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Nature Conservation Priorities for the New Government 2025 – 2028







The **Aruba Conservation Foundation (ACF)** is an independent, registered¹, not-for-profit, conservation management organization (CMO), operating on the basis of its Articles of Association and the (inter)national legal framework² and policies, as well as its Multi Annual Corporate Strategy 2023-2032³. ACF works together with the public and private sectors and a diverse community of stakeholders, taking an integrated approach to delivery of the mandate of protecting, preserving, and restoring Aruba's natural heritage, and broader goals of contributing to sustainable development.

ACF protects, preserves, and restores Aruba's valuable natural heritage, seen from an ecological, environmental, geological, archaeological, historical, social, and cultural perspective, with the ultimate aim to secure a measurable improvement in the overall biodiversity, health, and (climate) resilience of Aruba's ecosystems. ACF operates according to the principles of **Biodiversity Conservation and Ecosystem-Based Management (EBM)**, applying best practices and the Conservation Standards (Theory of Change) to deliver high conservation performance and tangible results.

As a custodian of the protected areas⁴ of Aruba and the biodiversity⁵ they harbour, ACF promotes sustainable practices beyond the protected areas, that integrate environmental, social, cultural, and economic objectives, and that address long-term concerns in meaningful ways, to ensure that our natural resources remain relevant for present and future generations.

ACF's Multi Annual Corporate Strategy 2023 – 2032 (ACF MACS 2023 – 2032) articulates a clear ambition and direction for the organisation in its transition from a traditional park management organization to a modern conservation management organization based on a commitment to three core principles that are instrumental in ACF's organizational philosophy: Nature First, Community Partnership, and Organizational Excellence.

Having adequate funding to be able to execute the necessary protection and restoration measures remains a challenge for environmental NGOs in Aruba. Hence, ACF has developed its **Cycle of Business (CoB)**, a framework for value creation and sustained conservation, to keep our focus and management attention firmly on our primary task of nature conservation and consequently on value creation for our nature, our environment, our residents, our communities, our visitors, and our economy, in order to generate their stewardship and support for sustained conservation of our natural assets.

Moreover, ACF's **Protected Areas Conservation Management Framework 2025 - 2034** recognizes the urgent need for a more holistic, integrated, and inclusive approach for the conservation management of nature in Aruba, especially of the protected areas, based on enhanced value creation and a broadening of conservation support, collaboration, and participation.

¹ The Aruba Conservation Foundation (ACF) – the brand name of Fundacion Parke Nacional Aruba (FPNA) - is registered at the Chamber of Commerce and Industry Aruba under S679.0.

² See Appendix I for ACF's environmental legal framework.

³ See https://cms.acf.aw/wp-content/uploads/2024/04/ACF-MACS-2023-2032.pdf

⁴ ACF is mandated by the government of Aruba through a service level agreement (SLA) to manage the legally designated terrestrial and marine protected areas. See Appendix II for an overview of ACF's management areas and Appendix III for Aruba's Ramsar areas, which partly overlap with the protected areas.

⁵ See Appendix IV for an overview of Aruba's biodiversity and main environmental threats.

With this approach, ACF wants to ensure the highest levels of ecologically and environmentally sustainable, socially relevant, and economically viable outcomes for the protected areas, along the long-term financial sustainability through ACF's Cycle of Business for value creation and sustained conservation by: conserving Aruba's natural and cultural assets to facilitate long-term ecological integrity and delivery of ecosystem services; creating more value for nature itself through its conservation, and for stakeholders and visitors through sustainable nature-based propositions and experiences that facilitate commitment for Nature of Aruba; and proactively broadening and facilitating understanding of the value of nature and support for sustained conservation on all levels (citizens, communities, visitors, NGO's, government, philanthropists, and corporations) – local, regional, and international.

Background

Aruba, like many islands in the Caribbean, has unique biotic and abiotic factors and geological characteristics that contribute to its landscape and environmental conditions. Its semi-arid climate and its profound geological history has brought forth rugged volcanic, limestone and sandstone landscapes, and a diversity of native and rare endemic species that makes our island unique and forms an inherent part of our cultural heritage, which is worthy of protection — not only from an economic standpoint but especially from a socio-cultural perspective. Aruba's nature is part of our national identity, and it is the basis of our wellbeing: our livelihoods, our health, and our quality of life.

Aruba's nature provides numerous ecosystem services⁶ that contribute to the local community's and visitors' wellbeing. To be able to sustain these services and the prosperity that nature contributes, it is important to continue protecting, preserving, and restoring Aruba's ecosystems and biodiversity for a sustainable future. A thriving diversity of species of flora and fauna⁷, and functional and resilient ecosystems, are fundamental to human well-being, a healthy planet, and economic prosperity for all people, including for living well in balance and in harmony with nature. We depend on it for food, medicine, energy, clean air and water, security from natural disasters as well as recreation and cultural inspiration, and it supports all systems of life on Earth.

However, Aruba currently faces numerous drivers and threats that are impacting its resilience such as: overpopulation, overdevelopment, loss of biodiversity, climate change (including sea level rise, extreme weather events, water scarcity, drought and desertification, temperature extremes), pollution, over-exploitation, and mass tourism. Aruba's economy relies predominantly on tourism, with a significant portion of its GDP and employment derived from this sector. This reliance makes the economy vulnerable to fluctuations in global travel trends, economic downturns, and crises such as pandemics and climate change. Moreover, the cost of the current unsustainable tourism economic model comes at a very high price in terms of severe ecological consequences: environmental degradation, impairment of ecosystem services, and loss of biodiversity.

To prosper as an island-nation for generations to come, we must urgently change our course to one that focusses on **both nature's wellbeing and human wellbeing**, supported by a diverse, healthy, and resilient natural environment, and **a purpose-driven**, regenerative economy, in which our tourism

⁶ Ecosystem services: the direct and indirect contributions ecosystems (supportive, provisioning, regulating, and cultural - known as natural capital) provide for human wellbeing and quality of life. This can be in a practical sense, providing food and water and regulating the climate, as well as cultural/social aspects such as supporting recreation and reducing stress and anxiety.

⁷ 2.454 species of flora and fauna have been identified for Aruba, including 34 endemic species (https://www.dutchcaribbeanspecies.org/).

model is transitioned from high impact to low impact, restorative and creating high value. Moreover, we cannot meet the global '30 by 30' protection targets and 'no extinctions' international commitments without a seismic shift in nature investment and the national 'environment' budget, which remains low in comparison with other national budgets.

It is urgent that Aruba develops social, legal, and economic systems that shift towards nature-inclusive and nature-positive (and includes nature-based solutions), thereby safeguarding our natural values in compliance with the human right to a clean, healthy, and sustainable environment. These new social, legal, and economic systems must address and tackle the major environmental and societal challenges Aruba faces, while simultaneously enhancing human wellbeing and providing biodiversity benefits. A crucial part of this transformation is ensuring adequate enforcement of environmental laws to prevent further degradation and the implementation of national biosecurity policies to address the growing threat of invasive species. Strengthening these legal and policy frameworks is essential to maintaining the integrity of Aruba's ecosystems and biodiversity.

The conservation of Aruba's nature is not only dependent on the conservation efforts of ACF but requires the whole of government and the whole of society to value nature and participate and collaborate in halting and reversing biodiversity loss and ecosystem degradation. This collective action is necessary to put nature on a path to recovery for the benefit of people and the planet.

Hence, and in alignment with the above, the **Aruba Conservation Foundation (ACF)** has identified the following **10 key conservation priorities** for the **2025-2028 government program**, ensuring **stronger protection**, **restoration**, **and resilience** of Aruba's natural environment.

These 10 conservation priorities form a comprehensive strategy for preserving Aruba's biodiversity, strengthening climate resilience, and ensuring long-term sustainability. By incorporating scientific research, enforcement, sustainable funding, and community involvement, Aruba can lead by example in nature conservation and environmental stewardship.

10 Nature Conservation Priorities for the New Government

1. Long-Term Financial Commitment for Nature Conservation in Aruba

Nature is one of Aruba's most valuable assets, directly contributing to the island's economy, tourism industry, and public well-being:

Nature Drives Aruba's Tourism Economy

- Tourism contributes over 80% of Aruba's GDP, with visitors drawn to the island's pristine beaches, marine life, national park, and nature reserves.
- Global trends show a rising demand for eco-friendly destinations, and a well-preserved natural environment enhances Aruba's competitive edge in tourism.
- Environmental degradation (e.g., coral reef loss, coastal erosion, habitat degradation, and pollution) threatens Aruba's tourism appeal, reducing visitor satisfaction and return rates.

Healthy Ecosystems Reduce Climate Change and Disaster Risks

- Coastal ecosystems such as mangroves, seagrass meadows and coral reefs provide natural protection against storms, sea-level rise, and erosion, reducing infrastructure damage and disaster recovery costs.
- Protecting watersheds, wetlands, and native vegetation helps regulate water availability, reducing the risk of disasters and the cost of water treatment, improving long-term water security and environmental integrity ('Ridge-to-Reef' approach).

Conservation Supports Public Health and Well-Being

- Clean air, green spaces, and access to nature improves public health, lowering cases of respiratory illnesses and reducing government healthcare expenses.
- Scientific research confirms that access to nature also has mental health benefits, improving the overall quality of life for residents.

Investing in Conservation Creates Jobs and Diversifies the Economy

- Conservation efforts generate employment in eco-tourism, environmental management, research, and sustainable resource use.
- Supporting conservation NGOs and grass root, community-based initiatives stimulates local entrepreneurship and sustainable business development.

Long-Term Cost Savings for the Government

- Preventing environmental damage is more cost-effective than repairing it. i.e., coral, seagrass and mangrove protection and restoration reduce costly infrastructure damage.
- Investments in waste management, recycling, and pollution control lower long-term public health and environmental cleanup expenses.

Nature is Aruba's natural capital and a fundamental pillar of its economic success. Nevertheless, nature and its conservation have for too long been undervalued and not prioritized. Without dedicated attention and investment in nature conservation, restoration, and environmental protection, Aruba risks long-term economic and environmental instability, undermining the very foundation of its economic success.

Nature conservation in Aruba is at a critical crossroads. While dedicated volunteerism has been instrumental in protecting the island's unique biodiversity for the past decades, it is not a sustainable model for the future. Conservation efforts require structural, long-term funding rather than sporadic, short-term project-based support. Without dedicated financial resources, Aruba's natural heritage—and the vital work of its many grass root conservation organizations—remains vulnerable, and increasingly so.

ACF urges the government to adopt a long-term financial commitment to protecting, preserving, and restoring its natural heritage, recognizing its essential role in sustaining the island's prosperity —

thereby ensuring a thriving economy, a resilient environment, and a high quality of life for future generations.

The Need for Sustainable Conservation Funding

ACF is the only conservation organization with a Service Level Agreement (SLA) with the government for managing terrestrial and marine protected areas. However, ACF is only partially government-funded and needs to annually secure additional financial resources to be able to carry out the necessary work (note that natural processes require long-term programs and funding). All other nature conservation organizations – often specialized, grass root NGOs - in Aruba operate solely on a volunteer basis with minimal and inconsistent funding, limiting their ability to achieve lasting environmental impact. To ensure the financial sustainability of conservation in Aruba, ACF proposes the development of a comprehensive funding strategy that benefits all nature NGOs.

Key Actions:

- A dedicated government conservation fund with guaranteed annual budget allocations to support protected area management and biodiversity protection, preservation and restoration, enforcement, and applied conservation research.
- Recognizing the collaborative efforts of all conservation NGOs and ensuring funding
 mechanisms include support for thematic and project-based biodiversity conservation
 initiatives beyond that of ACF and protected areas.
- **Eco-tourism levies and conservation fees** that ensure visitors directly contribute to environmental protection efforts in Aruba.
- **Public-private partnerships**, engaging local and international businesses and organizations in conservation financing, such as corporate sponsorships for species, habitat, and ecosystem restoration and conservation programs.
- International funding and grants, securing resources from global conservation initiatives to supplement national efforts. Strong environmental policies attract international funding and investment, including grants, green bonds, and development aid. Aligning Aruba's conservation policies with global sustainability goals (e.g., UN Sustainable Development Goals, Paris Agreement) enhances the island's international reputation and economic opportunities.
- **Mechanisms for reinvesting environmental fines** from violations directly into conservation programs, reinforcing the principle that those who harm the environment should contribute to its restoration.

Strengthening the Service Level Agreement (SLA) for Protected Areas

The SLA between the government of Aruba and ACF for the management of protected areas must evolve to reflect the long-term nature of conservation efforts. ACF advocates for:

- Extending the SLA to a **10-year cycle**, providing stability and enabling long-term strategic planning.
- Increasing government **budget allocations to reflect the true costs** of protected area management and conservation enforcement.

A Call for Government Action

Investing in nature and its conservation makes sense. It demonstrates vision; forward-thinking responsibility and commitment to securing Aruba's sustainable future and natural heritage for future generations. By establishing inclusive, reliable, long-term financial mechanisms, Aruba can ensure the resilience of its ecosystems, the protection of its biodiversity, the sustainability of its (grass root) conservation organizations, and applied research that enables effective conservation management decisions.

Roles:

- ACF: Provide policy recommendations, increase awareness raising and collaborative efforts.
- **Government:** Establish and maintain long-term financial commitment for nature conservation, enforcement, and applied research. Create enabling policies and mechanisms to protect Aruba's natural resources.

2. 30x30: Expanding Protected Areas (Land & Marine)

Objective: Align with the global 30x30 target by protecting at least **30% of Aruba's land and marine environment by 2030.**

This involves expanding current terrestrial and marine protected areas (ROPV 2021 designated 'Natuurgebied' and 'Marinegebied') and designating new protected areas, enhancing management, and ensuring legal protection (note that the ROPV is up for review in 2026). When expanding current protected areas or designating new areas (Directie Natuur & Milieu and ACF have already compiled a list) as 'Natuurgebied' it is also crucial to incorporate the 'Ecologische Hoofdstructuur' (EHS) as identified by DNM (including 'steppingstones', mini mondi, rooi, dam, tanki⁸ and reinforce DNM's 'Build with Nature' policy) during the ROPV process for terrestrial conservation.

Additionally, the current ROPV areas designated as 'Natuur en landschap' are still pending the assignment of a management organization to oversee and execute proper conservation management, including regulating (high impact) human activities, such as ATVs/UTVs - which are degrading the ecological integrity of these important habitats and impacting native biodiversity. Moreover, the 4 new Ramsar sites⁹, established in 2023, still await a management framework and assigned management organization in order to comply with international obligations. In the meantime, ACF has proactively incorporated the Ramsar management guidelines into its management plans where the Ramsar sites overlap with the protected areas managed by ACF.

Another consideration is having UNESCO designated areas such as UNESCO Geopark and UNESCO Man & Biosphere (MAB) can offer additional ecological and socio-economic benefits as well as enhancing Aruba's global prestige as a model for sustainability. A MAB Reserve emphasizes biodiversity conservation, sustainable livelihoods, and scientific research in a zoned approach (core, buffer, transition areas and is ideal for a broad land-sea conservation approach, integrating coastal zones into a sustainable development model. Whereas a Geopark focuses on geological heritage and sustainable economic development and education, and is best suited for highlighting geological heritage, geo-tourism, and sustainable rural development (e.g., showcasing volcanic formations, caves, and coastal erosion processes).

Moreover, in conjunction with UN Ocean obligations, the government of Aruba has previously expressed its commitment to establishing an **island-round marine park** by 2025. The new government is also advised to continue the process of designating a **'Hope Spot'**¹⁰ in Aruba's territorial waters or another form of large-scale marine protected area. As such, it is recommended to join the inter-Kingdom marine megafauna reserve **'Yarari Marine Reserve'**, of which Bonaire, Saba and St. Eustatius

See Appendix V for the DNM proposed 'natuurkaart' and 'ecologische hoofdstructuur (EHS)'.

⁹ See <u>RIS Search | Ramsar Sites Information Service</u> (<u>https://rsis.ramsar.org/ris-search/Aruba?pagetab=1</u>) for an overview of Aruba's 5 Ramsar sites.

¹⁰ Hope Spots are ecologically unique areas of the ocean designated for protection under a global conservation campaign overseen by Mission Blue, a non-profit organization founded by the renown marine conservationist Dr Sylvia Earle. For more information on Hope Spots visit https://mission-blue.org/hope-spots/.

are already a part of. Moreover, a marine mammal reserve¹¹ could be fast-tracked for Aruban national waters in preparation of a large-scale marine protected area.

These initiatives will **strengthen ecosystem resilience** against climate change and other human impacts, ensuring that **Aruba's biodiversity and natural resources** are preserved for future generations.

Key Actions:

- **Increase the number and size of legally protected areas** to safeguard terrestrial and marine biodiversity and critical habitats and ecosystems.
- **Ensure proper management** by equipping the protected area management authority with adequate **enforcement powers** (see priority 3 below).
- Develop and implement an integral National Coastal and Marine Spatial Plan (CMSP).
- Prioritize ecological connectivity between terrestrial and marine protected areas through
 wildlife corridors ('ecologische hoofdstructuur') and greening urban areas with native plant
 and tree species, including by applying the 3-30-300 principle¹² to support species migration
 and resilience.
- Reinforce DNM's 'Build with Nature' policy and implement de Aruba NBSAP 2024¹³.
- **Increase community and stakeholder involvement** in the development of policies and conservation efforts to ensure compliance and support.

Roles:

• ACF: Advocate for area expansion, provide evidence for justification, manage protected areas through inclusive processes.

Government: Legally designate new protected areas and ensure regulatory compliance.

3. Developing Comprehensive Environmental Legislation and Strengthening Enforcement Rights for Conservation

Objective: Develop a modernized, comprehensive, and integrated environmental legislation and enhance enforcement capacity to combat environmental violations and habitat destruction.

Improving Aruba's environmental legislation requires a multi-faceted approach that strengthens enforcement, integrates ecological values into policy, and aligns with international best practices.

A modern, comprehensive environmental legislation needs to be developed to include climate adaptation and to better protect the environment, ecosystems, and the services they provide, and native biodiversity, and the habitats they depend on. Continuing the process of incorporating **the**

¹¹ It is recommended to approach the Aruba Marine Mammal Foundation (AMMF) on this desirable marine designation.

¹² The 3-30-300 principle is based on the rule that everyone should be able to see at least 3 large trees from where they live, work, learn, or receive care. This promotes psychological well-being and connection to nature, and also enhances mental recovery, concentration, learning, and creativity. Neighbourhoods should have at least 30% tree canopy cover. This provides environmental benefits, such as cooling and improved air quality, while also enhancing our wellbeing and physical health, and fostering more social interactions. Everyone should have a high-quality, publicly accessible green space of at least 0.5–1.0 hectares no more than 300 metres walk or bike ride away, ensuring accessibility for recreation and fostering healthier lifestyles. See also https://tradkontoret.se/wp-content/uploads/2025/02/The-330300-Handbook.pdf.

¹³ See https://dnmaruba.org/pa/publicacion/aruba-nbsap-2024/.

Rights of Nature as a legal instrument to protect and restore ecosystems and biodiversity into the Constitution is urgent and instrumental for promoting environmental sustainability and combatting climate change, biodiversity loss, and environmental pollution. Putting the Rights of Nature in the Constitution—rather than just in regular law—has several key benefits:

- Stronger legal standing: Constitutional rights are the highest form of law. This means Nature's
 rights can't be easily overridden by other laws or policies and have to be respected by all
 branches of government.
- Long-term protection: Constitutions are much harder to change than regular laws, so this gives more durable, lasting protection for ecosystems.
- Legal priority: If a conflict arises, constitutional rights can outweigh other interests, giving courts a clearer mandate to protect Nature.
- Cultural shift: Embedding Nature's rights in the Constitution signals a deep societal value shift: recognizing Nature not just as a resource, but as a rights-holder, like humans.

Moreover, including the **Precautionary Principle** in Aruba's environmental legislation is highly relevant, particularly given the island's fragile ecosystems, biodiversity, and reliance on tourism. The precautionary principle states that when an activity poses a threat to the environment or human health, lack of full scientific certainty should not be used as a reason to postpone protection or preventive measures.

Without effective enforcement, nature conservation laws remain ineffective. ACF advocates for **clear authority and sufficient resources for enforcement agencies** to address environmental violations such as illegal dumping, encroachment of protected areas, habitat destruction, and poaching. Develop an integral plan for the enforcement of Aruba's nature laws. Expand enforcement authority to ACF i.e. to include in its team several 'Buitengewoon Opsporingsambtenaar (BOA)/Buitengewoon agent van Politie (BavPol) and/or 'Toezichthouder' (nature supervisor), as is the case for park organizations on other Dutch Caribbean islands.

Conservation laws are only as strong as their enforcement. Currently, illegal activities such as poaching, habitat destruction, and pollution often go unpunished due to limited enforcement capacity. By strengthening enforcement, Aruba can protect its natural heritage from exploitation and degradation.

Key Actions:

- Develop an integral environmental law and include the Rights of Nature in the Constitution.
- Strengthen cooperation between ACF, law enforcement, and the judiciary.
- Implement stricter penalties for environmental infractions.
- Legal recognition and empowerment of ACF conservation rangers as 'Buitengewoon Opsporingsambtenaar (BOA)/Buitengewoon agent van Politie (BavPoI) and/or as 'Toezichthouders' (nature supervisors) for effective law enforcement.
- Increased funding for enforcement agencies, including better training, equipment, and personnel for patrolling land and marine protected areas.
- Improved coordination between law enforcement, environmental agencies, and conservation organizations to track and prosecute environmental crimes.
- Stronger enforcement and possibly harsher penalties for violations, including habitat destruction, illegal waste disposal, and damage to marine ecosystems.
- Public awareness campaigns to promote compliance and increase community involvement in reporting violations.

Roles:

- ACF: Act as a frontline enforcement body and assist in legal actions.
- **Government**: Provide legislative support and enforcement authority to ACF conservation rangers.

4. Policy for (Illegal) Coastal Ranchos and Piers

Objective: Address unregulated coastal development affecting biodiversity and public access.

Unregulated coastal development and **illegal structures** on coastal areas, including **illegal rancho's** (beach/reef huts) and piers, poses major environmental threats such as coastal erosion and habitat destruction (e.g., mangroves, seagrass beds, and turtle nesting sites), restricted public access to beaches and marine areas, and increased pollution and waste dumping in sensitive ecosystems and habitats. A **clear, enforceable policy** is needed to regulate and remove these illegal structures in protected areas while minimizing environmental impact.

Key Actions:

- **Develop a national policy** for existing rancho and pier structures.
- Develop and implement an integral National Coastal and Marine Spatial Plan (CMSP), integrating coastal conservation into spatial planning.
- Regulation and permitting: Establish strict guidelines for ranchos and piers, ensuring they do
 not damage ecosystems or privatize public land.
- **Enforce regulations** against illegal constructions in coastal protected areas to prevent coastal degradation.
- **Removal of illegal structures** that harm the environment or violate zoning laws, harm ecosystems, or restrict public access.
- **Eco-friendly alternatives** for traditional rancho's, using **sustainable materials and designs** that reduce environmental impact.
- **Community involvement**: Engage stakeholders (fishermen, coastal businesses, and local communities) in creating **sustainable use policies**.
- Engage stakeholders (fishermen, coastal businesses, local communities) in developing sustainable use policies.

Roles:

- **ACF**: Conduct ecological assessments, provide policy recommendations, assist with enforcement and legal actions.
- Government: Implement zoning laws, develop policies, conduct enforcement actions.

5. Strategy for Reducing Private & Lease Lands in Protected Areas

Objective: Develop a strategy to phase out private or lease holdings in designated conservation zones.

Encroachments of protected areas disrupt ecosystems and hinder conservation efforts and needs government attention. Also, a **long-term strategy** is needed to regulate and **phase out** private properties ('eigendom' & 'erfpacht') as well as 'huurgrond' (lease land used for farming) within protected areas, e.g. through land acquisition, zoning policies, or incentives for conservation.

Private properties and lease land inside protected areas create **land-use conflicts** that threaten conservation efforts, including **habitat fragmentation**, reducing the ability of species to migrate and

thrive, unregulated development, leading to increased pollution, deforestation, and illegal resource extraction, and legal and enforcement challenges, as conservation laws often clash with private property rights and land use activities.

A **long-term strategy** is needed to:

- Regulate and phase out private landholdings and 'huurgrond' in protected areas through land swaps, conservation easements, non-renewal of lease land, or (government) buyouts.
- Introduce incentives for landowners and lessees to engage in conservation-friendly land management (e.g. through a conservation agreement).
- **Strictly enforce zoning regulations** to prevent further private and lease development inside protected areas.
- Restore **degraded habitats** affected by private and lease land use.

By reducing private landholdings and 'huurgrond' in protected areas, Aruba can **strengthen ecosystem protection and prevent future conflicts**.

Key Actions:

- Introduce land-exchange programs, non-renewal policy for lease land, or financial incentives for relocation.
- Ensure **legal frameworks and policies** to prevent future private and rental developments in protected areas.

Roles:

- ACF: Identify ecological threats from private ownership and lease land and support transition plans.
- **Government**: Develop policies and facilitate land acquisitions or reclassifications.

6. National Invasive Species Strategy

Objective: Prevent, manage, and control (potential) invasive species threatening Aruba's native biodiversity.

Invasive species pose one of the greatest threats to Aruba's biodiversity, outcompeting native species and altering ecosystems. Key threats include free roaming domestic animals (goats, dogs, cats), Boa Constrictors, which prey on native birds, reptiles and mammals, Water Hyacinth, which clogs freshwater ecosystems and disrupts water flow, and Lionfish, which decimate native fish populations in marine environments. A national strategy and policy — as part of broader biosecurity measures needs to be developed with urgency to focus on prevention, early detection, control, and eradication to protect Aruba's native flora and fauna, and the habitats they depend on.

ACF advocates for a **national strategy** that includes:

- **Prevention**: Stronger **biosecurity measures** at Aruba's seaports and airports to prevent the introduction of new invasive species.
- **Early detection and rapid response**: Investing in **monitoring programs** to detect and control invasive species before they spread.
- **Eradication and control programs**: Scaling up efforts to **remove and manage invasive species**.
- **Public education and engagement**: Raising awareness about the impacts of invasive species and encouraging **community participation** in control efforts.

By implementing a coordinated, science-based approach, Aruba can mitigate the impact of invasive species and protect its native biodiversity.

Key Actions:

- Develop and implement an island-wide invasive species control plan.
- Strengthen border biosecurity measures.
- Develop new and expand ongoing programs such as the Boa Constrictor removal initiative.

Roles:

- ACF: Advocate, conduct monitoring, provide policy recommendations, increase eradication efforts, support awareness campaigns.
- **Government**: Develop a national strategy and policy, enforce import restrictions, support research and eradication and control efforts, execute awareness campaigns.

7. National Environmental Awareness & Education

Objective: Build a nature-conscious, supportive, and collaborative society through education and engagement.

Building a **culture of conservation** requires integrating environmental awareness and literacy into education programs, media campaigns, and community engagement. A national program should **empower citizens** to understand, appreciate, and actively support conservation efforts ensuring that conservation efforts are **community-driven and sustainable**.

Raising awareness empowers citizens to appreciate and protect Aruba's unique ecosystems and biodiversity and increases a sense of local identity and national pride.

To foster a long-term culture of conservation, **environmental awareness and education must be integrated at a national level.** ACF advocates for:

- Embedding Environmental Education in Schools:
 - Develop mandatory nature and environmental conservation education in Aruba's national curriculum.
 - Encourage hands-on learning through outdoor activities, school (native biodiversity)
 gardens, and field trips to protected areas and restoration projects.
 - Promote indigenous and traditional ecological knowledge about Aruba's flora, fauna, and ecosystems.

• Public Awareness Campaigns:

- Launch nationwide media campaigns (TV, radio, social media) to educate residents and tourists about Aruba's nature laws, ecosystems & biodiversity, conservation challenges, and solutions.
- o Increase awareness about threats like environmental pollution, invasive species, illegal wildlife trade, and habitat destruction.
- Encourage citizen science and community engagement in conservation initiatives.

Professional & Government Training Programs:

- Provide nature and sustainability training for businesses and tourism operators, as well as for the full government apparatus.
- Develop certification programs for sustainable tourism and sustainable business operations and services.

• Community-Led Conservation Programs:

- Support grassroots initiatives where local communities participate in conservation efforts (e.g., coral reef restoration, mangrove reforestation, sustainable agriculture).
- Strengthen partnerships between NGOs, schools, businesses, and the government to promote environmental stewardship.

A well-informed community is **more likely to support and participate** in conservation efforts, making environmental education a **key investment in Aruba's future sustainability**.

Key Actions:

- Establish the ACF Conservation & Sustainability Academy.
- Integrate nature and environmental conservation education into Aruba's school curriculum.
- Launch **public awareness campaigns** on key conservation issues.
- Provide training for government officials, businesses, and tourism operators and develop a certification program.
- Promote citizen science and community-based conservation initiatives, and support community-led conservation initiatives to increase public participation.

Roles:

- ACF: Develop and deliver educational programs through the ACF Conservation & Sustainability Academy. Align with and support government and grass root initiatives.
- Government: Ensure nationwide implementation of Education for Conservation.

8. Conservation-Related Research at a National Level

Objective: Establish a robust, science-based framework to ensure that nature and environmental conservation efforts are effective and well-informed.

Scientific research is essential for **evidence-based conservation and policymaking** in Aruba to ensure accurate assessments, and proper planning, implementation, and monitoring.

A national environmental research framework should ensure **consistent data collection**, **interdisciplinary collaboration**, **and transparency and accessibility of findings** to inform policymakers, conservationists, and the community of Aruba at large on conservation policies and land-use decisions.

Based on conservation needs and data gaps, the government should prioritize research in the following key areas:

Ecological Carrying Capacity:

- Assess and determine the maximum population size and level of activity that Aruba's ecosystems and protected areas can support over the long term without degradation or loss of ecological integrity.
- Guide policies on visitor and activity limits, zoning, and sustainable (tourism) development.

• National Soil Mapping:

- o Create an updated **soil map** of Aruba to support land-use planning.
- Understand soil composition, fertility, and erosion risks for nature conservation, agriculture, and construction.

• Erosion & Runoff:

- Identify causes and impacts of soil erosion and coastal/marine sedimentation and land-based sources of pollution.
- Develop mitigation strategies to reduce habitat loss, nature degradation and coral reef damage.
- Nature-based Solutions & Climate Resilience Research:

- Identify and evaluate nature-based solutions (NbS) such as mangrove restoration, green infrastructure, and water retention landscapes to enhance climate resilience.
- Research ecosystem-based adaptation strategies to address extreme weather, drought, and rising temperatures.
- Integrate climate adaptation into coastal and urban planning to reduce risks from sea level rise and desertification.
- National Ecosystem & Native Biodiversity Map (Terrestrial & Marine):
 - o Develop a **comprehensive map** of Aruba's **terrestrial and marine ecosystems**, including key habitats like coral reefs, seagrass meadows, mangroves, and dry forest.
 - Document the distribution of native and endemic species to inform conservation priorities.
 - Use mapping data to guide land-use planning, restoration projects, and species protection efforts.

• State of Nature Reports:

- Conduct regular biodiversity assessments to monitor ecological baselines and track changes in Aruba's ecosystems.
- Provide policymakers with data on species populations, habitat health, and ecosystem services and threats to adjust conservation strategies accordingly.

Roles:

• ACF: Provide research input and support, provide policy recommendations, assist with data collection and reporting.

• **Government**: Lead research efforts and/or delegate to the University of Aruba, provide funding, provide regulatory support, and integrate research into policy.

9. Climate Resilience, Nature-Inclusive Planning & Nature-based Solutions

Objective: Ensure all national planning incorporates nature conservation and climate adaptation & resilience.

Aruba faces increasing environmental challenges due to climate change, including rising temperatures, coastal erosion, and biodiversity loss. To ensure a sustainable future, the government must embrace climate resilience, integrate nature-inclusive (urban) planning and implement both green (vegetation-based) and blue (water-based) infrastructure. Nature-based solutions (NbS) should be a core strategy towards a nature-positive society¹⁴, fostering biodiversity, addressing food (both land-based and marine-sourced) and water security, enhancing quality of life, contributing to disaster risk reduction and climate resilience, and creating a more sustainable and prosperous future for all.

Government planning in – amongst others – green and blue infrastructure, food production systems, and urban development must integrate nature conservation (including through nature-inclusive 'green and blue' design), sustainability, and climate resilience, thereby providing a strong foundation for nature conservation policy in Aruba, balancing protection, enforcement, funding, education, and sustainable development. This includes adopting green infrastructure, water management solutions, and sustainable agriculture to safeguard ecosystems while supporting sustainable development.

¹⁴ A nature-positive society recognizes that human prosperity is dependent on a thriving natural world and actively works toward regenerative and sustainable coexistence with nature – protecting, enhancing, and restoring natural ecosystems - while ensuring human well-being and economic prosperity. It goes beyond minimizing harm to nature and focuses on net positive impacts — meaning that biodiversity, ecosystem health, and natural resources are left in a better state than before.

Additionally, investment in renewable energy, water conservation technologies, and climate-smart agriculture can build long-term resilience, reducing Aruba's reliance on external resources while promoting self-sufficiency and sustainability.

ACF calls for:

• Green and Blue Infrastructure & Sustainable Urban Planning:

- Prioritize nature-based solutions such as permeable pavements, green roofs, green parking lots, rainwater collection systems, sustainable drainage systems (SuDs), urban bioswales and retention ponds, and native tree planting (connected to the 'Build with Nature' policy, and the EHS, Stepping Stones, Mini Mondi, 3-30-300 principle, etc. mentioned under Priority #2) to combat heat reflection and urban heat, improve air quality and walkability, reduce flooding and erosion, and absorb runoff.
- Invest in multimodal urban planning by designing a more accessible street system
 that maximizes flow and mobility for more sustainable transport (foot, bicycle, public
 transport) while including green infrastructure.
- Implement coastal buffer zones to protect against sea level rise and storm surges.

• Climate-Resilient Infrastructure Development:

- Enforce sustainable zoning regulations that prevent construction in ecologically sensitive areas.
- Ensure coastal developments adhere to strict environmental impact assessments to prevent damage to coastal and marine ecosystems.
- Integrate climate risk assessments into all new infrastructure projects to ensure longterm sustainability.
- Invest in renewable energy, water conservation technologies, and waste reduction systems to minimize environmental impact.

Climate-Resilient Fisheries, Agriculture & Sustainable Land Use:

- Develop climate-resilient, sustainable fisheries by integrating scientific monitoring, habitat restoration, and responsible, sustainable fishing practices.
- Establish fisheries policies that support small-scale fishers, enforce catch limits, diversify target species and reduce reliance on overexploited stocks, and promote marine protected areas to safeguard both livelihoods and ecosystems.
- o Establish policies to prevent habitat loss due to agricultural expansion.
- Support innovative, sustainable, climate-adaptive agricultural methods and produce to increase local food production for food security while maintaining ecosystem balance.
- Promote regenerative farming techniques that restore soil health, reduce water use, and increase biodiversity. Given Aruba's arid climate, limited freshwater resources, and soil challenges, the island must adopt climate-smart, water-efficient, and soil-regenerating agricultural methods.

• Restoration of Ecosystems for Climate Adaptation (while offering eco-tourism benefits):

- Implement and scale up coastal protection measures through sand dune and coastal vegetation, mangrove, seagrass, and coral reef restoration projects, which provide natural coastal protection against storms and erosion, capture carbon and improve coastal water quality.
- Implementing coral-friendly coastal protection instead of concrete seawalls, using offshore artificial reefs or bio-engineered solutions.
- Protecting and restoring wetlands (saliñas) to serve as natural flood buffers and silt traps, carbon sinks, and wildlife habitats.
- o Implementing reforestation projects with native vegetation to reduce island desertification and improve carbon sequestration.

Key Actions:

- Support and enable the National Climate Resilience Council (NCRC) in its purpose of the systemic strengthening of Aruba's climate resilience, by developing a national climate resilience framework, enabling legislation, and policies.
- Environmental Impact Assessments (EIA): EIAs should be mandatory for all major projects, including tourism, energy, and infrastructure, with transparent independent evaluations and public input.
- Establish sustainable agricultural practices ¹⁵ for local food production initiatives.
- Establish sustainable fisheries practices as part of local food production initiatives.
- Develop **nature-based solutions for climate resilience** (e.g., coastal restoration, watershed management).

Roles:

- ACF: Provide technical expertise and conservation guidance.
- Government: Implement cross-sectoral policies incorporating climate resilience and naturebased solutions.

10. Transitioning to Sustainable & Regenerative Tourism

Objective: Shift tourism from mass consumption to a nature-positive economy.

For many nations, tourism has traditionally been seen as a quick way to drive economic growth. Post-pandemic, countries around the world are now reassessing the impact of tourism, especially mass tourism, and considering how they can manage their natural and cultural resources more responsibly. As they pivot toward more sustainable tourism models, they are also reimagining the role of tourism in contributing to broader national development goals. From reducing environmental degradation to promoting social equality and fostering local entrepreneurship, nations are recognizing the importance of focusing on quality tourism experiences that benefit everyone involved, rather than simply attracting large volumes of tourists.

Mass tourism often focuses on volume rather than value. Aruba is a popular Caribbean destination and while millions of visitors may flock to our island, this influx can lead to **economic leakage**, where many of the financial benefits go to international corporations or multinational hotel chains rather than staying within the local economy. Additionally, **the heavy reliance on tourism can expose our island economy to the volatility of global events** like natural disasters, economic crises, or pandemics – thereby making the argument for economic diversification even more urgent.

Aruba's current mass tourism model is increasingly contested by locals for its social and economic impacts, and it places **intense pressure on natural resources**, including water, energy, land, biodiversity, and ecosystems. Shifting away from mass tourism toward a model based on **economic growth, social wellbeing, and environmental sustainability** reflects a growing recognition that long-term success depends on a balanced approach.

¹⁵ Aruba should focus on innovative and sustainable agricultural methods such as vertical and rooftop farming, hydroponics, aquaponics, permaculture, food forests, and regenerative agriculture (a climate-adaptive farming approach that restores soil health, conserves water, enhances biodiversity, and increases food security while adapting to the island's arid climate and limited freshwater resources. Unlike conventional agriculture, which often depletes soil and water, regenerative farming works with nature to rebuild ecosystems and improve long-term productivity).

A responsible, sustainable, and regenerative tourism will ensure that nature remains Aruba's greatest asset, benefiting both the economy and the environment on which the tourism economy is based, for future generations. ACF advocates for a fundamental shift towards a sustainable tourism model that minimizes environmental impact and promotes regenerative practices that restore Aruba's ecosystems and biodiversity. This transition involves:

- Shifting from Mass Tourism to High Quality, Low-Impact Tourism:
 - Encourage **smaller-scale**, **eco-conscious tourism** that respects nature.
 - o Promote **high-value**, **low-impact** (incl. low-footprint) experiences (e.g., wildlife experiences, cultural heritage tourism, and nature retreats).
- Eco-Tourism & Sustainable Development:
 - Expand nature-based tourism that directly funds conservation (e.g., guided hikes, marine sanctuaries, reef restoration activities).
 - o Incentivize sustainable business practices within the hospitality sector, including zero-waste initiatives, water conservation, and renewable energy use.
- Regenerative Tourism Principles:
 - Move beyond sustainability to actively improve Aruba's ecosystems and biodiversity.
 - Implement restoration projects such as mangrove and seagrass restoration, coral reef rehabilitation, the rewilding of degraded areas, and native species recovery programs.
 - Encourage tourists to contribute positively through voluntourism and conservation programs.
- Regulation & Policy Support:
 - o Set **limits on visitor numbers** on the island and in sensitive natural areas.
 - Develop **eco-certification programs** for hotels, tour operators, and other businesses.
 - o Implement a **nature fee** for visitors to Aruba to structurally fund biodiversity, habitats and ecosystem preservation and restoration projects.

Key Actions:

- Halt all new construction and enact the moratorium for hotels (including boutique hotels)
 and condominiums as communicated by the government in 2018.
- Support the Aruba Tourism Authority's (ATA) shift from a destination marketing bureau to a
 destination management organization with adequate government policies.
- Support the shift from mass, high-impact tourism to **high-quality**, **low impact tourism** with **adequate government policies**.
- Develop sustainable visitor management strategies.
- Implement ecotourism policies prioritizing nature protection, preservation, and restoration.
- Reduce tourism-related environmental pressures (e.g., waste, overuse of ecosystems) and address impactful activities such as off-roading, wildlife feeding, and rock stacking, amongst others.
- Develop inclusive strategies and policies through community engagement and dialogue. E.g. promote/stimulate a broad national dialogue by establishing a central body/platform and/or a National Tourism Council for active (individual) participation.

Roles:

- ACF: Define best practices and monitor tourism impacts on nature.
- **Government**: Regulate tourism activities, develop new strategies and policies as inclusive processes, incentivize sustainable operators.

Appendix I: ACF's environmental legal framework

CROSS SECTORAL INTEGRATION GOVERNMENTAL BODIES LEGAL & POLICY OBLIGATIONS Legal Framework Signed December 2nd, 1946: International Convention for the Regulation of Whaling (ICRW), effective June 14th, 1977. Signed December 29th, 1993: The Convention on Biological Diversity (CBD), effective June 4th, 1999. Overview of most relevant Signed February 2nd, 1971: Ramsar Convention on Wetlands, effective May 23rd, 1980. Signed December 1st, 1996: Inter-American Convention for Protection and Conservation of Sea Turtles (IAC), effective May 2nd, 2001. Urban & Spatial Planning legal and policy obligations for Nature & Cultural Heritage Signed October 6th, 1999: The Protocol Concerning Pollution from Land-Based Sources and Activities, effective August 13th, 2010. Agriculture, Livestock and Fisheries Signed November 16th, 1972: World Heritage Convention, effective March 22nd, 1993. Conservation by FPNA Signed February 17th, 1973: International Convention for Prevention of Pollution from Ships (MarPol), effective October 2nd, 1983. Signed November 2nd, 2001: The UNESCO Convention on the Protection of the Underwater Cultural Heritage. As part of the Kingdom of the Netherlands, Aruba is obliged to comply with numerous international treaties and conventions. Aruba INTERNATIONAL Signed July 13, 1975: Convention on international Trade in Endangered Species of Wild Fauna & Flora (CITES), effective March 29th, 1995. Signed October 17th, 2003: The Convention for the Safeguarding of the Intangible Cultural Heritage Expressions, effective May 15th, 2012. Enforceme Climate Change Signed November 6th, 1979: Convention on Migratory Species of Wild Animals (CMS), effective January 1st, 1986. Signed November 14th, 2014: SIDS Accelerated Modalities of Action (SAMOA) Pathway. also has its own laws, regulations and national policies directly Waste Management Signed September 25th, 2015: United Nations' Sustainable Development Goals (SDGs). and national policies directly related to nature & cultural heritage conservation, often derived from international treaties and conventions. Furthermore, there are other legal and policy frameworks closely interlinked to and directly impacting conservation, restoration and sustainable use of ecosystems in Aruba. These policy domains need to be consistent with Education Signed December 12th, 2015: The Paris Agreement - a legally binding International treaty on climate change, effective November 4th, 2016. (primary, secondary, tertiary) Signed January 18th, 1990: Specially Protected Areas and Wildlife (SPAW) Protocol. Research (academic) Local Regulations & Policies National Nature Conservation Policy (DNM) Landsbesluit openbare wateren en stranden (AB 1987 no. 124) Landsbesluit instelling Parke Marino Aruba (AB 2018 No. 77), December 20th, 2018 domains need to be consistent with nature & cultural heritage conservation Sustainability (incl. SDGs) Hinder verordening (AB 1988 GT 27) Landsbesluit Aanwijzing Beheerder Parke Marino, April 16th, 2019 Nr. 1 Regelling zwem- en vaarzones (AB 1989 No. 66)
Monumentenverordening (AB 1991 No. GT 46) management strategies and desired outcomes. FPNA will identify the Landsbesluft verboden onderwaterjachtmiddelen (AB 2001 no. 115), August 3rd, 2001 Water Management critical areas of alignment and take position on the level of involvement required to proactively mitigate negative influences on primary conservation goals and influence for Visserliverordening (AB 1992 No. 116) Verordening op het vissen met sleepnetten (AB • 1992 No. GT 17) Energy Landsbesluit Nieuwe Aanwijzing Domeingronden als Natuurreservaat (AB 2020 No. 67), May 5th, 2020 Nr. 1 Environmental Visserijbesluit (AB 1993 no. 15), February 25th, 1993 Landsbesluit Aanwijzing FPNA Beheerder Natuurreservaten, July 15th, 2020 Nr. 1 degradation Regeling zwem- en vaarzones Sint Nicolaasbaai en Klein Lagoen (AB 1994 No. 12) ARUBA Economy Policy Directive - Spatial Management Beaches, July 1st, 2014 Cultural Heritage Natuurbeschermingsverordening Aruba (AB 1995 No.2), February 13th, 1995 the benefit of conservation efforts. A nexus approach can contribute Onze Natuur & Ons Milleu, op weg naar een evenwichtige toekomst. DNM Natuur-en Milleubeleidsnota 2018-2021 1995 No.2), February 1501, 2595 Landsverordening Voorkoming van Verontreiniging door Schepen (AB 1997 No. 34) Sports & Wellbeing to revealing the interdependencies between nature & heritage Landsbesluit no. 1 dd 17 juli 2019, DIP-3590 ter Vaststelling Ruimtelijke Ontwikkelingsplan (ROP) Aruba 2019 Landsbesluit Parke Nacional Arikok (AB 2000 No. 59), August 24th, 2000 conservation and relevant policy sectors and improve the coherence across different policy sectors for conservation management. Maritime FPNA Articles of Association, September 26th, 2003/January 31st, 2019 Landsbesluft Aanwijzing FPNA beheerder . Arikok, May 19th, 2004 Aruba National Strategic Plan 2020-2022 Landsbesluit dd 28 Juli 2021 Ruimtelijk Ontwikkelingsplan met Voorschriften (ROPV) (AB 2006 no. 38) Landsbesluit Bescherming Inheemse Flora en Fauna (AB 2017 No. 48), July 14th, 2017

ARUBA CONSERVATION FOUNDATION Management Areas Duinen Sasarawichi & Arashi Saliña Druif Saliña Malmok & Saliña Cerca Saliña Palm Beach Saliña Bubali Rooi Manonchi Ser'i Teishi Area di Cay y Mangel 5 10 Spaans Lagoen, Rooi Bringamosa & Rooi Taki Parke Nacional Arikok Rooi Lamunchi Costa Sero Colorado Parke Marino Aruba

Appendix III: Aruba's Ramsar Areas



West Point | Ramsar Sites Information Service https://rsis.ramsar.org/ris/2527

Western Wetlands | Ramsar Sites Information Service https://rsis.ramsar.org/ris/2528

South Coast | Ramsar Sites Information Service https://rsis.ramsar.org/ris/2526

Spanish Lagoon | Ramsar Sites Information Service https://rsis.ramsar.org/ris/198

East Point | Ramsar Sites Information Service https://rsis.ramsar.org/ris/2525

Appendix IV: Aruba's Biodiversity and Main Environmental Threats

Aruba's biodiversity is surprisingly rich, despite the semi-arid environment and being heavily impacted by centuries of extensive agriculture, grazing, extraction and habitat loss due to conversion of lands. Considering the island is among the most densely populated countries in the world, the natural values, ecosystems and their services, as well as the island's biodiversity are under great pressure.

What we currently know about Aruba's unique biodiversity is that besides the 34 species endemic to Aruba, 28 species have been identified that are endemic to the ABC islands, and an additional 37 species have been identified that are endemic to ABC islands, northern Venezuela and Colombia.

and Colombia.

Aruba's landscapes typically include windswept
Buttonwood or Fofoti (Conocarpus erectus), Watapana
(Libidibia corioria), and different species of cacti. Aloe vera,
a non-native species, is readily found all over the island.
Hermit crabs and land crabs, butterflies and dragonflies,
and different species of lizards and bats are common in the
countryside. The Arubian cottontal (Sylvams Iforidanus
nigronuchalis), the Hummelinck's vesper mouse (Calomys
hummelincki), the Colombian four-eyed frog (Pleuroderna
brachyops), the Crested bobwhite (Colinus cristatus) and
the Caribbean crown conch (Melongera melongena) have
become a rare sight in recent decades. Aruba burrowing
owl (Athene cunicularia arubensis) and Aruba brown-throated
parakeet (Eupittula pertina curbensis) are also decreasing.
So far, 282 species of bird, including migratory, have been
recorded on the island.

25% of the global population of Cayenne tern (Thalasseus sandivicensis eurganathus), 90% of the Caribbean population of Common tern (Sterna hirundo), and 25% of the Caribbean population of Black noddy (Anous minutus) use the San Nicolas coastal area as their breeding grounds. A further 8 species of bat live on the island and 4 species of sea turtle tvoically nest on Aruba's beaches.

The Caribbean islands support an important biodiversity within its diverse terrestrial ecosystems with a high proportion of endemicity making the region one of the world's greatest centers of biodiversity. Due to a high degree of connectivity, marine habitats share many of the same marine species, especially migrating species.



species of fauna

18



\$ 2

species of pseudoscorpion Pseudochthonius arubensis Pachyolpium arubense Including isopod Arubolana imula

Prikichi

(3 spe 3 species of reptile Aruba Whiptail Lizard: Cnemidophorus arubensis Aruba Leaf-toed Gecko: Phyllodactylus julieni Aruba Island Rattlesnake: Crotalus unicolor



- Photosynthesis Habitat
- Biodiversity Biodiversity
 Supporting
 Soil formation



- Water
 Food
 Medicine
 Raw materials



- Flood control
 Climate regulation Q Cleaning water and air
 Pollination

 - - Aesthetics
- Eg,

Main threats to ecosystems & biodiversity

7 4 SDE

The Changing Landscape of FPNA | Profile FPNA | State of Natural Assets

Main threats to ecosystems & biodiversity

- (over-capacity)
 Unsustainable tourism
 High-impact recreation
 Unsustainable food

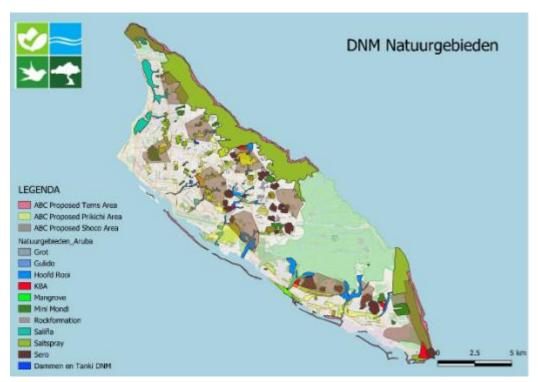
- Urban development Coastal development Private properties and lease land in protected areas Land clearing

- Invasive species Feral (domestic) animals
- Quarries (sand / stone mining)
- Landfills Pesticides, herbicides and
- insecticides
 Solid Waste pollution
 Water pollution by chemicals

- Soil degradation and pollution Air pollution Light pollution

- Noise pollution Trash pollution

Appendix V: DNM's 'Natuurkaart' & 'Ecologische Hoofdstructuur (EHS)'



Source: <u>DIP ARUBA https://www.dip.aw/ropv/</u> 'Bijlage voorschriften – natuurkaart'.



Source: <u>DIP ARUBA https://www.dip.aw/ropv/</u> 'Bijlage voorschriften – Ecologische Hoofdstructuur'.