



photos Fabrice Ottburg

Grey partridge.



Ditch for European weatherfish.

# The Dutch situation put into perspective

— Anne van Doorn (Alterra, Wageningen UR)

This special issue of the Trade Journal Nature Forest Landscape concerns the Dutch interpretation of agri-environmental management. The Dutch government and Dutch farmers have agreed on an approach that is typical for the Dutch conditions. In order to understand their approach, it is useful to elaborate on the Dutch situation, in which agriculture and nature are strictly separated, and most of the Common Agricultural Policy budget is provided by the European Council's first pillar.

> The Netherlands is a delta, which, without the proper management, would be a soggy swamp. Due to its waterworks, intensive farm-

ing, and building, however, this delta has not only become one of the most densely populated areas of the world, but also one of the world's most productive agricultural areas. The most important characteristic of the Dutch landscape is its highly intensive farming, combined with very high demographic pressure. Agriculture is comprised of several types of farming; its spatial distribution is dependent on the type of soil, as well as historical or economic motives. Most of the country's agriculture can be found on the rich clay soil along the coast of the provinces of Friesland and Groningen, in the polders of the IJsselmeer, on the islands of the province of South Holland, in Zeeland, and in the western part of North Brabant. Dairy farming is mostly found on the less fertile clay and peat soils of the Frisian pasture area, the rural area the Groene Hart, and the region of West Friesland. Bulb cultivation is found on the geest lands behind the dunes of the provinces North Holland and South Holland, as well as on the clay soil around Den Helder and Enkhuizen. Greenhouse horticulture is concentrated in the Westland region, as (open-field) horticulture flourished in this region at an early

stage, due to its good soil conditions, the local climate (relatively warm and sunny), and the proximity of a large outlet, among others. Other types of farming are less bound to a certain type of soil, but are concentrated in certain areas because of historical or economic reasons, for example the poultry and pig farms in the Gelderse Vallei region and in the southeast of North Brabant.

## Upscaling

The number of agriculture and horticulture holdings in the Netherlands has steadily decreased from 301.000 in 1960 to 65.500 in 2014. Most of these 65.500 holdings are livestock farms (40.400 in total). In the period between 1980 and 2014 a major upscaling took place. The number of holdings decreased significantly by 55%, while the surface area of arable land only decreased by 9%. A large part of the lost arable land was used for building. In the period between 2000 and 2010 the surface area of the built-up area increased by more than 48.000. This urban growth and the expansion of infrastructure changed the appearance of the agrarian landscape. As buildings, viaducts, and noise barriers are visible from a large dis-

tance, they influence the amenity value in large parts of the rural areas. In addition, rural areas become fragmented because of urban building, business parks, and infrastructure. The average cultivation surface area per holding increased from 13.9 hectares in 1980 to 28.1 hectares in 2014. A similar upscaling has taken place for livestock farming.

The Dutch population grew from 5.1 million to 17 million people between 1900 and 2016. Mainly due to this significant growth, the total individual space per inhabitant decreased by more than two-thirds over the course of the 20th century.

Although the total surface area of nature and forest has increased over the past twenty years, the largest decline in the number of available square metres per inhabitant occurred in this category. The amount of nature and forest per inhabitant has decreased from over 1700 square metres to merely 293 square metres between 1900 and 2012.

### Hedgerows and unassigned plots

It has become clear that the pressure for available ground is high in the Netherlands, and the available arable land is generally used extremely efficiently. Therefore, in the Netherlands, agriculture and nature are separated to a high extent when compared to other European countries. Nature reserves are owned by land managing nature organisations. Nature values are clearly less important for the agricultural areas than they are for nature reserves. An effective nature policy has been implemented since 1990, slightly improving the spatial and environmental conditions for the target species over the past decades. In the agrarian areas, however, the number of species is still declining. Production and harvesting efficiency per hectare is maximised by, for example, fully optimising the environmental conditions in favour of agricultural benefits. For this reason, increasingly fewer species find the space they need in order to survive. On average,

for example, breeding birds in agricultural areas on higher sandy soils have been in decline since 1990. Bird species are not only diminishing in fields and grassland – the ruff, Eurasian skylark, and the corn bunting, for example – but in field margins, hedgerows, and unassigned plots as well – the grey partridge, for instance. Beside intensification, these specific birds are affected by changes in crop choices and the scale-up of agriculture, which have eliminated many of the smaller landscape elements like hedgerows and unassigned plots.

### High Nature Value farmland

Agri-environmental management in the Netherlands must always be considered within its framework, namely, that the nature values of agricultural areas must be maintained within a landscape where every inch has a purpose. Since 1975, the Dutch government has been trying to improve nature within the agricultural zone by financially supporting farmers who stimulate nature values on their farms. The policy mainly aims at extensifying the agricultural production through implementing a number of measures, for example postponing the mowing of fields in order to provide meadow birds with sufficient time to raise their hatchlings. Other measures concern subsidising farmers for sowing strips of their fields with flowers, in order to make these strips suitable for various insects and small mammals. Although several forms of funding have been implemented, nature in farmland is still declining. Whether this decline would have been more substantial without this policy is impossible to substantiate, of course.

The Netherlands possesses few agricultural areas with high nature values due to the high pressure that is put on the available space and the amount of intensive farming that takes place. Elsewhere in Europe we often find so-called 'High Nature Value farmland (HNV)'. HNV farmland is an acknowledged concept within the European agriculture and nature policy for agricultural lands that live up to high nature values.

Preserving HNV, as well as the Natura 2000 areas, is important for achieving biodiversity targets, as formulated in the European biodiversity strategy. Important HNV areas in Europe are mostly half-natural grasslands with low-intensity grazing, such as mountain pastures and the dehesas and Montados of the Iberian Peninsula. Agrarian landscapes of intricate green and blue interlacing networks are also included; for instance, the bocage landscape in western France is considered an HNV as well. In the Netherlands, HNV is mostly comprised of wet peat pasture areas that provide an important habitat for endangered meadow birds. Approximately 15% of the cultivated area in the Netherlands can be considered an HNV, and it is mostly found in the Groene Hart region, the Laag Holland region, and in the provinces of Friesland and Groningen.

### Primarily Pillar 1

The Dutch government traditionally chooses to reserve ninety percent of the total Dutch Common Agricultural Policy budget, circa 1 million € annually, for the direct payment of farmers (Pillar 1). This large share for Pillar 1 comes at the expense of the Pillar 2. Only 10% of the total Common Agricultural Policy budget is spent on rural development policies (Pillar 2), of which just over half is reserved for agri-environmental management. Although this budget is enhanced by national co-financing, it is still extremely modest in comparison to the funds available for direct payments.

Starting in 2015, the government has begun to link greening measures to receiving direct payments. This means, for example, that farmers have to outfit 5% of their agricultural land as an Ecological Focus Area. This measure may contribute to the environment and to the biodiversity goals of the rural area. It would be sheer profit if five percent of Dutch agricultural land were transformed into flowering field margins and landscape elements! However, both during the European negotiations and subsequently during the Dutch implementation a lot of compromises were made. An example of this is the ratification of catch crops as part of an Ecological Focus Area. Due to these compromises, the measures are not as effective as they could have been.

### Agricultural fields in their entirety

Under the best of circumstances the effects of greening might become visible in several regions, especially in agricultural provinces like Flevoland and Zeeland, as the landscape will display a higher degree of variation: more field margins and more varied crops. Field margins, however, are not the sole requisite for meadow birds; for the Eurasian skylark, for example, the entire field must be taken into account. Layout is an important factor, but so is, for example, the use of pesticides. Thus, vulnerable species with a specific set of environmental demands will not profit from the greening. The policy is too one-dimensional for that. This means that it is still hard to estimate the impact of greening on the population of specific species.

The new Dutch system for agri-environmental management can be seen as a firm step towards the preservation of nature and biodiversity on agricultural land. In order for agri-environmental management to become a success, it is important to stay focused on the 'bigger picture'. This means that the standard of the general quality of soil, water and space of the Dutch rural area has to be raised, that greening and agricultural policies have to be organised more efficiently and that the distribution of the Common Agricultural Policy budget between the two pillars has to be evened out in order for more funds to be allocated to agri-environmental management.<

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