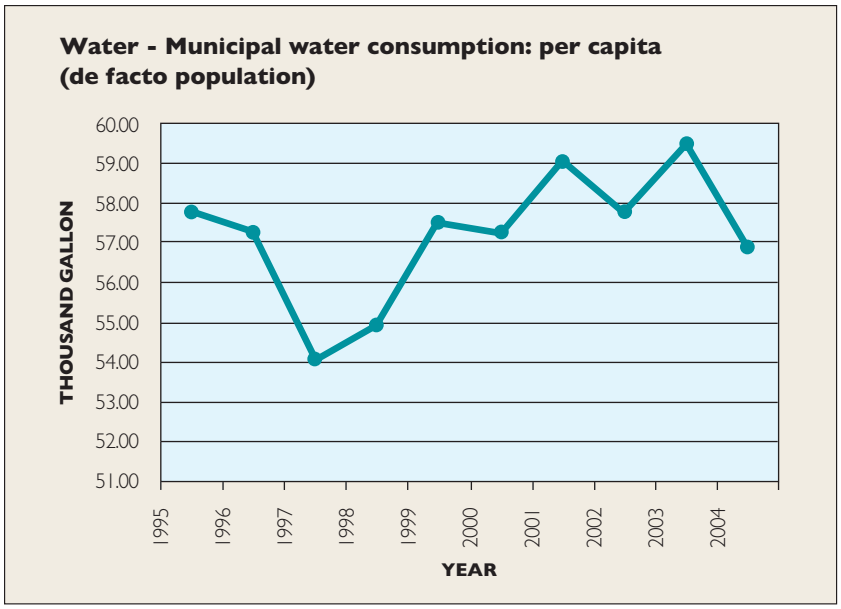
What You Need to Know... About How People Feel About Hawai'i's Future

- 80.5% of Hawai'i residents believe we should have mandatory recycling programs.
- 78.9% of Hawai'i residents think the problems Hawai'i will face in the future are solvable.
- 67.3% of Hawai'i residents would be willing to pay more for renewable energy.
- 61.3% of Hawai'i residents would be willing to pay higher taxes in order to protect the environment.
- 19.1% of Hawai'i residents are willing to accept moving to the mainland as a consequence of environmental protection.
- 55% of Hawai'i residents are willing to restrict their own use of roads in order to alleviate traffic.
- 68.1% of Hawai'i residents believe that we should protect sites of cultural importance, even if it hurts economic development.
- 36.3% of Hawai'i residents believe the government will be effective in solving Hawai'i's problems.

Source: Hawai'i 2050 Public Opinion Survey (2007).

Engaging young people

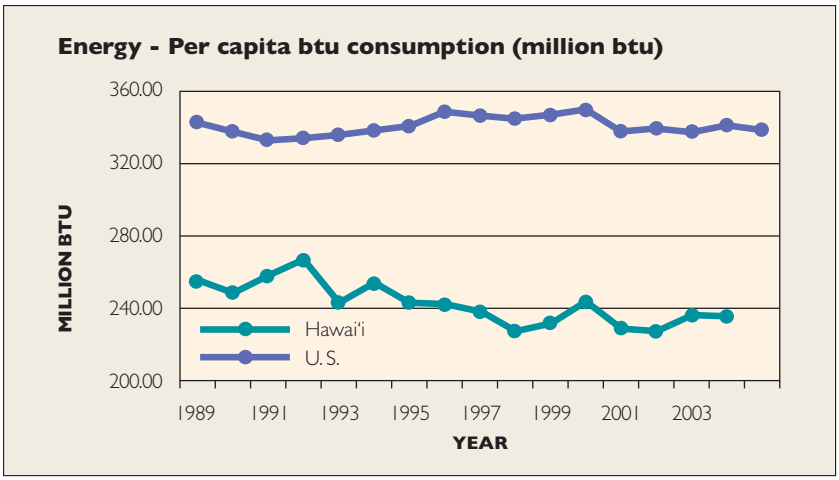
Young people are our greatest asset. They are open and enthusiastic about sustainability as a mainstream concept. They use technology to connect with each other on this topic, and are developing their own environmental and community-based movement to plan for Hawai'i's future. Kanu Hawai'i, Envision Hawai'i, Sustain Hawai'i, Sustainability Saunders and other efforts are independently building a sustainability movement that doesn't resemble anything from a previous generation. This cultural phenomenon is best described by a t-shirt seen on a young Maui woman reading "sustainability is sexy." It is young people who will be able to popularize and energize planning for the future and embed it into the everyday actions of the next generation.



SOURCE: UHERO

The role of education and public awareness

Part of creating a sustainability ethic can be done through the Department of Education and through independent schools. Integrating a curriculum is a straightforward, measurable way to directly educate the next generation about these concerns. But the effort has to expand beyond that. It has to be embraced by churches, temples, youth groups, canoe clubs and others. This social movement is already building and it cannot be confined to government action. We must also invest in a public awareness campaign about sustainability, and encourage cross-sector dialogue to address key long-term and sustainability issues facing our state.



SOURCE: UHERO

STRATEGIC ACTIONS

1. Develop a sustainability ethic.

We must understand the implications and merits of sustainable living. We must develop lifelong learning opportunities and public awareness programs to change behaviors and values in order to develop a sustainability ethic.

- Integrate sustainability principles and practices into public and private school curricula.
- Develop a statewide marketing and public awareness campaign on sustainability principles and practices.

2. Conduct ongoing forums and cross-sector dialogue to promote collaboration and progress on achieving Hawai'i's sustainability goals.

Achieving sustainability requires the collaboration of all sectors. It requires collective action, as well as dispute resolution to reconcile potentially competing goals. The thorniest issues occur when economic, cultural preservation and natural resource goals collide. Providing forums and cross-sector dialogue is important not only for resolving and reconciling competing interests, but for collectively planning for Hawai'i's preferred future.

3. Continually monitor trends and conditions in Hawai'i's economy, society and natural systems.

Benchmarks and monitoring systems will make Hawai'i 2050 accountable. The most effective way to implement an accountability system is the establishment of a Sustainability Council, a lean quasi-governmental agency whose job is to coordinate sustainability efforts and hold us all accountable to the goals, actions, and indicators in the Hawai'i 2050 plan.

INDICATORS

We will accomplish this Goal and accompanying Strategic Actions by assessing the following indicators annually:

INDICATOR	WHY IT MATTERS	POSSIBLE DATA SOURCES
Percentage of all schools that have adopted sustainability modules	The more schools that have adopted modules, the more students will understand and embrace sustainability	DOE, private schools
Percentage of residents understanding and supporting sustainability practices	We must reach a high level of awareness of sustainability principles	Sustainability Council (proposed)
Per capita water consumption	Conservation is a leading indicator of a sustainability ethic	DLNR, county water departments
Per capita energy consumption	Conservation is a leading indicator of a sustainability ethic	DBEDT, PUC
Percentage use of renewable and alternative energy	Renewable energy use is a leading indicator of a sustainability ethic	DBEDT, PUC
Percentage use of solar or other alternative water heating sources	Renewable energy use is a leading indicator of a sustainability ethic	DBEDT, PUC
Number of government, business, labor and community organizations that adopt sustainability practices and policies	Sustainability depends on institutional as well as individual actions	Sustainability Council (proposed)
Percentage of new cars purchased that use renewable fuel technology	This measures a community's awareness and practice of sustainability principles	DBEDT, PUC
Percentage of households participating in recycling	Voluntary participation in recycling efforts is a measure of a community's commitment to sustainability	DOH, various county public works agencies

HAWAII VISITORS AND CONVENTION BUREAU

FIRST HAWAIIAN BANK/LEW HARRINGTON PHOTOGRAPHY

GOAL TWO:

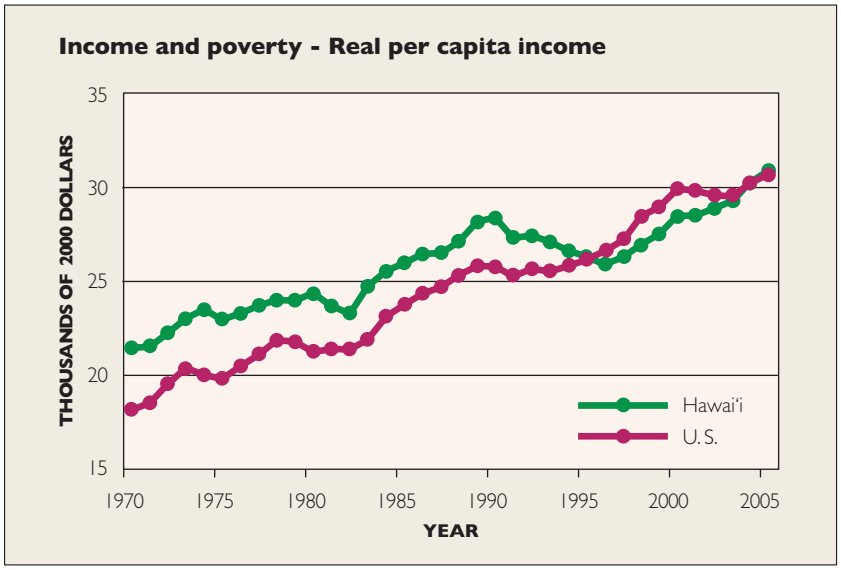
The Economy

Our diversified and globally competitive economy enables us to meaningfully live, work and play in Hawai'i

A sustainable Hawai'i cannot occur without a sustainable economy.

For the past three decades, tourism, defense, construction and agriculture have been the foundation of our economy, and will likely be major economic drivers in the years to come. Tourism alone generates an estimated twenty percent of all economic activity and a quarter of the state's tax revenue. Most Hawai'i residents support keeping the level of tourism and military activity the same. But that shouldn't preclude progress towards creating a more diverse and sustainable economy.

For example, the tourism industry has tremendous potential to make progress by reducing its consumption of land, water, energy and other natural resources, as well as leading in the area of protecting our natural areas. Protecting the environment and operating on a sustainable basis makes perfect sense for Hawai'i's tourism industry – after all, the product that they're selling is Hawai'i's natural and cultural beauty.



SOURCE UHERO

Diversification makes our economy more resilient in the face of an unpredictable future.

The need for economic diversification

The real challenge is not how to continue or improve upon the status quo, but to diversify. Economic diversification is critical for several reasons. Wages in emerging industries such as high technology and knowledge-based industries are high, with an average starting wage of around $50,000. Diversification makes our economy more resilient in the face of an unpredictable future. With Hawai'i's Congressional Delegation procuring the lion's share of defense appropriations, a tourism industry that depends on overseas economies and low-cost jet fuel, and a construction industry that depends on available land and low interest rates, it is in our interest to hedge against these uncertainties.

HAWAI'I VISITORS AND CONVENTION BUREAU

What You Need to Know... About Hawai'i's Economy

- Hawai'i's gross domestic product was $58 billion in 2006, compared to $41 billion in 2001. There are about 643,000 persons in the Hawai'i workforce.
- Federal spending in 2004 was about $12.2 billion, which exceeded total tourism spending of $10.9 billion.
- October 2007, Hawai'i's unemployment rate was 2.6%, the lowest in the U.S.
- In 1956, 133,000 visitors traveled to Hawai'i. Fifty years later, in 2006, 7.4 million visitors traveled to Hawai'i. The statewide occupancy rate in 2006 was 79.7%, with the average room rate of $186.
- Since the 1950s, tourism rose from 2% of the economy to currently 20% of the economy.
- In 2005, high technology jobs comprised 2.8% of the workforce. The technology sector employed 13,813 workers at an average salary of $57,458, 66% higher than the average wage earner.
- Innovation-based sectors, including high technology, diversified agriculture, digital media, healthcare, biosciences and dual use, comprise of about 5% of the workforce.
- Between 1985 and 2005, Hawai'i had 1.5 patents per 1,000 people, compared to a national average of 5.5.
- From 1990 to 2001, Hawai'i's standard of living declined by 0.2% per year, and from 2002-2006, it increased by 2.1% per year.
- Total agricultural revenue has gone up from $522 million to $576 million from 2000 to 2005.
- In 2006, revenues from the University of Hawai'i system were $1.2 billion.

Sources: Department of Business, Economic Development and Tourism; Hawai'i 2050 Issue Book (2007); Enterprise Honolulu; University of Hawai'i; and University of Hawai'i Economic Research Organization.

Diversified agriculture, fisheries and aquaculture, and knowledge- and innovation-based industries such as high tech, heath care, biotechnology, film and digital media are important components of building a sustainable economy. While the private sector and the government have made great strides and investments in these areas, it's vital to sustain and increase these efforts if we are to fundamentally transform our economic equation.

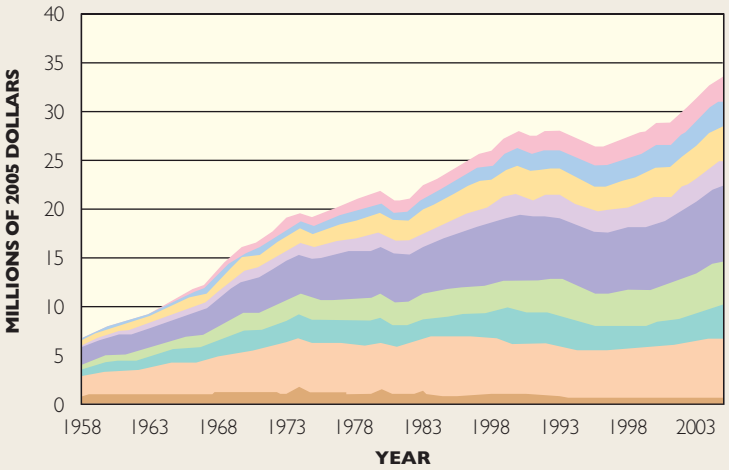
We need a well-trained workforce

A strong economy also requires a strong workforce. The availability and quality of our workforce needs to be improved. With a current unemployment rate of about 2.5%, we suffer from a worker shortage. Our high school dropout rate is between 15% and 36%, depending on how and who is reporting the data, reflecting an inability to train skilled workers. At the heart of this matter is the need to strengthen Hawai'i's public education system so that it adequately prepares our young people for the global economy.

Functioning infrastructure is critical to economic health

Many of our roads, harbors, water and sewer systems are overwhelmed by massive increases in population. We must plan ahead for the financing of infrastructure so that transportation and other vital economic systems are prepared to manage and accommodate planned growth. While this topic is

Hawai'i real income by industry (1958-2005)

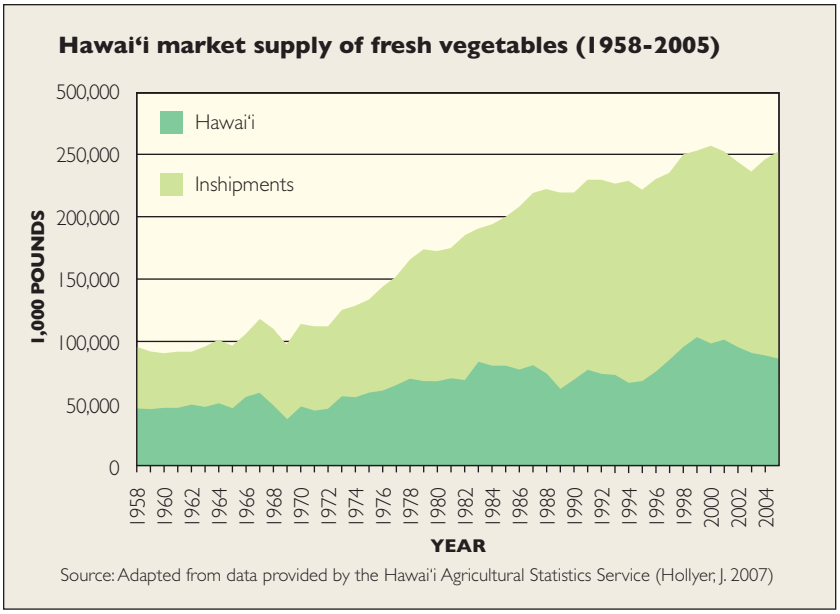


Source: U.S. Bureau of Economic Analysis, deflated by UHERO using the Honolulu Consumer Price Index.

We need consistently significant investments to maintain public services.

about the public expenditure of funds, it's a high priority for business, because without basic infrastructure, the economy will be inefficient. From the $341 million education repair and maintenance backlog to the $1.74 billion worth of sewer system improvements necessary to fix O'ahu's system, we need consistently significant investments to maintain public services.

In addition to simply planning for inevitable growth, we must be more aggressive in directing growth towards areas that efficiently use infrastructure dollars. Adopting smart growth policies to guide our decision-making will maximize the efficient use of infrastructure dollars.



Source: Adapted from data provided by the Hawai'i Agricultural Statistics Service (Hollyer, J. 2007)

STRATEGIC ACTIONS

1. Develop a more diverse and resilient economy.

A more diverse and resilient economy will enable us to expand our economic base beyond our current industries. Diversified agriculture, knowledge- and innovation-based industries offer quality employment and greater diversity to our economy. However, we cannot simply replace one sector of the economy with another in the same way that the visitor industry supplanted agriculture as the state's main economic driver. Creating greater resiliency in the economy also means buying locally produced goods and services. As an island state, we may not become totally economically self-sufficient, but there are many products that we can purchase to reduce our dependence on outside sources.

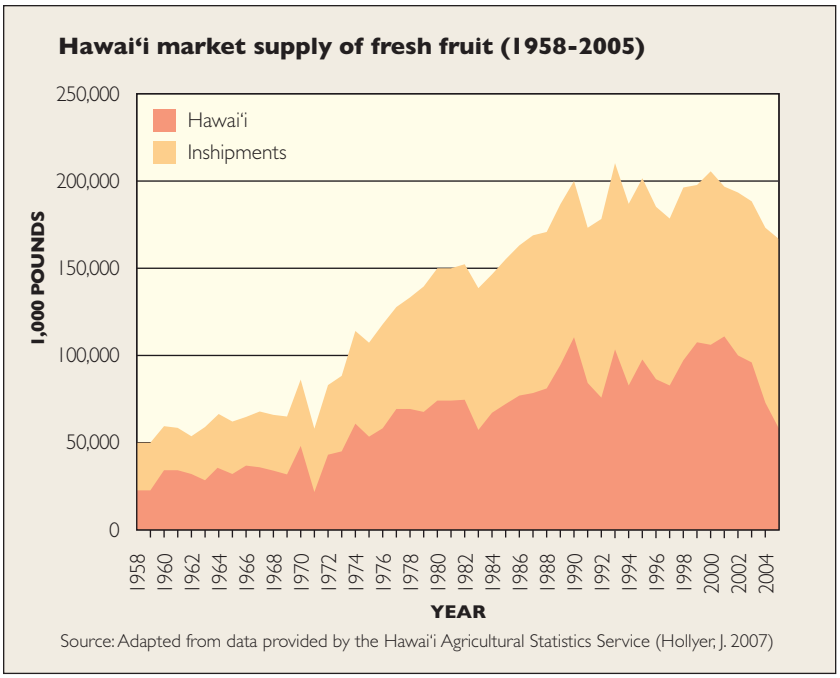
- Provide incentives that foster sustainability-related industries, which include, but aren't limited to renewable energy, innovation and science-based industries, and environmental technologies.

- Increase production and consumption of local foods and products, particularly agricultural products.
- Increase commercialization and technology transfer between post-secondary institutions and the business sector.

2. Support the building blocks for economic stability and sustainability.

The visitor industry, military, construction and agriculture are the state's primary creators of jobs and revenue. Ensuring that these pillars of our economy are solid is a basic component of the plan. As with new industries, we must work with mature industries to adopt sustainability principles and practices as part of their operations.

- Recognize and support established industries such as the visitor industry, military, construction and agriculture as strong components of the Hawai'i economy.
- Provide incentives for industries to operate in more sustainable ways.
- Attract local and outside capital and investments in Hawai'i's economic activities.
- Reduce regulations and lower the cost of running a business.



3. Increase the competitiveness of Hawai'i's workforce.

A qualified workforce has become one of the key issues for business success and economic sustainability. The growth of the technology and agriculture industries will be limited by the availability of skilled labor. For this reason, workforce development is critical to economic diversification. Hawai'i's workers must be trained to meet not only our state's workforce needs, but to compete in the global marketplace. We must provide training opportunities to enable our workers to improve their skills.

- Invest in and improve our public education system to provide for a skilled workforce.
- Create incentives and opportunities for workforce skills upgrade training programs, including the availability of remedial education programs.
- Increase student enrollment in post-secondary educational programs.
- Adopt living wage guidelines and measurements.

4. Identify, prioritize and fund infrastructure "crisis points" that need fixing.

Public infrastructure is key to building a strong economy, protecting our environment and a better quality of life. Great strides have been made since statehood, yet for a sustainable future, we must ensure that our public infrastructure is intact and enables our citizens, business and communities to function properly. Roads, highways, dams, bridges, harbors, airports, water supply and wastewater systems are key functions of sustainable communities. It is essential that we identify and prioritize our infrastructure needs to adequately allocate resources to maintain and improve them.

FIRST HAWAIIAN BANK/LEW HARRINGTON PHOTOGRAPHY

INDICATORS

We will accomplish this Goal and accompanying Strategic Actions by assessing the following:

INDICATOR	WHY IT MATTERS	POSSIBLE DATA SOURCES
Percentage of local economy by industries and sectors	We need to understand whether technology, agriculture, and health care are really making progress relative to the size of the state economy	DBEDT, UH
Percentage of science- and technology-based workers	The number of science- and technology-based workers tells us whether we are diversifying our economy	DBEDT, UH, DLIR
Number of post-secondary science and engineering students	This is a measure of having a high-tech workforce; without high-tech workers, there's no high-tech industry	UH, private colleges
Gross licensing revenue from commercialized university research	Commercializing ideas developed at universities is an important component of a diversified economy	UH, private colleges
The level of university, government and private sector research and development	Research and development activities reflect our ability to provide high-wage, technical jobs	UH, U.S. DOD
The number of living wage jobs as a percentage of total jobs in Hawai'i, compared to the national average	This will measure whether our economy is really creating decent jobs for its people	DLIR, UH
Dollars spent in locally owned businesses	Measuring economic activity for locally owned businesses is one aspect of economic self-sufficiency	DBEDT, UH
Value of goods and services imported and exported	Our economic self-sufficiency is critical. If we get most of our goods and services from elsewhere, we are vulnerable	DBEDT, UH
Income of top quintile relative to bottom quintile.	A sustainable economy has reasonable income distribution	DLIR
Proportion of food produced and consumed locally	Our progress towards food self-sufficiency is a key indicator of sustainability	DOA
Dollar value and number of acres in agricultural production	This directly measures the size and impact of farming, which is integral to sustainability	DOA

HAWAII VISITORS AND CONVENTION BUREAU

HAWAII VISITORS AND CONVENTION BUREAU

HAWAII VISITORS AND CONVENTION BUREAU

GOAL THREE: Environment and Natural Resources

Our natural resources are responsibly and respectfully used, replenished and preserved for future generations

Managing our natural resources so that they are able to replenish themselves isn't the responsibility of just environmentalists, it's everybody's responsibility.

Hawai'i's environment at a glance

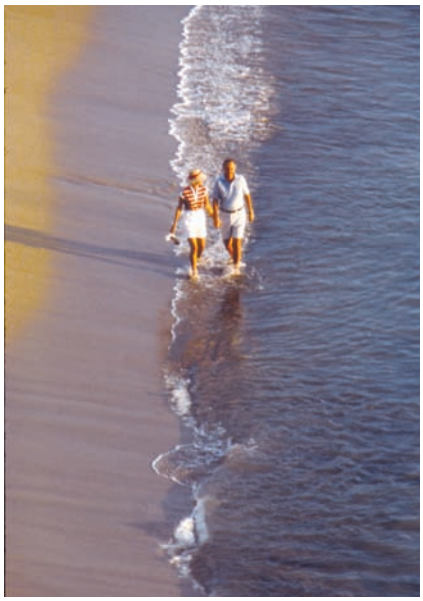
Hawai'i's environment is under significant stress. While air and drinking water quality are excellent, there are other disturbing signs. According to the U.S. Environmental Protection Agency, 64% of Hawai'i's streams are considered "impaired" by pollutants. Our ratio of renewable energy (5%) vs. fossil fuel use (95%) is among the worst in the nation. We have not updated our capacity to manage water resources since the plantation era.

While we still host some of the most amazing and diverse ecosystems on the planet, they are in peril from the invasion of alien plant and animal species. One-third of all endangered species in the United States are in Hawai'i. We still lack an aggressive, effective, well-funded mechanism to prevent the introduction of pests, even though proven models exist in other states and countries.

Nevertheless, Hawai'i's environment is still among the most beautiful and biologically rich in the world. We are blessed with natural beauty that is unmatched, bringing millions to Hawai'i to visit and see this special place. If we are not careful, however, neglect and unfunded initiatives could threaten our fortunate situation.

As we identify goals and actions needed to move towards higher environmental quality, we must remind ourselves that the "either-or" proposition of growth vs. environment, prosperity vs. preservation, is rooted in the past. We must encourage economic growth that directly contributes to environmental progress.

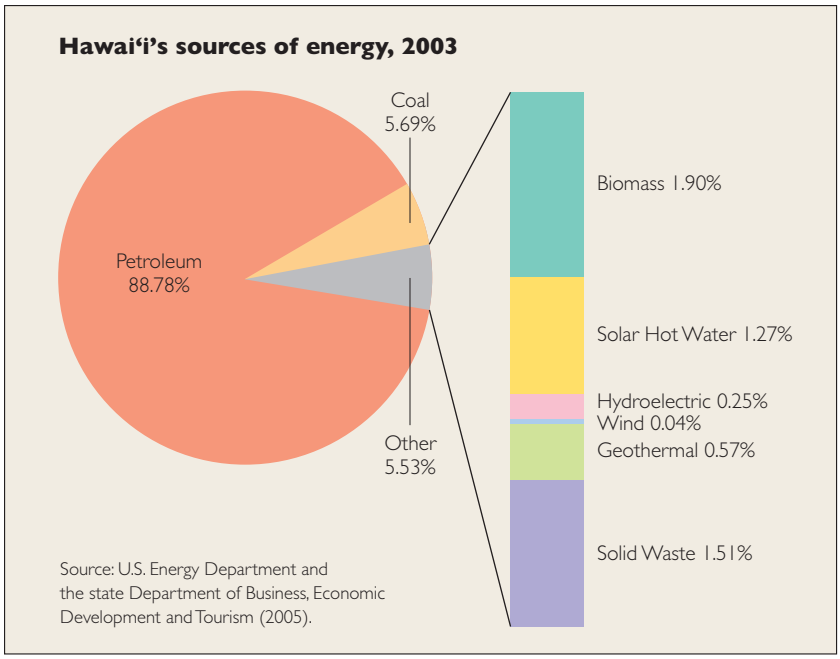
One-third of all endangered species in the United States are in Hawai'i.



What You Need to Know... About Hawai'i's Environment

- One-third of all endangered species in the U.S. are in Hawai'i.
- There are 410,000 acres of living coral reef in Hawai'i, containing more than 7,000 species. One-fourth of these species are found only in Hawai'i.
- 64% of Hawai'i's streams and one-half of bays and estuaries have been designated "impaired".
- 95% of Hawai'i's coastline areas have "good" water quality.
- More than 98% of Hawai'i's drinking water is from groundwater.
- From 1980 to 2000, Hawai'i water use has dropped 52% largely due to the decline in agriculture.
- Hawai'i imports nearly all of its fuel, and about 95% of it is either coal or oil.
- Transportation accounts for half of Hawai'i's energy consumption (48%), compared with residential (13%), commercial (14%), and industrial (25%) uses.
- For homes, electricity is 90% of the energy used, compared with liquid gas and propane (6%) and solar heated water (4%).
- Geothermal energy could generate more than 200 megawatts of electricity statewide.
- 40% of solid waste is imported paper products and petroleum-based plastics.

Source: Hawai'i 2050 Issue Book (2007).



We continue to rely almost solely on imported fossil fuels.

Energy and global warming

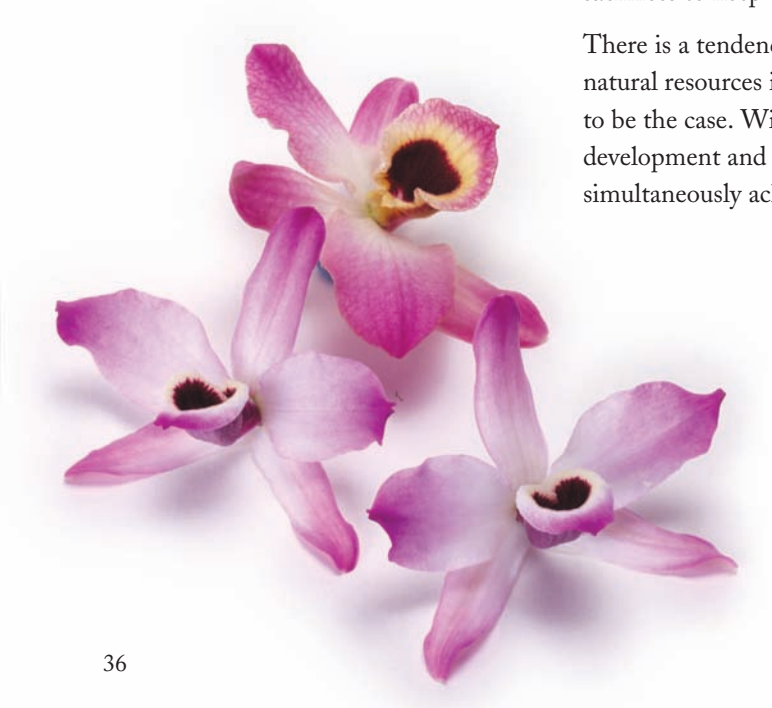
As we look towards a sustainable future, we must also prepare for the realities of rising fuel costs and climate change. Our energy picture is a tale of two worlds. The U.S. Department of Energy has indicated that we are one of the best positioned states for renewable energy potential, with abundant wind, solar, geothermal and other resources. Yet, we perform among the worst in terms of using renewable energy sources. This stems from a lack of political will and capital investment, a regulatory scheme that seems to discourage renewables, and a not in my backyard attitude that seems to prevent projects from getting off the ground. The result so far is that we continue to rely almost solely on imported fossil fuels.

There is irrefutable evidence that global warming is real and occurring at an alarming rate. As the planet warms over the next fifty years, sea levels are rising, impacting our coastal areas. Hawai'i could also be struck by stronger and more frequent storms because of these changes. Homes, hotels, businesses, harbors and waterfront properties are increasingly at risk. We must aggressively address the impact of global warming and rising sea levels for our island state. Our state has some of the best scholars and researchers in the world housed at the University of Hawai'i. We must take advantage of their expertise and ensure that we are prepared to address the realities of climate change.

Public support is strong for environmental protection

As the Hawai'i 2050 public opinion poll demonstrated, the overwhelming majority of Hawai'i citizens are committed to protecting Hawai'i's environment. The depth of that conviction varies depending on one's perspective, but the fact is that we are a community that understands what it means to aloha 'aina (love and respect for the land), and are willing to make sacrifices to keep what is special about our home.

There is a tendency for people to think that economic productivity and use of natural resources inevitably must lead to its degradation, but that doesn't have to be the case. With proper planning and coordination, the goals of economic development and environmental protection can be mutually reinforced and simultaneously achieved.

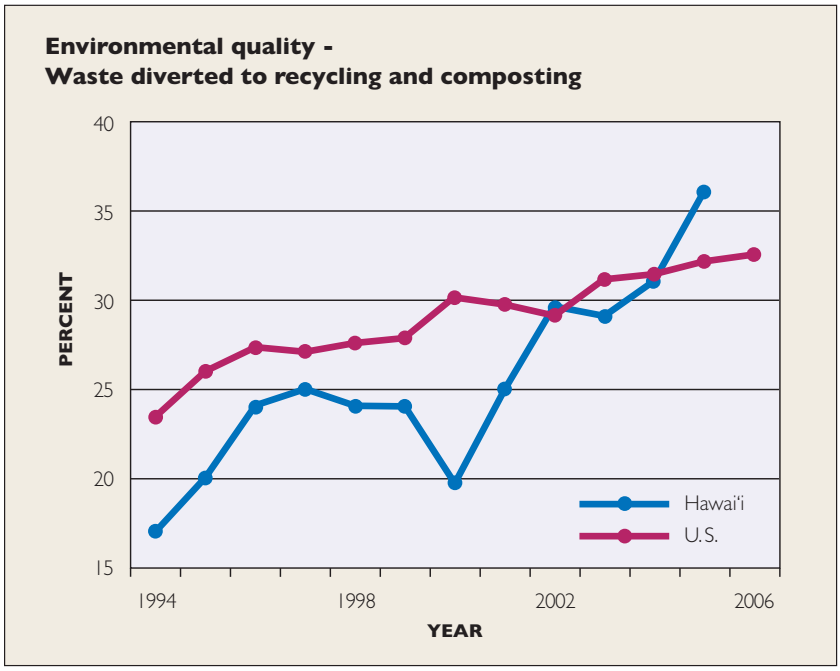


STRATEGIC ACTIONS

1. Reduce reliance on fossil (carbon-based) fuels.

Energy use pervades all aspects of contemporary life, from vehicles to air conditioners, computers, dishwashers and dryers. About 95% of our primary energy supply is imported fossil fuel that contributes to global warming and the deterioration of our environment. There are other sources of energy that can be produced locally. We must reduce our reliance on fossil fuels by expanding renewable energy opportunities. We must rethink how we use energy by improving efficiencies in all that we do.

- Expand renewable energy opportunities.
- Increase energy efficiency in private and public buildings, including retrofitting existing buildings.
- Improve energy efficiencies and options in transportation.
- Encourage the production and use of locally produced bio-fuels.
- Adopt building codes that encourage "green building" technology.
- Encourage all government agencies to adopt sustainable practices, including purchasing hybrid cars, buying biodegradable products, and mandating recycling.



SOURCE: UHERO

HAWAI'I VISITORS AND CONVENTION BUREAU

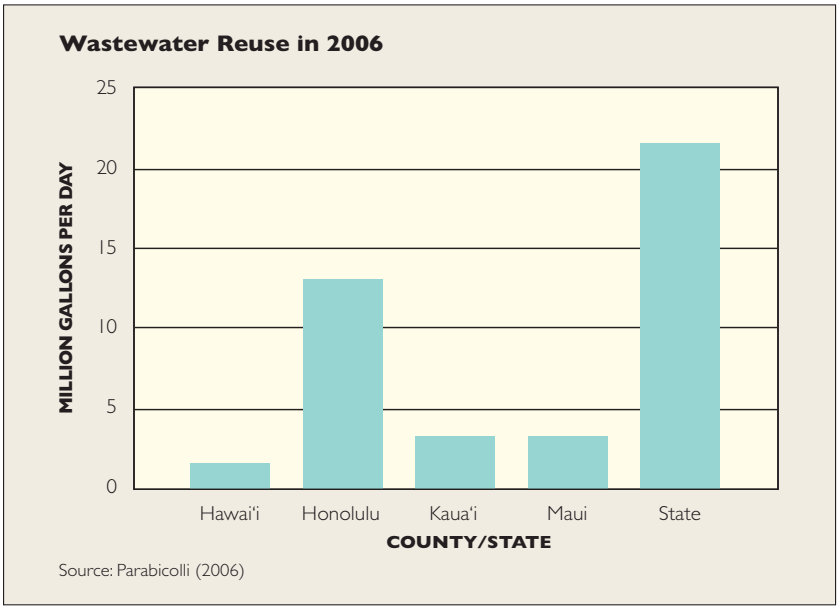
2. Conserve water and ensure adequate water supply.

We consume the most water per capita in the United States, 18% higher than the national average. The decline in agriculture gives our aquifers temporary relief, but with projected development and the use of agricultural lands for fuel production, usage will increase dramatically. A projected population increase of 300,000 residents by 2030 and increased demand for water from all sectors will further tax this precious resource. We must care for and manage our watersheds, uphold water quality standards, and support adequate infrastructure for residential, commercial and agricultural use.

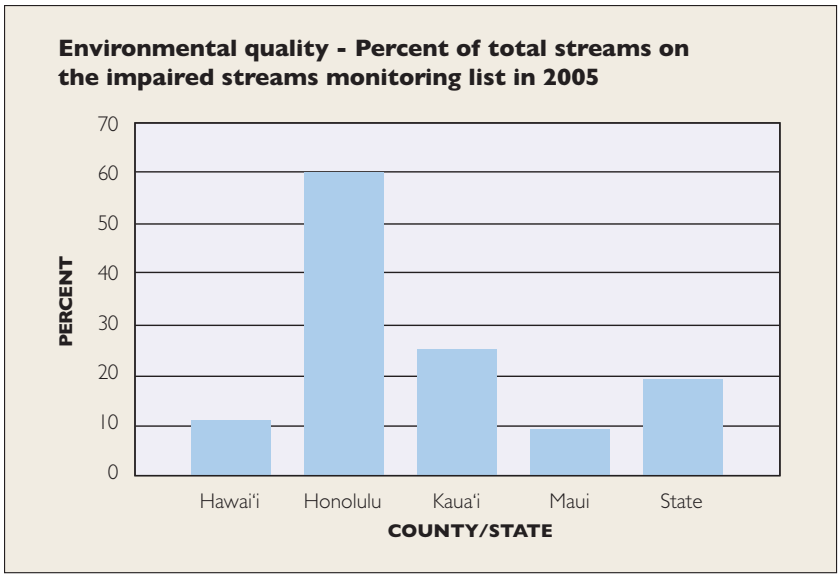
- Reduce water consumption by means of education and incentives.
- Encourage greater production and use of recycled water.
- Continually review water-conserving technologies for possible incorporation in county building codes.
- Encourage price structures for water use that furthers conservation.
- Require water conservation plans from large private users.

3. Increase recycling, reuse and waste reduction strategies.

Recycling, reuse and waste reduction cuts down on the amount of energy and raw materials to make products, and reduces waste in the landfill. Paper products, glass, plastics, building materials, petroleum products, chemicals, and even cellular phones can be recycled or reused. This is one of the most straightforward strategic actions that can be undertaken now. Hawai'i's people are enthusiastic and determined about recycling. In fact, most want recycling mandated, and they want it now.



Source: Parabicolli (2006)

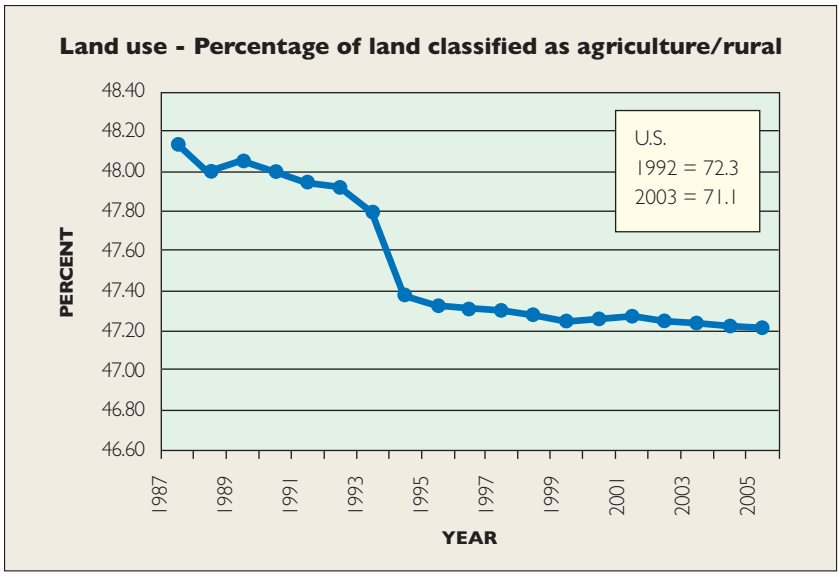


SOURCE:UHERO

4. Provide greater protection for air, and land-, fresh water- and ocean-based habitats.

We are home to the most rare and sensitive ecosystems in the world, from upland rainforests to coral reefs. They form the foundation of our society from a biological and cultural perspective. It's important to understand that our most pristine areas will not stay as they are if we just leave them alone. Because of invasive species, we need conservation officers on the ground, in the forests and marine habitats, monitoring these places and making sure that their biological integrity is preserved. The greatest threat to the health of our most biologically rich ecosystems is not just development – it is weeds. By protecting our habitat, we protect our native species. By protecting both, we ensure biological sustainability.

- Strengthen enforcement of habitat management.
- Fund public and private conservation education.
- Improve management of protected watershed areas.
- Incorporate the values and philosophy of the ahupua'a resource management system as appropriate.
- Establish funding for invasive species control and native ecosystems protection.



SOURCE:UHERO

5. Conserve agricultural, open space and conservation lands and resources.

We need to better conserve agricultural lands, open space and conservation lands. Integrating "smart growth" principles and compact patterns of urban development will enable us to better utilize urban lands and develop more sustainable communities. Building "up" rather than "out" will minimize sprawl, and better conserve our agricultural, open space and conservation lands.

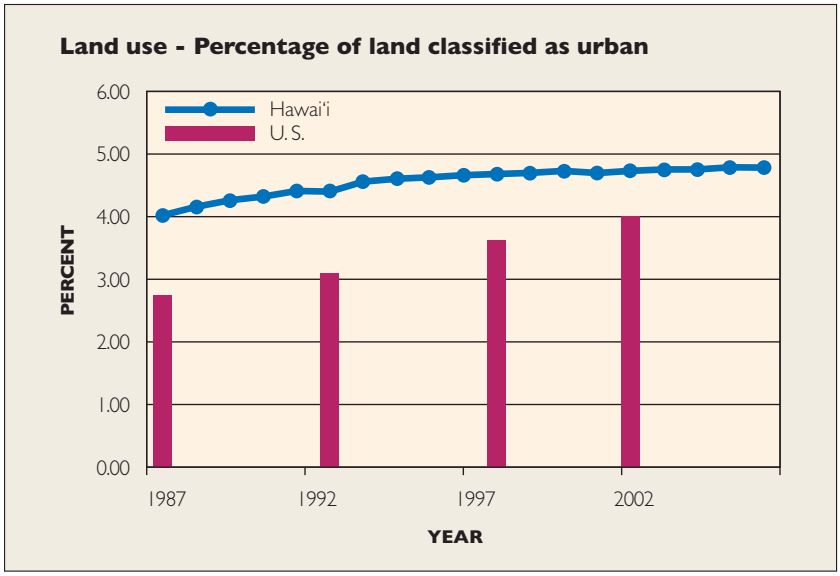
- Create compact patterns of urban development.
- Encourage "smart growth" concepts in land use and community planning.

6. Research and strengthen management initiatives to respond to rising sea levels, coastal hazards, erosion and other natural hazards.

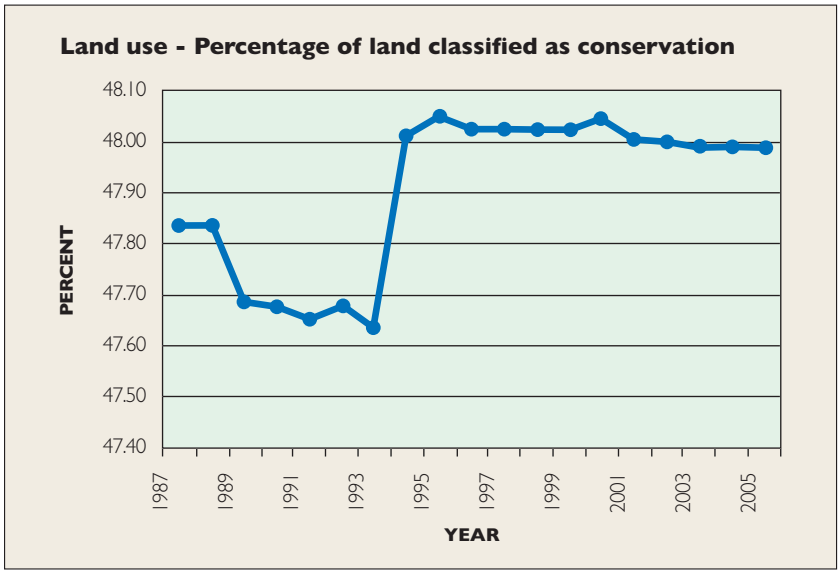
With the realities of climate change, it is not outlandish to think that beachfront hotels in Waikīkī could be under water some day. We must aggressively address the impact of global warming and rising sea levels for our island state.

7. Develop a comprehensive environmental mapping and measurement system to evaluate the overall health and status of Hawai'i's natural ecosystems.

Caring for the environment cannot be done on a piece-meal basis. Streams impact lands; lands impact the coast; the coast impacts our fisheries. We need a comprehensive way to research, study and evaluate the status of our ecosystems.



SOURCE: UHERO



SOURCE: UHERO

INDICATORS

We will accomplish this Goal and accompanying Strategic Actions by assessing the following:

INDICATOR	WHY IT MATTERS	POSSIBLE DATA SOURCES
Percentage of renewable and alternative energy produced locally	Production of local energy sources helps lessen the demand for imported energy	DBEDT, PUC
Percentage of solid waste recycled and diverted from landfills	A sustainable society will re-use most waste, and landfills will not be constantly full	DOH, county public works departments
Percentage of treated wastewater reused	This is one of the best large-scale ways to preserve the integrity of our aquifers	DLNR, county water departments
Percentage of lands and water protected for native plants and animals	With the most biologically rich state in the union, the amount of land set aside will help determine how well we are likely to preserve these ecosystems	DLNR
Percentage of Leadership in Energy and Environmental Design (LEED)-type building permits issued	LEED-type design is a nationally accepted benchmark for the design, construction, and operation of high performance "green" buildings. Those measures save energy, water and money.	DBEDT, county building and planning departments
Percentage of new urban developments consistent with "smart growth" principles	Smart growth developments that are more town-centered, transit and pedestrian oriented can reduce urban sprawl	LUC, county planning departments
Percentage of shorelines threatened or retreating; and rate of loss	We are losing shoreline due to erosion and sea level rise, and this will measure our progress in preventing further loss	DLNR, county planning departments
Pollution level in streams, aquifers and coastal waters	Clean water resources are fundamental to a healthy environment	DLNR
Number and types of invasive species introduced to Hawai'i annually, including intra-island migration	Invasive species kill native plants, are detrimental to food crops, and destroy natural ecosystems	DLNR
Water level in streams and aquifers	The availability of fresh water is fundamental to human life	DLNR

HAWAI'I VISITORS AND CONVENTION BUREAU

GOAL FOUR:

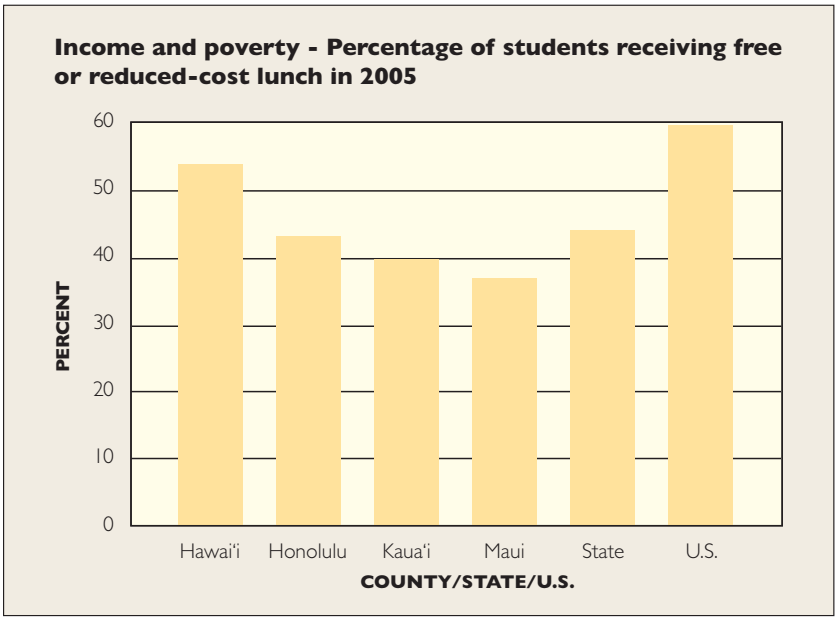
Community and Social Well-Being

Our community is strong, healthy, vibrant and nurturing, providing safety nets for those in need

Quality of life encompasses safe, caring, and engaged communities; healthy, sustainable surroundings; quality job opportunities for present and future generations; access to quality education, housing and health care; adequate, well-maintained infrastructure and governmental services; access to recreational facilities and leisure activities; and positive interaction and respect among the citizenry.

With Hawai'i 2050, we have a unique opportunity to identify the kind of society we want – where people live with dignity and respect, and the basic requirements of food, shelter, health care, safety and education are not only met but are exceeded.

We are fortunate that our diverse and multi-cultural community currently provides a strong foundation for such a quality of life. The aloha spirit is still pervasive, and there is respect amongst our cultures. Living on an island has created a culture of collaboration and working together. We have the makings of a community that when determined can achieve great things.



SOURCE: UHERO

We have the makings of a community that when determined can achieve great things.

Addressing social impediments now

Over the years, however, it seems that we run into the same issues and challenges that impede our ability to provide for a high quality of life. Our unmet social challenges tear at the fabric of our communities, and undermine our economy, communities and environment.

For example, at an average price of $650,000 for a single family home, our housing is among the highest in the United States. Our household median income in Hawai'i is approximately $51,400, which means that unless conditions change, the average family won't be able to buy the average house, and they will be lucky to find an affordable rental.

FIRST HAWAIIAN BANK/LEW HARRINGTON PHOTOGRAPHY

FIRST HAWAIIAN BANK/LEW HARRINGTON PHOTOGRAPHY

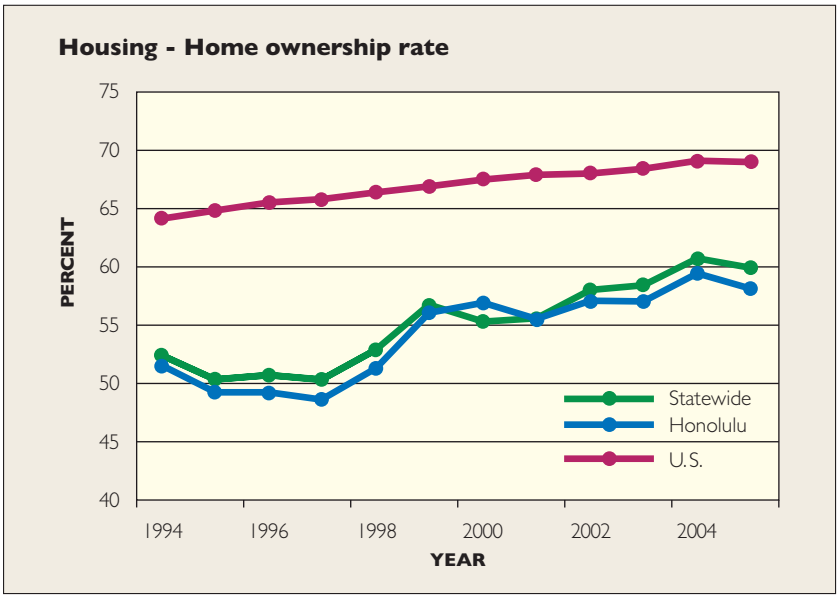
What You Need to Know... About Our Community

- In 1960, Hawaii's population was 632,000. In 2005, Hawai'i's population was 1.3 million. Resident population in 2030 is expected to be 1.6 million.
- About 9% of Hawai'i's adult population is without health insurance, compared with 16%, nationally. About 5% of Hawai'i's children are medically uninsured.
- 17% of adults are cigarette smokers.
- 9% of people living in Hawai'i live below the federal poverty level.
- Hawai'i leads the nation in shared housing. 6.6% live with parents or relatives, compared with 2.6% nationally.
- The median household income is $51,359, compared with the U.S. medium of $44,334.
- 8% of all individuals employed have more than one job.
- 4,618 domestic violence protective orders were filed in 2005.
- 259 per 100,000 violent crimes were reported in 2004, compared with 466 per 100,000, nationally.
- 238,000 or 18.7% of Hawai'i's population is age 60 or older, compared with 16.8%. By 2030, 27.4% of the total population is expected to be 60 years or older.
- More than 19% of adults are at risk due to obesity, compared with 24%, nationally.
- Voter turnout for the 2006 general election was 52% percent.

Source: University of Hawai'i Center on the Family; Hawai'i 2050 Issue Book (2007); Hawaii Office of Elections.

Now is the time to boldly confront these social issues – once and for all.

Our quality of life is also impacted by how our educational system prepares us for the job market and for dealing with life's complexities and challenges. Excellence in education is especially important in this increasingly technology-based and globally competitive world. A mediocre system presents unacceptable risks for all of us. While we've made progress in terms of educational attainment – 88% of residents over 25 have a high school degree and 27% have at least an undergraduate degree – we lag in terms of basic proficiency. In 2007, only 22% of our eighth grade public school students met proficiency standards for math, and 20% for reading.



SOURCE: UHERO

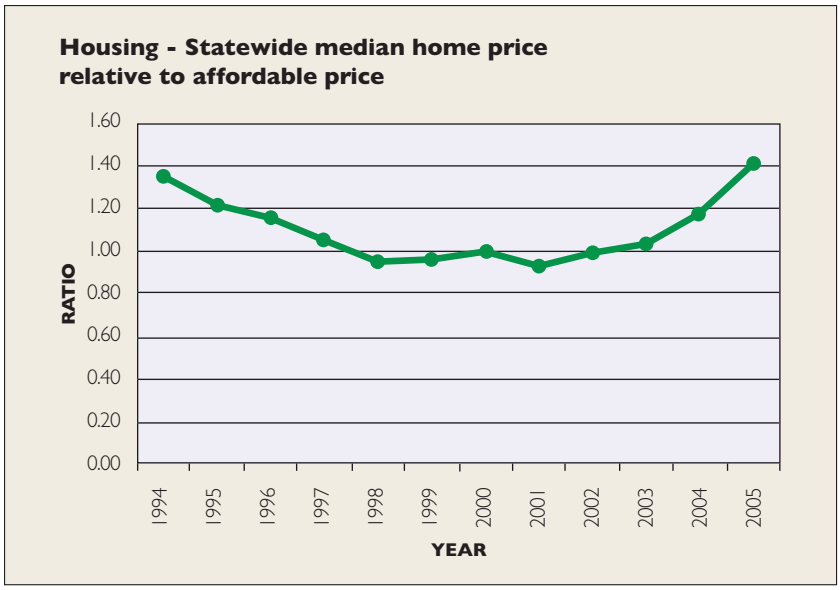
Caring for our youth, families and the elderly

How society treats our youth, families and the elderly is reflective of the overall health of our community. Hawai'i's elderly population is growing faster than our ability to provide quality care and housing. We have a dire shortage of nursing home beds, with 24 beds per 1,000, compared to a national average of 43 per 1,000. We must begin to treat elderly care as an urgent economic, social and moral issue.

Likewise, we must ensure that our families and youth are supported and nurtured. For example, after-school programs, sports, musical and other extracurricular activities beyond the school day help keep kids out of trouble; provide expanded learning opportunities and interests; and enhance social skills that make for well-rounded citizens.

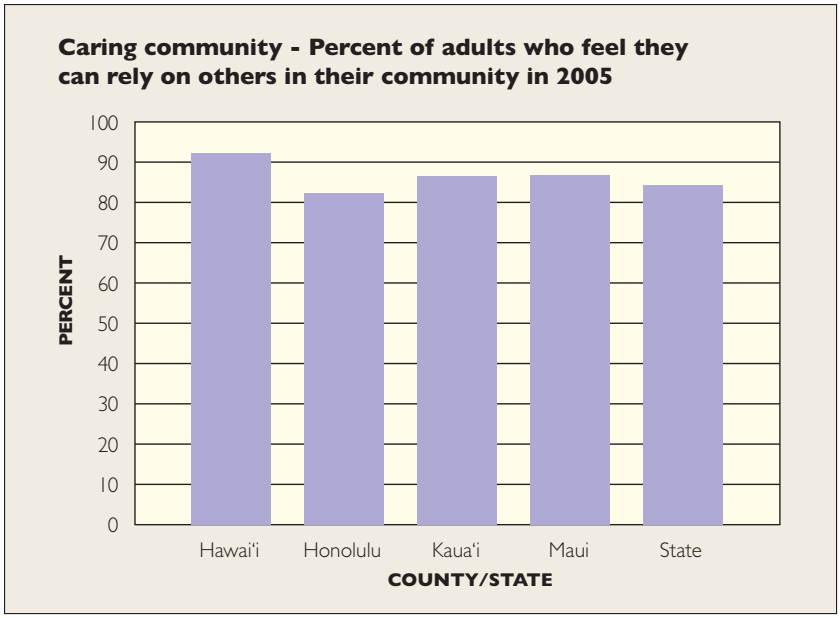
The choices we make today are essential for tomorrow

The quality of our lives in 2050 will depend on choices we make today. We can choose to be a place where jobs, productivity, wages and educational

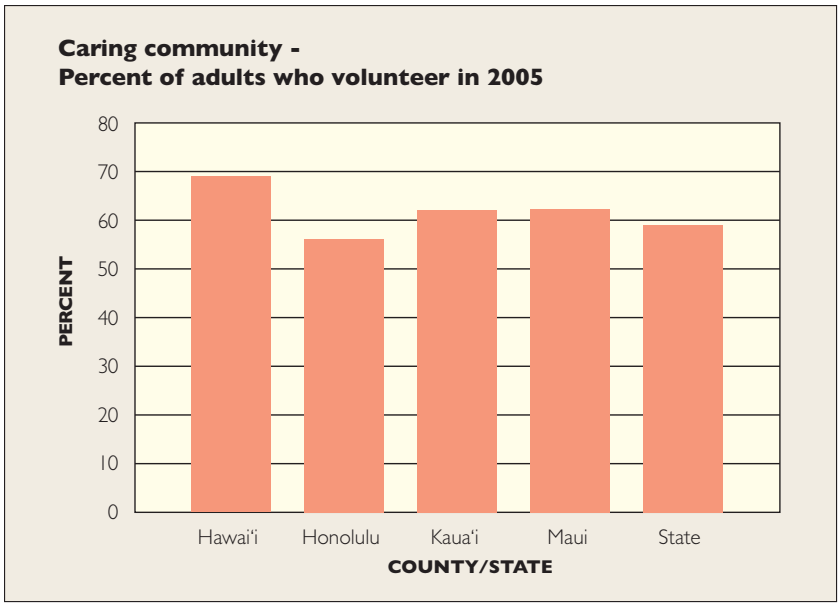


SOURCE: UHERO

achievements grow and economic disparities are reduced. We can choose to make our transportation system more efficient and create a sufficient quantity of affordable housing. We can choose to prevent abuse and discrimination, and end poverty. We can choose to be a compassionate society. Or we can choose not to. Now is the time to boldly confront these social issues – once and for all.



SOURCE: UHERO



SOURCE: UHERO

FIRST HAWAIIAN BANK / LEW HARRINGTON PHOTOGRAPHY

STRATEGIC ACTIONS

1. Strengthen social safety nets.

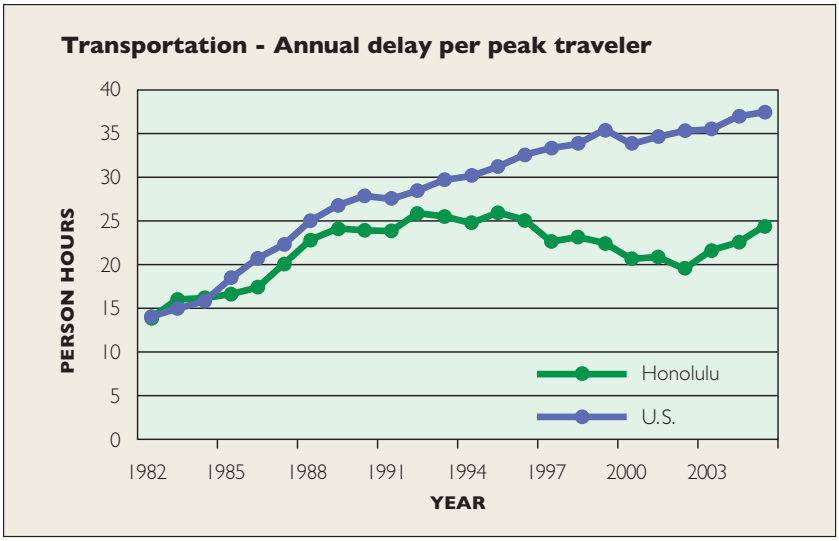
Having a safe and decent place to live, access to health care, and a safe haven when difficult times are upon us are measures of a humane and compassionate society. In creating a sustainable Hawai'i, we must be sure that our social safety nets are in place to provide the basic necessities of living with dignity and respect. In particular, we must ensure that Hawai'i's poor and needy populations are taken care of, providing them with the basic necessities of a dignified life, as well as hope, opportunity and the necessary tools for gaining self-sufficiency once again. We must more effectively address major problems that put our society at risk, such as drug abuse, mental illness, crime and violence.

- Increase affordable housing opportunities for households up to 140% of median income.
- Ensure access to affordable health care for all residents.
- Reduce crime and violence.
- Provide access to elderly housing, care-giving and other long-term care services.
- Invest in greater prevention and treatment of those suffering from substance abuse and mental illness.
- Increase awareness of and competency in financial literacy and asset building.
- Strengthen the nonprofit sector, philanthropy and volunteerism.

- Ensure that persons with disabilities are afforded equal opportunity to participate and excel in all aspects of community life.
- Provide after-school and extra-curricular programs to enable Hawai'i's youth to broaden their life experiences.

2. Improve public transportation infrastructure and alternatives.

A quality transportation system is more than getting from home to work quickly. It links people to places and provides opportunities for social interaction, recreation and community engagement. It enables the flow of commerce, ensuring that business will transport their goods and services to their destination in a timely and cost-effective way. We must alleviate traffic congestion through varied means, ranging from increasing access to varied modes of public transportations, to telecommuting, to providing alternatives to using motorized vehicles.



SOURCE: UHERO

- Increase access to public transportation.
- Reduce traffic congestion.
- Encourage and provide incentives for telecommuting.
- Increase and improve bicycle and pedestrian facilities, including multi-use pathways.

3. Strengthen public education.

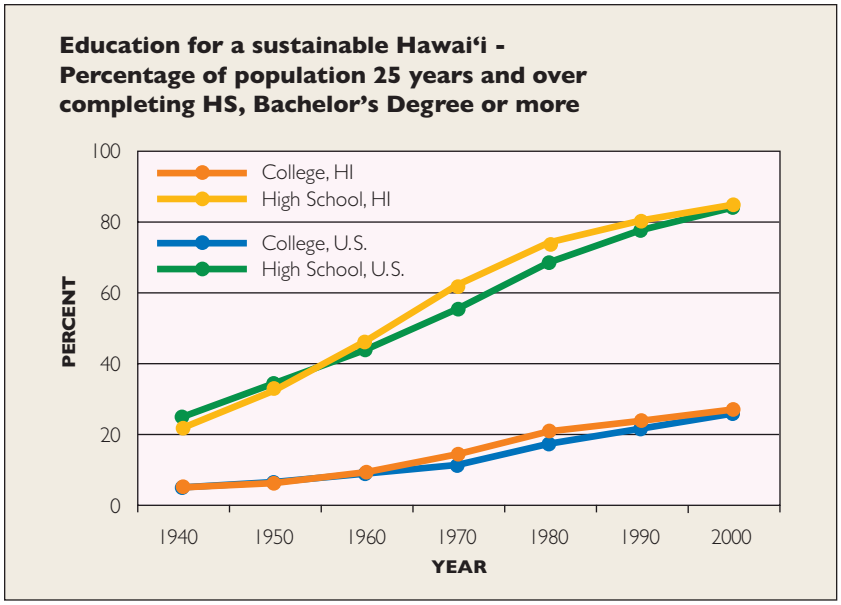
Our quality of life is impacted by how our educational system prepares us for the job market and for dealing with life's complexities in general. Quality education is especially important in a rapidly evolving world that has become increasingly technology-based and globally competitive. The educational

process begins before preschool in the preparation of our young children for an environment of lifelong learning. This includes making sure that our schools are clean, cool, comfortable and safe; providing teachers with adequate salaries and opportunities for professional development; and ensuring that educational support services are provided to all children of Hawai'i public schools. We must, once and for all, fix our public education system.

- Support parenting, educational and financial literacy initiatives that span early childhood through lifelong learning.
- Increase high school graduation rates.
- Strengthen career pathways for technical and trade schools that enhance Hawai'i's workforce.
- Support post-secondary and distance learning programs that broaden personal and professional learning opportunities.

4. Provide access to diverse recreational facilities and opportunities.

Parks, recreational and leisure activities enhance our quality of life by providing facilities, services and programs that meet the emotional, social and physical needs of communities. This is especially critical given the inclinations that many young people have towards computers, handheld devices and video games. In a sustainable Hawai'i, our young people will continue to play sports, surf, paddle, dance hula, hike, and sing, and not become a culture singularly obsessed with iPods and the latest gadgets. Providing access to recreational facilities and activities to meet the varied needs of differing communities (e.g., rural, urban, large and small communities) are important aspects of a healthy quality of life.



INDICATORS

We will accomplish this Goal and accompanying Strategic Actions by assessing the following:

INDICATOR	WHY IT MATTERS	POSSIBLE DATA SOURCES
Percentage of rental and for purchase housing stock that is affordable for persons earning up to 140% of median income	This is the most direct measure of the affordability of Hawaii housing	HPHA, HHFDC
Percentage of population owning residential dwelling units as their principal place of residence	Homeownership is a critical measure of a community's stability and prosperity	HPHA, HHFDC
Percentage of population covered by health insurance	This is a direct measure of access to health care	DOH, DHS
Percentage of population using public transportation	Public transportation reduces traffic congestion and enables many Hawaii residents to be more mobile, increasing opportunities to work and play in Hawai'i	DOT
Percentage of population ridesharing	Ridesharing eases congestion on our roads and highways	DOT
Commute time for residents	Less time in traffic means a higher quality of life, and helps our economy to run efficiently	DOT
Percent change in annual vehicle miles traveled	These data will show whether or not the implementation of smart growth results in people living, working, and playing in the same neighborhoods	DOT
Percentage of total non-motorized trips	Walking and biking reduce congestion on the roads and pollution from vehicles	DOT
High school graduation rates	A well-educated populace is critical to sustainability	DOE, private schools
Proportion of high school students going on to post-secondary education	Continuing education opens up opportunities for higher wages and better career opportunities	DOE, private schools
Substance abuse rates	Social ills like substance abuse reflect the health of our community	DOH
Proportion of family income spent on housing	Hawai'i residents spend significantly more on housing than the U.S. national average	DBEDT, HHFDC, HPHA

INDICATOR	WHY IT MATTERS	POSSIBLE DATA SOURCES
Percentage of population engaged in volunteer work	Volunteerism demonstrates the strong bonds in our community	DLIR
Percentage of population with Internet access at their residence	Internet use shows our ability to communicate and gather information, and our inclination to use technology	DCCA
Out migration rates of high school graduates	Demonstrates social and economic opportunity in Hawai'i	DOE
Percentage of children enrolled in pre-school	Pre-school is one of the building blocks of future educational success	DOE, private schools
Number and diversity of recreational facilities and activities per capita	This measures the availability of recreational resources for Hawai'i residents	DBEDT

HAWAI'I VISITORS AND CONVENTION BUREAU

GOAL FIVE:

Kanaka Maoli Culture and Island Values

Our Kanaka Maoli and island cultures and values are thriving and perpetuated

No aloha, no sustainability.

Hawai'i residents statewide expressed their respect and aloha for the traditions and values of the Kanaka Maoli and diverse island cultures that make our state unique. One of the strongest themes that emerged from Hawai'i 2050 was that residents, whether they were born here or not, were attracted to and remain in Hawai'i because of our island values and lifestyle.

Diversity in practice

Although we are the most ethnically diverse state in the nation, Hawai'i's diversity isn't best appreciated or described through data. It's most easily understood at the beach parks, where multi-ethnic foods are eaten by tens of thousands of people every weekend, and people of all colors and backgrounds come together to enjoy each other and our natural environment. These celebrations occur for reasons large and small – baby luaus, marriages, football games and surf contests. They show us what Hawai'i is all about – diversity in practice, not in theory, and the joy that comes with a disorganized and unselfconscious mixing of cultures, culinary traditions and people.

Although we are the most ethnically diverse state in the nation, Hawai'i's diversity isn't best appreciated or described through data.

Student ethnic diversity in the Hawai'i Public School System

HAWAI'I'S STUDENTS	ETHNICITY	PERCENT
	Hawaiian/Part Hawaiian	26.1
	Filipino	20.0
	Caucasian	14.7
	Japanese	11.0
	Samoan	3.5
	Chinese	3.2
	Hispanic	2.6
	African American	2.4
	Portuguese	2.0
	Korean	1.4
	American Indian	0.5
	Indo-Chinese	0.5
	Other	12.3

Source:
Department of Education

HAWAII VISITORS AND CONVENTION BUREAU

HAWAII VISITORS AND CONVENTION BUREAU

HAWAII VISITORS AND CONVENTION BUREAU

What You Need to Know... About Our Kanaka Maoli and Island Culture

- Persons of Asian ancestry comprise 42% of Hawai'i population, followed by Caucasians (25%), Native Hawaiians and Pacific Islanders (9%), and another 21% who identified themselves as being of two or more races.

- In 2001, 48% of the marriages were of mixed ethnicity.

- In 2002, 41% of adults regularly attend religious services.

- In 2005, 6% of total faculty of the University of Hawai'i were Hawaiian or part-Hawaiian

- In 2003, there were 20,416 applicants for Hawaiian Homelands. 56.2 % of those applicants for Hawaiian Homelands were below 80% HUD Median Income Guidelines

- In Hawai'i, the creative industries employed over 28,000 individuals, representing 5% of all jobs in the state. This workforce earned $1.08 billion, with average wages of $42,000, 16% higher than the average wage earner in Hawai'i.

- Heritage and preservation grants from the State Foundation on Culture and the Arts include funding for the Samoan flag day celebration in Hawai'i, the Okinawan cultural day camp for children, the Portugese ethnic festival and the Hawaiian Scottish festival. Last year, the Hawai'i Tourism Authority funded 159 festivals and natural resource events.

- The number of taro farms has dropped from 185 to 110 from 2000 to 2005.

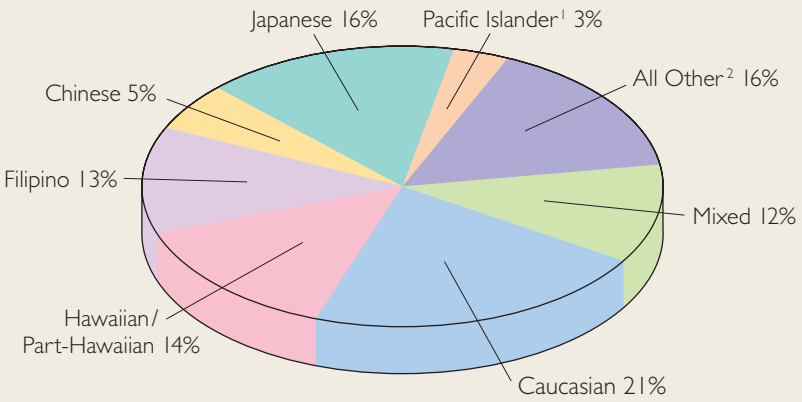
Sources: Hawai'i 2050 Issue Book (2007); Hawai'i Tourism Authority; Office of Hawaiian Affairs; Department of Business, Economic Development & Tourism; Hawai'i State Foundation on Culture and the Arts; University of Hawai'i; and University of Hawai'i Economic Research Organization.

Why are we able to behave this way with each other when so many other ethnically diverse places experience more strife, hardship and animosity? Hawaiian culture is where it all starts. This island way of life originates with Hawai'i's indigenous people – the Kanaka Maoli.

The renaissance of Kanaka Maoli culture

Over the last several generations, Kanaka Maoli culture has undergone a remarkable renaissance. Many of us can remember when only a few Kanaka Maoli cultural practitioners were left, and the Kanaka Maoli language and cultural practices seemed on the brink of vanishing. Within the lifetimes of many people today, research and practice in Kanaka Maoli culture, arts and history have flourished. The performances of music and hula have increased dramatically in Hawai'i and throughout the world. We must ensure that our Kanaka Maoli and island values and cultures are preserved and perpetuated. Such traditions and value systems bind and enrich us all, providing a values-based guide for behavior.

Student ethnic diversity at the University of Hawai'i System



[1] Includes Guamanian/Chamorro, Micronesian, Samoan, Tongan, Other Pacific Islander, Mixed Pacific Islander

[2] Includes Asian, Indian, Korean, Laotian, Thai, Vietnamese, Other Asian, Mixed Asian, Hispanic, African American, American Indian/Alaskan Native and No Response

Source: University of Hawai'i

Building on diversity for the future

Likewise Hawai'i's ethnic diversity and resulting multi-culturalism have contributed significantly to making our state unique. Our many and diverse ethnic groups include but are not limited to African American, Caucasian, Chinese, Filipino, Hispanic, Japanese, Jewish, Kanaka Maoli, Korean, Laotian, Portuguese, Samoan, Tahitian and Vietnamese; all contribute to the vitality of our community. These cultures and traditions make for a colorful and diverse lifestyle.

To preserve our island values, we need to recognize the primacy of the Kanaka Maoli while cultivating the active participation of people of all ethnicities in their practices. Community and ethnic organizations must be supported to ensure that our traditions continue to live and thrive through dance, festivals, education and art.

STRATEGIC ACTIONS

1. Honor Kanaka Maoli culture and heritage.

Kanaka Maoli culture is the foundation for living culture in Hawai'i. We must ensure that the Kanaka Maoli people are supported, and that culture is perpetuated. The success of this endeavor will ensure the way of the Kanaka Maoli will guide our actions and behaviors in the years ahead.

- Ensure the existence of and support for public and private entities that further the betterment of Kanaka Maoli.
- Increase fluency in Kanaka Maoli language. It is one of the official languages of Hawai'i.
- Sponsor cross-sector dialogue on Kanaka Maoli culture and island values.
- Protect Kanaka Maoli intellectual property and related traditional knowledge.
- Provide Kanaka Maoli cultural education for residents, visitors and the general public.

2. Celebrate our cultural diversity and island way of life.

Our diversity likewise defines us. Ensuring that our cultural practices flourish, through language, dance, song and art is crucial to sustaining who we are as a people. We must protect and nurture all aspects of our diverse history, traditions and cultures.

- Identify and protect the places, features and sacred spaces that give Hawai'i its unique character and cultural significance.
- Increase the number of educators who teach cultural and historic education.

3. Enable Kanaka Maoli and others to pursue traditional Kanaka Maoli lifestyles and practices.

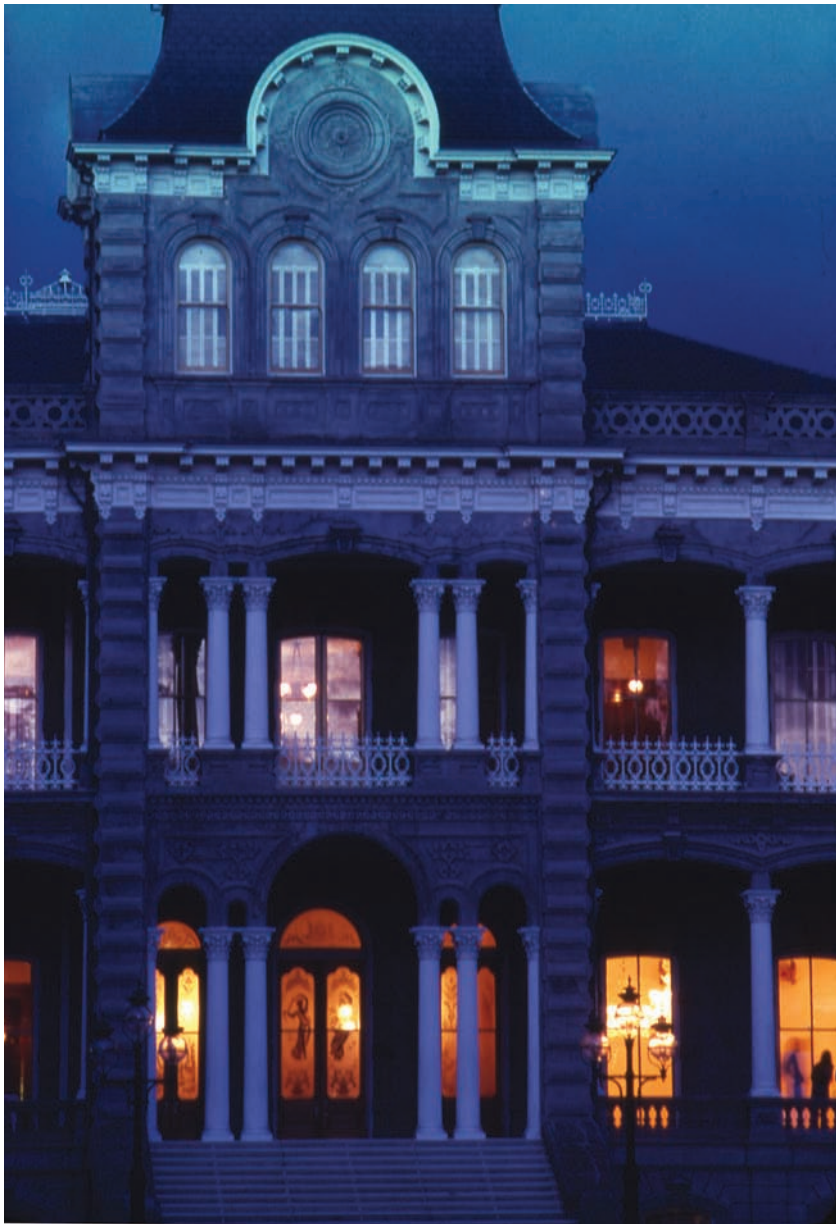
We must provide opportunities to those who want to pursue and perpetuate the way of the Kanaka Maoli.

- Provide Kanaka Maoli mentors with opportunities to pass on Hawaiian culture and knowledge to the next generation of Kanaka Maoli and others. The power of wisdom comes from communication.

- Perpetuate Kanaka Maoli food production associated with land and ocean traditions and practices.

4. Provide support for subsistence-based businesses and economies.

We must create opportunities for the Kanaka Maoli practice of subsistence-based businesses and economies, and remove the hurdles to their start-ups and development. Such traditional cultural practices are an economic alternative to Western forms of trade and commerce. Subsistence fishing, gathering, hunting and farming on Moloka'i are examples of subsistence-based economies that are viable.



INDICATORS

We will accomplish this Goal and accompanying Strategic Actions by assessing the following:

INDICATOR	WHY IT MATTERS	POSSIBLE DATA SOURCES
Percentage of students enrolled in Kanaka Maoli language classes at the secondary and post-secondary levels	Language fluency is a key characteristic of preserving culture	DOE, UH, private schools and colleges
Number of teachers teaching the language of the Kanaka Maoli	Language teachers are the key to perpetuating the language and culture	DOE, UH, private schools and colleges
Number of hula halau and ethnic dance groups	Residents participating in Hawai'i's cultural activities show the strength of our multi-ethnic culture	OHA, SFCA
Per capita government and private expenditures on culture and the arts	Public and private expenditure for culture and arts tell us how dedicated we are in furthering our island culture and values	SFCA
Attitudinal survey of the perpetuation of Kanaka Maoli culture and island values (aka the "Aloha Index")	To determine whether we embrace cultural and sustainability values, we will conduct an attitudinal survey. This will help us understand the level of awareness and commitment of our residents in living aloha.	OHA, Sustainability Council (proposed)
Number of laws enacted that protect Kanaka Maoli intellectual property and traditional knowledge, cultural expressions, art forms and site-specific areas including language, dialects, place names and resource practices	The indicator reflects the willingness and ability to preserve our important Kanaka Maoli resources	OHA
Number of community programs and projects that promote Hawaiian culture, knowledge, traditions and practices through the means of the Hawaiian language	The number of institutions and activities that promote Hawaiian culture is reflective of how we are progressing in perpetuating Kanaka Maoli and island culture	OHA
Amount of capital provided to sustain subsistence-based business and economies	The level of investment in the development of cultural and economic opportunities to live and work in a subsistence-based community tells us how committed we are in furthering those cultural practices	OHA, DBEDT

HAWAI'I VISITORS AND CONVENTION BUREAU

Priority Actions and Intermediate Steps: Target Date 2020

The Task Force believed that it is critical to have numerical targets inserted at the outset, so that the dialogue on sustainability goals can begin now.

About these priority actions

These nine strategic items were identified by the Hawai'i 2050 Sustainability Task Force as essential "next steps" toward creating Hawai'i's preferred future. They are ranked in priority order. These strategic actions are not all of the necessary activities to create a sustainable future for Hawai'i; but are essential to address immediately to ensure our goals are met in 2050. The Task Force identified the year 2020 as a target date to meet our interim goals.

About the 2020 suggested benchmarks

Below you will find a sampling of suggested benchmarks to measure progress in implementing the priority actions. We anticipate that some of these benchmarks will be a useful starting point while others may be changed or modified as more information becomes available. However, even without complete information, the Task Force believed that it is critical to have numerical targets inserted at the outset, so that the dialogue on sustainability goals can begin now.

We recommend the Sustainability Council modify, correct, and improve upon these benchmarks as one of their first orders of business. Through expert testimony, obtaining and evaluating baseline data, and discussions with government and private institutions with knowledge in these areas, they can finalize and ratify the benchmarks as official 2020 priority actions and targets.

These benchmarks are intended to initiate discussion rather than be approved or ratified immediately. Additional benchmarks for each priority item can and should be added by the Sustainability Council if appropriate. Where available, we use official government benchmarks that are already established.

1. Increase affordable housing opportunities for households up to 140% of median income. (Goal 4, Strategic Action 1)

Why this matters:

- We define affordable housing as for purchase or rental housing that households earning up to 140% of the area median income can afford. The Hawai'i Housing Finance Development Corporation ("HHFDC") states that another indicator of housing affordability is the shelter-to-income ratio of 30% or below. A ratio exceeding 30% generally indicates cost burden or housing that is not affordable. Without affordable housing, Hawai'i's low- and middle-income cannot afford a place to live, and many of our most promising young people will move to the mainland.

Where we are now:

- According to the Housing Policy Study (2006), there were 435,818 housing units in 2006. Of that, 260,986 are owner-occupied.

The remaining 174,832 units are rental units, of which 48.2% of renters are cost burdened. 51.8% or 90,563 of rental units are affordable.

- The Housing Policy Study also indicated that about 54.2% of households statewide pay less than 30% of income for housing. Housing for this group is affordable. 34% of households are cost burdened (11.3% of households pay 30-40% of income for housing and 22.7% have housing payments exceeding 40% of income).

2020 Suggested Benchmarks:

- Hawai'i's shelter-to-income ratio is nearing the national ratio of 22% of income spent for homeowner housing, and 30% for rental housing (Joint Center for Housing Studies of Harvard University, 2005).
- The HHFDC estimates that in the next five years (2007-2011) there is an estimated need for approximately 23,000 affordable and workforce housing units. HHFDC seeks to meet that demand.

2. Strengthen public education. (Goal 2, Strategic Action 3; Goal 4, Strategic Action 3) Note: This strategic action includes both work-force and community development aspects of public education.

Why this matters:

- A high quality public education system builds a strong economy and skilled workforce, a more cohesive community, and fewer social problems.

Where we are now:

- The National Assessment of Educational Progress (NAEP) conducts a national representative and continuing assessment of what America's public school students know in various subject areas. In 2007, 33% and 26% of Hawai'i's grade 4 students were "proficient" in math and reading, respectively. In grade 8, 21% and 20% of students were proficient in math and reading, respectively.
- According to DBEDT, in 2005, about 27% of adults age 25 or more had four year college degrees. The 2000 U.S. Census reported that 56.1% of adults age 25 or more had some college or higher.

2020 Suggested Benchmark:

- The Department of Education projects that by 2019, 61% and 35% of grade 4 students will be proficient in math and reading, respectively. The DOE also projects that 31% and 22% of grade 8 students will be proficient in mathematics and reading by 2019, respectively.

3. Reduce reliance on fossil fuels. (Goal 3, Strategic Action 1)

Why this matters:

- Global warming is real, and the environmental and economic costs of fossil fuels are skyrocketing.

Where we are now:

- About 5% of our total energy is from renewable sources. The remainder is fossil fuel-based. 78% of those sources were imported from foreign countries, and 22% from domestic sources, principally Alaska. About 8% of electricity generated is from renewable sources.

2020 Suggested Benchmark:

- Pursuant to Act 95 (SLH 2004), Hawai'i's existing renewable portfolio standard (RPS) goal was replaced with an enforceable standard. Under the new standard, 20% of electricity is to be generated from renewable resources by the end of 2020.

4. Increase recycling, reuse and waste reduction strategies.
(Goal 3, Strategic Action 3)

Why this matters:

- Much of our waste can be reused. As an island state we are running out of landfill space and must find alternatives to reducing the amount of waste disposed in landfills.

Where we are now:

- Waste diversion or landfill diversion can cut down on the need for more dumps. Landfill diversion can occur through recycling, reusing or biological treatment of solid waste. The statewide landfill diversion rate is 31.4%. On O'ahu, about 57% of our solid waste is diverted by waste-to-energy and material recycling activities. The diversion rate for the Big Island is 24% (2006); Kaua'i's is 21% (2005); and Maui's is 30%.

2020 Suggested Benchmark:

- 50% of Hawai'i's municipal solid waste will be diverted. By 2014, the City & County of Honolulu expects to divert 79% of its municipal solid waste.

5. Develop a more diverse and resilient economy.
(Goal 2, Strategic Action 1)

Why this matters:

- In order to withstand external economic shocks such as war, rising fuel costs, and recessions, we must have several pillars which anchor our economy. Technology and knowledge-based jobs are potential pillars to diversify our economy.

Where we are now:

- According to Enterprise Honolulu, the innovation sector, which includes technology, diversified agriculture, alternative energy, earth, ocean and space sciences, dual use, healthcare, biosciences and digital media industries, account for about 5% of all jobs in Hawai'i. Average wage (2004) of entire innovation industries workforce was $47,262. According to the Department of Business, Economic Development & Tourism, in 2005, just technology jobs alone totaled 13,813. This represents 2.8 percent of all private sector jobs in Hawai'i. The average wage in the high technology sector was $57,458, which is 66% above the overall private sector average.

2020 Suggested Benchmark:

- Enterprise Honolulu suggests that the innovation sector comprise 7% of all private sector jobs.

6. Develop a sustainability ethic. (Goal 1, Strategic Action 1)

Why this matters:

- If Hawai'i's people understand and believe in sustainability, the goals of Hawai'i 2050 will be achieved. The result will be a change in consumer behavior – by individuals as well as institutional users. We will conserve water and electricity, recycle, purchase biodegradable products, and buy local foods and products.

Where we are now:

- No benchmark data on this polling question is available yet. However, according to a 2007 Hawai'i 2050 public opinion poll, about 80% of the population favors a "triple-bottom line" or balanced approach to Hawai'i's future, a key component of sustainability.

2020 Suggested Benchmark:

- 85% of Hawai'i residents consider sustainability to be a "critically important" issue to our state.
- The Task Force also suggests setting benchmarks on various aspects of consumer behavior, including per capita water consumption; per capita alternative energy consumed; use of solar water heating sources; and participation rate in recycling programs.

7. Increase production and consumption of local foods and products, particularly agricultural products. (Goal 2, Strategic Action 1)

Why this matters:

- Food self-sufficiency is one of the foundations of a sustainable community.

Thriving local farms also help preserve green space and a rural way of life, and make us less vulnerable to external catastrophes.

Where we are now:

- About 15% of the food we consume is grown locally. About 35% of fruits and vegetables consumed are grown locally.

2020 Suggested Benchmark:

- The UH College of Tropical Agriculture and Human Resources (CTAHR) estimates that it is reasonable that 30% of food consumed can be grown locally. CTAHR also estimates that 85% of fruits and vegetables we consume can be grown locally.

FIRST HAWAIIAN BANK/LEW HARRINGTON PHOTOGRAPHY

8. Provide access to long-term care and elderly housing. (Goal 4 Strategic Action 1)

Why this matters:

- The elderly population is growing more quickly than our current capacity to house and care for them.

Where we are now:

- According to the Hawai'i Health Information Corporation, Hawai'i's long-term bed rate of 24 beds per 1,000 residents aged 65 and older is about one-half that of the U.S. rate of 43 beds per 1000.

2020 Suggested Benchmark:

- Upward movement towards 40 beds per 1,000 residents aged 65 and older is desired. These amounts were suggested by long-term care specialists in the field.

9. Preserve and perpetuate our Kanaka Maoli and island cultural values. (Goal 5, Strategic Actions 1 and 2).

Why this matters:

- Hawai'i's ethnic diversity and multi-culturalism have contributed significantly to making our state unique. Support for culture and the arts ensures that our traditions continue to live and thrive through dance, festivals, education and music.

Where we are now:

- No data is currently compiled. An annual population survey could be conducted to measure this activity.

2020 Suggested Benchmark:

- Hawai'i residents attend a cultural event at least once a quarter.

RECOMMENDATION ONE:
Focus on and implement policy priorities actions for an intermediate benchmark for 2020.
RECOMMENDATION TWO:
Establish an implementing entity – The Sustainability Council.
RECOMMENDATION FOUR:
Issue a report card – measuring our progress.
RECOMMENDATION THREE:
Establish sustainability indicators, aggregating the best data annually, measuring progress towards specific sustainability goals.

From Planning to Action: Sustainability Council

If the Legislature passes a law establishing the Sustainability Council, it would make Hawai'i a national leader in pursuing sustainability in a serious, strategic way.

We must act. Without a vehicle for implementation, Hawai'i 2050 could sit on a shelf. Without a mechanism for accountability, Hawai'i 2050 might answer to no one. While the Task Force has been instrumental in creating Hawai'i 2050, it wasn't empowered to implement the plan. By law, the Task Force will sunset on June 30, 2008.

We have four specific recommendations to keep the momentum going.

RECOMMENDATION ONE: Focus on and implement policy priorities actions for an intermediate benchmark for 2020.

Hawai'i's 2050 planning process identified nine priority issues that our citizens, stakeholders and experts felt needed to be addressed now. This will take us to the year 2020 as an intermediate benchmark. These nine strategic actions will begin the process of addressing key elements of the Hawai'i 2050 plan. Do them now, and we're on our way towards a sustainable Hawai'i.

RECOMMENDATION TWO: Establish an implementing entity – The Sustainability Council.

The Sustainability Council will be a continuing, governmental organization with a budget and staff. These resources will be essential to carry forward the Hawai'i 2050 Plan, measuring results and building a publicly accessible bank of knowledge about sustainability. The specific responsibilities, budget, revenue source and authorities of the body will be determined by the Legislature.

If the Legislature passes a law establishing the Sustainability Council, it would make Hawai'i a national leader in pursuing sustainability in a serious, strategic way. It is the single most important action that the Legislature can take to advance the cause of sustainability and move Hawai'i toward its preferred future. It will also further cross-sector dialogue and accountability on these vital issues.

In keeping with Hawai'i 2050's spirit of the "people's plan," the Task Force recommends that the Council be a diverse cross-section of individuals, most of whom would be nominated by the public. A broad range of public representation on the Sustainability Council will ensure open communications and cross-sector dialogue among the stakeholders, a crucial factor in moving Hawai'i toward sustainability.

Ultimately, the Council will serve as a focal point for action – a central entity, responsive to the public that will help Hawai'i navigate toward a sustainable future.

That is why we recommend that the Sustainability Council be small in its operational budget, and not regulatory in function.

What the Council would and would not do

An overwhelming majority of those we asked, surveyed and polled recognize the need for creating an implementing entity. Some, however, are skeptical of the need for another government agency to oversee and coordinate the State's sustainability efforts. We agree that the establishment of a new government entity should be done deliberately, skeptically and with precision. That is why we recommend that the Sustainability Council be small in its operational budget, and not regulatory in function. It should not replace the Office of Environmental Quality Control, Land Use Commission, Public Utilities Commission, county planning commissions, the State Office of Planning, or the Department of Land and Natural Resources. It would be similar in size and scope to the State's Council on Revenues, which annually predicts tax revenues, and is a highly credible entity that impacts both public and private action.

It was also suggested that implementing Hawai'i 2050 be administered by a nonprofit or private entity. It would be difficult for a nongovernmental entity to oversee the coordination, management and benchmarking of an official government plan and activity, particularly where many of the initiatives required government action and policy changes. The proposed Sustainability Council will make sure that the strategic actions in Hawai'i 2050 are pursued, that the indicators are paid attention to, and that the effort towards a sustainable 2050 and our preferred future keeps its momentum.

Details of the Sustainability Council

This Sustainability Council would have: 1) a governing board; 2) authority to hire an executive director and staff; 3) appropriate powers and duties to carry out its mission; and 4) a funding mechanism to support the agency's activities. The Sustainability Council is intended to be a governmental entity, initially located in the Office of the Auditor, then transferred to the Office of Planning for administrative purposes only. Its voting board members would comprise both public officials and private citizens more fully described below.

Council Composition and Nominations

The Sustainability Council would comprise a diverse cross-section of community leaders that will provide the necessary leadership and expertise in creating a sustainable future for Hawai'i. The Council would comprise the following members:

- Total members: Seventeen (17). Fifteen (15) voting members; two (2) non-voting, ex-officio members.
- Governmental appointments: Six (6) members from the following: One (1) member appointed by the Governor; one (1) member appointed by each of the four (4) Mayors; and one (1) member appointed by the

Office of Hawaiian Affairs. These appointments need not be restricted to government officials.

- Public members: Nine (9) members appointed by the Governor. The Governor shall consider the following areas of statewide expertise and interests, including but not limited to, the Kanaka Maoli, business, science and technology, labor, environment, multi-cultures, visitor industry, military, agriculture, education, health and human services, and young adults. The intent of representation in these suggested categories is to create a board that has statewide knowledge of key sectors and components of the community.

  Youth representation: One of the nine public members shall represent Hawai'i's youth under 25 years of age.

  County representation: Four of the nine public members shall reside in each of the four counties.

  Ex-officio (non-voting) members: Designees of the Department of Education and the Office of Planning.

  Terms: Four (4) year staggered terms.

  Nominations: A call for nominations from the general public will be solicited. All nominees are subject to confirmation by the State Senate.

Scope and function of the Sustainability Council

The Sustainability Council will coordinate, implement, measure and evaluate the progress of Hawai'i 2050 and activities.

The primary functions of the Sustainability Council will be to:

- Coordinate and implement the Hawai'i 2050 Sustainability Plan.
- Collect and analyze data on the approved sustainability indicators.
- Publish and promote an annual "report card" on the indicators.
- Convene statewide summits and forums on sustainability.
- Sponsor cross-sector dialogue to address key sustainability issues.
- Direct an ongoing public awareness and education campaign about sustainability.
- Recommend legislation and advocate for sustainability in Hawai'i's public policy arena.
- Every five years, revise and amend the Hawai'i 2050 Sustainability Plan as appropriate.
- Conduct a periodic review and audit of sustainability activities.

- Negotiate and execute contracts as necessary to achieve the functions listed above. The Task Force recommends that the Sustainability Council be exempt from the Hawai'i public procurement code.

Advisory Sub-groups

To implement and advise the Sustainability Council, advisory sub-groups may be created in the following categories that are in accord with the Hawai'i 2050 Sustainability Plan:

- Educational Curricula, Marketing and Public Awareness
- Economic Development and Diversification
- Environment and Natural Resources
- Social and Community Development
- Kanaka Maoli and Island Lifestyle

Funding source

The Task Force recommends that the Sustainability Council be funded through the General Fund.

HAWAI'I VISITORS AND CONVENTION BUREAU

"Interim Sustainability Council" Composition and Selection

The Task Force recommends that an "Interim Sustainability Council" be established to provide continuity and a transition mechanism from the Task Force to the permanent Sustainability Council. Because of the institutional knowledge the Task Force has gained over the past two and a half years, it would be beneficial for the Interim Sustainability Council to include several members of the Task Force. These members could provide the background and context in which Hawai'i 2050 was developed, and assist the Sustainability Council to get underway. The Task Force recommends that at least five (5) Hawai'i 2050 Task Force members of the fifteen (15) voting members of the Interim Sustainability Council be initially appointed, to be ultimately transitioned out due to term limits.

Attached agency

As a quasi-governmental agency, the Sustainability Council needs to be assigned to a governmental unit for administrative purposes. The Task Force recommends that the Interim Sustainability Council be temporarily attached to Office of the Auditor for the first two years. The Auditor has garnered a great deal of knowledge about sustainability and Hawai'i 2050, and would serve as an ideal transition agency. In 2010, the Task Force recommends that the Sustainability Council be permanently attached to the Office of Planning.

These indicators would be the most comprehensive measure of how we are doing as a state – economically, culturally, and environmentally.

Periodic financial and management audits

The Task Force proposes an audit of the Sustainability Council's activities every two years to determine the appropriateness of its fiscal activities, and the progress made in implementing Hawai'i 2050.

RECOMMENDATION THREE: Establish sustainability indicators, aggregating the best data annually, measuring progress towards specific sustainability goals.

Utilizing the data in this report, from the community engagement process, and from future discussions, the Council ought to establish an annual measuring tool of our efforts toward sustainability. These indicators would be the most comprehensive measure of how we are doing as a state – economically, culturally, and environmentally. It will be the primary mechanism to measure our progress. Our annual scores on each of the indicators must be the subject of enthusiastic attention and discussion, among all sectors. This is the most effective way to quantify our progress towards sustainability.

RECOMMENDATION FOUR: Issue a report card – measuring our progress.

In our review of the best practices of other state and municipality sustainability plans, we've found that public report cards are an effective tool in ensuring that the public, lawmakers and opinion leaders know how we are doing in implementing our plan.

We believe performance indicators are a crucial component of Hawai'i 2050. A good indicator helps the public understand the current status of an issue, whether the situation around it is improving or worsening, and how far we are from success. Effective indicators are relevant, easy to understand, reliable and based on accessible data.

The details of this report card must be developed by the Council, but the core of it lies in the strategic actions and indicators set forth in this document. The report card will tell us how we measure up to this plan, and enable us to make adjustments according to what is working and what isn't.

Citizen Based
People's Plan
Economy, Community and Environment
Community Meetings
All Walks of Life
Transparent and Open
Comprehensive Outreach
Benchmarking Progress
Fighting Chance to Succeed
Candid Feedback

Planning Principles and Approach to Hawai'i 2050

The People's Plan: Principles for a community-based planning process

From the outset, the Task Force determined that for Hawai'i 2050 to be effective, it must reflect the will of the community. After all, Hawai'i 2050 is for the people of Hawai'i. In particular, the Task Force wanted to avoid a "top-down" approach to planning for Hawai'i's future. Rather, the Task Force wanted the planning process to be an exciting, dynamic activity which includes and engages a broad array of groups and perspectives. The Task Force also believed that stakeholder input, technical expertise, and adequate research was critical to augment this citizen-based process. Hence, stakeholder meetings, public opinion surveys, and specialized research would need to be conducted.

Because of these requirements, the Task Force recommended that the initial deadline for creating Hawai'i 2050 be extended from 2007 to 2008, and that additional funds be appropriated for an extensive community outreach program. Pursuant to Act 210 (SLH 2006), Act 211 (SLH 2006) and Act 4 (SSLH 2007), the Legislature approved those recommendations, and the Task Force then embarked on what has been the most comprehensive citizen-based process since the 1970s.

The Task Force identified five major characteristics that were embodied throughout the Hawai'i 2050 planning process:

- **Fact- and research-based process.** Because crucial components of Hawai'i 2050 relate to economic development, water, air, land use, energy, and environmental quality, access to and use of recent and relevant Hawai'i-based information was essential in developing Hawai'i 2050.
- **Representation of broad and diverse interests.** In creating a dynamic and iterative process, the planning process should engage in information sharing from all sectors (business, labor, youth, government, nonprofits, media) of the state, as well as actively seek guidance from various venues to include but not limited to neighborhoods, churches and religious groups, environmentalists, schools, patrons of the arts, the military, ethnic and cultural organizations, neighborhood boards, recreational clubs, senior citizens, chambers of commerce and economic development boards, and the like.
- **A transparent and open process.** The proceedings and information presented in creating Hawai'i 2050 should be open and available to the general public. The Task Force suggests that public meetings be conducted on all islands, and in various neighborhoods to ensure that the essence and concerns of all residents become known; and a method for resolving disagreements should be developed. Further, an elaborate communications and interactive system which enables Hawai'i's community to be engaged in the planning process should be developed.

Over the past two years, the Task Force met with and heard from a wide and diverse group of community leaders and stakeholders.

- **Public education, media and marketing component.** To educate, engage and inspire community participation, a public education and media campaign should be launched. Adopting a sustainable lifestyle will involve creating a social movement to change human and community behavior and norms.
- **Inspirational, visionary, and engaging process.** Community gatherings and activities should be visionary, fun and inspirational to engage the public in providing meaningful ideas and input in creating Hawai'i 2050.

In accord with the above-referenced planning characteristics, the Task Force embarked on an aggressive and comprehensive community- and research-based planning agenda.

Stakeholder outreach: candid feedback from Hawai'i's leaders

To broaden community input, the Task Force conducted meetings with key stakeholders and leaders from the various sectors. The Hawai'i 2050 Business Leadership Council was formed to gain input from the state's top business leaders. Input and guidance from Kanaka Maoli, environmental and labor organizations were also solicited through dozens of meetings and presentations by the Task Force. Furthermore, 3point Consulting, a Honolulu-based research firm, conducted a series of interviews soliciting input on what Hawai'i 2050 should accomplish and achieve.

Over the past two years, the Task Force met with and heard from a wide and diverse group of community leaders and stakeholders, including responding to invitations to speak and make presentations to various organizations and forums. To expand and engage community participation, key stakeholders were also asked to serve on working groups of the Task Force. For example, the following working and stakeholder groups were formed:

- Definition Work Group (to create working definition of sustainability)
- Accountability Work Group (to design Hawai'i 2050 implementation and governance system)
- Community Expansion Work Group (to identify ways to expand participation in the community)
- Community Engagement Work Group (to design community input and planning process)
- Business Leadership Council (to solicit input from business leaders)
- Kanaka Maoli Group (to solicit input from the Kanaka Maoli)
- Environmental Group (to solicit input from environmental leaders)
- Human Services Group (to solicit input from nonprofit leaders)
- Education Group (to solicit input on ways to reach out to young people)

In so doing, the Task Force received input on Hawai'i 2050 from hundreds of representative organizations, ranging from Hawaiian civic clubs, to environmental organizations to Hawai'i's top 50 corporations.

Engaging stakeholders was extremely helpful in getting candid feedback directly from Hawai'i's top leaders. Dozens of business CEOs, nonprofit executive directors, community activists and cultural practitioners participated. For example, in a series of stakeholder meetings with business, Kanaka Maoli, and environmental groups, key leaders provided direct input on early drafts and iterations of the policy outlines of Hawai'i 2050. Many of the concerns and recommendations from these stakeholder groups were considered and integrated into Hawai'i 2050. This stakeholder process also served as an important means to validate and reconcile the priorities of the community with the institutional stakeholders that would be impacted.

HAWAII VISITORS AND CONVENTION BUREAU

Hawai'i 2050 public opinion polls: voices from the general public

The Task Force commissioned two public opinion polls to gauge the attitudes of Hawai'i residents towards sustainability. The polls were intended to obtain feedback from the general population about the themes that emerged from the community engagement meetings. The Hawai'i 2050 polls consisted of unbiased pools of Hawai'i residents from all ages, ethnicities and walks of life. The Task Force wanted to solicit Hawai'i residents' attitudes and opinions as a "cross-check" to the views of stakeholders and community engagement participants.

Conducted by telephone, the public opinion polls surveyed a random sampling of residents with a carefully prepared questionnaire. The questionnaire dealt with such topics as the environment, housing, tourism, economic development, land use, culture and governance. Larger-than-normal sample size were selected to ensure greater accuracy, as well as sufficient sample size to evaluate the neighbor island counties.

Respondents were asked what kind of future do residents of Hawai'i want for themselves and their children, and were confronted with making choices and trade-offs on various thought-provoking issues.

Hawai'i 2050 summits and forums

One of the most effective methods to energize and engage stakeholders is large-scale public meetings. The Task Force conducted three summits as part of Hawai'i 2050.

- Hawai'i 2050 Kick-off Summit (August 2006) (550 attendees)
- Hawai'i 2050 Summit (September 2007) (1000 attendees)
- Hawai'i 2050 Youth Summit (September 2007) (250 attendees)

HAWAIʻI 2050 PLANNING PROCESS

Community Engagement (CE) Attendees and Responses

Date	Activity	Purpose	Attendees & Responses
August 2006	Hawaiʻi 2050 Kick-off Summit	Start of community engagement process	550
October to December 2006	CE Round I *12 Statewide Meetings *Online & Printed Survey	Definition Vision Guiding Principles	 450 2250
April to May 2007	CE Round II *12 Statewide Meetings	Indicators Strategic Actions	 680
July 2007	Statewide Survey	Sustainability Issues	2000
September 2007	Hawaiʻi 2050 Summit Hawaiʻi 2050 Youth Summit Youth Survey	Draft Plan Unveiled Youth Input Youth Input	1000 250 575
October to December 2007	CE Round III *13 Statewide Meetings *Comments via Website University of Hawaiʻi Online Survey Statewide Survey	 Review of Draft Plan Review of Draft Plan Review of Draft Plan Key issues Key issues	 475 145 150 345 1500
	Stakeholder Meetings (a)	Input on Plan Review of Draft Plan	150
Total			10520

Other Community Outreach Activities

(a) Stakeholder Meetings with the following groups: *Business, Labor, Environmental, Education, Nonprofit, Kanaka Maoli # of Community presentations	15 20
Number of hits on Hawaiʻi 2050 Website during community engagement	14000
Number of times Hawaiʻi 2050 Draft Plan downloaded	800

Whatever their opinion or viewpoint, participants from all walks of life approached Hawai'i 2050 with vigor and passion.

Lessons and observations about Hawai'i 2050 community dialogue

Over the course of eighteen months, the Task Force heard the voices of thousands. Our Hawai'i 2050 meetings were met mostly with optimism, enthusiasm, and occasionally with skepticism and hostility – but mostly optimism. Most participants agreed that creating a sustainable Hawai'i was important, and we needed to have a long-range vision for our state. Some saw no value in looking at Hawai'i's future beyond five to ten years out. Most wanted a balanced approach to Hawai'i's long-term future. Others saw little room for compromise.

Whatever their opinion or viewpoint, participants from all walks of life approached Hawai'i 2050 with vigor and passion. They wanted to provide input. They wanted a say in Hawai'i's future.

Participants often wanted more cross-sector dialogue. They appreciated providing input as business, labor, community and environmental leaders, yet wanting an opportunity to dialogue beyond their own peers. Stakeholders wanted a chance to exchange their views with other types of stakeholders.

This willingness of people to engage in cross-sector dialogue suggests a strong and healthy community. Because achieving our long-range sustainability goals will require interaction and collaboration among all sectors, the dialogue to date is a good indication that Hawai'i 2050 has a fighting chance to succeed.

Fact- and research-based approach to sustainability: the Hawai'i 2050 Issue Book

Planning for Hawai'i's sustainable future requires a series of technical studies to ensure that public and community input was strengthened by necessary data, research and information to guide public decision-making. The Task Force identified a series of subjects to be researched in order to gain a comprehensive understanding of the components of sustainability.

The Task Force engaged scholars at the University of Hawai'i at Mānoa to research key issues of sustainability, particular to Hawai'i. The "Hawai'i 2050 Issue Book" was subsequently published, and is used as the factual foundation for better understanding sustainability issues in our state. The research reflects the latest information on key aspects of sustainability as of the date of this report, and should be updated appropriately in the years to come.

The following subjects were researched:

- Overview of Sustainability Practices. This paper provides a summary of key principles and best practices of sustainable communities, nationally and globally.

- **Population.** This study analyzes Hawai'i's historic and future population statistics and trends, including anticipated population growth, aging, ethnic and other demographic patterns.
- **Kanaka Maoli Values of Aloha 'Aina.** The author explores the cultural and spiritual foundation of the Kanaka Maoli, principles of Native Hawaiian stewardship of the land, and other cultural, historic and traditional aspects of Hawai'i's indigenous people.
- **Water.** This study evaluates the current yield and demand for water on all islands under varying environmental and technological assumptions.
- **Land Use.** This study explores the availability of lands for varied urban, agricultural, rural and conservation use, including lands for housing, conservation and other sustainability needs.
- **Energy.** An evaluation of Hawai'i's energy needs, supplies, and demands, including use of alternative and renewable sources of energy were explored in this study.
- **Agriculture.** This study evaluates Hawai'i's food production capacity and consumption patterns, as well as describes various aspects of Hawai'i's agricultural industry and products.
- **Environmental Quality.** This study of Hawai'i's environmental quality, including air, water and endangered species, enables the Task Force to evaluate our efforts to preserve and enhance the environment.
- **Sustainable Quality of Individual and Family Life.** This paper outlines health, human services, education, culture, recreation and other aspects of quality of life in Hawai'i.
- **Sustainable Economy.** This study analyzes key aspects of Hawai'i's economy, including its ability to become sustainable.
- **The Paradise Index:** Benchmarking Progress. This paper explores the role of indicators, measurements and accountability in sustainability planning.

Appendix A
Summary of Hawai'i's Planning Process

The following is a summary of the major components of Hawai'i's comprehensive planning process.

Hawai'i State Plan

The Hawai'i State Plan, Haw. Rev. Stat. Ch. 226, was adopted into law in 1978 as a comprehensive guide for the long-range future development of the state. In particular, the Hawai'i State Planning Act (SLH 1978) set forth Hawai'i's overall themes, goals and objectives, which state the following:

> "The purpose of this chapter is to set forth the Hawai'i State plan that shall serve as a guide for the future long-range development of the State; identify the goals, objectives, policies, and priorities for the State; provide a basis for determining priorities and allocating limited resources, such as public funds, services, human resources, land, energy, water, and other resources; improve coordination of federal, state, and county plans, policies, programs, projects, and regulatory activities; and to establish a system for plan formulation and program coordination to provide for an integration of all major state, and county activities."

The process of creating the Hawai'i State Plan engaged thousands of public and private citizens in a comprehensive community outreach campaign. Brochures, slide presentations and public service announcements and meeting notices informed participants of various opportunities to provide input into the creation of the Hawai'i State Plan. Various organizations and community groups including businesses, chambers of commerce, state boards and commissions, rotary clubs and county agencies also contributed their ideas for a desirable Hawai'i.

A preliminary draft plan was prepared and distributed as a newspaper tabloid in all of the major papers throughout the state. An interim joint House-Senate committee kept apprised of the development of the plan. The Hawai'i State Plan Policy Council, an advisory body comprising community representatives, state department directors and county planning directors, held the responsibility of overseeing the process.

THE HAWAI'I STATE PLAN CONSISTS OF THREE PARTS:

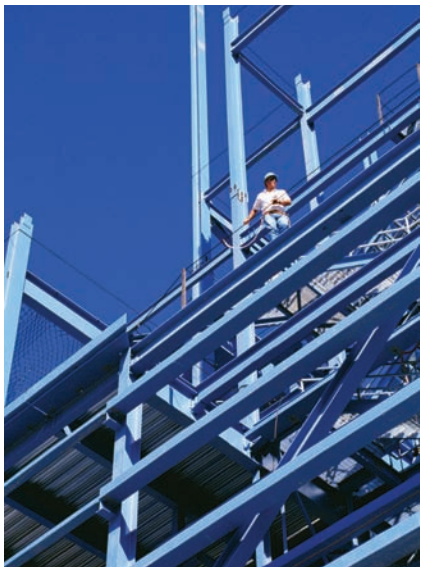
PART I sets forth the overall theme, goals, objectives and policies of the state, covering population, economy, physical environment, facility systems and socio-cultural advancement.

PART II outlines planning, coordination and implementation of the Hawai'i State Plan, including:

- The appropriation of funds under the State budget to be in conformance with the overall theme, goals, objectives and policies and to be guided by the Priority Guidelines and State Functional Plans;

- The budget review process of the Department of Budget and Finance to be in conformance with the overall theme, goals, objectives and policies and to be guided by the Priority Guidelines and State Functional Plans;
- The appropriation of funds under the State Capital Improvements Program to be in conformance with the overall theme, goals, objectives and policies and be guided by the Priority Guidelines and State Functional Plans;
- State land use decision making processes of State agencies shall be in conformance with the overall theme, goals, objectives and policies and be guided by the Priority Guidelines and State Functional Plans;
- State Programs shall be in conformance with the overall theme, goals, objectives and policies and shall be guided by the Priority Guidelines and State Functional Plans.

Part III of the Hawai'i State Plan pertains to the State's five priority areas (since last updated in 1986), including: economic development, population growth and land resources management, affordable housing, crime and criminal justice, and quality education.



The last comprehensive review and revision of the Hawai'i State Plan occurred in 1986. Since then, the Hawai'i State Legislature has made only specific and selective amendments to the Hawai'i State Plan. For example, in the late 1980s, objectives and policies on the information industry were added to position Hawai'i as the leader in information business in the Pacific Rim. In 1994, additions to objectives and policies on energy were made to increase energy self-sufficiency, greater energy security and telecommunications and to reduce the effects of greenhouse gas.

Quality Growth Policy

Chapter 223, Haw. Rev. Stat., requires the Office of Planning to prepare a Quality Growth Policy to address issues of urban sprawl, open space and the environment, and to uplift the quality of life. A policy framework was to be developed to direct growth and land use and to identify state growth objectives.

In 1975, Chapter 225, Haw. Rev. Stat. was enacted, requiring a statewide land use guidance policy to address the concerns raised by the rapid growth of both the state and the tourism industry. Chapter 225 was repealed in 1978, followed by the enactment of Chapter 226, Haw. Rev. Stat., which adopted the comprehensive Hawai'i State Plan. While a Quality Growth Policy has not been prepared, aspects of this growth policy are addressed in components of the State Plan.

State Functional Plans

The State Functional Plans are intended to further define the Hawai'i State Plan. Twelve (12) State Functional Plans were prepared in the early 1980s and adopted by concurrent resolution by the Hawai'i State Legislature. The State Functional Plans identified needed actions on both cost and non-cost items, e.g. legislation, budget and time-frame for implementation. As part of its development, citizens and public advisory committees were formed for each functional plan, engaging hundreds of community leaders who deliberated the future of Hawai'i in the respective functional plan areas. The State Functional Plans were last updated in 1989 and 1991. The twelve (12) Functional Plans include the following policy areas:

- Agriculture
- Conservation Lands
- Employment
- Energy
- Health
- Higher Education
- Historic Preservation
- Housing
- Recreation
- Tourism
- Transportation
- Water Resources Development

In the late 1990s, the responsibility for preparing guidelines for State Functional Plans was transferred from the Office of Planning to the Department of Budget and Finance to improve the linkage between the State Functional Plans and the Executive Budget. This function was transferred back to the Office of Planning in 2001.

Planning, Programming & Budgeting System ("PPBS")

To optimize the expenditure of public funds, the Planning, Programming & Budgeting System ("PPBS") was developed to improve the operational effectiveness of state agency programs and the effectiveness of agency budgeting. The Department of Budget & Finance is responsible for implementing PPBS to ensure that program plans and objectives, budget requests, and agency performance are in accordance with the State's financial, program and policy goals. The budget instructions state that the agencies in submitting their budget requests must indicate how the budget request

conforms to the goals, objectives, policies and priority guidelines of the Hawai'i State Plan.

County General and Development Plans

The County General and Development plans were created to guide the physical development of lands within each county. Required by the respective County Charters, these plans generally provide conceptual schemes for the desired direction for land use to meet the social, economic and environmental needs of each of the respective counties. County plans also include urban design principles and controls, plans, and maps that describe the desired urban, rural, natural, scenic and cultural resources and uses.

Appendix B
Listing of Agencies and Organizations

Abbreviation	Full Description
DAGS	Accounting and General Services
DOA	Agriculture
B&F	Budget and Finance
DBEDT	Business, Economic Development and Tourism
DCCA	Commerce and Consumer Affairs
DOD	Defense
DOE	Education
DHHL	Hawaiian Home Lands
DOH	Health
DHRD	Human Resources Development
DHS	Human Services
DLIR	Labor and Industrial Relations
DLNR	Land and Natural Resources
DPS	Public Safety
DOT	Transportation
DoTax	Taxation
EOA	Executive Office on Aging
HHFDC	Hawai‘i Housing Finance and Development Corporation
HPHA	Hawai‘i Public Housing Authority
OHA	Office of Hawaiian Affairs
PUC	Public Utilities Commission
SFCA	State Foundation of Culture and the Arts
UH	University of Hawai‘i
UHERO	University of Hawai‘i Economic Research Organization

Mahalo

Thank you to the following individuals and organizations which assisted in the Hawai'i 2050 planning process. The Hawai'i 2050 Sustainability Task Force wishes to extend its appreciation for being part of the State's most comprehensive citizen-based planning process in three decades.

3point Consulting
Actus Lend Lease
Castle & Cooke Properties
Clarence Lee Design
David Kanaya Designs
First Hawaiian Bank / Lew Harrington Photography
Girl Scouts of Hawai'i
Hawaii Business Magazine
Hawai'i Institute for Public Affairs
Hawai'i Research Center for Futures Studies
Colonel Howard Killian, U.S. Army
Howard Garval
Janis Reischmann
James Dator, Ph.D.
Joanne Watase Yang
Kamehameha Schools
Kanu Hawai'i
Kem Lowry, Ph.D.
Leimomi Khan
Leland Chang
Mark Fox
Mitch D`Olier
Office of the Auditor
Olomana Marketing
Pacific Resource Partnership
Superintendent Patricia Hamamoto
Paul Berry, Ph.D.
Ramsay Taum
Sharon Miyashiro, Ph.D.
Susan Oshiro
Randy Perreira
Shanah Trevenna
SMS Marketing & Research
Tom Coffman
Tom Yoneyama
University of Hawai'i at Mānoa
Trustee Walter Heen

Hawai'i 2050 Sustainability Task Force
c/o Office of the Auditor
465 S. King Street, Rm. 500
Honolulu, Hawai'i 96813

Tel: (808) 587-0800
Fax: (808) 587-0830

auditors@auditor.state.hi.us
www.hawaii2050.org