February 16th, 2024

Prof. Teresa Czerwińska
Vice-President, European Investment bank

Dear vice-President,

We understand that the European Investment Bank recently signed a financing deal with Dutch insect farming company Protix for a facility in Poland. We are writing to share our concerns about the sustainability of the insect farming industry and its compatibility with the EIB's Paris Alignment Framework.

Our understanding is that Protix, like most of the significant investments in insect farming to date, will produce animal feed. As such, the industry is a supplier for the unsustainable industrial livestock sector, bearing the risk of increasing the environmental impact of feed production in Europe.

We urge the EIB to fully consider the possible impacts of financially supporting further development of a sector that industrially rears animals (insects) to feed them to other industrially reared animals as these can be detrimental to achieving the EU's climate and sustainable food objectives. Below we share our key concern:

1. The production of insects for feed may not be as sustainable as claimed.
2. The production of insects can lead to the expansion of the livestock sector.
3. Insect based feed might not be competitive compared to plant-based feed.
4. Released insects can cause economic, and biodiversity damage, including by becoming invasive.
5. The welfare of the insects must be taken into account.

1. **The production of insects for feed may not be as sustainable as claimed.** The most recent evidence suggests that the "substitution of compound feed production with insect value chains could be environmentally beneficial only in the cases of extremely efficient [...] production systems"[1]. However, these "extremely efficient production systems" are far from the norm in the sector.

Insect farming can be energy intensive. Studies show that the energy footprint of insect protein is not only several times higher than that of plant-based protein, but it's also similar or higher than that of other sources of animal protein, like milk, chicken, or pork[2].

The production of insects for feed can be inefficient, especially when the insects are given 'substrates' (feed) that can otherwise be used as food for humans, feed for other farmed animals or other industrial sectors. Many farmed insects are fed grain and vegetable-based diets[3] [4] because growth and survival rates of farmed insects depend on the quality of their feed. Consequently, most insect facilities use substrates that include fruit, grain-based feeds and other commercial feeds[5] [6] [7]. The efficiency of feeding the latter to insects to, then, feed other farmed animals is questionable.

WWF made an assessment of the waste streams, ranging from domestic food waste to chicken manure, that could potentially be used as feed for insects. It showed that the ones with the highest potential as insect feed are surpluses from food manufacturing, from vegetables and from bakery processes[8]. These high quality waste streams can also be used for other purposes, like feeding livestock, in composting and for the production of energy. So when these waste streams are diverted to new uses, like insect feed, the life cycle assessment needs to consider the impact on the sectors where it was diverted from.

Additionally, feeding waste to insects may pose human health risks. Insects cannot be fed just any waste, as this may carry safety risks like diseases, be contaminated with prions, and have an accumulation of heavy metals or mycotoxins. This is why certain former foodstuffs and other wastes are not allowed as substrate materials[9] in the EU and other countries.

2. **The production of insects can lead to the expansion of the livestock sector**. A report by the European Commission made a scenario analysis in which current restrictions were lifted and 50% of global food waste was economically viable to be collected and fed to the black soldier fly by 2030. The report concluded that this would decrease the prices of feed and would incentivise the production of fish, milk and meat. In other words, it would lead to the expansion of the significantly unsustainable industrial livestock sector, with all the associated impacts, including greenhouse gas emissions, land and water pollution and its impacts on peoples' health through antimicrobial resistance, etc[10].

3. **Insect based feed might not be competitive compared to plant-based feed**. Despite the argument above, a report by Robobank states that in 2021 the cost of insect protein ranges between €3,500 to €5,500 per metric ton, which is significantly higher than fishmeal ($1,200 to $2,000 per metric ton) and soy protein[11]. Some of the the most upscaled insect producers which originally banked on the feed market have changed path to focus on human food (like French Ÿnsect in 2023, separating itself from 20% of personnel and shutting down its Dutch facility)[12] [13].

4. **Released insects can cause economic, and biodiversity damage, including by becoming invasive**. A report by the Food and Agriculture Organization (FAO) warns about the "potential impact on health and biodiversity and the potential environmental hazards associated with insect production and release, including the accidental release of insect species not indigenous to the area of production"[14]. This concern is echoed by the EU Platform on Sustainable finance[15] which calls to apply the precautionary principle. These impacts can be exacerbated if the escaped insects are genetically engineered, as this may give them traits such as increased survival chances, increased growth (and thus feed needs) and higher reproduction rates. Released insects, whether accidentally or otherwise, can disrupt balances in ecosystems and they can potentially ruin harvests, which can be a threat to food security. The economic consequences can be significant, considering that invasive species are the cause of a 14% reduction of global food production.[16]

5. **The welfare of the insects must be taken into account.** There is evidence that insects are sentient, and researchers therefore advise applying the precautionary principle[17] when rearing them. This means that insect welfare must be guaranteed in all stages of the insects' development, including at the time of slaughter[18]. Moreover, manipulation of the insect genome, used in the sector to increase productivity and commercial viability can itself lead to additional welfare issues, as has been the case in numerous other manipulated farmed animal species.

The EIB's Paris Alignment Framework mentions support for the "production of proteins from more sustainable and/or innovative sources or production systems with a lower carbon footprint (such as fish, algae, insects) with a focus on animal welfare"[19]. Yet financing projects such as Protix' in Poland, focused on feed production and without sufficient knowledge on insect welfare, comes with high risks.

The EU Platform on Sustainable Finance, highlights that there is an "overwhelming lack of knowledge" about the environmental impacts of industrial insect farming. Due to this knowledge gap, we strongly urge the EIB to adhere to the precautionary principle when envisaging investments in large industrial-scale insect producing facilities[20].

It is urgent to transition to sustainable food systems. An ever-increasing number of scientific reports by IPBES, IPCC, EAT-Lancet and others,[21] all show that an urgent and profound change in our food system is required to meet the Sustainable Development Goals and the Paris Climate Agreement goals. Indeed, the declaration on sustainable agriculture, resilient food systems, and climate action adopted at COP28 last December, to which the EU and its Member States are party, also makes this link declaring that a shift to more sustainable production and consumption approaches are required.

We therefore urge the EIB to fully consider the possible impacts of financially supporting further development of a sector that industrially rears animals (insects) to feed them to other industrially reared animals as these can be detrimental to achieving the EU's climate and sustainable food objectives.

We would welcome an opportunity to discuss this further with you, in a call or in person, in the coming weeks.

Kind regards,

Merel van der Mark, Sinergia Animal
Reineke Hameleers, CEO Eurogroup for Animals
Peter Stevenson OBE, Chief Policy Advisor, Compassion in World Farming
Anna Spurek, COO Green REV Institute
Joana Oliveira, Board member and Project Manager, Portuguese Vegetarian Association
Christina Ledermann, Chairwoman Menschen für Tierrechte
Katrīna Krīgere, Executive Director Dzīvnieku brīvība
Giulia Malerbi, Global Policy Lead, Aquatic Life Institute
Thomas Schröder, President Deutscher Tierschutzbund e.V.
Petya Altimirska, Chair CAAI
Martin Smrek, Executive Director Humánny pokrok
Manon Stevens, Dierenbescherming

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[21] See IPBES 2018, IPCC 2018, IPBES 2019, IPCC 2019, EAT-Lancet 2019, IPBES 2020, multiple FAO reports, Dasgupta 2021, Chatham House 2021, UNEP 2021.