

The Liana Trust chose Oizom's Weathercom to Study Reptile Behavior



INTRODUCTION: *Predicting Snake Movements to Save Lives*

In the dense forests near Nagarhole National Park, an unseen danger lurks—venomous snakes, responsible for thousands of fatalities in India each year. The Liana Trust (TLT) is at the forefront of human-reptile conflict mitigation, working tirelessly to bridge the knowledge gap between humans and snakes. Through scientific research, conservation initiatives, and education, TLT aims to reduce human-snake encounters and prevent fatal snakebite incidents.

Operating in one of India's most snake-prone regions, TLT needed a highly accurate weather monitoring solution to understand how temperature, humidity, and rainfall influence reptile activity. This data would be critical for designing community safety policies, enhancing conservation strategies, and ultimately saving lives.



THE CHALLENGE: Need for Understanding of Reptile Behavior

India records the highest number of snakebite incidents globally, with many occurring in rural communities near forests and farmlands. The Liana Trust (TLT) operates in one of the most snake-prone regions of India, where human-snake encounters frequently lead to fatalities or serious health complications. Addressing this issue requires a deep understanding of reptile behavior, particularly how meteorological factors such as temperature, humidity, and rainfall influence snake activity. However, TLT faced several challenges that hindered its development of effective conservation strategies and safety policies.

- 1. Lack of Real-Time Insights:** TLT struggled to correlate meteorological factors with snake behavior due to the absence of granular, real-time weather data.
- 2. Need for High-Accuracy Monitoring:** Inaccurate data led to flawed predictions, posing risks to both reptiles and humans. Existing weather solutions lacked the precision needed for research and policy-making.
- 3. Customization for Conservation:** Standard weather monitors weren't designed for wildlife research. TLT required a tailored solution to study reptile behavior effectively.
- 4. Community Safety Concerns:** Villages near Nagarhole National Park faced frequent encounters with venomous snakes. Without precise weather-driven activity forecasts, preventive measures and awareness programs remained ineffective.
- 5. Remote Monitoring:** The site's potentially hazardous conditions made it challenging for researchers to conduct frequent on-site visits, complicating consistent and accurate monitoring.

Without precise weather-driven predictions, efforts to reduce human-reptile conflicts were largely reactive rather than proactive, leaving many rural populations vulnerable to snakebite incidents.

THE SOLUTION: Oizom's Weathercom for Precision Monitoring

To address these challenges, Oizom deployed its Weathercom device at TLT's research facility. The solution provided real-time weather insights critical for reptile behavior analysis and community safety initiatives.

- 1. IMD-Certified Accuracy:** Oizom's Weathercom provided scientifically validated, high-accuracy data for research-driven applications.
- 2. Tailored for Conservation Research:** Unlike generic solutions, Weathercom allowed TLT to tailor parameters like wind speed and direction, temperature, humidity, pressure, and rainfall for targeted snake behavior studies.
- 3. Reliable, Real-Time Data:** Ensuring informed



conservation decisions, Weathercom delivered precise weather insights, eliminating risks from inaccurate data.

- 4. Over-the-air (OTA) updates for Long-Term Precision:** OTA updates maintain long-term accuracy, reducing maintenance efforts while ensuring reliable data.

With Oizom's Weathercom, TLT scientists gained access to high-resolution weather insights, transforming how they study reptile behavior and implement life-saving conservation strategies.

INSTALLATION DETAILS

**1 UNIT
of
WEATHERCOM**

THE TRANSFORMATION: The Impact of Oizom's Technology

After implementing Oizom's Weathercom, the Liana Trust saw significant improvements in their research and community outreach:

- 1. Real-Time Weather Data for Researchers:** TLT now has instant access to real-time weather conditions, helping them analyze how meteorological factors influence snake movement and activity.
- 2. Enhanced Reptile Behavior Prediction:** With granular climate data, TLT successfully mapped snake activity patterns against temperature, humidity, and rainfall trends, enabling more precise forecasting of high-risk periods.
- 3. Improved Community Safety Policies:** Using behavioral insights, TLT developed targeted safety guidelines for rural communities, educating locals on when and where they are most likely to encounter venomous snakes.
- 4. Strengthened NGO Credibility & Impact:** Leveraging Oizom's advanced technology, The Liana Trust has positioned itself as a leader in reptile conservation, enhancing its credibility and increasing stakeholder trust.

BROADER IMPACT: A Model for Conservation & Public Safety

The success of this initiative highlights how data-driven weather monitoring can revolutionize conservation efforts and public safety. With precise weather insights, The Liana Trust is reducing human-snake conflicts and influencing policy decisions for reptile conservation at a national level.

Additionally, this model can be replicated in other high-risk regions, proving that technology-driven conservation is key to fostering human-wildlife coexistence.

CONCLUSION: A Data-Driven Approach to Human-Wildlife Coexistence

By integrating Oizom's Weathercom, The Liana Trust has transformed its approach to reptile conservation and rural safety. Real-time, accurate weather data has enabled them to predict snake movements, enhance community safety measures, and solidify their position as a trusted authority in human-wildlife conflict resolution.

This collaboration demonstrates the power of weather data in shaping impactful conservation policies and fostering coexistence between humans and nature.

Oizom is a company specializing in environmental monitoring solutions. They offer products to monitor air quality, weather conditions, and other environmental factors. Utilizing advanced sensor technology and data analytics, Oizom aims to provide actionable insights for construction, industrial compliance, and community awareness. Their solutions can be applied in various sectors including government, industries, and community initiatives.