8-2 SOIL EROSION BY WATER

Rainfall and water run-off on farmland can lead to soil erosion and facilitate the transport of eroded particles to water courses. The consequences of these phenomena include sedimentation in water courses, the risk of mudslides and flooding, water contamination, etc.

KEY MESSAGE

According to the results of a modelling tool[1], soil losses due to water erosion were ± 2.5 t/ha in 2013 (average for the whole of Wallonia[2]). They doubled between 1971 and 1993, but seem to have since stabilised, except in years when the erosivity of precipitation is exceptionally high (as in 2002). Moreover, the share of agricultural land affected by soil losses greater than 5 t/ha a year dropped from 40% to 30% between 1996 and 2013. The most affected regions are the loamy and sandy-loamy[3] regions because of the vulnerability of their soil and the prevalence of row crops[4]. Apart from obligations associated with the cross-compliance of CAP direct payments, the recent Walloon Code of Agriculture also provides for subsidies to be granted to local authorities and about a dozen measures to prevent soil erosion. An expertise and advisory unit[5] has also been set up with the task of putting out recommendations on anti-erosion practices.

Evaluation +

Slightly unfavourable but improving situation

[1] Application of the Universal Soil Loss Equation (USLE) with the help of the EPICgrid model (Sohier and Degré, 2014)

[2] For all types of surface, other than built-up areas

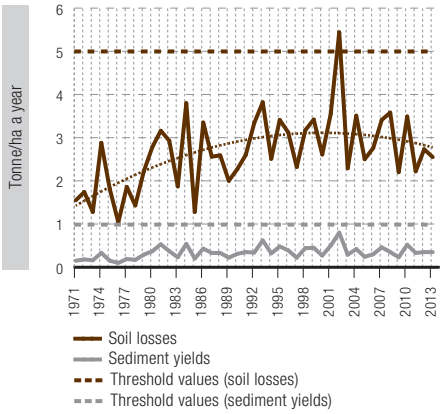
[3] → Map 11

[4] Crops offering little soil cover in spring such as potatoes, sugar beet and maize

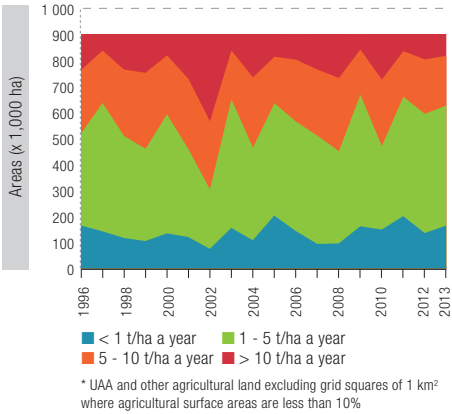
[5] The GISER unit (http://www.giser.be)

Fig. 8-2 Soil losses by diffuse water erosion and sediment yields in Wallonia

Evolution in Wallonia as a whole



Agricultural land affected (by soil loss category)*



* UAA and other agricultural land excluding grid squares of 1 km² where agricultural surface areas are less than 10%

EOW 2014 – Source: ULg - GxABT - Soil-Water Systems Unit (EPICgrid model)