Biodiversity challenge

A Luxembourgish perspective

Philip Birget

I bet that Jeremy Paxman, the somewhat dinosaur-ish host of the British quiz show *University Challenge,* would easily agree that the gradual loss of biodiversity has now entered the realm of common knowledge.

"By how much have insect populations decreased in Germany over the last three decades?
"Emmanuel, Blinkworth!"
With a trembling voice Mrs Blinkworth of Emmanuel College, Cambridge suggests:
30 percent!"
"No, you lose 5 points, counters Paxman.
"St Peter's, Parkin!"
"75 percent."
"That's correct!"

Oxford's Parkin knows better, because he's a biologist. And of course, because he's from Oxford. But actually, we should all know better: we are all part of the discomforting, global show, called "Biodiversity challenge", where the extinction rates are discomfortingly high. The principle cause is a toxic mix of an increasing human population and combination with climate change, which, quite literally, adds fuel to the fire.

In other words, we should be feeling the heat. However, a significant problem is that many of us, leading the ever-busy life in a successful Luxembourg, fundamentally fail to notice that biodiversity is under threat. Occasionally, some news headline may penetrate to the surface of our smart screens about the challenges faced by the charismatic megafauna of the Serengeti, the North Pole or the oceans. Few know that Europe had a megafauna on its own, in the form of the aurochs (extinct in our region only in the 18th century), European bison, wild horse, wolf and bear. These creatures shaped Central European landscapes for many millenaries, creating the mosaic of open land and forest, probably not that dissimilar to what the Luxembourg country side looks today. Aurochs (yep, that's also the plural) have been replaced by their domesticated descendants (otherwise known as "cows") and their mechanical facsimiles (aka "tractors"), preventing the growth of large swathes of thick forest. In here also lies the key to biodiversity: promoting the existence of a mosaic of habitats, like forest, meadows (with various degrees of humidity), reed beds, water bodies, overall allowing the spatial coexistence of species that occupy a wide variety of ecological niches. However, apart from the forest, which has a straightforward economic use on its own and covers around a third of the Luxembourgish territory, habitats of the open land are quickly heading towards extinction, mainly due to the fast pace of urbanisation and the accompanying intensive agriculture.

The economic development of Luxembourg has come at a major biodiversity cost. Our landscape has been cut up by roads, highways, villages (which are expanding again), industrial zones, farmland, and of course, the city. The local agriculture, which has been steeply intensified after the Second World War, getting rid of many structures considered "useless" like hedgerows and fruit trees ("Bongerten"), is embedded in the major global challenge of making sure that the daily bowl of milk-soaked cornflakes gets ever cheaper relative to our earnings. But the noble agricultural effort of keeping our food so cheap comes at the cost of livelihoods: that of insects, herbs, wildlife and also of the farmers themselves. Every year Luxembourg loses a hundred or so small to medium-sized farms that can't keep up with the extremely small profit margins to be made on milk or beef. This also means a loss of landscape structure as the fields and meadows become integrated into larger, more efficient farms. We should not however fall into the illusion that our *Eeslécker Koppen*, with

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Foto: Philip Birget

their steep hills and thin soils, will ever compete with the agricultural steppes of Idaho. Nor is it necessary. As we can measure via our rental bills or mortgage, land is expensive in Luxembourg, and accordingly we should treat it with the utmost respect. Similarly, cutting down local beech trees, only to send them to China and see them re-appear as an Ikea *Sniglar* bookshelf, may not be the most sustainable use of a resource planted by our fathers and our fathers' fathers and our fathers' fathers' fathers. Instead, we need to put a price on biodiversity too by valuing our remaining natural heritage at least as much as our land.

To do so, we should focus at least as much, if not more, on quality of produce as on quantity, whilst leaving more space for biodiversity. Local labels that promote the down-scaling of intensive tools like pesticides, herbicides and fertilisers, and will add at most a few more euros to your food bill, are set to be the only way forward for agriculture and nature to coexist in an increasingly territory-strained country.

As an example, the Administration for Nature and Forest (ANF) offers farmers "biodiversity subsidies", where farmers receive a few hundred euros per hectare in return for allowing nature to develop more freely on their land (i.e. no pesticides or herbicides, no fertilizers, a lower cattle density, mowing after the 15th of June only). Land managed in this way offers colonisation space for plants and insects, effectively creating small-scale nature reserves on private people's land, all while being offering safer financial returns to farmers.

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The promotion of nature protection on private land is a solution to the problem of our territory size, where the land on which compensation measures for major construction projects should be carried out gets ever scarcer. It's easy to promise 50 ha of replanted forest in Luxembourg, but it's less easy to find land to do so, and it should definitely not come at the cost of farmer's livelihoods.

Luckily the current three-party coalition also seems to support this view: compensation for the A7 highway (Nordstrooss) includes the financing of a number of sustainable agricultural projects e.g. 64 ha of sustainably farmed meadows between the highway bridge and Lintgen. Being the meat-loving country that we are, eating a prime matured Angus steak from a natural Luxembourgish meadow is recognised as a valid compensation measure for the painful hours every week lost in traffic congestion.

But it's not just the farming sector that should make more space for nature: it also extends to the city environment like towns, houses, the work place and transport infrastructure. The modern Luxembourger, unhappy with the local portfolio of species, considers it necessary to bring in exotic ones like bamboo (ideally, planted into dark-grey and white gravel) that has as much value to biodiversity as a wall painted in green. The modern Luxembourgish house, typically an assemblage of white and dark-grey rectangles that could have been designed by a colour-blind 7-month old toddler, should be absolutely resistant to any colonisation by a swallow, a sparrow or any other species, that may have been subtenants in a more classical local house. Our attitudes to green space and garden management must change fundamentally. While nice to the naïve eye, a four-centimetre, homogenous lawn unsurprisingly offers few opportunities for insects to live or other plants to thrive. Instead, we should take the opportunity to effectively integrate nature protection and city planning, using only local trees and plants for greening, minimising management interventions like mowing or weed pulling and completely forbidding others, like the use of herbicide. This is not just better for nature but also saves time and money to already overstretched communal services. A first such step has been carried out on the famous JFK boulevard on Kirchberg: a wealth of typical meadow herbs and flowers have been allowed to develop around the centrally planted oak trees, so that waiting at the red light turns into a miniature safari park experience. Butterflies and bees buzz around and even a hare was seen near Utopolis (though frankly, it was dead). So, it us left to the hard-working and international community of Luxembourg, unglue our faces form the smartphone screens, look around us, make nature work for us and, in short, accept the *biodiversity challenge*. ◆