

PILLARS OF PROGRESS:

Tracking St. Kitts and Nevis' Journey to 2040

2 WATER SECURITY

St. Kitts and Nevis is committed to becoming a sustainable island state by 2040, with Water Security being one of the seven pillars of this vision. This commitment is driven by the recognition that the islands are particularly vulnerable to water scarcity and the impacts of climate change. Freshwater resources in St. Kitts and Nevis are primarily derived from groundwater aquifers, managed by the St. Kitts Water Services Department and Nevis Water Department, respectively. However, surface water from springs and desalination plants also contribute to St. Kitts' supply. Freshwater availability for St. Kitts and Nevis is already limited. Population growth has driven increased water demand, exacerbating this situation.

"The Government investing in water storage capacity to face the effects of climate change and achieve long-term water security. Over-reliance on natural rainfall and well water has become one of the island's major concerns as it relates to effective water distribution."



Hon. Konris Maynard
Minister of Public Infrastructure,
Energy and Utilities, Domestic
Transport, Information,
Communication and Technology

KEY FACTS

- St. Kitts and Nevis has the highest level of water stress among OECS member states, with 51% of available renewable freshwater resources being withdrawn.
- St. Kitts heavily relies on the Basseterre Valley Aquifer, which is under pressure due to land development and over-pumping.
- Nevis relies solely on groundwater, sourced from three shallow coastal aquifers and two deeper aquifers developed through a private-public partnership
- 31 underground wells provide 70% of the potable water on St. Kitts, with surface water from 31 delineated watersheds accounting for the remaining 30%.
- Non-revenue water, which is estimated at 53% in St. Kitts and 30% in Nevis, remains an issue due to leakages, billing and metering errors and unauthorized uses.
- Nearly 90% of household wastewater in St. Kitts and Nevis is stored in septic tanks, leaving it vulnerable to leaking into groundwater supplies or contaminating coastal ecosystems.

SEVEN PILLARS OF SUSTAINABILITY AND CLIMATE RESILIENCE:



ENERGY
TRANSITION



WATER
SECURITY



FOOD & NUTRITION
SECURITY



SUSTAINABLE
INDUSTRY



SUSTAINABLE
SETTLEMENTS



CIRCULAR
ECONOMY



HEALTH & SOCIAL
PROTECTION

GOALS & PRIORITIES

The SISA's approach to water security encompasses a multifaceted strategy with a focus on infrastructural development, resource diversification, robust governance, and community engagement. The main goal of the SISA is to ensure universal and equitable access to safe and affordable drinking water for all by 2040.

KEY TARGETS

- Reduce Non-Revenue Water: Replacing aging pipelines with HDPE materials is expected to reduce water loss by up to 5%.
- Increase Available Water Resources: Combined efforts in diversifying water sources, including desalination plants and well drilling, aim to increase available water resources by 60%.
- Increase Daily Water Supply: The desalination facility in Basseterre is projected to add 2 million gallons to the daily water supply.
- Reduced Carbon Emissions in Water Sector: Contribute to the national goal of transitioning to 100% renewable energy by 2030, reducing the carbon footprint of the water sector.

STRATEGIC PRIORITIES

- Developing policy, legislation and capacity
- Ensuring that raw water supplies are sustainable and resilient
- Ensuring climate-resilient water supply infrastructure
- Ensuring the that water distribution and use is effective and efficient
- Maintaining an energy efficient and low carbon water sector
- Building water services which are resilient to the effects of extreme weather hazards.
- Pursue an integrated water resource management



SDG ALIGNMENT TRACKER

SISA TARGETS & PRIORITIES

SDG ALIGNMENT (TARGET)

Reduce Non-Revenue Water (Replace aging pipelines with HDPE materials to reduce water loss by up to 5%)



Increase Available Water Resources (Diversify water sources to increase available water resources by 60%)



Increase Daily Water Supply (Desalination facility in Basseterre to add 2 million gallons to daily supply)



Reduced Carbon Emissions in Water Sector (Transition to 100% renewable energy by 2030 in water sector)



Developing policy, legislation, and capacity



Ensuring that raw water supplies are sustainable and resilient



Ensuring climate-resilient water supply infrastructure



Ensuring effective and efficient water distribution and use



Maintaining an energy efficient and low carbon water sector



Building water services resilient to extreme weather hazards



Pursue integrated water resource management



KEY ACHIEVEMENTS

- **Invested in Water Security:** Allocated \$50 million to address water shortages and ensure water security for St. Kitts and Nevis.
- **Ensured Reliable Water Supply:** Committed to providing a consistent, 24/7 water supply to meet rising demand and mitigate climate change impacts.
- **Explored New Water Sources:** Drilled new wells and utilized drone technology to survey and identify alternative water sources.
- **Extended Water Infrastructure:** Extended water lines, constructed reservoirs, and upgraded quarry equipment to enhance water distribution and storage.
- **Storage Tank Construction:** Began constructing a 1-million-gallon storage tank in Conaree and procured a 200,000-gallon tank for Dieppe Bay.
- **Desalination Initiatives:**
 - Integrated desalinated water into the system for Frigate Bay and the Southeast Peninsula.
 - Completed a 70,000-gallon-per-day solar-powered desalination plant in collaboration with the UAE, currently in commissioning.
 - Invested in a 2-million-gallon-per-day desalination plant at the Paul Southwell Industrial Park, now under construction.
- **Increased Water Budget and Reinstated Water Board:** Raised the water budget by over 400% and reactivated the previously dormant water board.
- **Transboundary Water Project:** Advanced the US \$40 million Transboundary Water Project through the Green Climate Fund.
- **Groundwater Exploration and Surveying:** Resumed groundwater exploration by drilling new wells, including commissioning a new well in Conaree, and conducted drone-based geophysical surveys to identify additional sources.

FLAGSHIP INITIATIVE

BASSETERRE DESALINATION PROJECT

- The construction of a desalination plant in Basseterre is a major project aimed at addressing water security in St. Kitts and Nevis. The plant is projected to augment the daily water supply by 2 million gallons, significantly enhancing the availability of potable water for the Basseterre system.
- The decision to undertake this project stems from the government's recognition of the challenges posed by the island's over-reliance on natural rainfall and well water, which has resulted in water rationing for some domestic, commercial, and industrial customers. In addition, a solar-powered desalination plant, donated by the United Arab Emirates, is under construction, further bolstering water security.

PROGRESS METER

GoSKN has improved its water security by constructing desalination plants and expanding well drilling, which significantly increases daily water supply. The country has upgraded infrastructure, including replacing pipelines and enhancing management systems to reduce water loss. Additionally, it has strengthened water management through the re-established Water Board and a developing National Water Strategy, while also focusing on water conservation to support agriculture and tourism.



Progress determined by NDPF indicators

INVESTMENT PRIORITIES

- **Diversify Water Sources:** Urgent investments are needed to develop alternative water sources, addressing the vulnerability of rainfall and groundwater to climate change and demand increases.
- **Modernize Water Infrastructure:** Update the aging, leak-prone water infrastructure by replacing pipelines with durable materials like HDPE to reduce water loss and enhance system reliability.
- **Strengthen Water Governance:** Enhance water security through investments in a robust legal and regulatory framework for effective water resources management.
- **Improve Water Conservation:** Prioritize investments in water conservation and demand management to align water use with limited supplies.
- **Upgrade Wastewater Management:** Invest in a comprehensive wastewater management plan to replace outdated septic systems and improve sanitation infrastructure.



SISA 2040 VISION

The Government of St. Kitts and Nevis (GOSKN) established a vision for a Sustainable Island State by 2040 in which government agencies, civil society, and the private sector are encouraged to collaborate in redefining approaches to governance, public policy, and socio-economic development.

The SISA Vision is to transform St. Kitts and Nevis into a Sustainable Island State by 2040, by developing a robust, diversified economy that integrates sustainability with economic prosperity. The aim is to attract green investments and foster industries that utilize local sustainable resources, thereby enhancing economic stability and creating high-quality, sustainable jobs.

THE SISA APPROACH

The SISA is more than a vision; it's a dynamic, structured mechanism designed to guide the nation's transition to a sustainable island state by 2040. It achieves this through a multifaceted approach that encompasses several key strategies:

- **Strategic Alignment:** The SISA is strategically aligned with the existing National Development Planning Framework (NDPF), by leveraging its robust methodology, data-driven analysis, and key sustainability indicators.
- **Resource Mobilization:** A core function of SISA is to actively mobilize resources for climate resilience and sustainability efforts by promoting existing projects and identifying flagship initiatives to secure regional and international funding.
- **Visibility and Communication:** SISA serves as a central hub to promote sustainability efforts, raise public awareness, and boost recognition through targeted branding and outreach strategies.
- **Inter-Ministerial Collaboration:** SISA coordinates cross-ministry efforts, supporting communication and cooperation to advance holistic, cross-sectoral sustainability initiatives.
- **Societal Engagement:** SISA promotes shared responsibility for sustainability, encouraging active participation and collective action across all segments of society.



**MOBILIZE
RESOURCES**



**CREATE
VISIBILITY**



**ALIGN &
CONNECT**



**INSPIRE
ACTION**

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