Title of the Story: Niue – World’s first Dark Sky Nation

Destination Name: Niue Island

Country: Niue Island

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Position: Niue – Sustainability Coordinator

Nomination Category: (Please check the boxes that indicate the focus of your story)

☑️ Culture & Communities
☑️ Environment & Climate
☑️ Nature & Ecotourism
☑️ Islands & Seaside
☐ Immediate responses in dealing with the COVID-19
☐ Post COVID-19 recovery
☐ One of the 17 SDGs* (if yes, which one) Click or tap to choose

*The Sustainable Development Goals (SDGs), also known as the Global Goals, were adopted by all United Nations Member States in 2015 as a universal call to action to end poverty, protect the planet and ensure that all people enjoy peace and prosperity by 2030. The 17 SDGs are integrated—that is, they recognize that action in one area will affect outcomes in others, and that development must balance social, economic and environmental sustainability. What are the Sustainable Development Goals?

For further information on Tourism for SDGs: http://tourism4sdgs.org/

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Address each aspect of your good practice story in the different sections being specific including relevant quantitative and qualitative information.

Issues faced
The Island Nation of Niue is a self-governing nation, at 260 km² it is the traditional homelands of approximately 1600 Niueans, who live a largely subsistence lifestyle in one of the 13 villages across the Island. Approximately 96% of the land is deemed customary land, with the natural and cultural values providing important sources of food, culture, wellbeing and income. This makes the protection of land, sea and sky close to the heart of all Niueans, who hold customary obligations to care for these assets.

As a small island nation, access to resources, employment opportunities, protection of natural and cultural intangible and tangible values and management of carbon outputs and waste has created issues in the past. Niue has been working through development of a range of strategies to address each of these issues, including sustainable energy consumption, climate change initiatives, waste management, sustainable tourism planning and protection of significant natural and cultural land and sea assets. The only element that was not officially recognised for its natural and cultural values was Niue’s skies. The stars and night sky have a huge significance to the Niuean way of life, from a cultural, environmental and health perspective. Niueans have a long history of star navigation and a life regulated by lunar cycles and star positions. The knowledge of the night skies, held by the elders in the community, has been passed down through the generations.

Light pollution is an issue across the globe, with artificial lights impacting negatively on the night sky and wildlife habitats. According to Light Pollution Science and Technology Institute, 80% of Earth’s landmass suffers from light pollution. In addition to the natural and cultural assets of the land and waters, Niueans wanted to ensure a sustainable future for their skies through both protection of the important aerial wildlife species, preservation of cultural astrological stories for future generations and an opportunity for innovative employment through night sky tourism. To become a Dark Sky Nation, Niue needed to ensure long term measures were put in place reducing light and air pollutants.

Methods, steps and tools applied
To be recognised as a darkness preservation site, local authorities need to apply through the International Dark Sky Association, and demonstrate community support for the initiative. The process towards obtaining Dark Sky status commenced in 2018, when New Zealand couple Richard and Gendie Somerville-Ryan offered to support the research and application process for Niue. Having previously carried out a successful bid for Great Barrier Island (New Zealand) to become a Dark Sky Sanctuary, the pair were able to provide Niue with the specialist technical expertise and support required for the application process.

A small project team was formed, championed by Niue Tourism who understood the positive impact this initiative could have for Niue and its people. An education campaign about the benefits of protecting the quality of the island’s dark sky was conducted with the wider community, immediately gaining support. With the support came the Government’s pledge to ongoing management to preserve the country’s dark skies. Substantial efforts were made by both the Government with support from the villages including: recent installation of a solar energy power plant mitigating the need to burn fossil fuels for power; tax incentives for residents to purchase hybrid vehicles; development of cycle tracks around the Island mitigating the need for vehicle use; banning of plastic bags, straws and single use plastics, a waste recycling facility limiting the need for residents to burn waste and replacement of all streetlighting; and domestic private lighting across the Island to energy efficient LED systems to eliminate unnecessary light pollution. The result has left the night sky unspoilt, unveiling the Milky Way, the Andromeda constellation and other brilliant night sky objects in their full glory.

Through diligent application and measures made to reduce light pollution, Niue received Dark Sky Sanctuary and Dark Sky Community Status with the whole country protected through the International Dark Sky Association in March 2020. Culturally, the Dark Sky designation will also protect the Island’s heritage, enabling the timeless customs of stargazing, story-telling and navigating alive.

**Key success factors**

**Economic benefits** - Niue’s official Dark Sky recognition is set to provide a significant economic opportunity with a growing global interest in Astro-tourism. Located an easily accessible three hour flight from Auckland, New Zealand, visitors will soon be able to immerse and appreciate all of our protected land, sea and sky elements. Niue Tourism has been training Niuean community members in tour guiding and the delivery of Astro-tours and purchased telescopes for practice use, ready for when travel restrictions due to COVID-19 lift. In addition, whale watching sites have already been established around the island. These sites will now provide multi-purpose opportunities for both whale watching and star gazing across the ocean.

**Cultural benefits** - Misa Kalutea, a Niuean elder and cultural guardian says “Niue’s skies have been observed and appreciated for centuries. The dark sky nation status adds new emphasis to the importance of our traditional knowledge, providing a reason for the retelling and sharing of this knowledge before it is lost”.

**Environmental benefits** – The International Dark Sky Association advocate for the importance of the program, saying that dark skies don’t just make stars more visible at night. They also cut down on disruptions to wildlife and the ecosystem caused by light pollution. Niue’s Strategic Energy Road Map is committed towards reducing environmental impacts to the air with a commitment to 80% renewable energy generation by 2025.

**Lessons learned**
Delivering on and committing to the requirements of Dark Sky accreditation is a rigorous process, particularly when covering the entire nation. As with all of Niue’s achievements, broad support is needed from the villages, Niue Tourism, the Government of Niue and partners such as the New Zealand Government, Niue Oceans Wide Program and the Oma Tafua (Humpback Whale research partners). Additionally is the support we receive from visitors and researchers to the Island who become crucial advocates for Niue’s causes.

As such as small nation, Niue does not always have the resources or capacity to undertake extensive projects and application processes alone. The nation’s strength is in developing long-term mutually beneficial relationships with organisations and individuals who possess the same vision, appreciation and respect for Niue. The success of the Dark Sky status was due to Niue’s united and collaborative approach driven through Niue Tourism, ongoing commitment by the Government of Niue and relationship with New Zealand couple Richard and Gendie Somerville-Ryan whose research and specialist technical expertise provided the support needed.

**Results, achievements and recognitions**
The Dark Sky project has also provided Niue with the impetus to finalise solar energy installation, install energy efficient street, business and dwelling lighting and deliver on actions within the Strategic Energy Road Map. As a result, Niue is the world’s first nation to be awarded Dark Sky Nation status and well on their way towards achieving their 80% renewable energy target by 2025.

As international borders re-open, the people of Niue look forward to welcoming visitors and sharing the world’s first and best Dark Sky experience.

**Additional references**
https://www.niueisland.com/sustainability
https://www.darksky.org/niue-is-worlds-first-country-to-become-a-dark-sky-place/