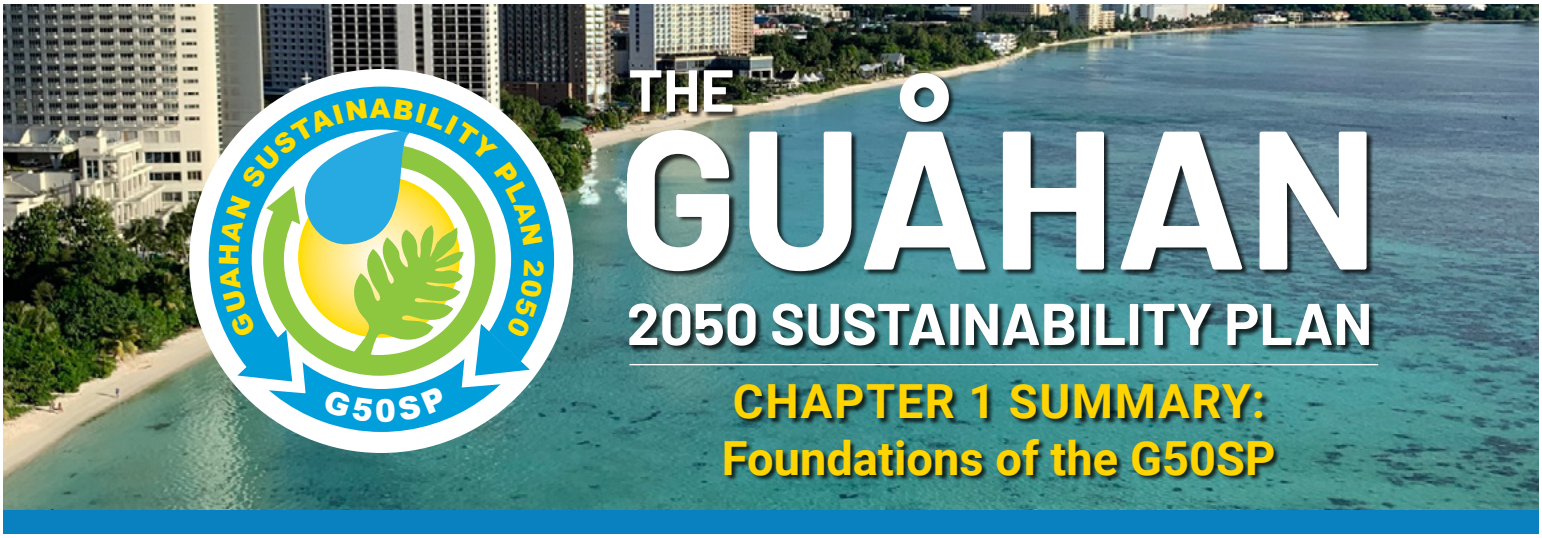


THE GUÅHAN 2050 SUSTAINABILITY PLAN

CHAPTER 1 SUMMARY: Foundations of the G50SP

Chapter 1 establishes the purpose, guiding principles, and overarching framework for the Guåhan 2050 Sustainability Plan (G50SP). Mandated by Public Law 35-110, the Plan updates Guam's comprehensive land use strategy to address the island's most pressing long-term challenges—climate change, infrastructure constraints, housing affordability, economic transition, cultural preservation, and population change—while ensuring that decisions made today do not compromise the ability of future generations to thrive. The chapter makes clear that sustainability on a small island is not an abstract concept, but a practical necessity rooted in Guam's finite land base, fragile ecosystems, cultural heritage, and interconnected communities.

A central premise of Chapter 1 is that Guam's economy, environment, culture, and community well-being are interdependent systems, not competing interests. Land use decisions inevitably shape all four, and effective planning must therefore integrate them rather than treat them in isolation. The G50SP is framed not simply as a regulatory document, but as a long-range governance framework to guide coordinated decision-making across agencies, sectors, and villages over the next 25 years.

Community engagement is foundational to this framework. Chapter 1 emphasizes that the G50SP was built through an extensive, multi-stage engagement process involving professional experts, government agencies, village leaders, nonprofits, and residents. Through interviews, roundtables, focus groups, and two island-wide surveys conducted in 2022 and again in 2024/2025, the Plan documents remarkable consistency in public priorities over time. Across villages and demographic groups, residents repeatedly identified five core concerns: reliable infrastructure, affordable housing, economic stability, protection of environmental and cultural resources, and preservation of village identity. The persistence of these priorities underscores that they are not short-term reactions, but deeply held values that should anchor long-term planning.

Chapter 1 explains that the remainder of the Plan is organized around five thematic areas, each representing a critical dimension of sustainability and forming the structure for Chapters 3 through 7:

- **Sustainable Communities** focuses on compact, service-ready development; safe and resilient infrastructure; expanded housing options; and protection of agricultural lands and the Northern Guam Lens Aquifer.
- **Prosperous Economy** emphasizes redevelopment over sprawl, mixed-use growth, economic diversification, right-sized tourism, infrastructure renewal, and village-scale economic opportunity.
- **Thriving Environment** advances a ridge-to-reef approach to environmental stewardship, including watershed and aquifer protection, habitat conservation, green infrastructure, and climate adaptation across land and coastal systems.
- **Vibrant Culture** centers CHamoru values, cultural landscapes, historic sites, traditional practices, public access to shorelines and parks, and community spaces that support physical, cultural, and spiritual well-being.
- **Village Sustainability** provides tailored strategies for each of Guam's nineteen villages, recognizing differences in geography, scale, needs, and heritage while promoting equitable access to services and facilities.

These thematic chapters are grounded in five core sustainability principles introduced in Chapter 1: *limits, balance, renewal, equity, and engagement*. Together, they articulate a vision in which development respects ecological and infrastructure capacity, integrates economic and cultural objectives,

prioritizes reinvestment and restoration, ensures fairness in access to opportunity and resources, and meaningfully includes communities in decision-making. The chapter emphasizes that sustainability requires acknowledging constraints, making tradeoffs transparently, and centering social well-being in land use policy.

Chapter 1 also introduces the Plan's governance and implementation framing, highlighting the need for coordinated land use review, multi-agency alignment, and clear accountability. Illustrated through an integrated sustainability governance framework, the chapter stresses that successful implementation depends on aligning public laws, agency programs, capital investments, and regulatory decisions with the G50SP's goals and policies. Incremental or ad hoc zoning changes are cautioned against; instead, land use decisions should be made within a coherent, long-term strategy informed by the Plan.

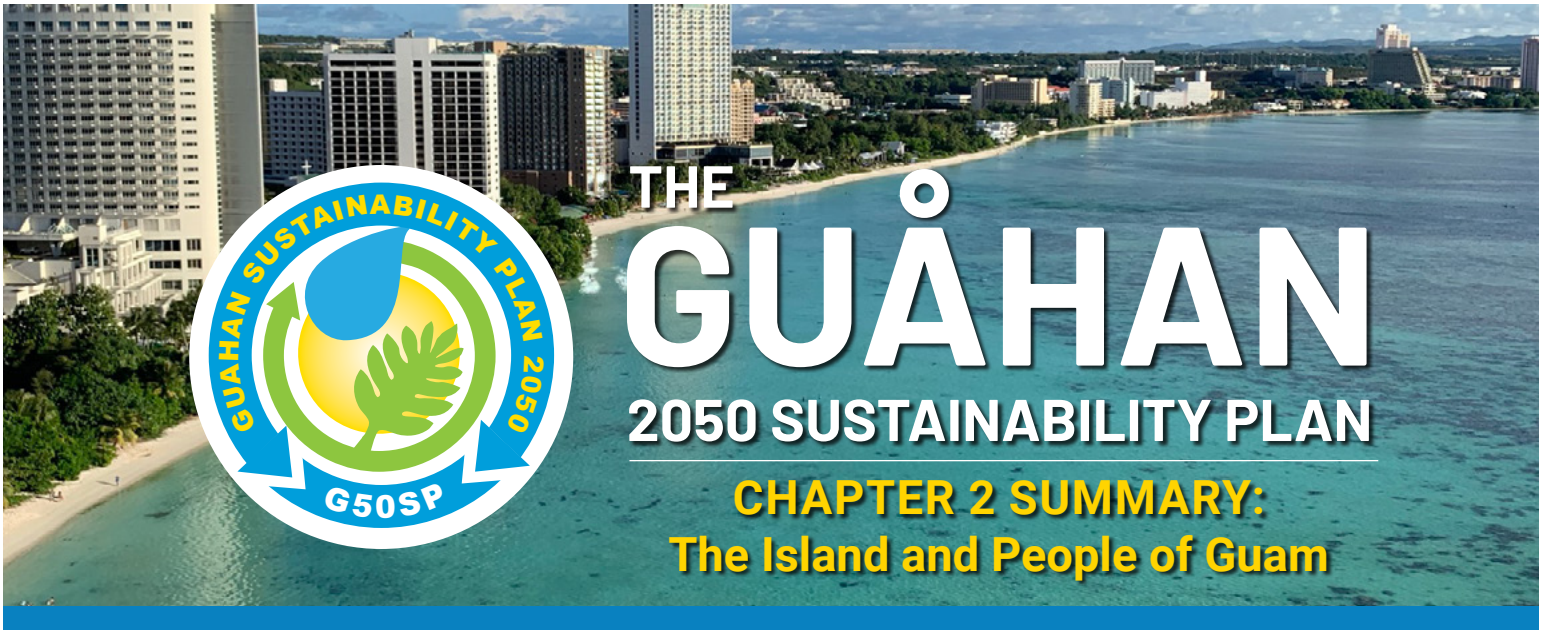
The chapter concludes with a single, unifying policy that reinforces these commitments:

GOV-1: Community Engagement and Plan Implementation

The Government of Guam shall assure maximum community engagement and shared governance in G50SP implementation, through regular village and neighborhood-level participation and engagement—especially with vulnerable populations, indigenous groups,elders, local business owners, renters, and other community members that may be impacted by new development, redevelopment, and other land use changes and challenges. Support transparent decision processes and communication of land use decisions through public dashboards addressing objectives, financing, and plan implementation outcomes.

Together, Chapter 1 sets the ethical, procedural, and conceptual foundation for the G50SP—establishing sustainability as a shared responsibility, grounded in community values, and carried forward through coordinated, transparent governance.

Core components and principles of the Guåhan 2050 Sustainability Plan.



THE GUÅHAN 2050 SUSTAINABILITY PLAN

CHAPTER 2 SUMMARY: The Island and People of Guam

Chapter 2 explains how Guam's geography, population, and relationship with the U.S. military shape every aspect of long-term sustainability. It frames the land use goal to plan for population and growth that supports the island's ecological limits and cultural integrity and establishes three objectives: (1) use the best population data, (2) coordinate with the Department of Defense (DOD), and (3) apply federal consistency review to the federal government's plans, projects, and permitted activities.

Guam's Setting and Climate Risks

Guåhan is a small but diverse island—limestone plateau in the north, mountains in the south, and coral reefs along most of its shore. A tropical climate brings heat, heavy rains, and periodic typhoons. Climate change is expected to increase extreme rainfall, raise temperatures, and intensify the strongest storms, amplifying pressures on infrastructure, natural systems, and communities.

Population Trends

Guam's population has grown over the past century, though recent census counts show slowing or uncertain growth. U.N. projections assume a gradual population increase to around 196,000 by 2050, with a rapidly aging population. Guam is also increasingly multicultural: CHamorus now represent about 32.7% of residents. Most people live in the northern villages such as Dededo, Yigo, and Tamuning, while southern villages remain smaller and more rural.

Military Expansion

Chapter 2 highlights the major role of the U.S. military in shaping population change. Military-related residents numbered about 21,700 in 2020 and are expected to reach about 35,000 by 2037, driven by the relocation of Marines from Okinawa and ongoing construction. This growth will significantly affect housing demand, land availability, infrastructure needs, workforce capacity, and community life, underscoring the need for strong coordination between the Government of Guam and the federal DOD, including having clear expectations concerning planned development, infrastructure needs, resource protection, and mitigation of impacts to Guam's unique social and environmental resources.

Key Policies

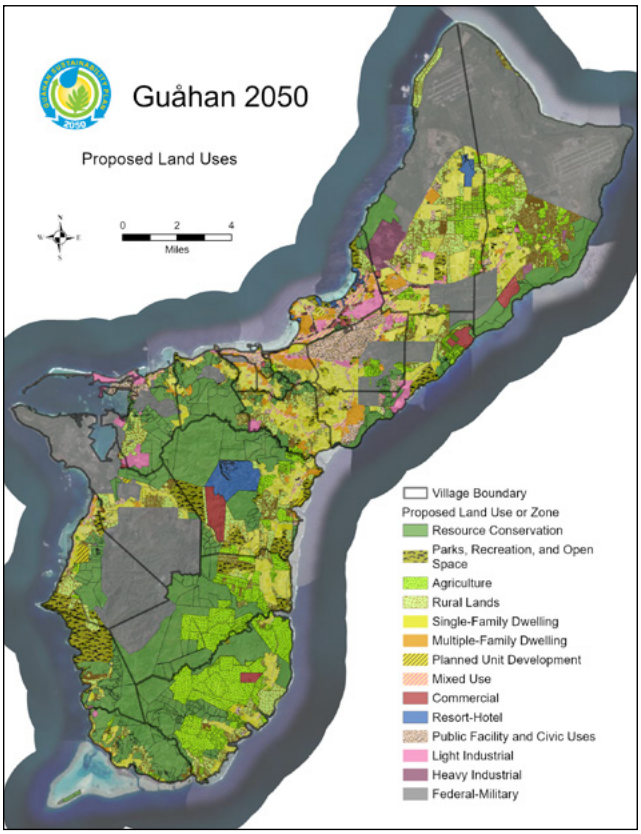
- Maintain the Bureau of Statistics and Plans (BSP) as the demographic data clearinghouse.
- Plan for a population that can be sustained within environmental, cultural, and infrastructure limits.
- Strengthen coordination with the DOD on land use, population, and impacts.
- Seek impact mitigation funding for housing, infrastructure, environment, and culture.
- Use the CZMA federal consistency review process to align federal actions with the Guåhan 2050 Sustainability Plan.

Sustainable growth requires aligning population trends with Guam's limited land base, aging infrastructure, environmental constraints, and cultural priorities. DOD-related growth adds urgency to improving housing options, expanding services, and planning for potential land use conflicts. Federal consistency review offers a powerful tool to ensure federal actions support—not undermine—Guam's sustainability goals.

THE GUÅHAN 2050 SUSTAINABILITY PLAN

CHAPTER 3 SUMMARY: Sustainable Communities

Chapter 3 presents a land use strategy to guide how Guam grows, builds, and protects its communities through 2050. It explains how sustainable development can support economic opportunity, cultural identity, resilient housing, and safe infrastructure while preserving the island's natural and rural landscapes. The chapter covers six interconnected land use systems—general land use, public services, housing, priority economic development, rural and agricultural lands, and natural hazard resilience—and provides the goals, objectives, and policy directions that together form the foundation of the Guåhan 2050 Sustainability Plan.



Planning for the Limits of a Small Island

Guam's geography and land ownership patterns shape everything that is possible. The maps of Chapter 3 show that about one half of the island is either public or federal land, with major military holdings in the north and center sections of the island. Most development is concentrated on the northern limestone plateau, while southern villages remain rural and coastal. Much of the south consists of steep, mountainous terrain. With so little developable land, the chapter emphasizes the need to direct island growth strategically, avoid fragmentation of rural and agricultural areas, and protect sensitive ecosystems such as watersheds, limestone forests, and especially the Northern Guam Lens Aquifer – the major source of Guam's drinking water.

Organizing Land Use for Sustainability

General Land Use (Section 3.2) establishes the islandwide spatial strategy: concentrating new development in existing urban areas and protect rural, agricultural, and sensitive natural lands. It introduces tools such as urban–rural boundaries, mixed-use zones, resource conservation areas, and designations to safeguard aquifers, forests, watersheds, and coastlines. The chapter stresses that Guam must maximize existing serviced areas, reduce sprawl, and revitalize built-up places while respecting cultural landscapes and traditional village form. Policies in this chapter support compact growth, redevelopment, village centers, and potential transfer of development rights to shift development pressure away from the Northern Guam Lens Aquifer.

Aligning Public Infrastructure and Growth

Public Services (Section 3.3) emphasizes that no development should proceed without adequate water, sewer, stormwater, energy, transportation, and

communications infrastructure. New infrastructure must be sized to support planned, not speculative, growth. Chapter 3 identifies critical infrastructure vulnerabilities—including aging water systems, high non-revenue water, limits on wastewater capacity, stormwater flooding, and the need for modern communications. It also highlights the importance of protecting the Northern Guam Lens Aquifer by requiring sewered development where feasible, managing stormwater with green infrastructure, and improving resilience of water and wastewater facilities. Expanded renewable energy systems, multi-modal transportation options, and better coordination of development and planning around underground utilities are also central themes.

Housing: Expanding Affordable, Well-Located, Resilient Homes

The Housing section (3.4) addresses rising housing costs, limited supply, and the need for climate-safe neighborhoods. It promotes higher-density housing, mixed-use development, and infill as primary strategies for affordability and sustainability. Policies encourage multifamily zoning, accessory dwelling units (ADUs), reuse of vacant buildings, and diverse housing types that support extended families. The chapter stresses linking housing growth with hazard data—steering new development away from flood- and typhoon-prone areas and promoting updated building practices for resilience. Village-centered housing is emphasized to preserve cultural identity and reduce vehicle dependence.

Promoting Context-sensitive Commercial, Industrial, and Priority Development

Section 3.5 focuses on ensuring that land is available for economic opportunity without degrading community character or the environment. It supports redevelopment of already urbanized areas, the growth of mixed-use commercial corridors, and land protections for priority economic sectors such as agriculture, fisheries, telecommunications, manufacturing, and eco-cultural tourism. Industrial development is directed to appropriate zones with adequate services to avoid conflicts with homes and sensitive resources. Policies also strengthen village-scale employment and entrepreneurship, helping keep economic benefits local.

Rural and Agricultural Lands: Protecting Heritage, Food Security, and Open Space

Section 3.6 reinforces the importance of Guam's rural and agricultural lands to cultural identity, environmental health, and food security. The chapter directs the preservation of open space and the promotion of both traditional and commercial agriculture. It supports minimum lot sizes, limits on subdivision, and infrastructure investments that are appropriate for rural settings. A potential Transfer of Development Rights (TDR) program could shift development away from agricultural and aquifer-protection areas. Policies also recognize the importance of CHamoru land stewardship, highlighting opportunities for conservation, cultural restoration, and community farming in partnership with the CHamoru Land Trust, Guam Ancestral Lands Commission, and Department of CHamoru Affairs.

Natural Hazards: Planning for a Climate-Ready Island

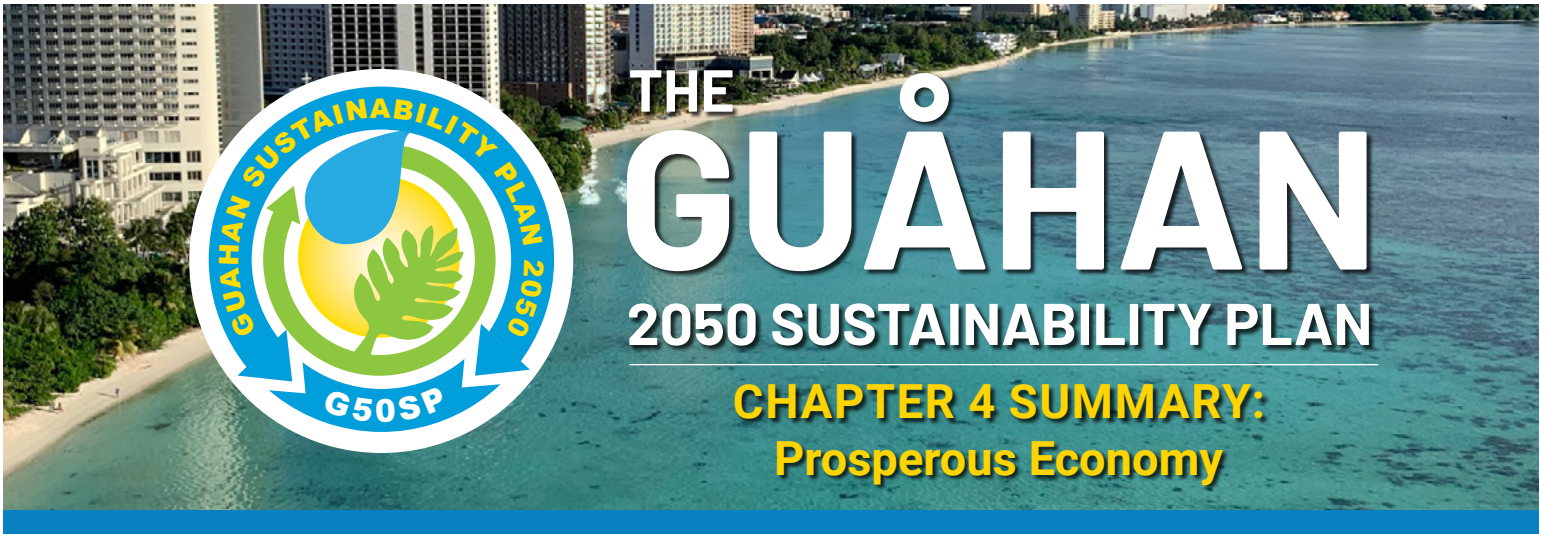
Natural Hazards (Section 3.7) integrates climate resilience into every other land use category. The plan calls for hazard overlays, risk-based zoning, and nature-based shoreline protection such as living shorelines. It links hazard mitigation with land use, transportation, housing, and infrastructure decisions. Policies steer development away from high-risk areas vulnerable to typhoons, erosion, flooding, landslides, and sea level rise, and expand the use of green infrastructure and watershed protections. Resilience is framed as essential not only to safety, but also to protecting the island's cultural resources and long-term economic vitality.

Key Policy Areas

Chapter 3 includes 143 proposed policies across six policy areas. They address many specific planning and development issues through these unifying principles:

- **Guide Growth** to appropriate locations.
- **Ensure Public Infrastructure** and services before authorizing new development.
- **Protect Critical Resources** including Guam's aquifer, coral reefs, and limestone forests.
- **Expand Housing** supply and affordability.
- **Promote Economic Opportunity**.
- **Preserve Agricultural Lands**.
- **Promote Cultural Landscapes** and CHamoru Heritage.
- **Reduce Climate Risk and Natural Hazards** through science-based land use.

Collectively, these policies advance key U.N. Sustainable Development Goals—particularly SDG 6 (Clean Water), SDG 7 (Clean Energy), SDG 11 (Sustainable Communities), and SDG 13 (Climate Action).



THE GUÅHAN 2050 SUSTAINABILITY PLAN

CHAPTER 4 SUMMARY: Prosperous Economy

Chapter 4 outlines Guam's land use strategy for building a resilient, diversified, and culturally grounded economy. It emphasizes that economic prosperity is inseparable from environmental stewardship, community well-being, and the responsible use of Guam's limited land and water resources. The policy goal is to foster economic resilience while supporting village vitality, protecting natural systems, and ensuring equitable opportunity.

Economic Conditions and Land Use Drivers.
Guam's economy remains heavily shaped by tourism, defense, and construction, each creating distinctive land use pressures. Pre-pandemic tourism generated $1.85 billion annually, but arrivals plunged 54% in 2020. In 2025, visitor activity is rebounding, though still below 2019 levels. Recovery now emphasizes ecotourism, cultural tourism, and redevelopment rather than hotel expansion. Defense spending—over $2.5 billion annually—and the activation of Marine Corps Base Camp Blaz continues to drive construction, population shifts, and infrastructure demands. With $1.46 billion in recent revenue, construction is a major sector connected to both civilian and military projects.

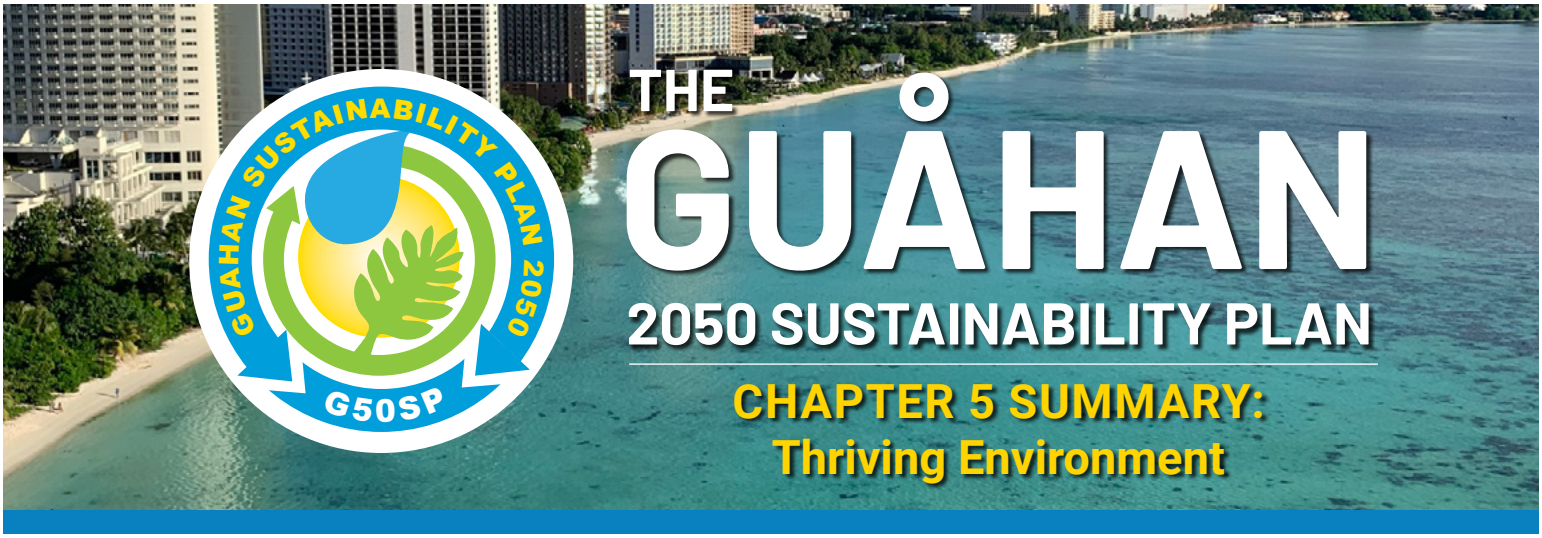
Tourism Trends and Opportunities.
Tourism is important to Guam's economy, but its future depends on aligning growth with environmental limits and community values. Chapter 4 highlights opportunity in ecotourism, heritage tourism (e.g., Hagåtña's cultural revitalization), and education tourism, while emphasizing the need to right-size new development, especially near sensitive coastal and scenic areas. The Guam Tourism Recovery Plan calls for rebranding around CHamoru culture, improving governance coordination, and prioritizing redevelopment of aging tourism properties.

Diversification and Emerging Sectors.
Guam's economic expansion can include agriculture, aquaculture, and additive manufacturing (AM). A recent aquaculture feasibility study identified high import dependence, strong local demand, and land use needs for hatcheries and commercial operations. AM, supported by the G3 Makerspace & Innovation Hub, provides new pathways for entrepreneurship.

Village-Based Economic Development.
Economic activity is highly uneven: Tamuning generates 59% of commercial revenue, while southern villages support far smaller economies. Community surveys show strong resident support for village-center revitalization, small businesses, mixed-use development, agriculture, and improved public transportation. Village-scale economic planning and place-appropriate development standards are central to a more equitable economy.

Key Policies

- Expand commercial and industrial land capacity to support future employment and living-wage jobs.
- Promote mixed-use economic zones that integrate housing, retail, and workplaces.
- Focus growth in priority corridors such as Upper Tumon, Route 3, and North Marine Corps Drive.
- Strengthen the workforce through university, vocational, and technical training facilities.
- Co-locate and streamline industrial uses to improve efficiency and reduce off-site impacts.
- Reserve land for priority economic functions, like coastal-dependent uses and renewable energy.
- Revitalize village centers with pedestrian-oriented, culturally grounded local business districts.
- Protect prime agricultural lands and support commercial, community, and subsistence farming.
- Align economic expansion with sustainability goals, including climate resilience, equity, and the SDGs.



THE GUÅHAN 2050 SUSTAINABILITY PLAN

CHAPTER 5 SUMMARY: Thriving Environment

Chapter 5 establishes a comprehensive framework for protecting Guam's land and marine environments while strengthening resilience to climate change. It recognizes that Guam's natural systems—its watersheds, aquifers, reefs, forests, and wetlands—are the foundation of public health, cultural heritage, food security, economic vitality, and overall quality of life. As a small island with limited land and freshwater, Guam faces disproportionate risks from climate change, development pressure, and resource degradation. This chapter integrates environmental protection directly into land use planning as a central sustainability strategy.

The chapter's overarching goal is to conserve Guam's terrestrial and marine environments while strengthening climate resilience through integrated land use and ecosystem planning. To achieve this, the chapter organizes policies around climate resilience, watershed and water resource protection, habitat conservation, coastal and marine management, and adaptive governance.

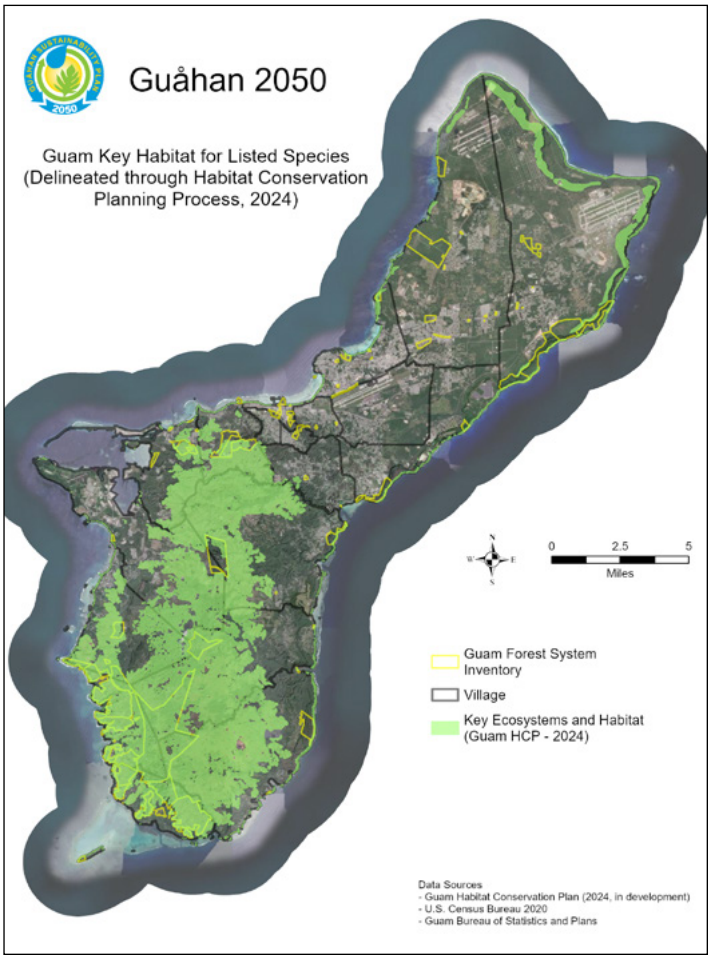
Climate Change and Land Use as a Unifying Framework

Climate change is presented as the most significant long-term environmental threat facing Guam. Rising temperatures, increasing extreme rainfall, stronger typhoons, sea level rise, coastal erosion, drought, and saltwater intrusion affect not only ecosystems, but also housing, infrastructure, water supply, food systems, and cultural resources. The chapter emphasizes that climate resilience must be embedded in land use decisions across all sectors, rather than treated as a standalone issue.

Key resilience strategies include coastal risk reduction, hazard avoidance, and nature-based solutions. Coastal setbacks are emphasized to reduce exposure to flooding and erosion, particularly as sea levels around Guam have already risen approximately four inches since the early 1990s. Updated hazard mapping is essential to guide development away from high-risk areas, while mangroves and coral reefs are highlighted as highly effective natural defenses that reduce wave energy, erosion, and storm surge impacts.

Green Infrastructure and Resilient Development

Green infrastructure is a central land use tool for managing climate impacts, particularly in urban areas. The chapter highlights permeable pavements, rain gardens, bioswales, bioretention systems, green roofs, and expanded tree canopy as strategies to reduce flooding, improve water quality, and mitigate urban heat. Tree-lined streets and urban green spaces



are shown to reduce local temperatures by up to nine degrees Fahrenheit, making them critical public health infrastructure as temperatures rise.

New infrastructure and development are expected to incorporate climate-resilient design, including flood-resistant materials, elevated roadways, energy efficiency, and renewable energy integration. Disaster-resilient housing standards are emphasized, especially in light of recent typhoons such as Typhoon Mawar, which caused over $100 million in damage. Retrofitting older housing stock and integrating solar energy and battery storage are framed as essential for long-term safety and energy security.

Water Resources, Watersheds, and the Northern Guam Lens Aquifer

Water protection is a dominant theme throughout the chapter. Guam's freshwater supply depends primarily on the Northern Guam Lens Aquifer (NGLA) and the Fena Valley Reservoir, both of which are increasingly vulnerable to climate change, over-extraction, pollution, and land use impacts. The chapter explains the unique geology of Guam's limestone plateau, which allows rapid groundwater recharge—but also makes the aquifer extremely vulnerable to contamination from surface activities.

Policies emphasize watershed protection, reduced deforestation, riparian buffers, erosion control, and strict regulation of wastewater and stormwater discharges. The chapter identifies sedimentation as the single greatest threat to coral reefs, driven by erosion, wildfires, invasive species, development, and poorly managed runoff. Integrated stormwater management—using low-impact development and green infrastructure—is framed as essential to protecting both groundwater and nearshore marine ecosystems.

Wetlands, Habitats, and Ridge-to-Reef Connectivity

Wetlands, riparian corridors, limestone forests, mangroves, coral reefs, and seagrass beds are treated as interconnected systems that provide flood control, water filtration, habitat, shoreline protection, and cultural value. The chapter documents extensive loss and degradation of wetlands due to filling, development, and polluted runoff, resulting in increased flooding, water quality degradation, and reef damage.

A strong emphasis is placed on no net loss of wetland function, improved wetland evaluation methods, functional-based mitigation ratios, and regulated vegetated buffers. Mangroves are highlighted as especially valuable, providing fish habitat, shoreline stabilization, and storm protection while filtering pollutants before they reach reefs.

Climate-Smart Agriculture and Renewable Energy

Food security is framed as both an environmental and resilience issue, given Guam's reliance on imported food. Climate-smart agriculture, agroforestry, soil health improvement, and water-efficient irrigation are promoted to increase local production while reducing emissions and vulnerability to climate disruptions.

Renewable energy integration is another cornerstone of environmental resilience. Guam currently relies on imported fossil fuels for nearly 90% of its energy. The chapter highlights strong public support for renewable energy, including solar, wind, microgrids, and potentially offshore wind, while emphasizing careful land use planning to balance conservation and energy development.

Adaptive Management, Education, and Long-Term Stewardship

Finally, the chapter stresses that environmental planning must be adaptive. Climate impacts are uncertain in timing and magnitude, requiring continuous monitoring, updated hazard mapping, and regular policy adjustments. Community engagement, education, and community-led adaptation projects—such as shoreline restoration and tree planting—are essential to building long-term stewardship and resilience. Chapter 5 thus provides a science-based, land-use-driven framework for protecting Guam's environment while adapting to a changing climate.

Key Policies

- Protect the Northern Guam Lens Aquifer by limiting development intensity, requiring sewer connections, and managing groundwater withdrawals within sustainable yield.
- Apply a ridge-to-reef planning framework to integrate watershed protection, stormwater management, reef health, and coastal resilience.
- Prioritize conservation of sensitive lands and habitats, including forests, wetlands, reefs, and wildlife corridors, through zoning, overlays, and land acquisition.
- Reduce pollution at the source by strengthening wastewater, stormwater, and solid waste systems and minimizing runoff and sedimentation.
- Expand green infrastructure and nature-based solutions to manage flooding, heat, erosion, and coastal hazards.
- Guide development away from high-risk hazard areas, using updated flood, erosion, sea-level rise, and landslide mapping.

THE GUÅHAN 2050 SUSTAINABILITY PLAN

CHAPTER 6 SUMMARY: Vibrant Culture

Chapter 6 establishes culture as a core pillar of the Guåhan 2050 Sustainability Plan, affirming that land use planning is inseparable from identity, history, and community well-being. Rather than treating culture as an amenity or overlay, the chapter positions it as a living, dynamic system—expressed through land and seascapes, language, village form, sacred and historic sites, traditional practices, and everyday social life. The chapter underscores that CHamoru culture and ancestral relationships to land and sea, alongside Guam's deeply multicultural character, must actively shape how the island grows and changes through 2050.

History, Land, and Justice

A central theme of Chapter 6 is the lasting influence of colonization, war, militarization, and land dispossession on Guam's contemporary land use patterns. Spanish reducciones, U.S. territorial governance, World War II devastation, and postwar military land takings fundamentally reshaped village locations, land tenure systems, access to ancestral lands, and relationships between people and place. These historic forces are not relegated to the past; they continue to influence development pressures, patterns of ownership, cultural erasure, and persistent inequities. As a result, the chapter frames land use planning not only as a tool for managing growth, but as a pathway toward cultural justice, restoration, and healing.

The chapter emphasizes that acknowledging history is essential to responsible planning. Decisions about zoning, infrastructure, conservation, and development inevitably carry cultural consequences—either reinforcing past harms or contributing to repair and renewal.

Protecting Cultural and Historic Resources

Chapter 6 calls for proactive and systematic protection of Guam's cultural and historic resources, including ancestral sites, burial grounds, latte villages, cultural landscapes, historic buildings, and traditional place names. It highlights the critical roles of the Guam Historic Preservation Office, Guam Preservation Trust, Department of CHamoru Affairs, and the Kumisión i Fino' CHamoru in documentation, education, review, and culturally grounded guidance.

The chapter identifies practical land use tools—such as cultural resource mapping, zoning overlays, buffers, and development review requirements—as essential mechanisms to ensure that growth does not inadvertently erase irreplaceable heritage. Adaptive reuse of historic structures is encouraged as a way to maintain cultural continuity while supporting economic vitality and community use.

Land Return and Culturally Grounded Development

Special attention is given to the CHamoru Land Trust Commission (CLTC) and the Guam Ancestral Lands Commission (GALC). These programs represent decades-long efforts to restore land to CHamoru families and communities, yet implementation has often been constrained by infrastructure gaps, access limitations, zoning conflicts, and limited agency capacity. Chapter 6 identifies a critical opportunity to move beyond parcel-by-parcel land return toward a more integrated, planning-based approach.

The chapter envisions trust and ancestral lands as central to Guam's sustainability future—supporting housing, agriculture, village development, food security, cultural practices, and environmental stewardship. Coordinated infrastructure investment, land use alignment, and interagency planning are identified as necessary steps to unlock the full potential of these lands while protecting sensitive resources such as aquifers and cultural landscapes.

Culture, Health, and Community Well-Being

Chapter 6 explicitly links culture to physical, mental, and social health. Land use decisions shape access to parks, recreation, childcare, health services, cultural spaces, and local food systems. The chapter documents uneven access to parks and green space across villages and calls for more equitable distribution of recreational and cultural amenities. Parks, historic sites, trails, and cultural landscapes are framed as essential community infrastructure, supporting resilience, social cohesion, intergenerational knowledge transfer, and everyday well-being.

Cultural spaces—both formal and informal—are recognized as vital to sustaining language, practices, ceremonies, and community connections, particularly in the face of climate change, economic stress, and population shifts.

Overall Vision and Policy Direction

Overall, Chapter 6 advances a vision of restorative, culturally grounded land use planning—one that ensures Guam's future growth strengthens rather than diminishes the island's living cultural landscape. Culture is not treated as static or symbolic, but as an evolving system that must be supported through intentional planning, design, and governance.

Key Policies

- Protecting ancestral, historic, and cultural sites through zoning, overlays, buffers, and development review
- Creating integrated GIS mapping of cultural, historic, trust, and ancestral lands
- Prioritizing infrastructure investment on CLTC and GALC lands where appropriate
- Requiring cultural and historical impact assessments for major development
- Encouraging adaptive reuse of historic structures
- Supporting village-based cultural spaces, festivals, and traditional practices
- Promoting culturally grounded building and urban design
- Expanding equitable access to parks, open space, and community facilities

Together, these policies reinforce the chapter's central message: a sustainable Guåhan is one where land use decisions honor history, sustain living culture, and support the health and dignity of all communities—now and into the future.

THE GUÅHAN 2050 SUSTAINABILITY PLAN

CHAPTER 7 SUMMARY: Village Sustainability

Chapter 7 of the Guåhan 2050 Sustainability Plan positions Guam's nineteen villages as the social, cultural, and spatial foundation of the island's future. While each village reflects distinct histories, landscapes, and development patterns, the chapter emphasizes that village diversity is a strength rather than a constraint. The central planning challenge is to support this diversity through context-sensitive land use policies that protect village character, strengthen community life, and increase resilience to environmental, infrastructure, and social pressures.

Village Diversity and Shared Challenges

The chapter underscores that villages differ widely in scale, function, and setting—from dense commercial hubs like Dededo and Tamuning to rural coastal and southern communities such as Malesso' and Humåtak. Despite these differences, villages share common challenges: aging and inadequate infrastructure, flooding and stormwater issues, vulnerability to climate change, loss of agricultural land, limited access to parks and civic spaces, and pressures from urban sprawl and military activity. These shared conditions justify an island-wide policy framework that allows local tailoring while maintaining consistency across jurisdictions.

Village Centers and Walkable Community Life

A key planning theme is the revitalization and creation of village centers as walkable, mixed-use hubs that combine housing, civic uses, small-scale commerce, and public gathering spaces. The chapter emphasizes pedestrian-scale development, complete streets, and accessible sidewalks as tools to strengthen social cohesion, reduce vehicle dependence, and reinforce village identity. Civic spaces—such as village greens, plazas, and markets—are highlighted as essential infrastructure for cultural events, fiestas, and daily community interaction.

Infrastructure, Services, and Equity

Ensuring that every village has access to core public services is a central equity objective. Policies call for improved and adequately scaled community facilities, including mayor's offices, libraries, multipurpose centers, parks, and recreational fields. The chapter recognizes that uneven infrastructure investment has contributed to disparities in quality of life across villages, particularly in low- and moderate-income communities. Addressing sewer, water, road, drainage, and emergency preparedness infrastructure is framed not only as a technical necessity, but as a matter of social equity and public health.

Environmental Stewardship and Climate Resilience

Village-level planning is closely linked to environmental protection and climate adaptation. The chapter emphasizes safeguarding aquifers,

wetlands, forests, coastlines, and culturally significant landscapes through smart land use decisions. Policies promote green buffers, conservation areas, and integration of natural features into development patterns. Hazard resilience—particularly related to flooding, typhoons, shoreline erosion, and sea level rise—is identified as a universal concern. Villages are encouraged to incorporate climate adaptation strategies, disaster preparedness, and resilient infrastructure into land use planning, rather than treating hazards as isolated issues.

Cultural Identity and Heritage Protection

Cultural continuity is a defining theme of the chapter. Villages are recognized as living expressions of CHamoru history, colonial legacies, and contemporary cultural revival. Policies emphasize protecting traditional land use patterns, cultural sites, latte stones, historic buildings, and sacred landscapes. Development that erodes village identity or displaces cultural practices is discouraged. The chapter also highlights the importance of supporting cultural programming, intergenerational knowledge transfer, and community-led stewardship as part of sustainable land use planning.

Governance and Community Engagement

Effective village sustainability depends on inclusive governance and local participation. The chapter stresses the role of mayors, municipal planning councils, and residents in shaping development decisions. Community engagement is framed as an ongoing process that builds trust, reflects local priorities, and improves implementation outcomes. Village-level planning is intended to complement island-wide policies, not replace them, reinforcing coordination among agencies while honoring local knowledge.

Policy Framework and Global Alignment

The chapter's island-wide village policies establish a coherent framework that supports village diversity, character, public facilities, recreation, civic life, environmental protection, and climate resilience. These policies align closely with several United Nations Sustainable Development Goals, including Sustainable Cities and Communities (SDG 11), Climate Action (SDG 13), Life on Land and Below Water (SDGs 14 and 15), Reduced Inequalities (SDG 10), and Strong Institutions (SDG 16). By translating global sustainability principles into village-scale land use guidance, the chapter bridges international commitments with local realities.

Overall Planning Direction

Overall, Chapter 7 articulates a vision of Guam's villages as resilient, vibrant, and culturally grounded communities. Rather than promoting uniform growth, the chapter calls for tailored development that respects place, strengthens community life, protects natural and cultural resources, and prepares villages for future environmental and social change. The policies provide a foundation for village-level planning that is locally responsive yet island-wide in purpose, reinforcing villages as the heart of Guåhan's sustainable future.

Key Policies

- Strengthen village centers as walkable hubs for civic life, small businesses, housing, and cultural activities.
- Preserve village character and identity through context-sensitive land use, design standards, and scale-appropriate development.
- Improve equitable access to community facilities, including parks, recreation, libraries, and multipurpose centers.
- Align infrastructure investment with village needs, prioritizing water, sewer, drainage, roads, and emergency services.
- Integrate climate resilience into village planning, including flood mitigation, heat reduction, and disaster preparedness.
- Protect culturally and environmentally significant lands, such as wetlands, aquifers, historic sites, and coastal areas.
- Support village-based economic activity, including local markets, home-based businesses, and cultural enterprises.

THE GUÅHAN 2050 SUSTAINABILITY PLAN

CHAPTER 8 SUMMARY: Plan Implementation

Chapter 8 translates the Guåhan 2050 Sustainability Plan (G50SP) from vision to action. It establishes a coordinated, accountable, and adaptive system for implementation that integrates land use planning, regulation, capital investment, and community engagement over the next 25 years. Grounded in the mandate of Public Law 35-110, the chapter emphasizes that the success of the plan depends not only on sound policy, but on sustained institutional alignment, transparent decision-making, and measurable progress.

Implementation Goal and Guiding Principles

The overarching goal of Chapter 8 is to create a unified framework that turns the G50SP into a living, operational plan. Implementation is guided by the plan's five sustainability principles—Limits, Balance, Renewal, Equity, and Engagement—which shape how decisions are prioritized, evaluated, and adjusted over time. These principles are applied pragmatically, informing where growth is encouraged, where development is constrained, and how benefits and burdens are distributed across communities.

Leadership, Coordination, and Accountability

A central feature of the implementation framework is the designation of the Bureau of Statistics and Plans (BSP) as the lead coordinating agency for the G50SP. BSP is tasked with guiding implementation, monitoring progress, supporting interagency coordination, and reporting outcomes. Within the first year of adoption, the plan calls for the establishment of a Sustainability Plan Implementation Task Force, bringing together key government agencies to clarify roles, align timelines, and develop protocols for collaboration.

Accountability is reinforced through clear assignment of responsibilities, performance indicators, and regular reporting. The chapter emphasizes that implementation must be transparent and inclusive, with ongoing engagement of village leaders, community organizations, landowners, and residents—not only during planning, but throughout execution and monitoring.

Phased Implementation Over Time

Chapter 8 organizes implementation into three overlapping time horizons:

- **Short-term (2025–2030)**: Focused on foundational actions, including legal and regulatory alignment, establishment of governance structures, priority infrastructure upgrades, affordable housing zoning, hazard mitigation, and development of monitoring systems.
- **Mid-term (2030–2040)**: Emphasizes scaling successful strategies, refining zoning and permitting frameworks, expanding mixed-use redevelopment, restoring ecosystems, and integrating climate adaptation across sectors.
- **Long-term (2040–2050)**: Aims to fully realize the plan's vision of compact, resilient communities, restored natural systems, clean energy transformation, and equitable access to land and services.

This phased approach allows the plan to remain flexible and responsive while maintaining a clear long-term trajectory.

Tools, Processes, and Plan Alignment

Implementation relies on a suite of practical tools, including zoning and land use updates, development review processes, capital improvement planning, GIS-based land use monitoring, performance dashboards, and regulatory enforcement. A key priority is plan

alignment—ensuring that existing sectoral plans (e.g., transportation, water, housing, environmental protection, cultural preservation) are consistent with the G50SP. BSP is charged with inventorying and coordinating these plans to reduce duplication, resolve conflicts, and strengthen coherence across government actions.

The Application Review Committee (ARC) plays a critical role in operationalizing consistency, ensuring that development proposals are reviewed against the G50SP's land use designations and sustainability objectives early in the permitting process.

Implementation Action Matrix

At the heart of Chapter 8 is a detailed Implementation Action Matrix, organized by thematic policy areas. The matrix identifies specific actions, lead agencies, partners, timeframes, resource needs, and performance indicators. It serves as a practical management tool to coordinate efforts across sectors such as governance, land use, housing, economy, environment, culture, and village sustainability, while enabling progress tracking and adaptive management.

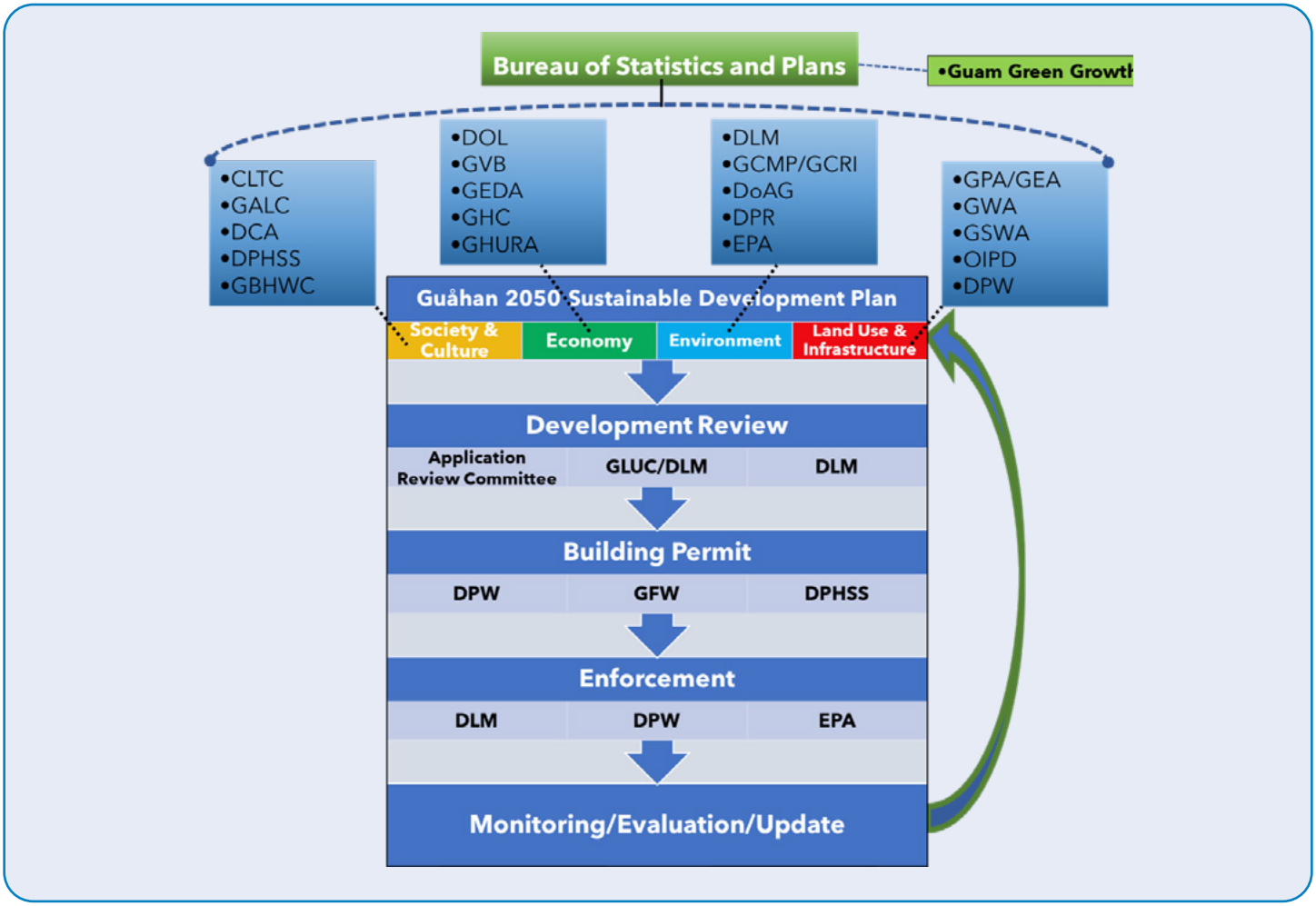
Financing and Investment Strategy

The chapter recognizes that implementation requires sustained and diversified funding. It calls for development of a Sustainability Strategic Financing Plan within the first two years, identifying federal, territorial, private, and innovative funding sources. Potential mechanisms include federal infrastructure and resilience grants, Department of Defense investments, Department of the Interior programs, public-private partnerships, impact fees, green bonds, and other local revenue tools.

Importantly, financing is framed as a strategic activity—not just a technical one—requiring coordination across agencies and alignment with sustainability priorities.

Adaptive Management and Continuous Improvement

Finally, Chapter 8 emphasizes that implementation is not static. Regular five-year reviews, performance monitoring, and plan updates are built into the framework to ensure responsiveness to changing conditions, new data, and community input. This adaptive approach ensures that the G50SP remains relevant, accountable, and effective through 2050.



G50SP Integrated Framework for Agency Collaboration and Development Decisions.