

Nanova Co. Ltd. Enhances Air Quality Monitoring in Myanmar with Oizom Solutions



INTRODUCTION: Monitoring the Air in Myanmar's Coastal Frontier

Nestled between the dense Tenasserim Hills and the Andaman Sea, Myanmar's southernmost region, the Tanintharyi Region, is as ecologically rich as it is industrially dynamic. Cities like Myeik and Kawthaung are bustling with maritime trade, seafood processing, and infrastructure development. However, with progress comes pollution, from vehicular emissions to odorous industrial discharge.

Nanova Co. Ltd., a trusted name in Myanmar's scientific and medical equipment landscape, identified the growing need for real-time environmental data in these regions. The company turned to Oizom's high-precision air quality monitoring solutions to address increasing air pollution, public health concerns, and regulatory gaps.



THE CHALLENGE: Air & Odour Monitoring Amidst Rapid Development

The townships of Myeik, Kawthaung, and the broader Dawei region faced multiple air quality and odour monitoring challenges:

- 1. Urbanization & Industrial Growth:** Increased emissions from shipping, transportation, and expanding infrastructure were degrading air quality.
- 2. Power & Manufacturing Pollution:** Industrial operations emit harmful gases like PM, SO₂, NO₂, CO, and O₃, affecting both the environment and respiratory health.
- 3. Odorous Gas Emissions:** Seafood processing and wastewater treatment plants release gases like H₂S and NH₃, causing discomfort and health risks for local communities.
- 4. Climatic Sensitivity:** High humidity, intense UV radiation, and seasonal rainfall interfered with traditional monitoring equipment, demanding robust, weather-proof solutions.
- 5. Lack of Real-Time Data:** Local authorities lacked access to real-time pollution levels, making it difficult to issue health advisories or enforce environmental regulations.

Nanova sought an advanced, real-time solution capable of operating accurately in these tropical coastal environments.

THE SOLUTION: Oizom's Polludrone & Odosense for Holistic Environmental Intelligence

To meet all the air quality needs, Nanova deployed Oizom's Polludrone for particulate matter (PM1, PM2.5, PM10), gaseous pollutants (CO, CO₂, SO₂, NO, NO₂, O₃), and Odosense for SO₂, H₂S, and NH₃ along with ambient factors like noise, light intensity, UV radiation, temperature, humidity, and atmospheric pressure.

Key benefits the solution provides:

- 1. Data-Driven Pollution Monitoring:** Oizom's Odosense and Polludrone provide accurate, real-time air quality data that helps authorities move from handling complaints to making data-based decisions.
- 2. High-Sensitivity Gas Detection:** These devices can detect even very small concentrations of toxic gases. This allows for early action, before pollution levels become harmful or disruptive.
- 3. Climatic Impact on Pollution:** By considering local weather conditions like temperature, humidity, and air pressure, Oizom devices provide accurate data on how climatic conditions affect pollution in the area.
- 4. Easy-to-Use Real-Time Dashboard:** Oizom's software platform displays live air quality data, historical trends,



**INSTALLATION
DETAILS**

**1 UNIT of
POLLUDRONE
and
ODOSENSE**

and sends alerts when pollution crosses safety limits, making monitoring simple and actionable.

- 5. Smart, Customizable Reports:** The Envizom cloud platform creates intuitive and ready-to-use reports for regulatory compliance, environmental audits, and clear communication with stakeholders.

With these solutions, Nanova enabled real-time air and odour monitoring in locations where environmental sensitivity and industrial activity intersect.

THE TRANSFORMATION: Tangible Results from Oizom's Deployment

The installation of Oizom's Polludrone and Odosense systems in Tanintharyi delivered immediate and lasting benefits:

- 1. Real-Time Alerts and Health Protection:** Instant alerts help authorities act quickly during pollution spikes, especially near wastewater treatment plants and seafood processing units, where gas emissions can pose serious health risks.
- 2. Regulatory Compliance and Enforcement:** Real-time data helps local governments identify non-compliant industries, enforce limits, and shape pollution control strategies.
- 3. Odour Management & Community Engagement:** With continuous odour monitoring, public complaints from seafood and waste industries are addressed more transparently and effectively.
- 4. Informed Urban Planning:** Data-driven insights support smarter infrastructure development and reduce environmental impacts before and after execution.
- 5. Support for Environmental Policy:** Detailed reports from the devices support long-term strategies in air quality improvement and sustainable regional growth.

By installing these smart devices at strategic locations across Myeik, Kawthaung, and Dawei, Nanova has empowered environmental officers, healthcare planners, and urban developers to understand, predict, and mitigate pollution proactively.

BROADER IMPACT: Building Resilience in a Fragile Ecosystem

By adopting Oizom's cutting-edge monitoring technologies, Nanova Co., Ltd. has not only improved environmental oversight but also taken a step toward climate resilience and public health enhancement.

- 1. Empowering Local Authorities:** Equipped with continuous data streams, regional agencies can now respond faster and plan better for environmental and community needs.
- 2. Preserving Biodiversity & Tourism:** Cleaner air and improved odour control contribute to sustaining the natural beauty of the Myeik Archipelago and surrounding areas, supporting eco-tourism growth.
- 3. Improving Public Health Infrastructure:** With accurate environmental data, health screening and disease prevention initiatives gain a more robust foundation.

CONCLUSION: Nanova Leads the Way in Sustainable Environmental Monitoring

Together, Polludrone and Odosense form a 360-degree monitoring solution, enabling Nanova and local authorities to move from reactive responses to proactive, data-driven environmental management. From mitigating pollution risks to supporting sustainable development, this initiative sets a benchmark for environmental stewardship in Southeast Asia.

As Myanmar navigates industrial growth and ecological preservation, real-time air quality data will be critical. With Oizom's solutions, Nanova has laid the groundwork for a cleaner, healthier, and more data-driven future.

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.