Air Quality
Investigation at Gozo
College, Sannat
Primary & Special
Unit School

GLOBE MALTA AIR QUALITY CAMPAIGN (NOV - DEC 2024)







Introduction to Air Quality

01

Air quality refers to how clean or polluted the air is.

02

Poor air quality affects human health and ecosystems.

03

Major pollutants include nitrogen dioxide (NO₂), from vehicles, industries, and fuel combustion.

04

The Air Quality Index (AQI) measures pollution levels (AQI > 100 is unhealthy).

Research Questions

What are the levels of nitrogen dioxide in front the school?

How do current NO₂ levels compare to past measurements?

What actions can improve local air quality?

Research Methods

Conducted by students and teachers as part of the GLOBE campaign.

Installed a NO₂ diffusion near the main road for 4 weeks.

Collected daily traffic data (types of vehicles, volume).

Recorded weather conditions; air temperature, humidity, rainfall, cloud cover.









Data Collection & Analysis

NO₂ tube samples sent to PASSAM Laboratories in Switzerland.

Traffic data analyzed and recorded in Excel.

Air Temperature and Humidity data uploaded to the GLOBE website.

Results - NO₂ Levels

NO₂ levels in Sannat **doubled** in two years (3.79 in 2022 → significantly higher in 2024).

Possible casues: increased traffic, weather conditions, local emmissions.

Highest NO₂ recorded in Victoria (Gozo's capital, busy traffic).

Rural areas like Sannat, St. Paul's Bay, and Rabat had lower NO₂.

Results: Traffic Survey



Most common vehicle observed: **private** cars.



Suggests heavy reliance on personal transport.



Indicates potential sources of rising pollution near the school.



Recommendations – School Actions

- Educating & Awareness: School campaigns, curriculum integration, student projects.
- **Sustainable Transport:** Walk-to-school initiatives, reducing idling vehicles, carpooling.
- Green Initiatives: Plant trees, school gardens, clear air zones.
- Monitoring & Data Collection: Regular NO₂ testing, trend analysis, school collaborations.
- Community Engagement: Work with parents, local authorities and environmental groups.

Conclusion & Future Actions

Rising NO₂ levels in Sannat raise concerns about air pollution trends.

School plays a key role in awareness and proactive initiatives.

Continued monitoring and policy advocacy needed to mantain clean air.

Collaboration with other schools and organisations for a broader impact.

