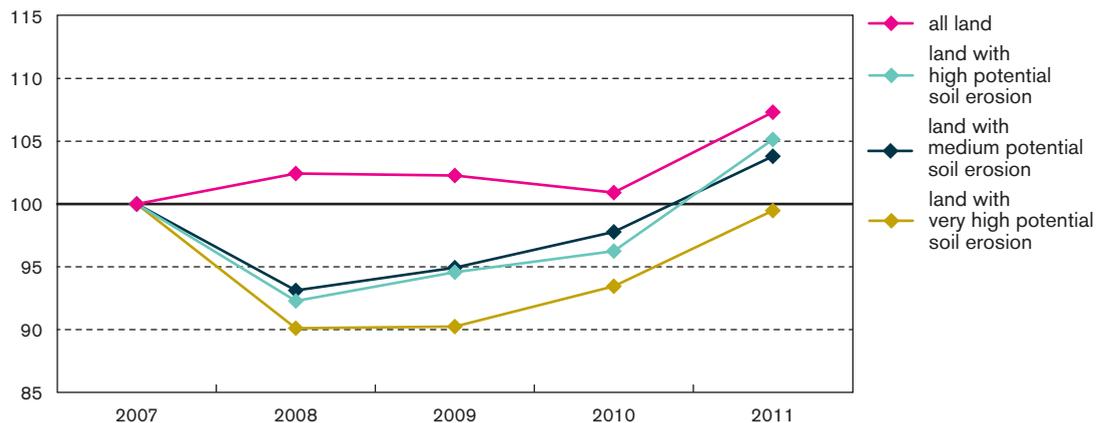


☹️ Area of erosion-sensitive crops

DPSIR

index (2007=100)



Source: LNE, ALBON

Increasing area of erosion-sensitive crops

Erosion-sensitive crops are crops with a crop erosion sensitivity factor (C factor) bigger than 0.25. This means that the soil cover by the crop during the most erosion-sensitive period of the year is insufficient to prevent erosion, as for example in the case of potatoes and maize. The area of erosion-sensitive crops is increasing in almost all classes of potential soil erosion or soil erosion sensitivity. The soil erosion sensitivity is determined, among other things, by the soil texture, the slope and the shape and location of the land.

The increase in the area of erosion-sensitive crops, averaged over the classes with very high, high or medium potential soil erosion, was on average 3 % in the period 2007-2011. Only in the class with very high potential soil erosion has the area remained stable. There, farmers who wish to receive direct income support under the European Common Agricultural Policy, are required to apply one specific measure to control erosion. On land with high, medium and low potential soil erosion, farmers are also recommended but not required, to take erosion mitigation measures. The average crop erosion sensitivity decreases with increasing potential soil erosion. However, even on land with high soil erosion, the share of erosion-sensitive crops in 2011 was 39 % against 15 % on land with very high soil erosion.

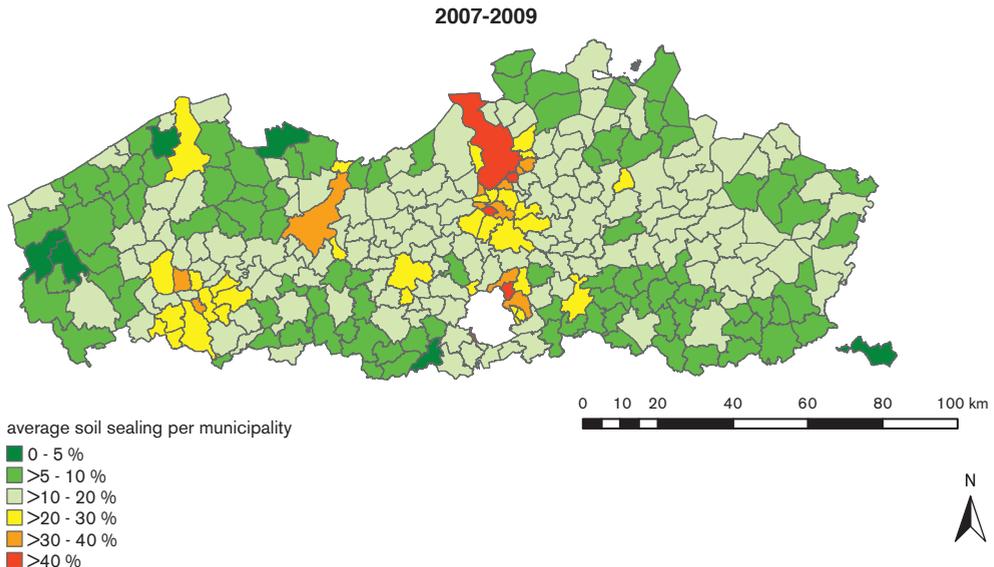
The MINA plan 4 (2011-2015) specifies that, in 2015, 50 % of the area of agricultural land with very high or high soil erosion sensitivity must have a permanent cover of agricultural crops or natural vegetation. This share was 48.7 % in 2012 and has been stable since 2008.

In 2011, 11 % of the most useful erosion control measures were implemented in the field to eliminate the major erosion obstacles. The MINA plan 4 proposes a value of 14 % as target for 2014.

There is also a major societal cost attached to the erosion issue in terms of dredging and clearing works. The question arises as to whether the optimisation and intensification of voluntary instruments is enough to effectively tackle the erosion problem.

 **Soil sealing**

DPSIR



Source: MIRA based on KU Leuven and NGI

Soil sealing leads to negative environmental effects

To a great extent, the soil in Flanders is sealed by the application of an artificial impermeable cover. By sealed soil we mean, for example, buildings and roads. Water can no longer seep through and runs off via the paved surface. Sealing entails a loss of ecosystem functions, such as the storage of carbon and water storage in the soil, and adversely affects the (soil) biodiversity. Increased average temperatures and the increase in heat waves due to climate change, combined with increased soil sealing can amplify the heat island effect in cities.

A large part of Flanders sealed

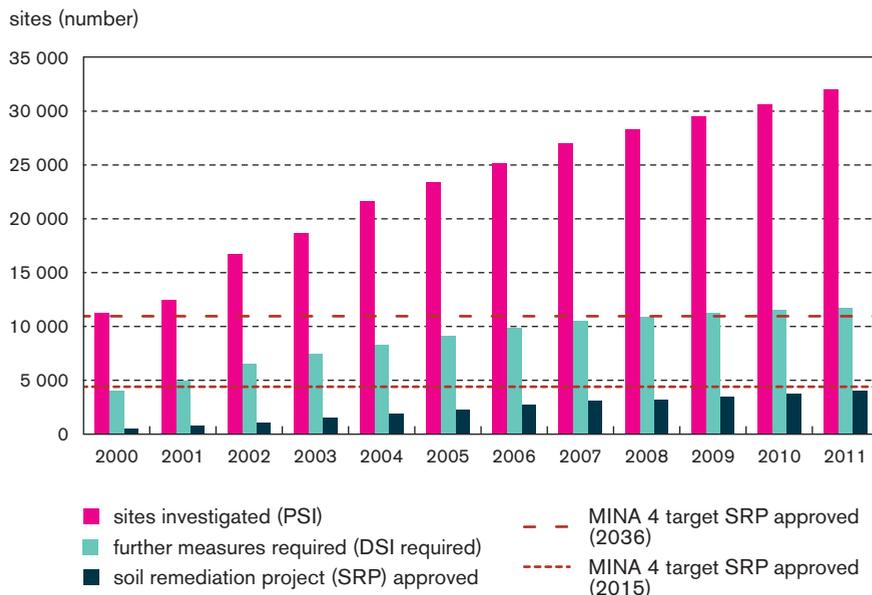
In the 2007-2009 period, 175 967 ha or 12.9 % of the soil in Flanders was sealed. Next to Malta, at 7.4 % Belgium had the greatest extent of soil sealing in Europe in 2006. In Europe, on average 1.8 % of the soil is sealed. 38 European countries are included in this analysis.

There are still a few areas in Flanders that contain municipalities where the percentage of sealing is less than 10 %, especially in the Westhoek, South Limburg, South East Flanders and Meetjesland. 10 % of the surface in most municipalities located in the Flemish Diamond (Ghent, Antwerp, Leuven and Brussels) is sealed. 20 % or more of the surface in the city regions of Bruges, Roeselare, Kortrijk, Ghent, Aalst, Antwerp, Mechelen and Leuven is sealed.

The increasing urbanisation is responsible for the continued soil sealing. Careful urban planning is, therefore, needed to avoid all soil sealing where it is not needed: parts of public spaces, car parks, brownfield lands. In implementation of the MINA plan 4 (2011-2015), the preparation of the White Paper for the new Flemish spatial planning policy will include a study of potential measures to be taken for the purpose of avoiding or offsetting new soil sealing.

☺ Number of contaminated sites by remediation phase

DPSIR



Source: OVAM

More than a third of Flemish soil at risk investigated

The soil in Flanders is contaminated through a variety of human influences with environmentally hazardous substances, such as heavy metals, organic materials and pesticides. In Flanders, 85 000 soil areas are estimated to be at risk, i.e. ground where activities are or will be carried out that can possibly cause soil pollution. At the end of 2011, OVAM had processed preliminary soil investigations (PSIs) of 32 000 (36 %) of these areas of ground. For 11 761 of the areas investigated, a descriptive soil survey (DSS) must be carried out. A DSS investigates the extent and the risks of soil pollution and determines the need for remediation.

Remediation of grounds investigated

If it appears from a descriptive soil survey (DSS) that remediation is needed, work is started on drawing up a soil remediation project (SRP). A SRP had to be drawn up for 5 016 sites. The total number of sites in Flanders for which a soil remediation project is necessary (SRP required) is estimated at 11 750. This corresponds to 15 % of the 85 000 sites that are at risk.

On the basis of an approved soil remediation project (SRP approved) the soil remediation work (SRW) is started. By 2015, 40 % of the soil remediation projects (SRP approved) should have been started (MINA plan 4, 2011-2015). All SRPs should have been started by 2036. In 2011, 36 % of the estimated SRPs were approved.

For the soil remediation activities for which OVAM issued an approval certificate in 2011, the cost price was estimated at approximately 134 million euros. The total amount estimated for the period 1997-2011 is approximately 1.452 billion euros.

The extent of the currently known sites that have been or are to be cleaned up can be estimated on the basis of the surface area for which a remediation project proved necessary (SRP required). That surface area was 112 km² or 0.8 % of the surface area of Flanders in 2011 and is the equivalent of 5 016 sites. The total surface area of the sites to be cleaned up is higher, but is not known yet.