



# 2020 TOP 100 GOOD PRACTICE STORY

**Title of the Story:** Dark Sky Aqueva – A Star Destination

**Destination Name:** *(include any state, province or region)*

Dark Sky Alqueva

**Country:** Portugal

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**Position:** President of Dark Sky Association

**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? <https://www.undp.org/content/undp/en/home/sustainable-development-goals.html>

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

Find detailed instructions for submitting good practices [here](#)



# DESCRIBE YOUR GOOD PRACTICE STORY

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

## Issues faced

Two thirds of the world population that live in cities don't have access to a night sky full of stars and even saw the Milky Way, our own galaxy. Most of them already lost this link and mainly because the light pollution is increasing around 10% per year. Europe is already increasing the level of light pollution and by looking for a night picture of the Earth taken from the International Space Station is possible to see the extension of the problem. Apart the small reflection, something between 5 and 10%, the rest of the light is being wasted for the sky. This represents millions of Euros wasted every night. It's not sustainable, and above all can't continue. Environmental and economic resources are more and more scarce so this is the time to stop and look for this problem and start implementing solutions. Nowadays many municipalities are switching old lights by LED thinking to be more efficient

The Dark Sky® is a concept and a brand used to develop destinations. We started implementing this concept in Portugal in 2007 to develop destinations in a sustainable way having the night sky as its main differentiator element, using the thematic of astrotourism and having the mission of decreasing light pollution.

The first destination in Portugal dedicated to astrotourism was born in 2007, Dark Sky® Alqueva. Certified in 2011, it is the first Starlight Tourism Destination in the world as well as the first cross-border Starlight Destination in the World. It covers an area of 10,000 square kilometres around the Alqueva Lake, including Portuguese and Spanish council areas. Having had the quality of the sky certified, Dark Sky® Alqueva offers a diversity of daytime and night-time activities.

The Official Dark Sky® Observatory in Cumeada, a village near Reguengos de Monasaraz, is equipped with cutting-edge telescopes for solar and astronomical observations. These provide for a unique visual experience, from observing the planets to exploring the craters on the moon, moving on to the deeper sky with a cosmic journey among the nebulae, the galaxies and the swarms of stars which rise above us in one of the finest skies in the world. The wide open spaces around Alqueva also offer a wide variety of activities which supplement the pleasures of observing the skies – experiencing an incredible variety of sensations and tastes, such as relaxing at sunset as you enjoy a cocktail or taking part in a blind wine-tasting by starlight. Outdoors, surrounded by nature, you can go walking, enjoy horseback excursions by moonlight, or participate in astrophotography workshops, whether you are already passionate about it, or a beginner, or someone more experienced.



Beyond these activities, Dark Sky® Alqueva also has a network of partners – the Dark Sky® Alqueva Route – who are specialists in different areas and who ensure that a package of different activities can be tailored to the requirements of each client, to provide unforgettable moments from sunrise to the end of the most star-filled night in the Alentejo. Among these you can choose between activities as distinct as night-time canoeing, excursion by boat on, or by balloon above, the Alqueva, stand up paddle boarding, team-building, orientation, yoga and sports events, among many others.

The Network of Dark Sky® Destinations in Portugal has been created under the Dark Sky® concept and includes now: Alqueva, Aldeias do Xisto, and Vale do Tua, representing the South, Center and North of Portugal's countryside, approximately around 13.000,00 square kilometers. Dark Sky Aldeias do Xisto and Dark Sky Vale do Tua are being developed in partnership with regional organizations, respectively ADXTUR and ADRVT, joining the Dark Sky® concept with their important work and strong brands.

The main mission is protecting the night sky as a resource for destination sustainable development, but also and above all, to raise awareness of the importance of protecting this resource from the growing problem of light pollution respecting and preserving it in a delicate way as a delightful heritage of humanity!

But what means this mission:

The mission of protecting the night sky implies combating the waste of energy, which in this case is assumed by combating light pollution. Light pollution has negative impacts on human health, the environment and ecosystems and at the economic level. Portugal, like the European Union, has opted for energy efficiency policies instead of policies to combat light pollution, forgetting the transversal nature of this form of pollution. This has led to the proliferation of LED technology, which in most cases has a harmful color temperature and in addition to this problem, too much intensity is used. For example, the white LED has a blue peak, which has implications for human health by interrupting the process of producing melatonin, the substance that helps us prepare for sleep. With the high intensity of public lighting and its inadequacy with poorly directed and too high luminaires and the existence of globes, it is easy to always have parasitic light at home. There are more and more studies on this topic that confirm the relationship between light pollution and health problems. On the website [www.darksky.org](http://www.darksky.org), an organization that certifies territories, you can find a vast collection of literature on the subject where the keyword “cancer” was placed in this case:

[http://alandb.darksky.org/search.php?formType=quickSearch&originalDisplayType=&sqlQuery=&showQuery=&showLinks=&showRows=5&client=&citeStyle=&citeOrder=&quickSearchSelector=main\\_fields&quickSearchName=cancer](http://alandb.darksky.org/search.php?formType=quickSearch&originalDisplayType=&sqlQuery=&showQuery=&showLinks=&showRows=5&client=&citeStyle=&citeOrder=&quickSearchSelector=main_fields&quickSearchName=cancer). However, to access hundreds of articles on the effect of light pollution, just access this link:

<http://alandb.darksky.org/>. There are other databases, but since this American organization certifies territories and dedicates its work to fight light pollution, the



articles we find are directly linked to the theme and its negative impacts.

There are not many national data to support daily waste due to light pollution but one of the latest scientific studies indicates that Portugal uses four times more intensity than what would be necessary and if we do a simple analysis, it indicates at least that we are spending four times more than would be necessary. This is the article that points out some data: "Light pollution in USA and Europe: The good, the bad and the ugly" published on October 15, 2019, in the Journal of Environmental Management, volume 248. But this analysis does not take into account the exaggerated number of luminaires, neither the luminaires that are more than four times the appropriate intensity nor the globes that waste more than 80% of the light that they emit up and to the sides.

The protection of the night sky is not only because it's an important resource to support and promote sustainable development in these regions but also a way to decrease a crescent problem, the light pollution. But, the resolution of this type of pollution is a hard task due the low level of perception of its negative impacts. The huge waste of financial resources every day were not enough to justify a change of mentality. The majority of this pollution comes from public lighting and in these regions people urges to have more and more light, as a response to development. The idea of decreasing the number of lights or its intensity makes most of these communities to remember the time without this resource, the light. We still have a culture of light representing the opposition to the darkness and hard ancient times.

To change this mentality we needed different approaches than just demonstrate the high level of negative impacts. And it's not enough to pass the message that development is compatible with a dark sky, if the right measures will be taken by all, public and private stakeholders.

#### Methods, steps and tools applied

So, to overcome the lack of knowledge and the culture of light and waste, the Dark Sky® developed in its first destination, the Dark Sky® Alqueva, a list of objectives that need to be tackled in the strategy of protecting the night sky:

- To develop Alqueva destination using a model of integrated sustainable development.
- To guarantee the involvement all stakeholders from all sectors, including a high level of involvement of the community (residents) and tourists.
- To raise awareness about the negative effects of light pollution and the proposed solutions.



- To demonstrate how strategic is to choose tourism of quality instead of quantity.
- To contribute to a positive impact in the destination at social, economic and environmental level.
- To raise awareness how important is to protect the night sky as it should be a Humankind Heritage.
- To raise awareness of the importance of scientific tourism for an equilibrated development of this destination.
- To raise awareness in the European Parliament and European Commission where many strategic policies for Europe are being made, many policies that continue to support a culture of light.

To achieve these objectives, the Dark Sky® developed a series of projects and actions. These are the actions and projects developed in Dark Sky® Alqueva:

- Development of activities and sessions of awareness made according each target: communities, public and private stakeholders from national to local level and from different sectors like tourism, environment, energy, and others, universities, colleges, schools and other relevant stakeholders and tourists. Including also stakeholders from the European Parliament and European Commission. These sessions are motivational and inspirational to permit a better perception of the problem and guarantee a better involvement. Using resources like the night sky when possible, bad and good lighting examples, or astrophotography, these sessions allow the audience to discover the benefits and how simple gestures can make the difference.
- Development of demonstrative projects like the one of Cumeada Village where it's located the Official Dark Sky® Alqueva Observatory, where all public lighting was totally changed for Ambar LED's the color temperature of 2700 kelvins. Dark Sky® requested for 2200 kelvins but achieve 2700 kelvins was already a great step. All lights have individual management giving the opportunity to decrease the intensity during the sessions and in the most sensible areas, like the ones around the Observatory.
- Development of the Dark Sky® Patrol with Dark Sky® Guardians where children and their parents can work together to protect the night sky. The space and the night sky are a subject that easily can interest both children and parents. This action increases awareness, and empower them in this journey. Involves local, regional and national schools.
- Development of a campaign in social media and press to raise awareness of the need to protect the night sky based in astrophotography and in the work of the astrophotographer Miguel Claro.



### Key success factors

The approach used reached the different stakeholders that needed to be addressed at the same time.

When the problem has so many variables, lobbies involved, political issues, and social and cultural barriers, the only way to succeed is to implement tools that reach people from a different perspective.

The number of tourists deciding to travel to this area because of Dark Sky® Alqueva was increasing exponentially with a rate of 134% per year and that triggered the attention of the stakeholders directly working in tourism and some public ones.

The Dark Sky® Alqueva started to receive awards since 2013, mainly international awards, and that gave more reputation and recognition at national level of the work that was being done in the region.

The astrophotography helped to change many mentalities due to the capacity of communicating our mission in a way that involves, creates empathy and emotions in the different targets.

But this is a continuous work and much more should be done to support the sustainable developments of these destinations where the protection of the night sky is one of its most valuable resources and the one that integrates the whole offer.

### Lessons learned

To achieve a good result it's not enough to have the knowledge and the right tools, sometimes more important than that is the capacity to understand your target and their unreasonable decisions and work the problem using a positive approach.

The system and timing of local and national elections is an obstacle for the development of medium and long term projects, especially the ones where some visible results have a longer time than four years to emerge.

The involvement of the maximum of stakeholders in a project that is transversal is a key factor of success, even if difficult to implement and to maintain the interest.

To develop strong tools to evaluate internally the milestones and be able to take quick decisions about the correction of deviations or the need of new approaches.

An international certification gives consistency, supports better communication and marketing actions but also supports the necessary national recognition.

This work can be described through these words: a long term vision and planning with flexibility, resilience, adaptability, high level of knowledge, empathy and respect.



#### Results, achievements and recognitions

In result of this work many achievements where possible:

2013 - TOP 10 in 2013 of the World Stargazing Destinations

2016 and 2020 - TOP 5 of the World's Best Stargazing Sites by National Geographic Travel.

And different awards from different organizations (excluded the nominations):

2013 - Ulysses Award | 1st Runner-up attributed by the United Nations World Tourism Destination (UNWTO)

2016 - ETIS Social and Cultural Impact Achievers (ETIS - European Tourism Indicators System for Sustainable Destinations) attributed by the European Commission

2016 - Dark Sky Defender attributed by the American organization IDA

2019 - Bronze CTW Chinese Tourist Welcome Award, category Innovation attributed by COTRI China Outbound Tourism

2019 - I Internacional Starlight Awards, Recognition in the category of Astrotourism and Business Development associated to the Protection of the Night Sky, attributed by Starlight Foundation

2019 - Europe's Responsible Tourism Award attributed by the World Travel Awards

2020 - Europe's Leading Tourist Destination attributed by Corporate Travel Awards

2020 - The Bizz Award and The Peak of Success Award attributed by WORLDCOB

2020 - ACQ5 Country Awards 2020, as "Portugal - Best Practice Operator of the Year, Astrotourism.

Annual Average Growth in Perceatæg: 134%

#### Additional references

In our website ([www.darkskeyalqueva.com](http://www.darkskeyalqueva.com)), and in our facebook page ([www.facebook.com/Alqueva](http://www.facebook.com/Alqueva)) it's possible to see pictures of our destination and news about us.

The Dark Sky® Portal is under construction and will include Dark Sky® Alqueva, Dark Sky® Aldeias do Xisto and Dark Sky® Vale do Tua.

