In-Depth Analysis: N2O Emissions from Buildings

1. Full-Series Trend (1970–2024): A Minor and Insignificant Source

Nitrous Oxide (N2O) emissions from the building sector are a very minor source, showing slow growth from ~**3 Mt CO2eq** in 1970 to ~**8 Mt CO2eq** in 2024. The overall trend is one of slow, inconsistent growth with no significant acceleration.

2. Breakpoint and Trend Analysis

The data shows some volatility, with the growth rate fluctuating over time but always remaining at a very low level. The most recent regime, post-2003, shows a slow but steady growth rate of approximately **0.08**.

The statistical model for the final regime is a simple random walk (`ARIMA(0,1,0)`), and the resulting 10-year forecast is **essentially flat**.

3. Conclusions

- **Insignificant Scale:** This emission source is negligible in the national context.
- **No Growth Trend:** The data and the forecast confirm that there is no significant underlying growth trend.
- **Not a Climate Concern:** N2O emissions from the building sector are not a climate policy concern.