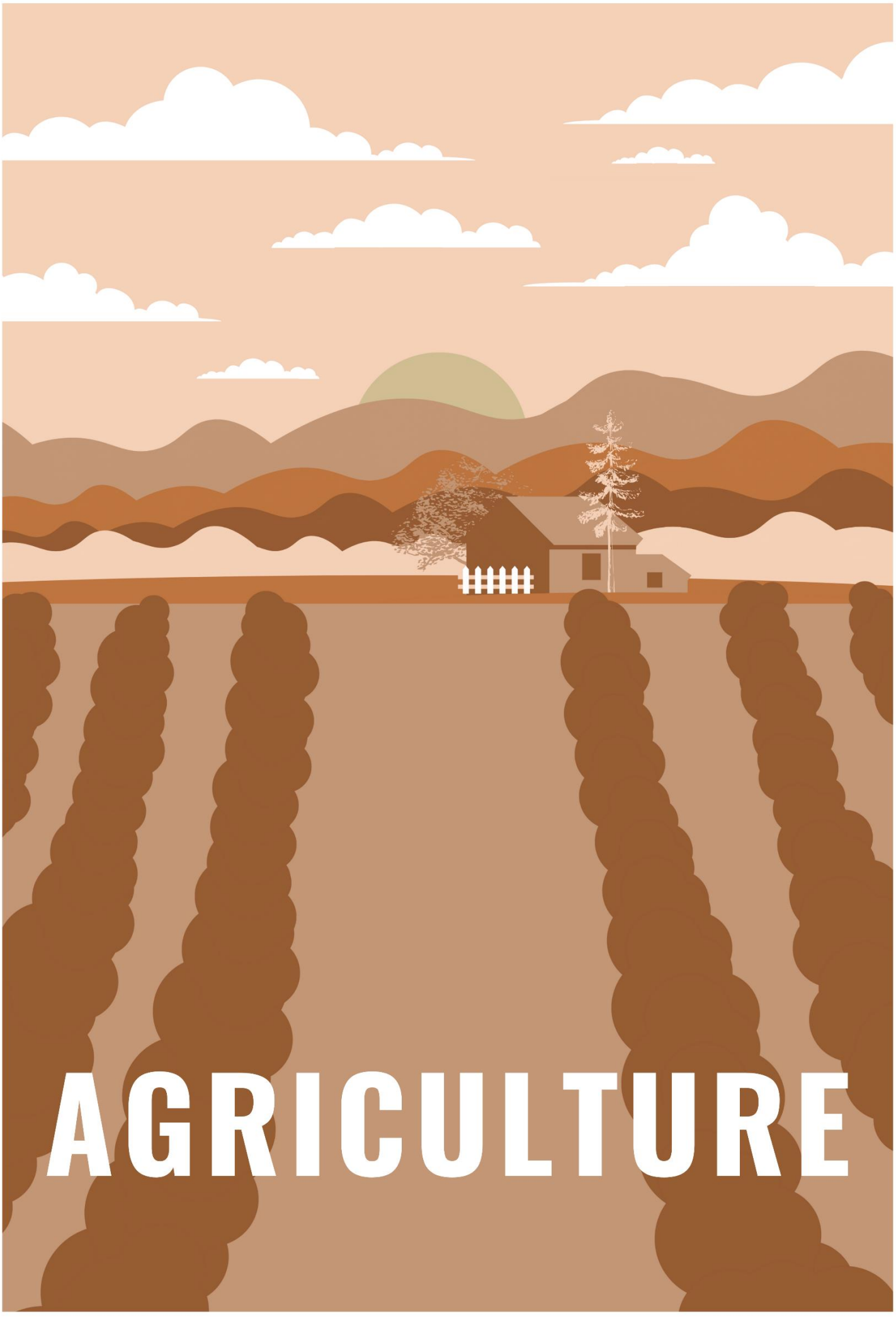
AGRICULTURE

The narrative of a *happy farm* has been the dominant discourse for so long, that the associated dramatic loss in biodiversity, the impact on climate and public health, as well as increase of socioeconomic risk due to the intensification of factory farming have been, in some cases willingly, overlooked. Over the past few decades, a rise in industrial farming under misguided trade and agricultural policies, coupled with unsustainable consumption patterns, has altered the food system across Europe with increased production and consumption of animal products. This confined thousands of animals in facilities with poor conditions, as well as endangered the livelihoods of small and medium sized farmers [1,2]. Over 71% of all the EU agricultural land, including arable land and grassland, is now dedicated to producing animal feed[3].

Currently, only 14% of the EU's habitats are in "good" condition, as assessed by the latest State of Nature report by the European Environment Agency (EEA)[4], and one of the main pressures is indeed our food system. Agricultural activities have been identified as the most dominant driver contributing to the degradation of habitats and species, together with land abandonment, urbanisation and pollution[5]. In addition, industrial farming has also been identified as a potential driver of zoonotic diseases[6]. The ongoing rapid modernisation and intensification of agriculture tends to maximise short-term productivity and profit, undermining the resilience of agroecosystems. This has led to the degradation of landscapes with semi-natural habitat elements and the establishment of large monocultures that threaten agrobiodiversity [7,8,9].

Two concrete examples of these concerning trends can be found in key indicator species such as farmland birds and butterflies. Regarding the former, Europe has lost 57% of its farmland birds since 1980 and the trends show no sign of recovery[10]. Similarly, grassland butterflies have declined by 39% since 1990 and studies have shown that fertilisers and pesticides negatively affect around 80% of the species [11].

We need to rethink the entire food value chain, promote sustainable agricultural practices, encourage and enable farmers to apply biodiversity-positive approaches, restore degraded agricultural landscapes, reduce the use of pesticides, protect our soils, invest in accessible healthy food for all and enable farmers to participate in nature conservation and restoration.

This document presents the main EU policies related to agriculture, highlights the potential benefits of one particular sustainable agriculture approach, agroecology, and outlines GYBN Europe's recommendations for a greener future. The choice of agroecology does not imply that this is the only way forward, nor that it is our preferred method. Rather it aims to provide an example for the reader of an alternative practice to intensive agriculture. It is important to remember that, for each scale of agriculture, it is possible to set up sustainable practices and alter the current harmful patterns and methods of production.

The EU Common Agricultural Policy

Launched in 1962, the Common Agricultural Policy (CAP) is the main instrument regarding agriculture in the EU. It is defined by the EU as a partnership between agriculture and society, as well as between Europe and its farmers. The goal of the policy is to support farmers, improve agricultural productivity, provide a stable food supply, aid rural areas, address the climate crisis and ensure the sustainable management of natural resources[12]. However, it is worth noting that environmental concerns became more prominent only in the 2014-2020 CAP.

Although the EU dedicates more than one third of the total EU budget to the CAP (€386 602.8 million for the 2021-2027 period) [13], this package of direct payments, market and rural development measures has not been delivering on its environmental objectives. In 2020, a European Court of Auditors (ECA) report [14] showed that the CAP was not effective in reversing the decline in biodiversity and that while some CAP schemes could have potentially improved biodiversity, the Commission and Member States favoured low-impact options. More recently, another ECA report[15] showed that the CAP funding destined for climate action, more than €100 billion, has not contributed to reducing greenhouse gas emissions since most measures supported by the Common Agricultural Policy have a low climate-mitigation potential, and the CAP does

not incentivise the use of effective climate-friendly practices. Two other reports from the court of auditors highlighted how better measures linked with the CAP could have been taken to protect the environment, in particular with regards to water management [16] and forestry[17].

We believe that the new CAP (2023-2027), agreed in the trilogues, and the CAP national Strategic plans need to be aligned to key policies and initiatives at the EU level, such as the EU Green Deal and its components, in particular the EU Biodiversity and Farm to Fork strategies. Furthermore, these plans shall support internationally relevant initiatives and strategies aimed at greening our food systems, such as the post-2020 Global Biodiversity Framework of the Convention of Biological Diversity (CBD), the UN Sustainable Development Goals (SDGs) and the Paris Agreement for Climate Change.

The EU Biodiversity Strategy

Recognising the crucial correlation between agriculture and biodiversity, the European Commission published the EU Biodiversity Strategy to 2030[18] jointly with the Farm to Fork Strategy. The alignment of these two documents is essential in guaranteeing a holistic approach to the successful achievement of the Green Deal vision. The agriculture-related goals in the Biodiversity Strategy include:

- Reversing the decline in pollinators.
- Reducing the risk and use of chemical pesticides by 50% and the use of more hazardous pesticides by 50%.
- Bringing back at least 10% of agricultural area under high-diversity landscape features.
- Dedicating at least 25% of agricultural land under organic farming management, and promoting the uptake of agroecological practices.
- Reducing the losses of nutrients from fertilisers by 50%, resulting in the reduction of the use of fertilisers by at least 20%.

Furthermore, a focus on the protection of soils and on agroforestry is highlighted and reiterated in the newly announced EU missions, in particular in the one regarding soil health, and in the EU Soil Strategy to 2030[19,20]. These targets are included in non-legally binding documents, thus relying on political will for their implementation. Even if most of these targets will likely not be achieved without a greener CAP, they underscore the EU's Commission will to change for the better and push Member states to translate commitments into action. GYBN Europe, composed of young people all over the continent, calls on national and subnational governments to be ambitious in implementing EU strategies and urges a swift and just transition towards a greener food system.

The potential of agroecology

Agroecology is an applied science, a set of practices and a social movement. As a science, it studies how different components of the agroecosystem interact. As a set of practices, it seeks sustainable farming systems that optimise and stabilise yields. As a social movement, it pursues multifunctional roles for agriculture, promotes social justice, nurtures identity and culture, and strengthens the economic viability of rural areas[21]. Several organisations tried to define the elements of agroecology, yet the two most renowned sets of principles are those from the IIED of 2014[22] and the 10 elements of agroecology developed within FAO processes [23].

In this policy brief, GYBN Europe used the theoretical framework elaborated by Gliessman[24], which identified five levels in agroecological transition towards sustainability:

1. Increase the efficiency of industrial and conventional practices in order to reduce the use and consumption of costly, scarce, or environmentally damaging inputs.
2. Substitute alternative practices for industrial/conventional inputs and practices.
3. Redesign the agroecosystem so that it functions on the basis of a new set of ecological processes.
4. Re-establish a more direct connection between producers and consumers.
5. On the foundation created by the sustainable farm-scale agroecosystems achieved at Level 3, and the new relationships of sustainability of Level 4, build a new global food system, based on

equity, participation, democracy, and justice, that is not only sustainable but helps restore and protects earth's life support systems upon which we all depend.

These levels highlight how agricultural biodiversity has to be supported on different scales, from local to global, and agroecological principles should be applied consistently. On a societal level, in the process of transformational change to mainstream these practices, all stakeholders have to be included and both gender and intergenerational equity have to be considered when developing new policies. The historical and regional differences in the agricultural landscape in Europe should also be taken into account. The switch to agroecological practices should be a means to both supporting livelihoods in rural areas and to safeguarding biodiversity.

When it comes to the practice, agroecology entails several methods. These include stimulating crop diversification through intercropping, agroforestry, polyculture, small and heterogeneous fields, rotations and fallows. At the landscape level, semi-natural-habitats (e.g., grasslands, woodlands and water bodies) should be promoted, as they play an essential role in supporting agrobiodiversity. Landscape structures such as hedgerows provide habitats for populations of insects for biological pest control and pollination, and function as ecological corridors and refugia. Furthermore, encouraging regional and local food circuits can rebuild the consumers' connection to the products, whilst also supporting agrobiodiversity and tackling food waste issues.

In the following paragraph we applied Gliessman's framework to two case studies to provide an overview of the benefits that agroecology can bring to people and nature.

Less (pesticides) is more (biodiversity): the example of BRUT

Felix Noblia (France, Atlantic Pyrenees) took over his uncle's conventional farm and decided to revolutionise it[25]. He considers that "by using pesticides we kill humans, and by working the soil we kill humanity". His challenge is to stop working the soil, while respecting organic farming standards. He chose to stop using pesticides to remove unwanted plants, combined plants and crops to enrich the soil, planted his seeds under a thick layer of mulch, and stopped tillage to avoid erosion and water pollution. In the beginning, it led to some difficulties related to plant fertility, but he considers it an excellent way to reconcile the production of nutritious and healthy food with stocking carbon, healing the planet, and preserving biodiversity and water resources.

Furthermore, he keeps small surfaces to experiment new practices. For example, he combines maize with Fabaceae (which fix nitrogen), pumpkins that crawl on the soil and beans that climb on the maize without disturbing it. The aim of these experiments is to understand the processes of mutualism and competition between these species and to know if it would be possible to implement this method at a bigger scale without any mechanical weed control. Thus, working initially from a conventional farm, Felix Noblia succeeded in being implicated in 3 of the 5 levels of transition to a sustainable management mentioned by Steve Gliessman. The agroecological farmer managed to achieve the first and second level, while he is still working on level 3.

From and for the community: the story of TERRA

"Terra is an agroecological canter in the heart of Luxembourg, and Luxembourg's first Community Supported Agriculture scheme. In a nutshell: no more wholesalers or middlemen, and no more financial and environmental cost of importing food from far away. Just the soil and seeds the way nature intended. Terra is bringing the food back to the people, and the people back to the soil"[26].

Terra's cooperative is based on three pillars: producing fruit and vegetables, education, and community building. Anyone who buys shares or social parts can participate in the decision-making. Thanks to this collective method, the stakeholders quickly brought enough money to make the cooperative work, and it now consists of 250 people, including refugees, people from all ages and different backgrounds, that are active 8 hours a day. The fact that they built a united team gives them the possibility to take

some weeks off and take care of themselves when it is needed. As they say, "do not do it alone, do it as a team, it divides the sorrows and multiplies the pleasures [...] find that balance between work and play [...], get nourished, not only in terms of what you eat but also in terms of the connections you're having"[27]. Thus, these cooperative respects the 3rd, 4th and 5th levels of the transition. On the foundation created by the sustainable farm-scale agroecosystems (Level 3), and the new relationships of sustainability between those who produce and those who consume (Level 4), a different global food system could be supported, based on equity, participation, democracy, and justice - a food system that is not only sustainable but helps to restore and protects earth's life support systems upon which we all depend (Level 5).

GYBN Europe Priorities

The case studies presented in this policy brief are examples of environmentally sustainable practices that can provide valid alternatives to our current, unsustainable agricultural system. To promote these green practices, there is a need for a common understanding and clarity, hence reports such as IUCN's Approaches to Sustainable Agriculture[28] are key to increase their uptake. Nonetheless, if we want to reconcile our flawed relationship with the natural environment we cannot continue with marginal improvements: we need systemic change at all levels. This transformation must include our food systems at local, regional, national and international scale. Young people all over Europe are demanding a more sustainable future, and while we wait for our time to be decision-makers, we will continue to use our time and passion to advocate for an ever-more just and green future. In line with this, we have identified the following priorities:

Implementing effective biodiversity-positive policies

Ensuring the full and effective implementation of the actions related to agriculture envisioned in the EU Biodiversity Strategy to 2030 and in the Farm to Fork Strategy is necessary. In particular, we welcome the target of reducing pesticides by 50%, the objective of at least 10% of agricultural area dedicated to high-diversity landscape features and the designation of at least 25% of agricultural land under organic farming management

Redirecting and reforming harmful subsidies

In the transition towards more sustainable agriculture systems, replacing socially- and biodiversity-harmful subsidies should be at the forefront. Subsidies should be incentivizing best practices, supporting sustainable farming systems with a higher amount of diversification, compensation for conservation measures, investment on crops that can support plant-based diets and overall measures promoting long-term resilience of the agricultural landscape. Policy makers should pay special attention to small and medium-sized agricultural farms, as they can face greater challenges shifting from conventional agricultural practices.

Addressing the environmental threats posed by the new CAP

We cannot refrain from condemning the latest developments in the future CAP. A Common Agricultural Policy that deliberately fails to include the objectives of the EU Green Deal is simply unacceptable. GYBN Europe advocates for a stronger emphasis on the environmental aspect of the CAP and for the inclusion of all goals of the EU Biodiversity and Farm to Fork Strategy in the CAP Strategic Plans. Furthermore, we recommend the alignment of this key environmental policy with the post-2020 GBF of the CBD and the Paris Agreement.

Adopting measures that support pollinator species

A topic of the utmost importance is reversing the decline in pollinators, since they are fundamental not only for cultivated crops, but also for all three levels of agrobiodiversity: genetic diversity, species diversity and agro-ecosystem diversity. Pesticides that are harmful to pollinators must be taken off the market and stricter testing of new agrochemicals is needed, for example testing that takes all life stages and (long-term) sublethal effects into account. Measures to protect and promote pollinators

must go beyond providing pollen and nectar sources and consider the different ecological requirements especially of the developing and overwintering larvae of many species. This stresses the importance of enhancing structural diversity within the agricultural landscape to protect habitats for all stages of pollinator species. GYBN Europe recommends fully including the youth in the implementation of the EU Pollinators initiative and its corollary activities, both of the EU Commission and Parliament.

Fostering youth employment

GYBN Europe suggests the promotion of initiatives aimed at halting the exodus of young people from rural areas. Supporting biodiversity-friendly farming initiatives, circular models of agriculture, and the uptake of agroecological practices through funding opportunities and sector specific policies could constitute a win-win scenario. On the one hand, the EU could address one of the main drivers of biodiversity loss, land use, directly at the source. On the other hand, the agricultural sector could regain its attractiveness for young people, who have proven time after time their dedication to preserving and restoring the environment.