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Business and nature working together: action by the retail sector to protect wild pollinators

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Arcadis Belgium. 2020. Business and nature working together: Action by the retail sector to protect wild pollinators. Technical guidance prepared by Arcadis for the European Commission under contract No 07.0202/2018/795538/SER/ENV.D.2 “Technical support related to the implementation of the EU Pollinators Initiative”.

Authors: Kim Driesen (Arcadis), Hans Van Gossum (Arcadis)

List of contributors: Gabrielle Flinn (IUCN), Catarina Ferreira (IUCN), Philip Rekret (IUCN)

Date of completion: August 2020

Manuscript completed in August 2020

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Luxembourg: Publications Office of the European Union, 2020

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PDF ISBN 978-92-76-22835-6 doi:10.2779/295642 KH-02-20-842-EN-N

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Business and nature working together: **Action by the retail sector to protect wild pollinators**

Why is this guidance needed ?

This guidance document for businesses is part of the broader implementation of the EU Pollinators Initiative¹. The initiative was adopted by the European Commission (EC) on 1 June 2018, setting the framework for an integrated approach to address the decline of pollinators in Europe through three priorities:

1. Improving knowledge on the decline of pollinators, its causes and consequences;
2. Tackling the causes of such decline;
3. Raising awareness, engaging society and promoting collaboration.

One of the important actions of the initiative is to encourage and enable the business sector to take action for wild pollinators.

This document aims to provide such guidelines to the retail sector. Its scope includes both local actions (i.e. site-specific) and measures across the value chain that can contribute towards the conservation and restoration of wild pollinator populations. The guidance document also informs businesses about the risks that stem from the decline of wild pollinators, and opportunities that arise from taking action to reverse this negative trend.

¹ COM(2018) 395 final, <https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1528213737113&uri=CELEX:52018DC0395>

Summary:

Pollinators – such as bees, hoverflies, moths, butterflies and beetles – are declining dramatically around the world, and Europe is no exception. With pollinator populations being essential in underpinning the

stability of pollinator services over time, this decline of pollinators puts managed and natural ecosystems functioning at risk.

Why should your business care ?

More than three quarters of the leading types of global food crops rely to some extent on animal pollination for yield and/or quality. With businesses facing possible shortages of raw materials, a decline in crop quality and challenges with the security of supply, it's no overstatement that pollinator decline calls for urgent conservation action.

However, the retail sector can turn this problem into an opportunity. Restoring pollinator populations to healthy levels will assure the supply of products and thus help prevent economic losses, provide other environmental and social benefits and assist the company in building/maintaining a good rapport with the public.

What can your business do ?


The retail sector is well placed to contribute towards stopping the decline of wild pollinators. The sector can lead by example showing how food and raw materials are produced and which producing practices should be rewarded.

This guidance provides recommendations for action by this business sector to protect wild pollinators illustrated with examples of companies that are taking the lead in creating opportunities for both the sector and pollinators. The retail sector can:

- promote actions to ensure healthy pollinator populations within the value chain;
- convince its supply chain (i.e. farmers and/or the companies producing processed food or beverages, cosmetic products etc. by utilizing raw materials) to take action on site. For example, actions can be

applied directly on the farmers' fields, through the creation of multifunctional field margins, installing patches of flower rich habitat, the reduction of pesticide use etc. The sector can offer suppliers long-term contracts tied to commitments to deliver richer biodiversity and greater diversity of habitats for pollinators on producers' lands;

- raise awareness of the role of pollinators to its stakeholders (i.e. customers, suppliers etc.) and encourage them to partake in actions that promote pollinator conservation;
- monitor and evaluate the impacts of actions on wild pollinators;
- partner up with NGOs, local nature authorities and/or academics when drafting, implementing and evaluating actions for pollinators, whether they focus on company's site or the supply chain.



1. WHAT YOU AS A BUSINESS MANAGER SHOULD KNOW ABOUT POLLINATORS

Pollinator populations are essential to underpin the stability of pollination² services in the short- and long-term. Indeed, without pollinators, a large majority of flowering plants will not be able to reproduce and eventually will decline, causing serious cascading effects across ecosystems and business value chains. Many fruits, nuts and vegetables will be lost from our diets, but also other important raw materials and products, such as vegetable oils, cotton and flax, plant-based pharmaceutical and cosmetic products. In essence, pollinators play a crucial role in maintaining terrestrial ecosystems healthy and resilient, which in turn deliver essential services to our businesses and society at large.

Pollinators – such as bees, hoverflies, moths, butterflies and beetles (Figure 1) – are declining dramatically around the world, and Europe is no exception [1, 2]. Many species are threatened with extinction creating a pollination deficit [3]. This puts managed and natural ecosystems functioning at risk, with businesses facing possible serious shortages of raw materials, a decline in crop quality and challenges with the security of the supply chain.

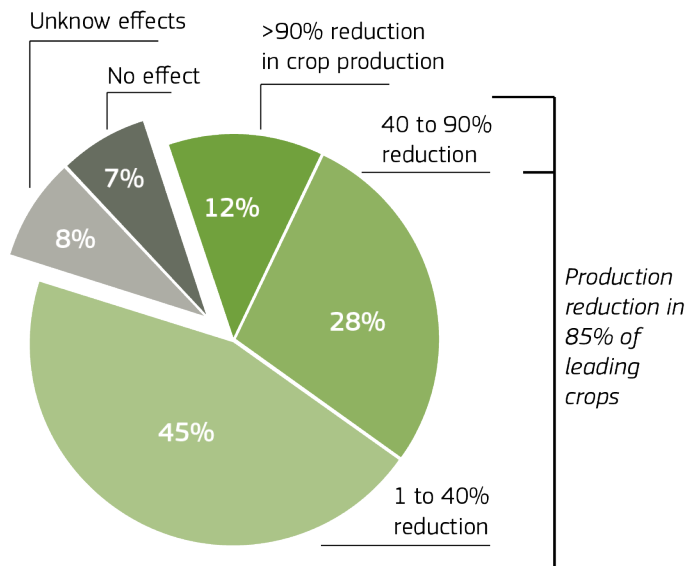


Figure 1. A snapshot of the diversity of wild pollinators

1.1. Importance of pollinators for crop production

More than three quarters of the leading types of global food crops, occupying 33-35 per cent of all agricultural land, rely to some extent on animal pollination for yield and/or quality [4] (see Figure 2). Furthermore, it is expected that total pollinator loss would decrease crop production by more than 90% in 12% of the leading global crops [6].

³ **Pollination** is the transfer of grains of pollen between flowers which enables the reproduction of flowering plants (both wild and domesticated). Without animal pollinators, many plants cannot set seed and reproduce. When humans benefit directly from this function, pollinators thereby deliver a free pollination service.



Copyright © 2016, Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES)

Figure 2. Percentage dependence on animal-mediated pollination of leading global crops that are directly consumed by humans and traded on the global market [6].

For a large proportion of primary producers, reduced crop production due to the disappearance of pollinators would put businesses at great risk. This will particularly affect those dependent on monoculture, pollinator-dependent crops. In addition, pollinator decline influences the nutritional and economic value of our food. It is estimated that pollinators make an annual contribution of around €142³ billion to the global economy (a service that is predominantly provided for free) [6].

In addressing the challenge of wild pollinator decline, it is important to note that **quick fixes such as pollination by single managed species (a honey bee or a bumblebee) are risky band-aid solutions that do not provide a long-term sustainable alternative to a diverse community of wild pollinator species.** Species richness and abundance of wild pollinators underpin effective and stable crop pollination over time and space, thereby safeguarding the quantity and quality of crop yields. Maintaining a diverse wild pollinator community ensures that plants will be pollinated even in cases where certain species fail to perform. It will also provide resilience to dynamic agricultural environments and acts as a buffer against extreme future environmental and climatic fluctuations, such as those expected to occur in the context of climate change. While measures promoting pollination by managed pollinator species can play a role in specific cases in the short-term (for example in biodiversity-deprived areas), they are costly and do not present a sustainable solution in the longer-term. Evidence shows that investing in the conservation and creation of pollinator habitats around pollinator-dependant crops is a much more worthwhile and preferred investment [6], especially because it enables the rendering of (wild) pollination services for free [7] and in a more effective and efficient manner than single managed species.

Difference between wild bees and honey bees

Honey bees and wild bees are often both included when bee conservation and campaigns are conducted. Obviously, the two have much in common, however, there are key differences. Conversely, there are around 2,000 bee species in Europe, and the honey bee is just one of them. Although some feral honey bee colonies can be found, most honey bee colonies are bred by beekeepers (managed honey bees) for the production of honey and other products. Therefore, managed honey bee occurrence and density depend on the locations of bee hives, which is determined by beekeepers, with individuals feeding on the many different types of flowers available around the beehive.

³ £130 billion according to Stathers (2014)

Wild bees, on the other hand, can be as generalists as honeybees, feeding on many different types of flowers, whilst others are specialists and exclusively feed from one or a small number flowering plant species. In addition, wild bees usually occur in lower densities, but because they are more diverse they have a much more diverse ecological role, feeding and making their nests in many different habitats. In fact, high honey bee density can negatively impact wild pollinators including pollinator-plant networks [9],

While some crops and wild flowers can be pollinated by honey bees and wild bees, several crops and flowers (such as legumes) can only be pollinated by specific wild bees. In general, wild bees are more effective and efficient pollinators than managed honey bees [10, 11]. Also, unlike honeybees, wild bees provide this service for free. Even though honey bees certainly have a role to play, maintaining a species-rich wild pollinator community is the key to securing a long-term sustainable pollination service.



- Honeybees can be wild, but they are often farmed artificially for human purposes such as honey production - they are the only bees that produce honey.
- Honeybees live in large colonies with thousands of other bees in their family. Some wild bees such as bumblebees live in small colonies (of 50-200 bees) but most are solitary animals without a colony.
- There is only one species of honey bee in Europe but there are nearly 2000 species of wild bees.



In addition to the impact on farmers' crops, the loss of wild pollinators will also lead to severe blockages in the provision of societal benefits by our already fragile ecosystems. The reduced growth of specific pollinator-dependent vegetation on a mountain slope, for example, could lead to an increased erosion effect. In order to maintain our ecosystems and landscapes healthy, wild pollinators are crucial allies. Species-rich grasslands for example, deliver many ecosystem services⁴ such as water supply and flow regulation, carbon storage, erosion control, climate mitigation and cultural ecosystem services, and their health depends on pollinators. There are no feasible alternatives to species-rich pollinator communities that can work on a large spatial and temporal scale. Thus, both businesses and society need to step up efforts to protect them.

1.2. Site and value chain impacts

Today, the term ‘supply chain’ or ‘value chain’ is central, not just to a company’s business performance, but also to its environmental performance, reputation and risk profile⁵. For many types of business sectors, including the retail sector, most environmental and social impacts occur in the value chain, as opposed to their direct operations (such as their associated offices and stores). The link between the key drivers of biodiversity loss and the value chain is shown in Figure 2.

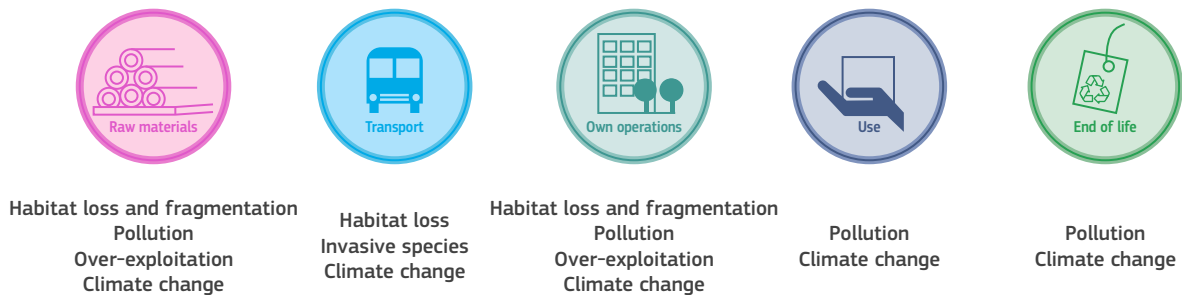


Figure 3. Value chain link with key drivers of biodiversity loss © Arcadis Belgium

As companies are being pressed to account for those impacts, they are turning to their supply chain to disclose information in order to monitor and reduce impacts. This includes keeping track of where materials come from, under what conditions they are mined or manufactured, where and how things are made, and how products are packaged and transported, used and disposed of. This information is subject to scrutiny by stakeholders, investors and regulators alike [8].

Understanding the full environmental footprint of products has become a critical challenge for the private sector and associated players such as manufacturers and retailers. Advances in accounting and reporting methodologies will enable companies to identify suppliers that perform best in relation to reducing resource dependence, social and environmental impacts. This will, in turn, allow companies to encourage suppliers to cost-effectively manage risk and opportunity in their own supply chains and product development [8].

Depending on the sector, the ratio of environmental costs due to direct emissions versus their supply chain impacts varies. As shown in Figure 3, the highest supply-chain environmental impacts occur in the food and beverage industry (92%), with retail (83%) and tourism (travel and leisure – 70%) following just behind.

The retail business consists of a wide range of sub-sectors: supermarkets & grocery, clothing, automotive, home furnishing, cosmetics, pharmaceuticals, electronics and a series of speciality retailers such as tobacco, flowers, books etc. They sell a wide range of consumer goods through multiple channels of distribution. As such, retailers satisfy a demand identified through a supply chain, where suppliers and producers, such as the agricultural sector, play a significant role in the provision of high quality products.

⁴ Ecosystem services: the benefits to humans derived from nature, with pollination being the free service provided by wild pollinators.

⁵ For example, in 2011, Puma’s Environmental Profit and Loss Account (EP&L) revealed that the company’s biggest environmental impacts occur in its supply chain, mainly associated with the production of raw materials, and not through PUMA’s core operations (https://about.puma.com/en/sustainability/environment_and <https://about.puma.com/en/newsroom/corporate-news/2011/11-16-11-first-environmental-profit-and-loss>).

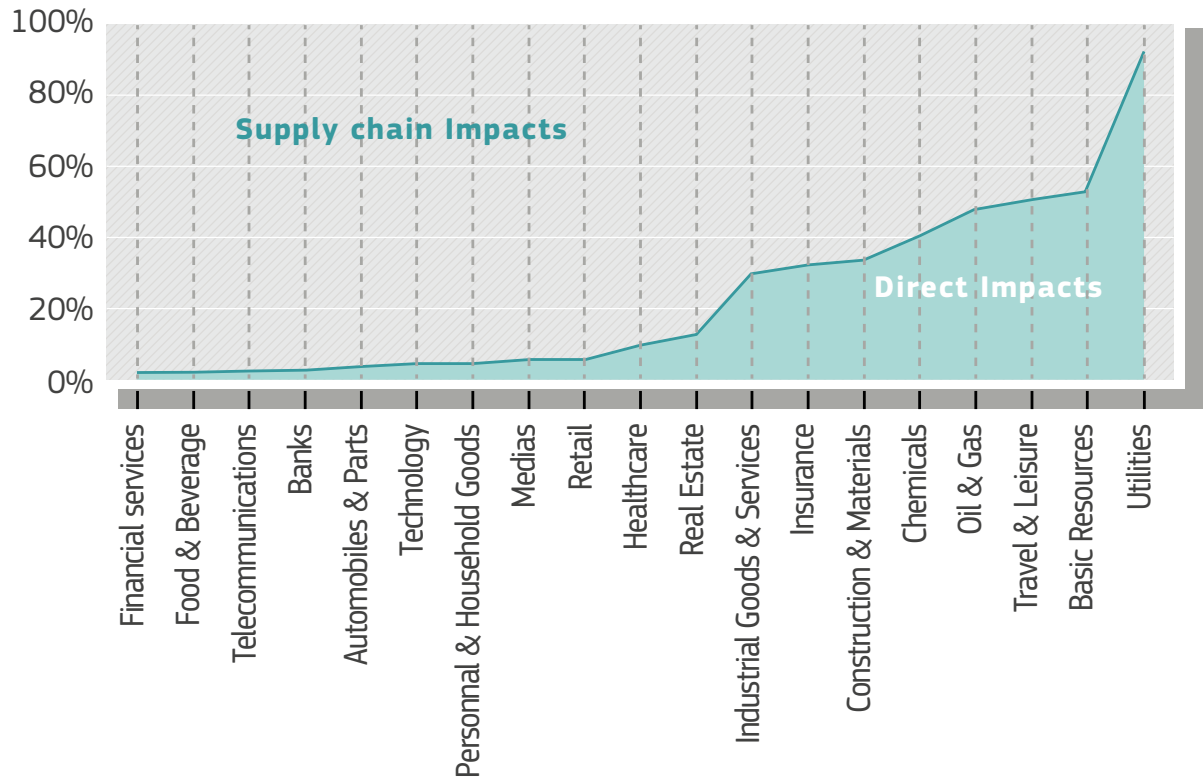


Figure 4. Percentage of site vs. supply chain impacts by sector. Reprinted from GreenBiz, by Bernick, L., 2015, Retrieved from <https://www.greenbiz.com/article/5-ways-apply-natural-capital-valuation-your-business> © 2015 GreenBiz



2. WHY DO POLLINATORS MATTER TO YOUR BUSINESS?

Managing a business at any value chain level and the ecosystem services involved implies evaluating risks and opportunities at various levels: operational, regulatory and legislation, marketing and reputation, financial and societal. Table 1 shows the risks and opportunities related to wild pollinator protection that are relevant for the retail sector.

Depending on the product and sales format, there are several types of retail categories, where the ones that (indirectly) depend on agricultural and horticultural inputs have the strongest link with pollination. Retail is largely associated with supermarkets, which offer a wide variety of food, beverages and household products, although households largely spend the most on food and beverages⁶. Next to food-related commodities, pharmaceutical, cosmetic and textile-related products (like cotton and flax) also rely heavily on pollination services. Therefore, the importance of pollination for the retail industry is not evident only in the supply of fresh fruits and vegetables, nuts, dairy, meat and/or of processed products that contain these materials, but also in the production of herbal medicines, honeybee products (honey, royal jelly, propolis etc.), cosmetics, clothing and furniture (associated to the sourcing of cotton and flax, for instance, sofas).

The products sold by the retail business are, to a large extent, based on pollinator-dependent biomass, making it only logical to invest in a sustainable supply and thereby prevent economic losses. Therefore, it is paramount that this business sector works towards restoring wild pollinator populations to healthy levels, which will enable increased revenues through increased yields [9] and higher quality crops. Restoring pollinator habitats will also provide other environmental and social benefits and assist the company in building/maintaining a good rapport with the public. The latter can also reflect into direct benefits, such as hiring and maintaining highly-skilled workforce.

Importantly, the sector is well placed to act positively and effectively for wild pollinator populations, as the companies in the retail sector can turn the challenge of reversing of pollinator decline into a broad range of opportunities.

On behalf of Ikea Distribution Benelux, the local NGO Natuurpunt examined the vegetation and a number of invertebrate groups on the company's premises, discovering 12 rare wild bee species in the region.

Interested in how pairing up with a local NGO can benefit your company? See Chapter 4

Country Life Garden Centres distributed free sachets of wildflower seeds to its customers and helped them to reduce and eliminate the use of herbicides.

Interested in what your business can do? See Chapter 3

For the 'Silent Spring' campaign, a German store of the REWE Group removed from its shelves for an entire day all products that would cease to exist if pollinators went extinct, to raise the awareness of its customers to the importance and the current state of wild pollinators.

Interested in what other front-runners are doing? See Chapter 4

⁶ https://stats.oecd.org/Index.aspx?DataSetCode=SNA_TABLE5
https://ec.europa.eu/eurostat/statistics-explained/index.php/Household_consumption_by_purpose

	Risks	Opportunities
Operational Regular business activities, expenditures and processes	<ul style="list-style-type: none"> • Disruption of pollinator-dependent biomass supply chain, impacting the business sourcing and procurement process. • Alternatives to wild insect pollination entail high costs and are less effective and efficient, if at all feasible. 	<ul style="list-style-type: none"> • Assure the sustainable supply of pollinator-dependent crops. • Provision of other ecosystem services and associated benefits (for instance, by linking water and carbon management with pollinator-friendly actions).
Legal and regulatory Laws, public policies, and regulations that affect business performance	<ul style="list-style-type: none"> • New pollinator strategies⁷, including legislative elements • Increased compliance costs 	Reduce compliance costs and/or other costs by: <ul style="list-style-type: none"> • being proactive on compensation measures; • anticipating negative impacts; • embedding pollinator risk identification within the supply chain management and certification schemes (for instance, ISO14001).
Financing Costs of and access to capital including debt and equity	Increased financing costs (higher interest rates or harsher conditions), due to increased interest of the finance sector in how businesses in which they invest are dependent on ecosystems services such as pollination.	<ul style="list-style-type: none"> • Gain or maintain investor interest and confidence, which can improve access to finance and/or reduce financing costs. • New “green funds” may become available. • New environmental markets might emerge (for example, carbon offsets, habitat credits etc.).
Reputational and marketing Company trust and relationships with direct business stakeholders	<ul style="list-style-type: none"> • Changing customer values or preferences may lead to reduced market share. For example: organic farming responds to a specific consumer demand for sustainable food products, promoting more sustainable farming practices and contributing to the protection of the environment and improved animal welfare. Consumers have become more environmentally aware and organic sales are increasing significantly⁸. • Public campaigns, for example, negative publicity on companies selling pesticides or plants containing high pesticide residue levels. • Increased staff turnover which in turn leads to higher recruitment and retention costs. • Reduced loyalty of key suppliers or business service providers. 	<ul style="list-style-type: none"> • Maintain a good relationship with direct business stakeholders, such as customers, suppliers and employees. • Improve physical and mental wellbeing of employees. • Improve ability to attract and retain employees. • Emerging environmental markets and products may offer new revenue streams (for example, carbon offsets, habitat banking etc.). • Growing demand for credibly certified products (for example, eco-labels, pollinator-friendly production labels, etc.). • Differentiating the business to key customers who demand strong sustainability commitments in an increasingly competitive market.
Societal Relationships with the wider society	Local communities may hold the agri-food and beverage sector responsible for the decline of wild pollinators and the loss of benefits they provide to the society, which entails risks for the retail sector as well.	Local communities may benefit from other improved ecosystem services that come along with the implementation of pollinator-friendly measures, for example, through improved recreational access to green areas, cleaner air and improved regulation of water flows.

Table 1. WHY pollinating insects matter to your business and WHAT to do (risks & opportunities for the agri-food and beverage sector that are of key importance and sector-specific are highlighted in green.

⁷ Promote Pollinators, Coalition of the Willing on pollinators (<https://promotepollinators.org/>)

⁸ European Union. 2019. Organic farming in the EU – A fast growing sector. EU Agricultural Markets Briefs No 13 – March 2019.



3. WHAT CAN YOUR BUSINESS DO?

3.1. Value chain actions

The retail sector is well placed to contribute towards reversing the decline of wild pollinators. Specifically, the sector can play a big role in convincing its suppliers and farmers to take action directly in the fields⁹, for example through the creation of multifunctional field margins and patches of flower-rich habitat, as well as the reduction of pesticide use. The sector can also increase awareness of stakeholders (for example, customers, financiers, regulators) that are relevant for the supply chain (See example of REWE in Chapter 4). As such, the sector can lead by example by showing how food and raw materials it relies on are produced and which production practices are rewarded.

Locate critical issues across the entire value chain

A first step for the company is to get good insight into the stakeholders that are part of the supply chain of its products. It must be acknowledged that it may take some effort for the company to know exactly where its products are coming from and how natural resources are used at every step of the production process. Furthermore, harvesting this information from its suppliers could potentially increase purchasing costs. However, in the end, knowing this will reduce several of the risks that were highlighted in Table 1. For example, it may work by introducing a label or a certificate to justify a higher price for consumers. In addition, taking actions to protect wild pollinators can be employed as a marketing strategy with biodiversity-friendly products being a way of differentiating the business from its competitors.

Sometimes it may be very challenging to know the origin of resources. In those instances it may be beneficial to build alliances with peers and competitors (for example, the Consumer Goods Forum) to legitimacy when acquiring this information from the supply chain. Several organizations, including NGOs, have organised frameworks and instruments that can help your company to evaluate the environmental risks associated with their supply chains¹⁰. Some examples include:

- **World Wildlife Fund (WWF)** offers more than 50 performance indicators for measuring the supply-chain risks associated with the production of a range of commodities, as well as the probability and severity of those risks¹¹.
- **The Sustainability Accounting Standards Board** has developed standards that help public companies across ten sectors, including consumer goods, to give investors material information about corporate sustainability performance along the value chain¹².
- **CDP** and the **Global Reporting Initiative** have created standards and metrics for comparing different types of sustainability impact¹³.

Understanding and knowing your supply chain in detail, will allow your business to deploy effective and well-targeted actions for the conservation of wild pollinators. This will also enable the assessment of the dependency of the business on pollinators. Thus, it is fundamental to acquire this information if the business aims to take the path towards sustainability. Surprisingly, a study by UNEP-WCMC [10] showed that less than half of the companies involved in the study knew which of their raw materials are dependent on pollinators. Moreover, there was a lack of awareness about which crops were at risk due to pollinator decline.

In order to help resolve this issue, UNEP-WCMC [10] developed a five-step roadmap (Figure 4) to enable sustainable pollinator management within supply chains. This allows businesses to consider the risk that the supply of their priority crops will decrease and/or production prices will rise.

⁹ See also 'A guide to pollinator-friendly farming' by Keenleyside (2020), guidance prepared by the Institute for European Environmental Policy (IEEP) for the European Commission.

¹⁰ <https://www.mckinsey.com/business-functions/sustainability/our-insights/starting-at-the-source-sustainability-in-supply-chains>

¹¹ https://www.wwf.sg/business/supply_chain_risk_analysis_cfm & <https://supplyrisk.org/our-analysis>

¹² <https://www.sasb.org/standards-overview/>

¹³ <https://www.globalreporting.org/>

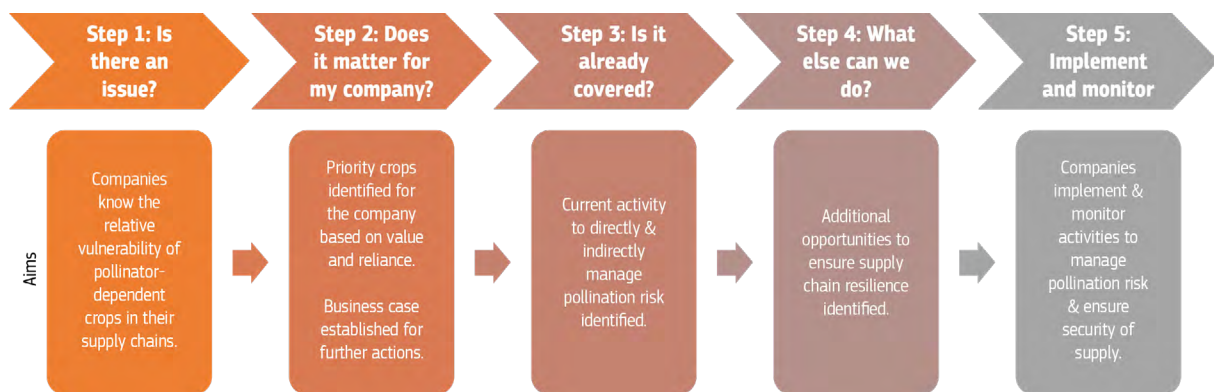


Figure 5. Roadmap towards sustainable pollinator management in the private sector. Reprinted from 'The pollination deficit: Towards supply chain resilience in the face of pollinator decline', 2017, retrieved from <https://www.cisl.cam.ac.uk/resources/publication-pdfs/the-pollination-deficit.pdf> (c) 2017 by Cambridge Institute for Sustainability Leadership, Fauna & Flora International, University of East Anglia, & UNEP-WCMC [14]

Assist suppliers in managing their agricultural landscape to support rich biodiversity

A retailer can audit suppliers to determine if they are taking appropriate measures for maintaining or restoring wild pollinator populations while assisting them with managing their impacts.

The sector can take steps to convince its supply chain¹⁴ to diversify the agricultural landscape and increase habitat heterogeneity, for example by rewarding them with long-term contracts or funding. Measures taken in the supply chain, such as funding the implementation of multifunctional field margins between agricultural fields and ensuring sustainable management of existing farmland habitats (like flower-rich semi-natural permanent grasslands), can support wild pollinators (especially in landscapes dominated by intensive agriculture¹⁵). By investing in ecological infrastructure - directly on the farmers' fields, or indirectly on the processing companies -, direct economic advantages can often be obtained¹⁶. In order to achieve this, the business sector can:

- **prioritize species-rich pollinator communities for the delivery of pollination services.**
- **work with farmers (directly or indirectly through the processing companies) and draw attention to the benefits of agroecological practices¹⁷, which nurture rich agrobiodiversity, for example, by supporting farmer field schools.**
- **influence the supply chain to decrease the use of pesticides, by adopting integrated pest management (IPM) practices [11] and direct them to take pollinator-friendly actions, for instance, by introducing environmental policies that include measures to protect wild pollinators;**
- **consider to develop software aimed at collecting data to track if farmers adopt sustainable practices in their supply chain and to advise them on steps they can take towards more environmentally-friendly production.**

To reinforce efforts like these, companies should monitor suppliers' sustainability performance and hold them accountable for it. Once companies know where their supply-chain issues are, they can set goals for lessening their impacts. Ultimately, consumer-based companies can only achieve ambitious sustainability goals if they set high standards for their suppliers' performance and stop doing business with suppliers that fall short.

¹⁴ i.e., its farmers and/(if identified) or the companies producing processed food or beverages, cosmetic products etc. by utilizing raw materials

¹⁵ Countries and farmers with pollinator-dependent monoculture are the most vulnerable in terms of the pollination deficit;

¹⁶ By investing in natural infrastructure or services provided by ecosystems as an alternative to grey infrastructure, businesses harvest the strengths and benefits of nature, diversify their risk management strategies and improve their company's capacity to adapt to climate change. Above all, natural infrastructure brings direct economic advantages, from capital cost savings, reduced operational and maintenance costs, to innovation. (Source: <https://www.naturalinfrastructureforbusiness.org/about/>)

¹⁷ Oberč, B.P. & Arroyo Schnell, A. (2020). Approaches to sustainable agriculture. Exploring the pathways towards the future of farming. Brussels, Belgium: IUCN EURO

Other possibilities to enhance the implementation of pollinator-friendly measures down the supply chain are to reward suppliers for good practices, for example by offering suppliers long-term contracts tied to commitments related to delivering rich biodiversity on their land and providing diverse habitats for pollinators. Long-term contracts thereby enable the suppliers to invest in long-term measures which is crucial to reverse the negative trends of pollinator populations.

The sector could also invest in research:

1. to improve the efficacy of pest management in pesticide-free and farming systems, as well as
2. to investigate avenues to effectively deploy agroecological principles and practices, including ecological infrastructure, in order to sustain beneficial biodiversity while assuring farm profitability and yields, and
3. to quantify the indirect (and sub-lethal) effects of genetically modified crops on pollinators [15].

The sector could also invest in research 1) to improve the efficacy of pest management in pesticide-free and farming systems, as well as 2) to investigate avenues to effectively deploy agroecological principles and practices, including ecological infrastructure, in order to sustain beneficial biodiversity while assuring farm profitability and yields, and 3) to quantify the indirect (and sub-lethal) effects of genetically modified crops on pollinators [11].

In order to contribute to improving the state of pollinators, cooperation with NGOs and/or academics is strongly recommended. It is considered a best practice to involve these expert stakeholders when drafting and implementing actions for pollinators, whether they focus on a company's site or the supply chain. Example of partnerships between retail businesses and local NGOs are shown in Chapter 4 (i.e. IKEA Group & REWE Group).

Monitor and evaluate the impacts of your actions on wild pollinators

In order to assess the impacts of any taken action to protect wild pollinators, it is fundamental that businesses ensure systematic monitoring of the impacts of such measures. This will allow the companies to track the extent to which their goals were achieved, while gaining invaluable insight on how to improve future actions. Monitoring can be also a valuable management tool for project managers to track progress towards achieving outputs: planned activities and set milestones across a value chain.

In order for business' efforts to be recognized, local partners (such as NGOs, research institutions) could be crucial to assist with the monitoring of the efforts on the ground and with the evaluation of action plans. They can also help with the design of conservation measures and strategies if no in-house knowledge is available.

Encourage the entire value chain to act

In order to make a value chain green, a company needs to consider all activities within the value chain namely design, supply, production, assembly, packaging, logistics, distribution, marketing, after-sales and appropriate product disposal.

Improving the value chain performance with natural environmental solutions will result in the reduction of energy consumption, environmental accidents, air emission, waste, etc. Companies should ensure that their products and operations cause the least damage to the environment during the whole product's life cycle via green purchasing, green design, internal environmental management, green production, environmentally friendly packaging and transportation. Reverse logistics activities such as reuse, remanufacture and recycle that are used at the end of product's life cycle contribute to the sustainability of products. [12]

Green value chain solutions can help companies to improve corporate image, employee satisfaction, customer loyalty/satisfaction and better relations with stakeholders, while positively impacting overall biodiversity and ecosystem services.

3.2. Site/local level actions

While the previous chapter focused on sector-specific actions, this last chapter gives an overview of measures that can be applied to all business sectors, since they target individual business locations (for example, the premises of a business' headquarters or an industrial facility), as well as the company's properties that have not yet been developed for business purposes.

Action within companies' grounds

Businesses can draw up a long-term action plan, alongside a management plan, that identifies and protects the areas on the company's premises that are already providing food (for example, patches of wildflowers, weeds or flowering hedgerows) and shelter (like bare soil, long grass and dry-stone walls) for wild pollinators. In order to ensure pollinator-friendly management, the following actions are key:



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- Reduce mowing frequency to create species-rich grasslands. Natural habitats can be further supplemented by artificial ones (for instance, bee hotels).
- When planting for pollinators, use native species (like seed mixes, clovers, bulbs, trees and shrubs). Ensure that wild pollinators have foraging resources during the whole vegetation season.
- Ensure connectivity with surrounding areas of green infrastructure and nature importance by creating grasslands and other types of vegetation that support rich biodiversity.
- Avoid and control the spread of invasive alien species¹⁸, both plants and animals.
- Consider the construction of green roofs and walls¹⁹, as they can provide considerable feeding ground for wild pollinators.
- Reduce light pollution, as artificial light can negatively affect insect populations.
- Adopt a pollinator-friendly management protocol and do not use pesticides (insecticides, fungicides and herbicides), as these can be harmful to wild pollinators.
- Ensure contractors that manage the company's land are aware of the company's intentions to enhance wild pollinators and how this should be realised.

It is recommended that businesses partner with local NGOs/authorities or experts to include biodiversity and ecosystem services at the design stage of the company's site. They can also help with development of key performance indicators (KPIs) and, as it was already mentioned, with monitoring, reporting and evaluation of outcomes. The company could, for example, monitor the presence and diversity of local pollinator species at the company's site and the wider environment either through local partnerships or by engaging in local citizen science programmes²⁰.

These actions within the companies' grounds can benefit wild pollinators and overall biodiversity most when they are applied early in the design stage of the company's site when the landscaping and infrastructure features are still open for creativity. **When securing habitats for wild pollinators, the main guiding principle is to let nature regenerate on its own.** This can be complemented by additional planting of native flowers seed mixes, if/when needed.

¹⁸ See also 'Managing invasive alien species to protect wild pollinators', technical guidance prepared by IUCN (2019) for the European Commission.

¹⁹ See also 'A guide for pollinator-friendly cities: How can spatial planners and land-use managers create favourable urban environments for pollinators?' by Wil et al. (2019), guidance prepared by ICLEI Europe for the European Commission.

²⁰ Reference to Citizens for pollinator conservation guidance

Generic actions which do not require any land holding

It is recommended for businesses to embed pollinator-friendly actions into the company's strategy and daily operations:

- Integrate pollinator-sensitive practices into the company's environmental management system and/or other certification schemes or standards.
- Introduce internal biodiversity policy commitments that include measures to improve pollination. For example, by implementing a biodiversity- or pollinator-friendly purchasing policy, the business can direct its suppliers to reduce the negative impacts on pollinators.
- Link the business' strategy to national and international biodiversity policy (including the EU Pollinators Initiative) and to the SDGs²¹ (namely SDG 15 "Life on Land", SDG 2 "Zero hunger" and SDG 12 "Responsible consumption and production").



In addition, the company can invest in projects to restore, create and connect pollinator habitats to reduce the environmental footprint of their buildings and operations and obtain general environmental benefits (reduced solid waste and wastewater, less pollution, energy efficiency etc.) and implement green procurement. Overall, these improvements will benefit nature and wild pollinators alike.

Also, the company can take efforts to **raise awareness** of:

- **the local community:** sponsor creation/restoration of pollinator habitats or arrange an expert to give a training/lecture on the conservation of wild pollinators;
- **the business' workplace:**
 - » organise pollinator awareness training sessions or workshops for employees (for example, on how to ensure their own gardens are pollinator-friendly, or how to observe and record wild pollinators in order to help monitoring efforts);
 - » include environmental considerations at each stage of the procurement process of goods, services and works (i.e. green procurement);
- **the business sector:** share your experiences regarding the implementation of pollinator-friendly measures with the EU Business @ Biodiversity Platform²² at relevant conferences or seminars, and/or through social media using the #EUPollinators.



**Business @
Biodiversity**

²¹ <https://sdgs.un.org/goals>

²² https://ec.europa.eu/environment/biodiversity/business/index_en.htm



4. WHAT ARE FRONT-RUNNERS ALREADY DOING?

This section presents a limited, non-exhaustive set of examples of businesses taking action for pollinators, to illustrate the diversity of potential actions that could be uptaken by the retail sector. The list has been generated by consulting the members of the EU Business and Biodiversity Platform , and through literature review.

IKEA Distribution Benelux

Company: IKEA Group is a global home furnishing brand that designs and sells ready-to-assemble furniture, kitchen appliances and home accessories, among other goods and services. IKEA Distribution Benelux, part of IKEA Group, is located in Genk, Belgium.

Action:

IKEA Group is dedicated to having a positive impact on the environment and shows its responsibility by actively contributing to a world of clean air and water and improved biodiversity. Biodiversity is included in IKEA's corporate Sustainability Strategy, which requires IKEA Distribution Benelux in Genk, Belgium, to actively enhance biodiversity in the unit or local community, i.e. by keeping land as natural habitat, creating rooftop gardens, or establishing active programs for gardening and wildlife, recreational areas, etc.

IKEA Distribution Benelux co-operates with the local nature NGO Natuurpunt to take actions on the company's site in Belgium aimed at improving ecosystems, supporting biodiversity and enhancing wild pollinator populations.

On behalf of the Swedish furniture giant, Natuurpunt examined the vegetation and a number of invertebrate groups in 2017 and made an inventory of wild bees in 2018. Results showed that 53 species of wild bees occurred at the business park of the IKEA distribution centre, 12 of which are rare species in the region. Based on these results, a detailed action plan was drafted, in close consultation and cooperation with IKEA, to make the site as bee-friendly as possible. This included the creation of slopes that enabled nesting opportunities for bees, and the provision of floral resources on the site.



This section presents a limited, non-exhaustive set of examples of businesses taking action for pollinators, to illustrate the diversity of potential actions that could be uptaken by the retail sector. The list has been generated by consulting the members of the EU Business and Biodiversity Platform , and through literature review.

Benefits for IKEA Distribution Benelux:

The company stated in an interview that the extra green space at the company's site has a positive impact on their employees. This biodiversity action is an added value for IKEA since it:

- shows that IKEA is a responsible company to its customers and external stakeholders;
- extends its external network with local and governmental organizations and a local NGO;
- improves co-worker engagement.

More info:

e-mail correspondence IKEA Distribution Benelux

<https://www.natuurpunt.be/publicatie/onderzoek-wilde-bijen-en-advies-ecologisch-beheer-terreinen-ikea-genk>

<https://www.hln.be/regio/genk/zeldzame-bijen-ontdekt-aan-ikea-a216b687/>

Vanormelingen, P. & S. Feys, 2018. Onderzoek wilde bijen en advies ecologisch beheer terreinen Ikea - Genk. Rapport Natuurpunt Studie 2018/32, Mechelen.

<https://www.lne.be/green-deal-bedrijven-en-biodiversiteit>

REWE Group

Company: The cooperatively organized REWE Group is a European trade and tourism group with headquarters in Germany. The sales lines include REWE, REWE CENTER and BILLA as well as MERKUR supermarkets and consumer stores, the discounter PENNY and the toom Baumarkt DIY stores.

Action:

REWE Group is engaged in a variety of projects that are tailored specifically to its project partners (primary producers, municipalities, associations etc.) and that use specific communication activities for its broad customer base (urban shoppers, hobby gardeners etc.).

REWE Group developed the 'Pro Planet' label. This «navigating system for more sustainable products» offers a reliable guide to consumers that are seeking products which address environmental and social issues. The objective is to offer products with added value in terms of sustainability and to promote sustainable consumption across the board. At the beginning of every Pro Planet project, independent experts undertake a careful analysis of the selected product group. This analysis identifies adverse social or ecological impacts. In this process, REWE Group analysed its value chains' impacts, an exercise that helped identify the impact on biodiversity as a major hotspot of the company's impacts. This led to the development of the following Pro Planet projects:

- **Pro Planet Apples:** In 2009 REWE Group started to support apple growers in Germany and Austria in the application of measures for protecting and improving biodiversity in apple production in conventional agriculture. Apples from these orchards are awarded the REWE Group sustainability label 'Pro Planet'. REWE Group is partnering with local organisations that have a strong expertise and substantial knowledge about the local status of biodiversity. These project partners include the Bodensee Foundation, and the NGOs German Nature Conservation Association (NABU) e.V. and Birdlife Austria. In 2018, the project has been extended to further perennial crops such as potatoes, onions, carrots and other fruits and vegetables in Germany. In addition, other partnerships were included, namely with the German Foundation Rheinische Kulturlandschaften and its partner foundations. Until 2019, over 450 producers in more than 20 cultivation regions got involved in the project to conserve biodiversity.



- **The result:** over 14,000 hedges, trees and shrubs have been planted, over 4,700 nesting aids for insects have been installed and 612 ha of flowering areas have been created and enhanced to benefit wild pollinator populations. Furthermore, the results of a wild bee monitoring carried out in 2017 showed a significant increase compared to 2010 of around 100% from 56 to 117 different wild bee species, including 25 endangered species in 2017 (compared to 5 in 2010). Since 2019, the Pro Planet biodiversity project is an official project of the UN Decade on Biodiversity. Moreover, the project won the European Bee Award in the same year.
- **Pro Planet Wine:** Funding for the implementation of outstanding LEADER conservation projects in rural areas.

REWE Group works together with NABU since 2009. In 2015, this cooperation was intensified via a strategic partnership focusing on biodiversity amongst other things.

In Austria, for each sold product of REWE's regional own brand, one cent goes to a non-profit private foundation. The foundation aims by 2022 for the greening of 10% of the production area of fresh fruits and vegetables of Austrian origin sold by REWE in Austria. In 2018, about 30% of this goal had been reached (running ahead of schedule). The foundation supports selected farmers, organizations, companies and public institutions (like municipalities) in protecting and conserving ecologically valuable land. The more valuable and endangered the land, the higher the funding support from the foundation.

Since 2017 toom Baumarkt GmbH only sells plants that were produced in the absence of pesticides that are harmful to bees. This means that their suppliers were obliged to change their production process if they still wanted to sell their products to REWE. This action alone had the potential to reach over 500 plant suppliers in the market.

In addition, the company organises external communication activities and events. A good example is the PENNY Instore Event «Silent Spring». In a German PENNY store, all products that would cease to exist in its current form if pollinators went extinct (60% of the products) were removed from the store's shelves for an entire day. The project received significant media and social media activity and aimed at raising the consumers' awareness to the important contribution made by pollinators to our food supplies and to what a world without pollinators would look like.

Benefits for REWE Group:

In the analysis of REWE Group's value chains, the company identified biodiversity as an essential strategic area. The concrete benefits of this analysis are:

- **Risk mitigation:** With the Pro Planet biodiversity projects, REWE Group contributes to promoting and maintaining biodiversity in cultivation areas thereby ensuring long-term product availability from functioning regional ecosystems.
- **Reputation:** Through the company's long-term commitments to its stakeholders, REWE Group supports the message that engagement by all relevant supply chain actors is key and can lead to tangible results.

More info:

e-mail correspondence with REWE Group

<http://www.proplanet-label.com/produkte/food/obst-gemuese/aepfel-birnen.html>

<https://www.rewe-group.com/de/newsroom/pressemitteilungen/1648-gemeinschaftsaktion-von-umweltministerium-penny-und-nabu>

CountryLife garden centre network

Company: CountryLife Garden Centres, owned by Glanbia Ireland, are a network of 14 garden centres in the provinces of Leinster and Munster in Ireland. The garden centres sell a range of plants and farming products (of which 90% are locally produced).

Action:

- Countrylife introduced the 'Operation PolliNation' initiative to boost awareness among gardeners and push them to action for advancing biodiversity in their gardens.
- As part of their "Operation PolliNation", the company donated flowering perennials and wildflower seeds to 24 'tidy towns' committees and communities to help protect species of pollinators at risk

The company is also giving free wildflower seeds to its customers and is highlighting in-store plants that are particularly pollinator-friendly. CountryLife's in-store horticulturalists are promoting natural pest control methods and providing free information to customers to help them reduce and eliminate the use of herbicides.

More info:

<https://www.agriland.ie/farming-news/operation-pollination-creates-a-real-buzz/>

<https://blog.countrylife.ie/pets-wildlife/outdoor-garden/pollinators-for-an-irish-garden/>



5. FURTHER READING

EU Pollinators Initiative:

- <https://ec.europa.eu/environment/nature/conservation/species/pollinators>

EU Pollinator Information Hive:

- <https://wikis.ec.europa.eu/display/EUPKH/EU+Pollinator+Information+Hive>
- https://ec.europa.eu/environment/biodiversity/business/news-and-events/news/news-84_en.htm

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IPBES reports:

- <https://ipbes.net/global-assessment-report-biodiversity-ecosystem-services>
- <https://ipbes.net/assessment-reports/pollinators>

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Keenleyside, C. 2020. A guide to pollinator-friendly farming. Guidance prepared by the Institute for European Environmental Policy for the European Commission under contract No 07.0202/2018/795538/SER/ENV.D.2 “Technical support related to the implementation of the EU Pollinators Initiative”.

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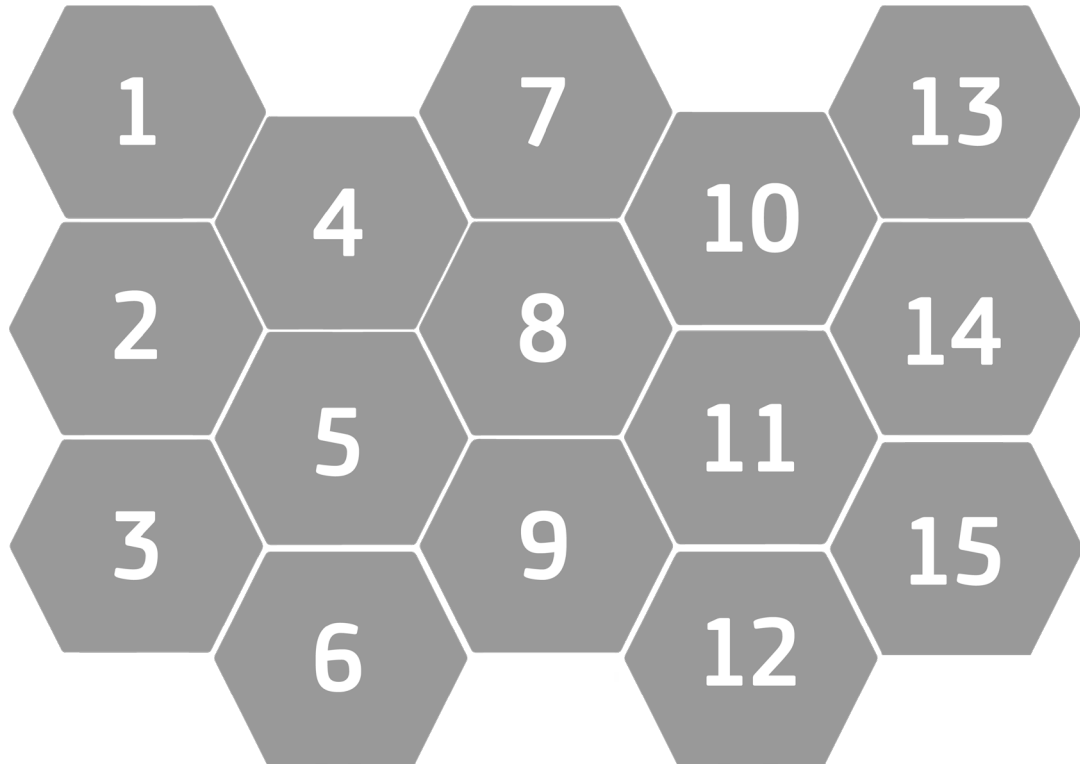
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Wilk, B., Rebollo, V., Hanania, S. 2019. A guide for pollinator-friendly cities: How can spatial planners and land-use managers create favourable urban environments for pollinators? Guidance prepared by ICLEI Europe for the European Commission.

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2. Hallmann, C.A., et al., More than 75 percent decline over 27 years in total flying insect biomass in protected areas. *PLOS ONE*, 2017. **12**(10): p. e0185809.
3. UNEP-WCMC, The pollination deficit: towards supply chain resilience in the face of pollinator decline. 2018, University of Cambridge Institute for Sustainability Leadership, Fauna & Flora International, University of East Anglia, & UNEP-WCMC: Cambridge, UK. p. 42.
4. Juniper, T., What has nature ever done for us? 2013, Profile Books.
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6. Stathers, R. The Bee and the Stockmarket: an overview of pollinator decline and its economic and corporate significance. 2014.
7. Gough, M. Bee decline - Briefing Part 5: a business case for pollinators. 2016.
8. Makower, J., State of Green Business. 2013, GreenBiz.com. p. GreenBiz.com.
9. Catarino, R., et al., Bee pollination outperforms pesticides for oilseed crop production and profitability. *Proceedings of the Royal Society B: Biological Sciences*, 2019. **286**.
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11. Potts, S.G., et al., Safeguarding pollinators and their values to human well-being. *Nature*, 2016. **540**(7632): p. 220-229.
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Annex I



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