Avec le soutien du Fonds Européen de Développement Régional
Met steun van het Europees Fonds voor Regionale Ontwikkeling

Dependency of crops on pollinators in Belgium and North of France

Based on a published national scale method (Gallai et al., 2009) the **value of crop production for human food**, the **estimated value of insect pollination** to this production and the **vulneravility** of food production to pollinator losses for year 2010 (Fig.1) have been calculated in France (EFESE, 2016) and Belgium (Jacquemin et al., 2017).

In the area of the SAPOLL project, that is to say Belgium and North of France, **the contribution of insect pollinators to human food production is estimated to 368 million euros**.

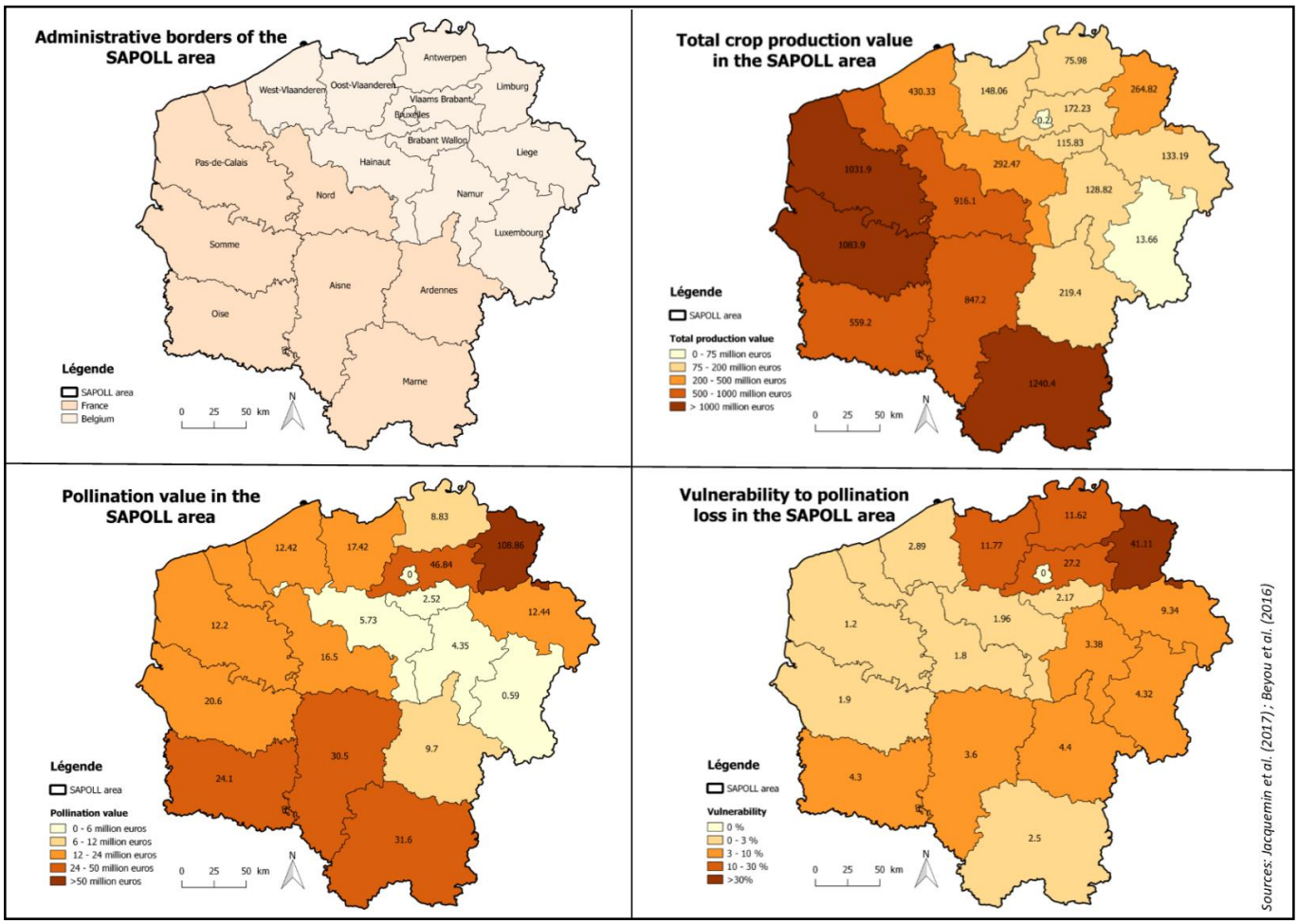

Figure 1 : Major crops whose producs are used directly for human food per region of the SAPOLL area (in 2010).

The area most at risk in case of pollination losses would be North of Belgium and especially Limburg. The great difference between regions is linked to the concentration of fruit crops production in northern Belgium while other regions produce great amount of crops that are less dependent on pollination (cereals, sugar beets, potatoes…).

Beyou W, Darses O, Puydarrieux P, Kervinio Y, Tallandier-Lespinasse S, Hubert S (2016) *EFESE - Le service de pollinisation. Commissariat général au développement durable, 46 pp. /* ***Gallai N, Salles J, Settele J, Vaissière B (2009)*** *Economic valuation of the vulnerability of world agriculture confronted with pollinator decline. Ecological Economics 68 (3): /* ***Jacquemin F, Violle C, Rasmont P, Dufrêne M (2017)*** *Mapping the dependency of crops on pollinators in Belgium. One Ecosystem 2: e13738.*

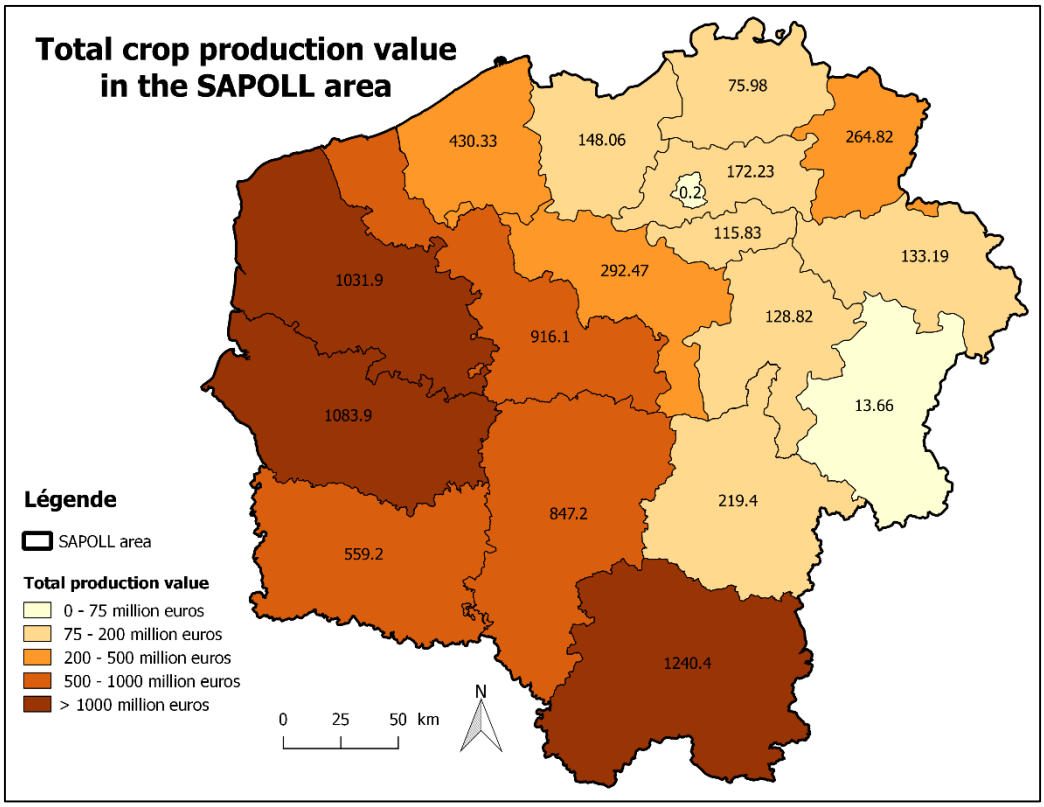

Figure 2 : Total production for major crops whose producs are used directly for human food per region of the SAPOLL area (in 2010). The total crop production in the SAPOLL area is of 7673,69 million euros.

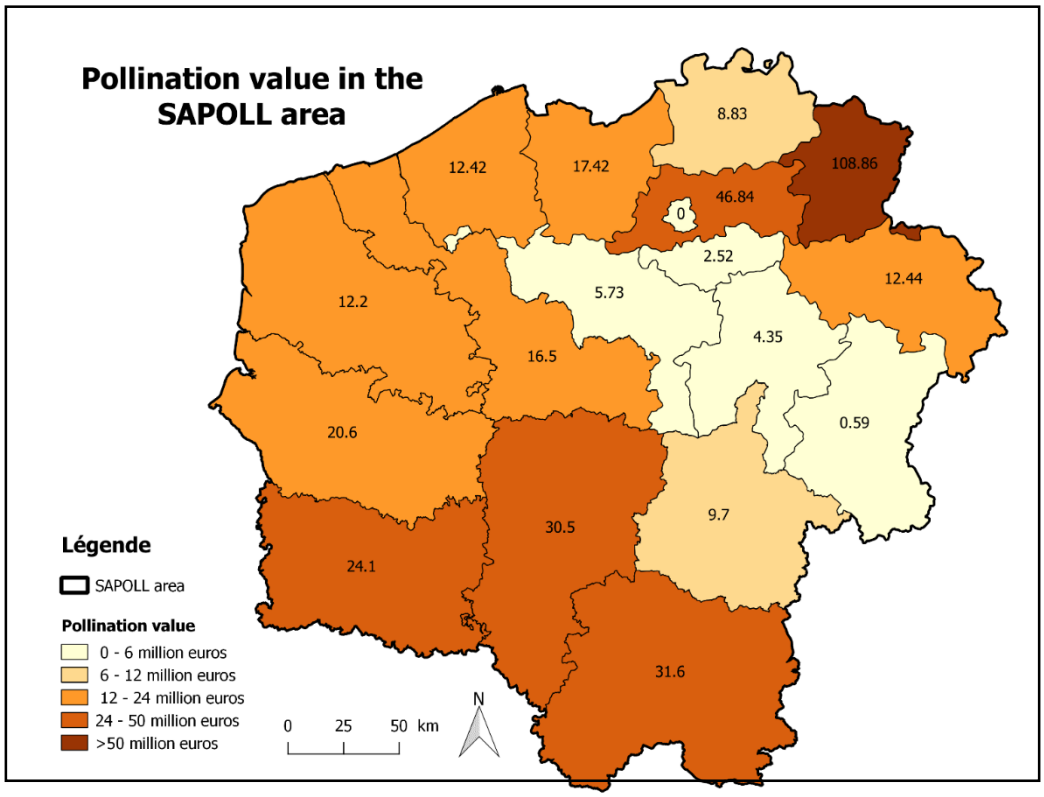

Figure 3 : Estimated pollination value for human food per region of the SAPOLL area (in 2010). The total pollination value is of 368,2 million euros in the area, that is to say less than 5% of total food production.

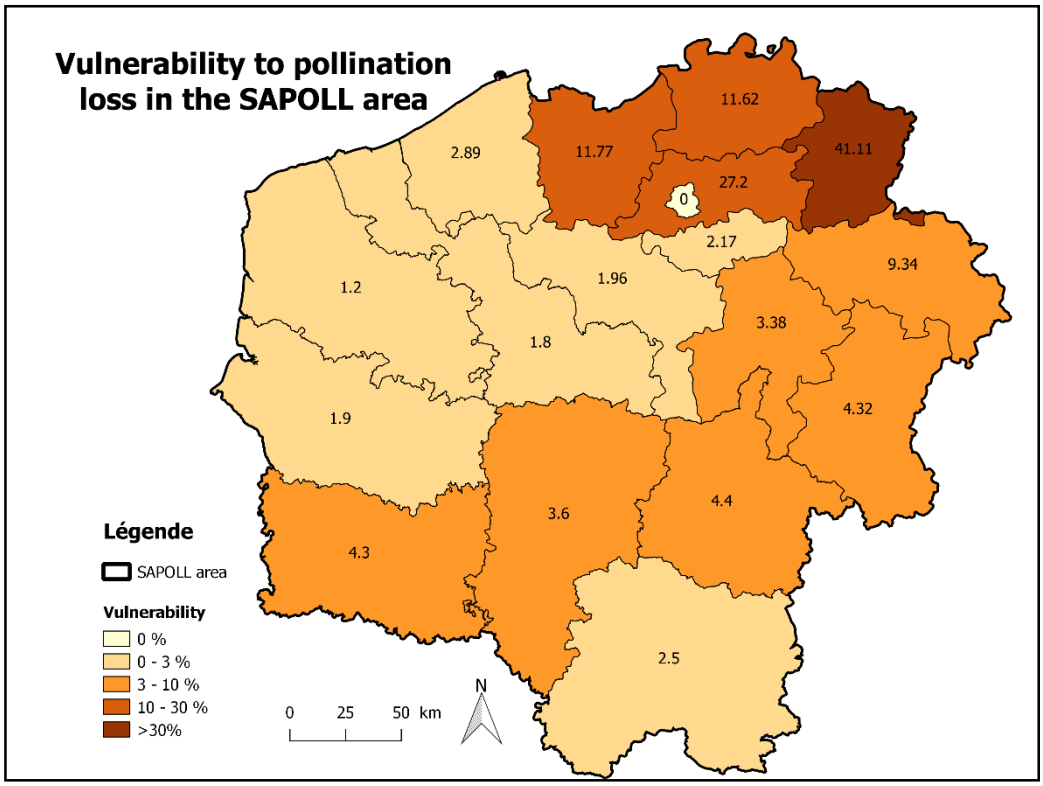

Figure 4 : Vulnerability of crops to pollinator losses for the SAPOLL area (in 2010).

Figure 5 : Some crops do not need insect pollination (wheat crop, left picture) whereas some crops need insect pollination to produce a yield (sunflower crop, picture on the right).