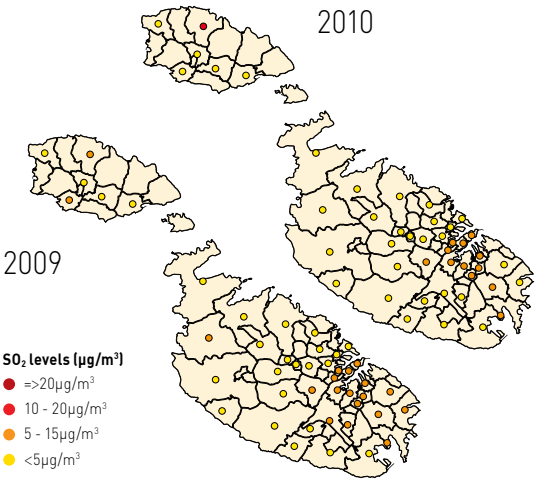
A5 SULPHUR DIOXIDE CONCENTRATIONS

Key policy question: Do sulphur dioxide concentrations in Malta meet EU air quality standards?

Sulphur dioxide (SO_2) adversely affects the human respiratory system and lung function. It damages aquatic ecosystems, soils, vegetation and limestone buildings. SO_2 is emitted through the burning of sulphur-containing fuels, including biofuels, mainly in power stations and transport, as well through natural sources, mainly volcanoes.[29] Sulphate also combines with other atmospheric compounds to become particulate matter and is therefore an important source for ultra fine particles such as $PM_{2.5}$.[30] SO_2 pollution from international shipping is a matter of increasing concern. National annual average SO_2 concentrations decreased by 5.8% in 2010 (from 5.1µg/m^3 to 4.8µg/m^3) remaining well below the EU critical level for the protection of vegetation (20µg/m^3). This decrease may be in line with the 2.5% decrease in electricity generation in this period.[31] No annual limit value is defined for the protection of human health from SO_2. Locality averages were all found to be below the EU limit value for the protection of vegetation, and decreases were registered in most localities. Similar to the previous year, the highest levels were recorded in Marsalforn[32] (15.4µg/m^3), followed by Paola (12.3µg/m^3) and Fgura (10.7µg/m^3). Once again, Victoria in Gozo registered the lowest SO_2 concentration in 2010 at 2µg/m^3, although it increased slightly from 1.9µg/m^3 in 2009. In 2010 the daily average limit value was exceeded once at Kordin, while the hourly limit value was exceeded once at Kordin and once at Msida.



Source: MEPA