November 8th, 2022

Mary Porter Peschka
Director, ESG Sustainability Advice & Solutions Department, IFC

Dear Mary Peschka,

We are writing to share concerns about IFC's support for the insect feed plant InnovaFeed in Indonesia and Malaysia.

Our understanding is that InnovaFeed will produce animal feed. As such, the company will be a supplier for the unsustainable industrial livestock sector. As we have argued in a previous letter, the industrial livestock sector impacts almost all the SDGs and the Paris Climate Agreement goals. This includes the SDG2, which aims to end hunger and increase food security, one of the stated goals of the IFC for the InnovaFeed Project. Below we share our key concerns:

1. **The production of insects can be energy intensive**. Several studies have found 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.[1]

2. **The production of insects for feed can also be inefficient**, especially when the insects are given feed that could have been used as human food or as feed for other farmed animals. Many farmed insects are fed grain and vegetable-based diets.[2] [3] Growth rates and survival rates of farmed insects depend on the quality of their feed. Consequently, most insect facilities use ingredients in their substrates that could, otherwise be fed directly to animals or, indeed, be used for feed as humans. These include fruit, grain-based feeds and other commercial feeds[4][5][6]. It is, therefore, not necessarily efficient to feed insects to, then, feed other farmed animals.

3. **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 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 predicts that this would decrease the prices of feed and would incentivize the production of fish, milk and meat. In other words, it would lead to the expansion of the industrial livestock sector, with all the associated impacts, including greenhouse gas emissions, pollution, antimicrobial resistance, etc.[7]

4. **Feeding waste to insects may pose human health risks.** Insects can not 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 in several countries and regions (e.g., the UK, the European Union), various former foodstuffs and other wastes are not allowed as substrate materials.[8]
   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 highest potential as insect feed are surpluses from food manufacturing, from vegetables and from bakery processes.[9] These are relatively high quality waste streams that can also be used for other purposes, like feeding directly to livestock, use for 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 assess the impact on the sectors where it was being used before.

5. **Insect based feed might not be competitive compared to plant based feed.** A report by the Rabobank states that the current prices of insect protein ranges between EUR 3,500 to EUR 5,500 per metric ton, which is significantly higher than fishmeal (USD 1,200 to USD 2,000 per metric ton) and soy protein.[10]

6. **There is a risk of insect escaping and causing 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."[11] Equally, a report by the EU Platform on Sustainable finance, states that "*The risk of commercial insect species becoming locally invasive should not be easily discounted, especially since the cost of invasive species to natural and production systems are enormous. Furthermore, many insects, especially those considered useable for insect farming, have short life spans and short development cycles that can cause rapid dispersal once released in natural ecosystems. The precautionary principle should be exercised regarding non-native species, unless there is solid scientific evidence to suggest otherwise, especially with climate change making the establishment and spread of many non-native species more likely."*[12]
   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. A number of insect producing companies are already investing in insect genetics.[13]
   Escaped insects can disrupt balances in ecosystems and they can potentially ruin harvests, which can be a threat to food security. These are important risks that do not seem to have been identified by the IFC on the disclosure page under "E&S Risks / Impacts and Mitigation".

7. **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. This means that insect welfare must be guaranteed in all stages of the insects development, including at the time of slaughter.[14] To increase the productivity of the insect farms, many companies are doing genetic research, to manipulate the insect genomes in ways that are commercially profitable. This can lead to additional welfare issues.

Lack of Transparency

Unfortunately, despite being classified as a category A project, the information provided on the IFC website is very limited. It does not even cover basic details such as which insect species would be farmed, what they would be fed, what, if any, chemical products would be used in the process, and what type of safety measures would be implemented. According to the report by the EU Platform on Sustainable Finance, there is an overwhelming lack of knowledge about the environmental impacts of industrial insect farming. Due to this knowledge gap, we strongly urge the IFC to adhere to the precautionary principle when envisaging large industrial-scale insect producing facilities.[15]

Urgency of transition to sustainable food systems

An ever increasing number of scientific reports by IPBES, IPCC, EAT-Lancet and others,[16] 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.

We therefore urge the IFC to channel its money to truly sustainable food systems, instead of financing industries that enable the expansion of the industrial livestock sector, which has such detrimental impacts on the sustainable development goals and the Paris climate agreement goals.

We would welcome an opportunity to discuss this further with you in a call in the coming weeks. We are interested to learn how the IFC has applied the Performance Standards in this case and what mitigation measures the IFC has advised Innovafeed to implement.

Kind regards,

Merel van der Mark, Sinergia Animal
Mia MacDonald, Brighter Green
Peter Stevenson, CIWF
Simcha Nyssen, GAIA
Anna Spurek, Green REV Institute and Anna Spurek, Future Food 4 Climate
Reineke Hameleers, CEO Eurogroup for Animals
Mark Dia, Global Programme Director – Animals in Farming, World Animal Protection
Alexandre Andrade Sampaio, International Accountability Project
Giulia Malerbi, Global Policy Lead, Aquatic Life Institute

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