A Swedish CBA on acidification abatement

the CAFE Baseline scenario

Mohammed Belhaj, Stefan Åström, Catarina Sternhufvud
Mohammed.Belhaj@ivl.se, Stefan.Astrom@ivl.se, Catarina.Sternhufvud@ivl.se

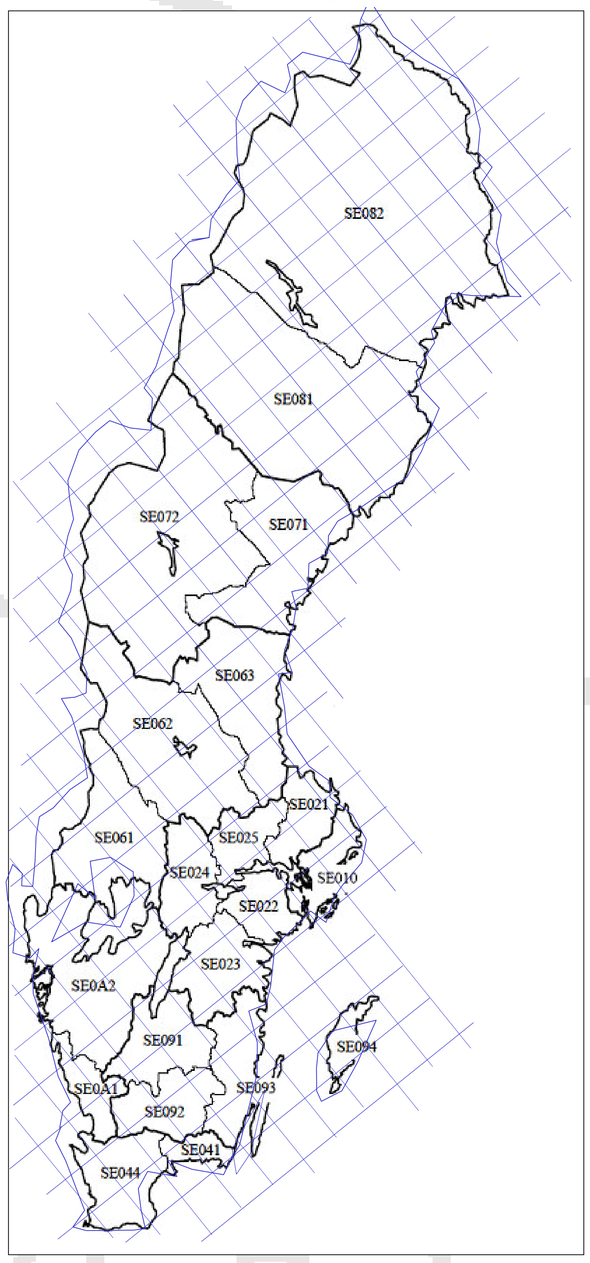
Benefits: Corrosion

Corrosion due to acidifying air pollutants causes damage on buildings and constructions, monuments of calcareous stones, bronze sculptures, medieval glass windows and electronic equipment.

The CBA includes the cost caused by corrosion on buildings. The cost calculations have been based on the studies carried out in Stockholm by Tolstoy et al (1990) and Kucera et al (1993). The stock-at-risk data used has been estimated by using the register of buildings in Sweden.

The EMEP grid cells have been used as regional distributors, which facilitates the use of data provided by EMEP. The numbers of real estates in each county are allocated to different cells in accordance to the geographical area of the county in each cell.

*The Swedish EMEP 50*50 and county map.*



Net Present Value

The Net Present Value for corrosion on buildings in Sweden between 2000 and 2020, assuming the Baseline scenario, is estimated to 32 million $€_{2000}$.

NPV avoided corrosion (mio $€_{2000}$)

Net Present Value **(mio Euro)**
32

Total cost

The total cost for the year 2000, 2010 and 2020 assuming the baseline scenario, has been estimated to 50, 16 and 9 million $€_{2000}$ respectively.

Total cost corrosion (mio $€_{2000}$)

TC 2000 (mio €)	**TC 2010 (mio €)**	**TC 2020 (mio €)**
50	16	9