

EcoFarm

ENHANCED CONVERSION OF SOLID WASTE TO MULTIPLE RESOURCES THROUGH BSFL BIO-CONVERTERS COMPOST & PROTEIN-RICH ANIMAL FEED

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Problem Addressed

WASTE TREATMENT

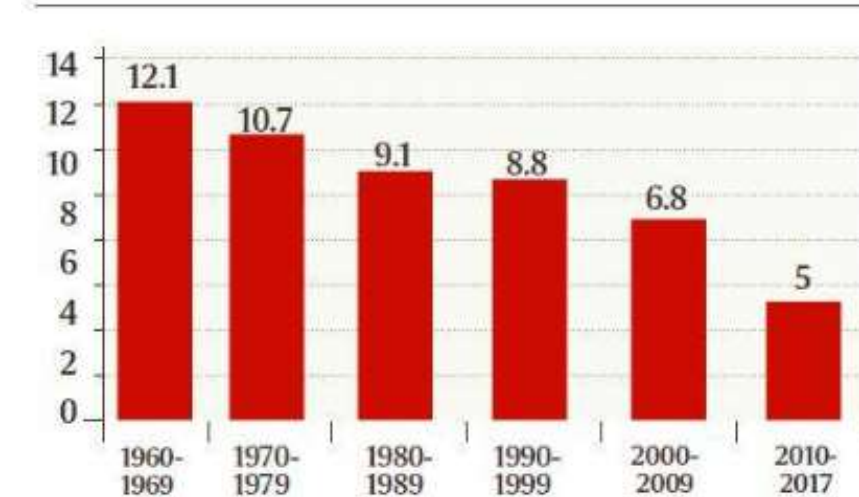
- Maximum waste treatment facility is not profit making & it consumes lots of fund and manpower &
- Conventional windrow or vermi-composting take lots of time (around 60 days) to treat the waste



FEED MARKET

- The poultry feed market is growing at a CAGR of 4.2% over the next 5 years & Asia-pacific is growing at the highest CAGR over 2017-2027.
- The poultry industry faces major challenges than ever before in order to cope the rising protein demand

CROP YIELD RESPONSE TO FERTILISERS



FERTILIZER

- Excessive usage of chemical fertilizer & bad quality of organic compost

Value proposition

CIRCULAR & SUSTAINABLE

- Three time less methane generation as compare to traditional composting
- Less water, carbon & land footprint for animal feed production
- Generate circular economy

EFFECTIVENESS

- Higher yield and faster bioconversion
- Pathogen suppression
- Minimal Odor
- Less greenhouse gas emissions

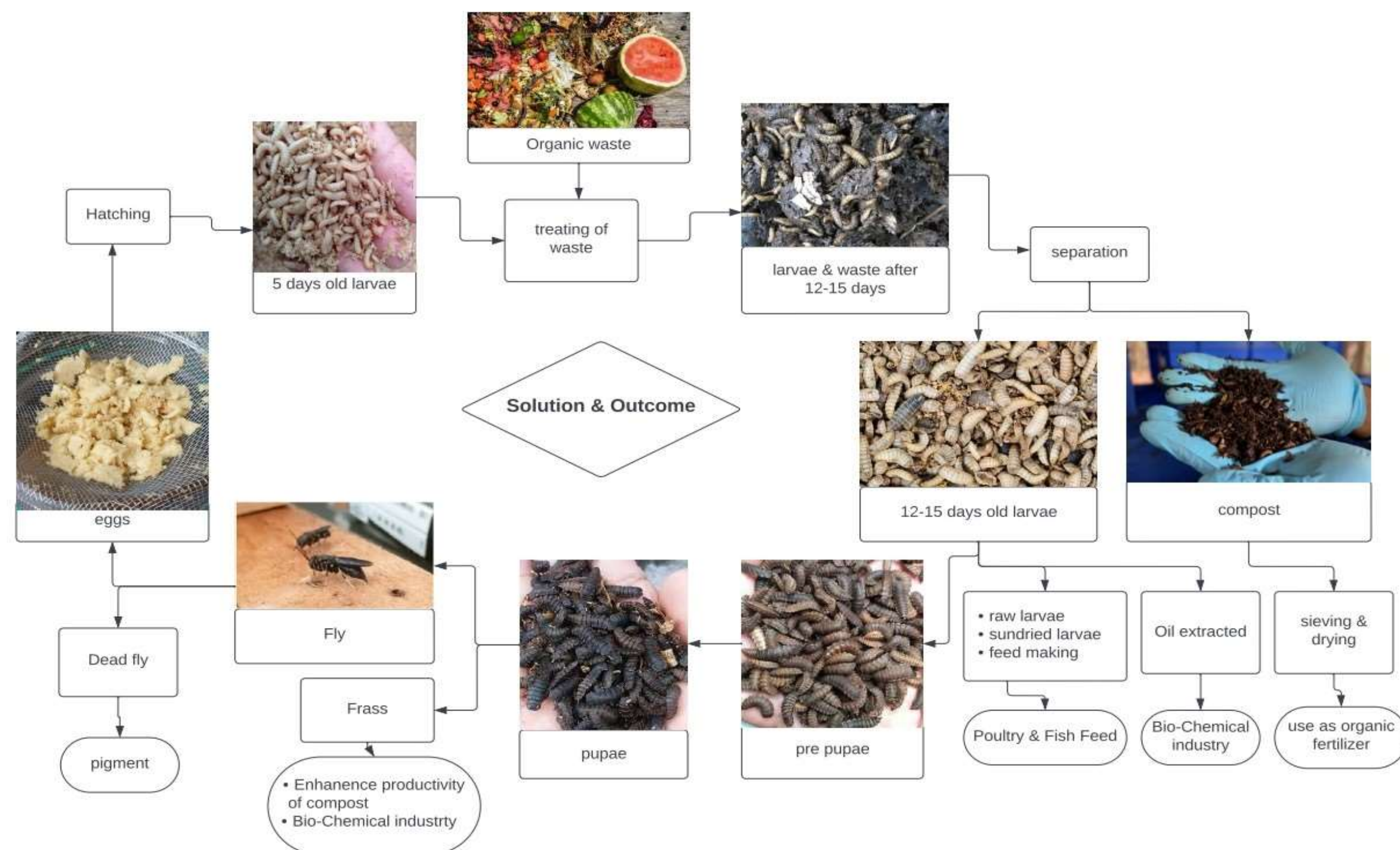
WASTE TO VALUE

- Bioconversion of organic waste into compost
- Valuable protein source for poultry, fish, and other livestock
- Nutrient-rich frass used as a nutrient-rich fertilizer for plants

PROTEIN & LIPID

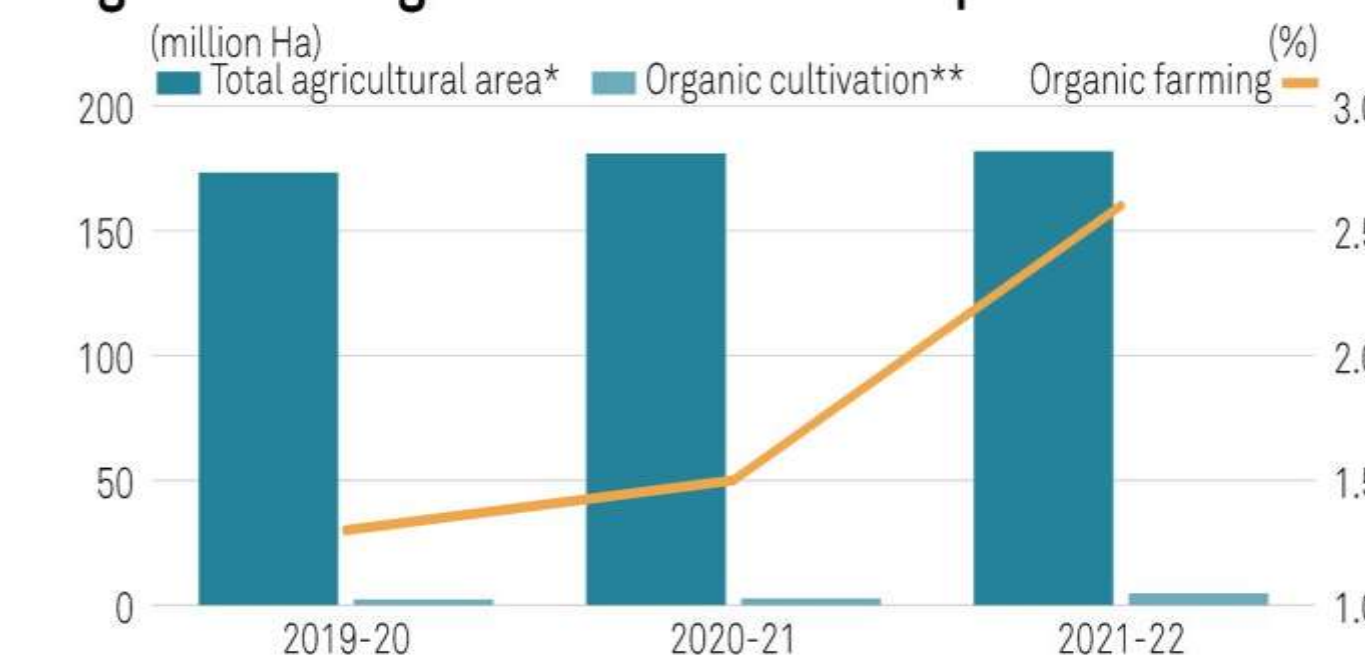
- Around 45% protein in the larvae, make the feed more efficient
- Simple extraction of 30% lipid, add a value in biomedical sector

The Solution, Results



Market size

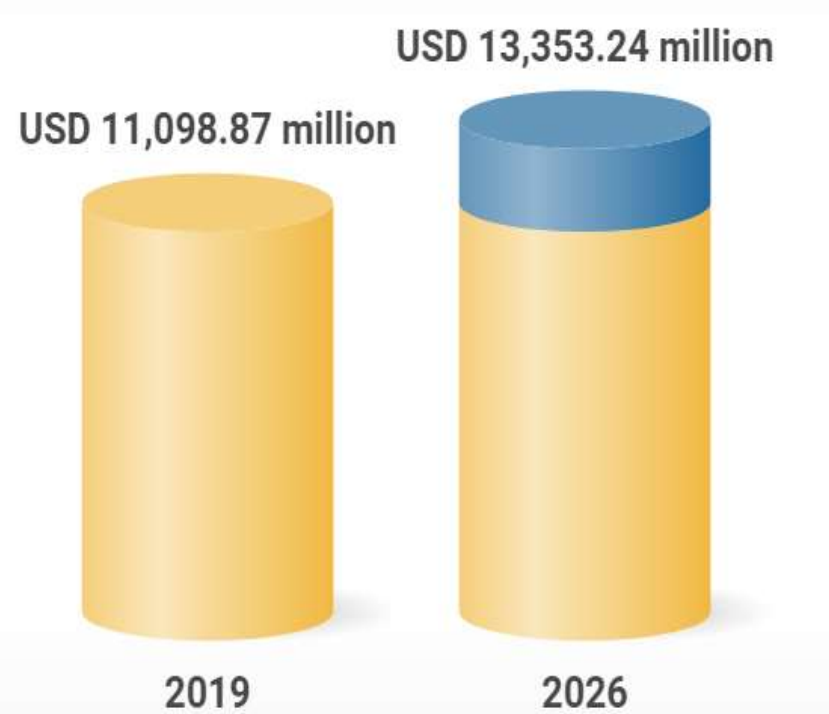
Organic farming in India - relative comparison



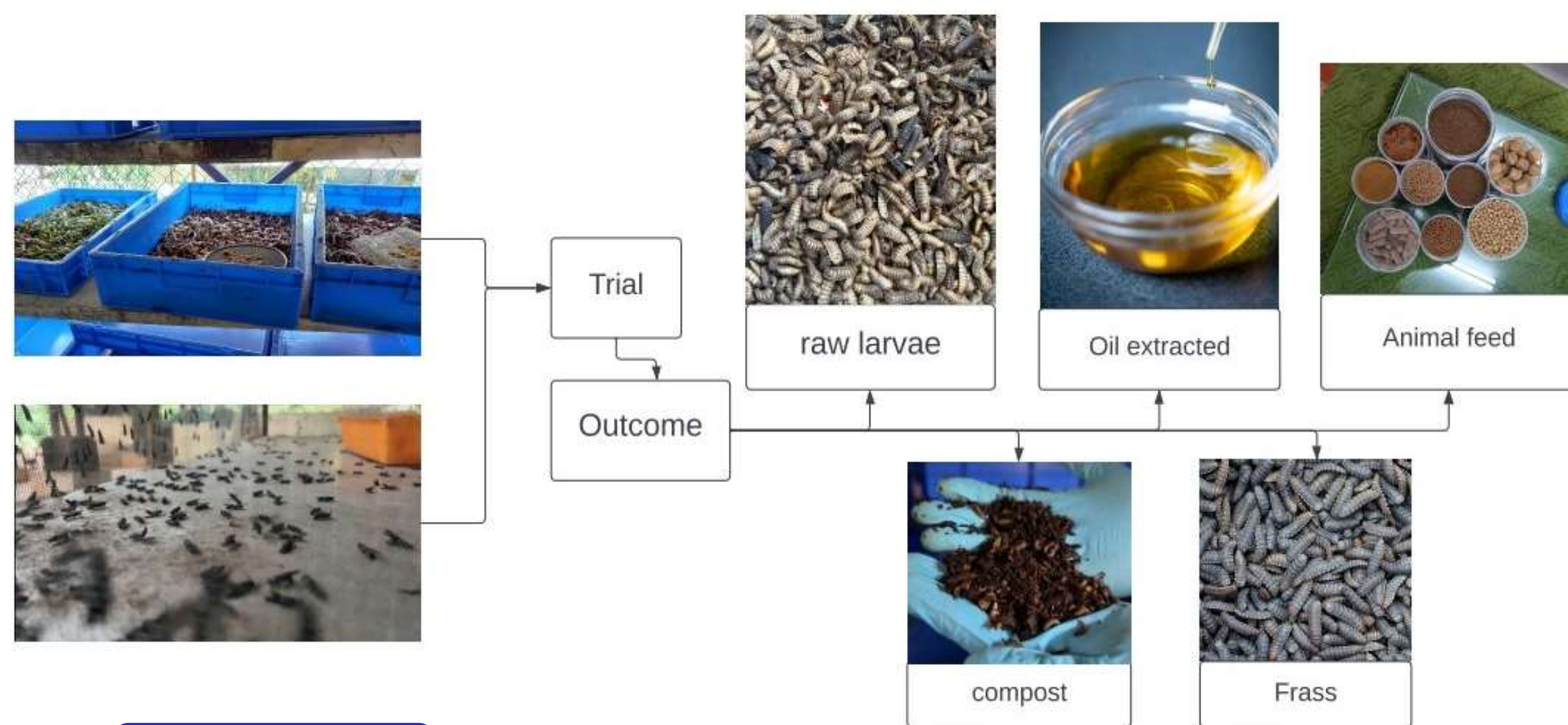
*For principal crops, excluding wild harvest area
**Including in-conversion land
Source: Agricultural & Processed Food Products Export Development Authority (APEDA) and Department of Agriculture, India

Indian Animal Feed Market

Market forecast to grow at a CAGR of 2.7%



Trials/Outcomes



Aligned SDG



NUTRIENT	RESULT (g/100g)
Protein	40-45
Lipid	30-35
Carbohydrate	12-16
Moisture	4-6
Crude Fiber	8-12

Business Model Canva

PROBLEMS

- HIGH FEED COST
- ORGANIC COMPOST
- LOW PROTEIN CONTENT
- WASTE MANAGEMENT ISSUE
- SUSTAINABILITY
- INCONSISTENT SUPPLY OF RAW MATERIAL FOR FEED

CUSTOMER SEGMENTS

- POULTRY FEED INDUSTRY
- MUNICIPALITY
- GARDENER & FARMER
- INDIVIDUAL POULTRY FARM OWNER
- AQUA FEED INDUSTRY

VALUE PROPOSITION

- PROTEIN RICHED FEED
- FEED PRICE STABILITY
- QUALITY ORGANIC COMPOST
- EFFICIENT WASTE MANAGEMENT

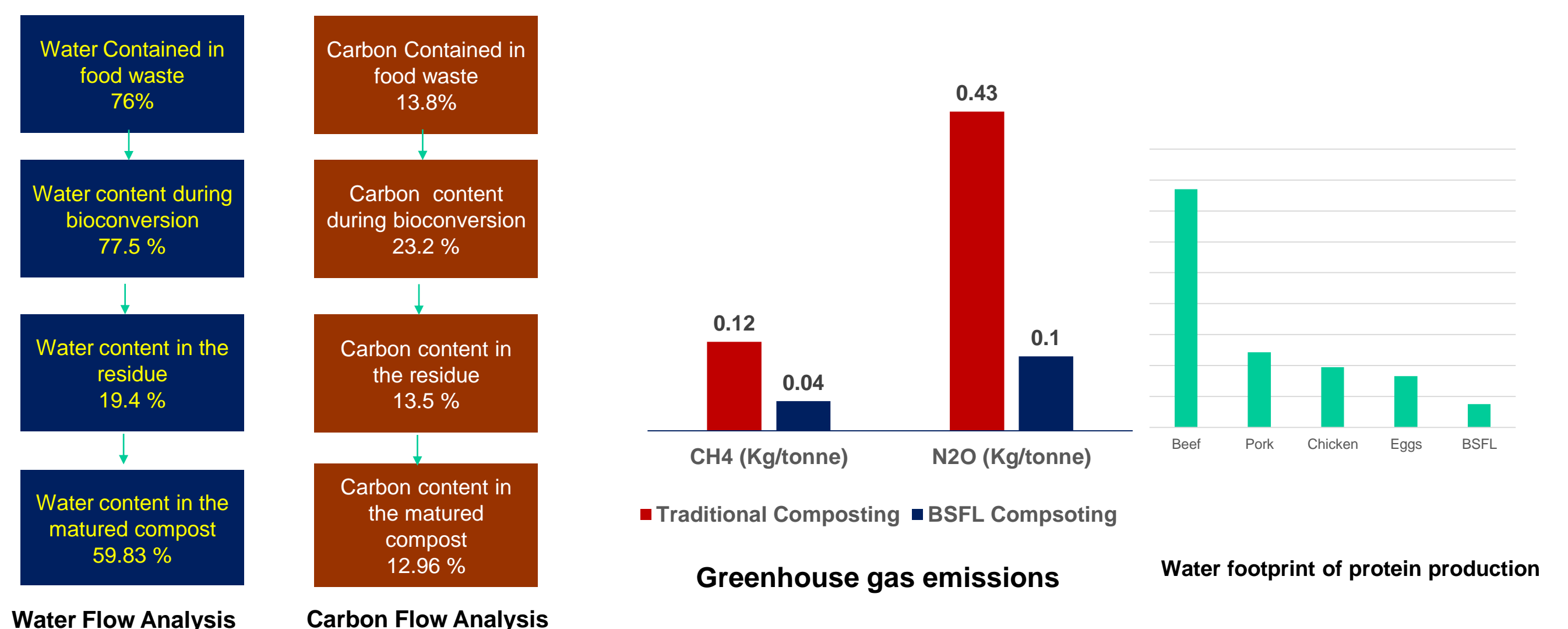
EXISTING ALTERNATIVE

- PLANTBASED PROTEIN
- FISHMEAL
- WINDROW COMPOSTING

EARLY ADOPTERS

- FEED INDUSTRY
- POULTRY FARM OWNER
- FARMER & NURSERY OWNER

Environmental Impact metrics of our proposed innovation



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