EBRD'S Green Investments

Supporting the Bioeconomy

BIOEAST, 15th November 2021

European Bank
for Reconstruction and Development

Supporting conversion of biogas plant's by-products into bio fertilisers

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CLIENT

- The client is the innovative energy arm of a large dairy group in Turkey.
- The company was initially established for utilising Group's waste, such as dairy waste, cows' manure, waste water treatment sludge, to produce renewable energy.
- It has evolved to become a service provider for other agricultural and agro-processing companies, taking in slurry, waste water, manure, fruit and vegetable wastes

PROJECT

- Increasing its biogas generation plant capacity from 10.6 MW to 19.2 MW.
- Converting by-product of the biogas plant, digestate, into bio fertilisers.

FINANCIAL STRUCTURE

• EBRD finance (in USD):	$ 22 million
• Climate Technology Fund	$ 3 million
• Total Project Value	$ 25 million

Supported by EBRD's

NØW
NEAR ZERO WASTE

CLIMATE INVESTMENT FUNDS

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GREEN ECONOMY IMPACT

- Bio-fertilisers are produced by recycling organic agricultural and municipal wastes. This reduces landfill volumes and contributes to a low-carbon circular economy.
- Electricity produced from renewable energy amount to 64,000 MWh/year
- Heat produced from renewable energy amount to 33,700 GJ/year
- Reducing significant amount of waste, **estimated at 1.5 per cent of total waste in Turkey**, sent to landfill
- **26,000 tonnes** per year of organic fertilisers replace chemical fertilisers of the same specification
- Greenhouse gas emission reductions of over **160,000 tonnes of CO_2** are estimated from bioenergy, avoided landfilling and the replacement of chemical fertilisers.

Advanced bioeconomy project: work-in-progress

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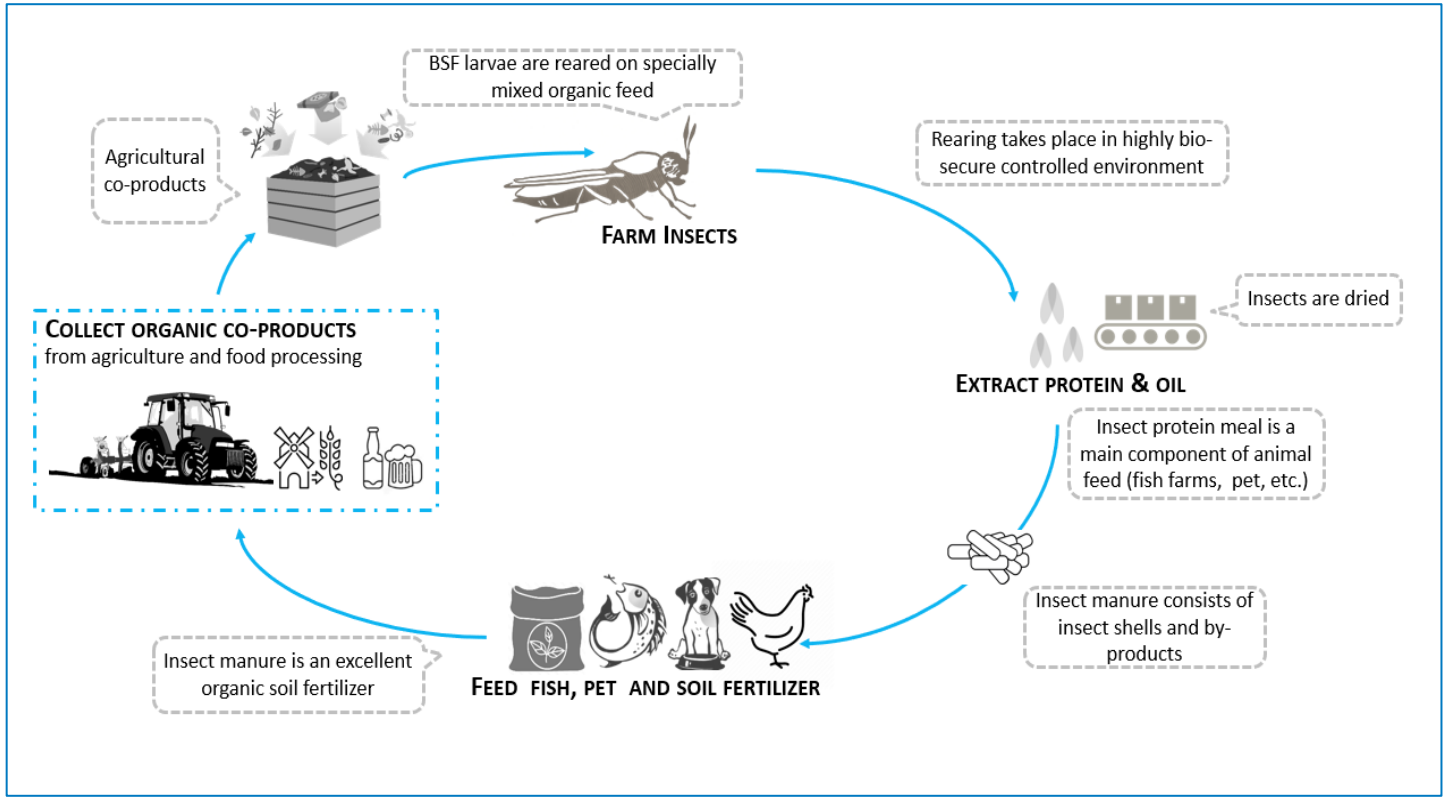
Technical Assistance for scale-up of innovative, bio-based products and business models



- Insect farming in Central-Eastern Europe
- Production of insect protein meal for aquaculture feed
- Other applications under considerations, including for by-products
- TA to support R&D for improving efficiency and de-bottlenecking

Bioeconomy

Circular economy

Supported by EBRD's GREEN INNOVATION PROGRAMME