State Legislative History

Act 234 (2007)

- Climate change poses a serious threat
- Rise in sea levels, inundation of Hawaii’s freshwater aquifers, damage to marine ecosystems and the natural environment, extended drought and loss of soil moisture, an increase in the spread of infectious diseases, and an increase in the severity of storms and extreme weather events
- Focus on cost-effective GHG emissions reductions at or below Hawaii’s GHG emissions estimates of 1990 by January 1, 2020

Act 20 (2009)

- Created a climate change task force
- Not funded by the previous administration
- Ceased to exist by operation of law on June 30, 2011

Act 73 (2010)

- Barrel tax to fund greenhouse gas emissions reduction task force (Act 234) and the climate change task force (Act 20)

Development of Hawaii’s Climate Change Adaptation Policy

Alternative Futures Policy Development Workshop (2011)

Two day workshop

60+ Stakeholders

4 Futures Scenarios

Climate Change Adaptation Priority Guidelines
Climate Change Adaptation
Priority Guidelines

(1) Ensure that Hawaii's people are *educated*, informed, and aware of the impacts climate change may have on their communities

(2) Encourage *community stewardship* groups and local stakeholders to participate in planning and implementation of climate change policies

(3) Invest in continued *monitoring* and research of Hawaii's climate and the impacts of climate change on the State

(4) Consider *native Hawaiian traditional knowledge* and practices in planning for the impacts of climate change

(5) Encourage the *preservation and restoration of natural landscape* features, such as coral reefs, beaches and dunes, forests, streams, floodplains, and wetlands, that have the inherent capacity to avoid, minimize, or mitigate the impacts of climate change
(6) Explore adaptation strategies that moderate harm or exploit beneficial opportunities in response to actual or expected climate change impacts to the natural and built environments.

(7) Promote sector resilience in areas such as water, roads, airports, and public health, by encouraging the identification of climate change threats, assessment of potential consequences, and evaluation of adaptation options.

(8) Foster cross-jurisdictional collaboration between county, state, and federal agencies and partnerships between government and private entities and other non-governmental entities, including nonprofit entities.

(9) Use management and implementation approaches that encourage the continual collection, evaluation, and integration of new information and strategies into new and existing practices, policies, and plans.

(10) Encourage planning and management of the natural and built environments that effectively integrate climate change policy.
Statewide Planning System

Part I: Overall Theme, Goals, Objectives and Policies

Population
Economy
Physical environment
Facility systems
Socio-cultural advancement

Part III: Priority Guidelines

Part II: Statewide planning system

Functional plans
- Define and implement Parts I and II
- Identify priority issues
- Implementing actions

County general plans
- Zoning
- SMA Permit
- District Boundary Amendments

State programs
- CIP
- CZM
- LUC
- BLNR
State Land Use Law
HRS Chapter 205

Purpose

• “preserve, protect and encourage the development of the lands in the State for those uses to which they are best suited for the public welfare[.]” See L. 1961, c 187, § 1.

Implementation Mechanisms

• 5-Year Boundary Review
• District Boundary Amendments
• Important Agricultural Lands Designation
• State Special Use Permits
Coastal Zone Management Act
HRS Chapter 205A

Purpose

• “provide for the effective management, beneficial use, protection, and development of the coastal zone.” See L. 1977, c 188, § 1.

Implementing Mechanisms

• Special Management Area Permits
• Federal Consistency
• Comprehensive Planning and Coordination
• Ocean Resources Management Plan
Implementing Hawaii’s Climate Change Adaptation Policy

OUR CURRENT PLAN TO PROTECT OURSELVES FROM RISING SEA LEVELS.
Outline: Implementing Hawaii’s Climate Change Adaptation Policy

OP-CZM Initiatives

• ORMP 2013 Update
• County Focus: Integrating CCA into Existing Planning Frameworks / Identifying Current CCA Projects

External Initiatives

Status of Implementation

• Strengths & Opportunities
Outline: Implementing Hawaii’s Climate Change Adaptation Policy

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External Initiatives

Status of Implementation

• Strengths & Opportunities
(8) “Foster cross-jurisdictional collaboration between county, state, and federal agencies and partnerships between government and private entities and other non-governmental entities, including nonprofit entities;”
OP-CZM Initiatives: ORMP 2013 Update

(6) “Explore adaptation strategies that moderate harm or exploit beneficial opportunities in response to actual or expected climate change impacts to the natural and built environments;”

(7) “Promote sector resilience...by encouraging the identification of climate change threats, assessment of potential consequences, and evaluation of adaptation options;”

(10) “Encourage planning and management of the natural and built environments that effectively integrate climate change policy;”
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Promote sector resilience...by encouraging the identification of climate change threats, assessment of potential consequences, and evaluation of adaptation options;”
(10) “Encourage planning and management of the natural and built environments that effectively integrate climate change policy;”
(7) “Promote sector resilience...by encouraging the identification of climate change threats, assessment of potential consequences, and evaluation of adaptation options;”
(3) “Invest in continued monitoring and research of Hawaii’s climate and the impacts of climate change on the State;”
(1) “Ensure that Hawaii’s people are educated, informed, and aware of the impacts of climate change may have on their communities;”
(6) “Explore adaptation strategies that moderate harm or exploit beneficial opportunities in response to actual or expected climate change impacts to the natural and built environments;”

(7) “Promote sector resilience...by encouraging the identification of climate change threats, assessment of potential consequences, and evaluation of adaptation options;”

(10) “Encourage planning and management of the natural and built environments that effectively integrate climate change policy;”
Summary of CCA Implementation in ORMP 2013 Update

(1) “Ensure that Hawaii’s people are educated, informed, and aware of the impacts climate change may have on their communities;”

ORMP Management Priority #2 – Goal C

(2) “Encourage community stewardship groups and local stakeholders to participate in planning and implementation of climate change policies;”

ORMP Management Priority #2 – Goal B

(3) “Invest in continued monitoring and research of Hawaii’s climate and the impacts of climate change on the State;”

ORMP Management Priority #2 – Goal C

(4) “Consider native Hawaiian traditional knowledge and practices in planning for the impacts of climate change;”

ORMP Management Priority #1 – Goals A, C
ORMP Management Priority #2 – Goals A, C

(5) “Encourage the preservation and restoration of natural landscape features ... that have the inherent capacity to avoid, minimize, or mitigate the impacts of climate change;”

ORMP Management Priority #1 – Goals A, C
ORMP Management Priority #2 – Goals A, C

(6) “Explore adaptation strategies that moderate harm or exploit beneficial opportunities in response to actual or expected climate change impacts to the natural and built environments;”

ORMP Management Priority #1 – Goal A
ORMP Management Priority #2 – Goal C

(7) “Promote sector resilience ... by encouraging the identification of climate change threats, assessment of potential consequences, and evaluation of adaptation options;”

ORMP Management Priority #1 – Goals A, C
ORMP Management Priority #2 – Goals A, C

(8) “Foster cross-jurisdictional collaboration between county, state, and federal agencies and partnerships between government and private entities and other non-governmental entities...;”

ORMP 2013 UPDATE

(9) “Use management and implementation approaches that encourage the continual collection, evaluation, and integration of new information and strategies into new and existing practices, policies, and plans;”

ORMP Update Process

(10) “Encourage planning and management of the natural and built environments that effectively integrate climate change policy.”

ORMP Management Priority #2 – Goals A, C
Outline: Implementing Hawaii’s Climate Change Adaptation Policy

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External Initiatives

Status of Implementation

• Strengths & Opportunities
Integrating CCA into Existing Planning Frameworks

COUNTY

General Plan (GP) & Development Plan (DP) Updates

• Options for Implementing the Hawaii State Planning Act Climate Change Adaptation Priority Guidelines - CRest

• A Process Design for Community Engagement in Climate Adaptation Planning – Kem Lowry

(6) "Explore adaptation strategies that moderate harm or exploit beneficial opportunities in response to actual or expected climate change impacts to the natural and built environments;"

(10) "Encourage planning and management of the natural and built environments that effectively integrate climate change policy;"
Integrating CCA into Existing Planning Frameworks

General Plan (GP) & Development Plan (DP) Updates

- Options for Implementing the Hawaii State Planning Act Climate Change Adaptation Priority Guidelines - CRest

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(2) “Encourage community stewardship groups and local stakeholders to participate in planning and implementation of climate change policies;”

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(10) “Encourage planning and management of the natural and built environments that effectively integrate climate change policy;”
Identifying Current CCA Projects

What are Counties already doing?

On-going planning efforts and projects that consider climate change impacts and include adaptation strategies

Spotlight: Dune Restoration in South Maui

- County of Maui, UH Sea Grant, and Hoaloa `Aina
Identifying Current CCA Projects

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External Initiatives

Status of Implementation

- Strengths & Opportunities
External Initiatives

(1) “Ensure that Hawaii’s people are educated, informed, and aware of the impacts climate change may have on their communities;”

Pacific Islands Climate Education Partnership (Chip Fletcher, UH-SOEST)

Various UH Sea Grant Publications

(2) “Encourage community stewardship groups and local stakeholders to participate in planning and implementation of climate change policies;”

Mahuahua ‘Ai o Hoi (Kako’o ‘Ōiwi)

Transportation Asset Climate Change Risk Assessment (OMPO)

Climate Change and the Visitor Industry (UH Sea Grant; HTA)

Risk and Vulnerability Assessment of SLR in Honolulu (UH Sea Grant; NOAA CSP)

(3) “Invest in continued monitoring and research of Hawaii’s climate and the impacts of climate change on the State;”

Evaluation of Kauai’s Changing Shorelines (KCC, UH Sea Grant, PMRF)

State of Hawaii Hazard Mitigation Plan Update 2013

(4) “Consider native Hawaiian traditional knowledge and practices in planning for the impacts of climate change;”

Learning from TEK...in Kaupulehu, Hawaii Island (UH-Manoa)

(5) “Encourage the preservation and restoration of natural landscape features ... that have the inherent capacity to avoid, minimize, or mitigate the impacts of climate change;”

The Rain Follows the Forest (DLNR)

Kailua Beach Management Plan (DLNR-OCCL)

Hawaii Coral Reef Strategy (DLNR-DAR)

(6) “Explore adaptation strategies that moderate harm or exploit beneficial opportunities in response to actual or expected climate change impacts to the natural and built environments;”

Various UH Sea Grant Publications

e.g. Alternatives to shoreline protection

(7) “Promote sector resilience ... by encouraging the identification of climate change threats, assessment of potential consequences, and evaluation of adaptation options;”

PICCC; PacIOOS; PICSC; Pacific RISA; PaCIS; UH-SOEST; UH Sea Grant; NOAA

(8) “Foster cross-jurisdictional collaboration between county, state, and federal agencies and partnerships between government and private entities and other non-governmental entities...;”

Evaluation of Kauai’s Changing Shorelines (KCC, UH Sea Grant, PMRF)

State of Hawaii Hazard Mitigation Plan Update 2013

(9) “Use management and implementation approaches that encourage the continual collection, evaluation, and integration of new information and strategies into new and existing practices, policies, and plans;”

e.g. Erosion rate-based Setbacks (Maui / Kauai Counties)

e.g. Sea Level Rise and Coastal Inundation Viewer (NOAA)

(10) “Encourage planning and management of the natural and built environments that effectively integrate climate change policy.”

Hawaii Island Commercial Harbors 2035 Master Plan Update (DOT-Harbors)

Draft Lana‘i Community Plan 2013 Update
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External Initiatives

Status of Implementation

• Strengths & Opportunities
Status of Implementation

Strengths

- Wealth of climate science research
- Several preservation/restoration plans in place
- Sector vulnerability assessments
- Cross-jurisdictional collaboration

Opportunities

- Education/Outreach
- Community engagement
- Integration of TEK
- Evaluation of alternatives; cost-benefit analysis
- Sector-specific adaptation strategies
- Adaptive management
- Continued integration of CCA into County Plans
Mahalo!

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