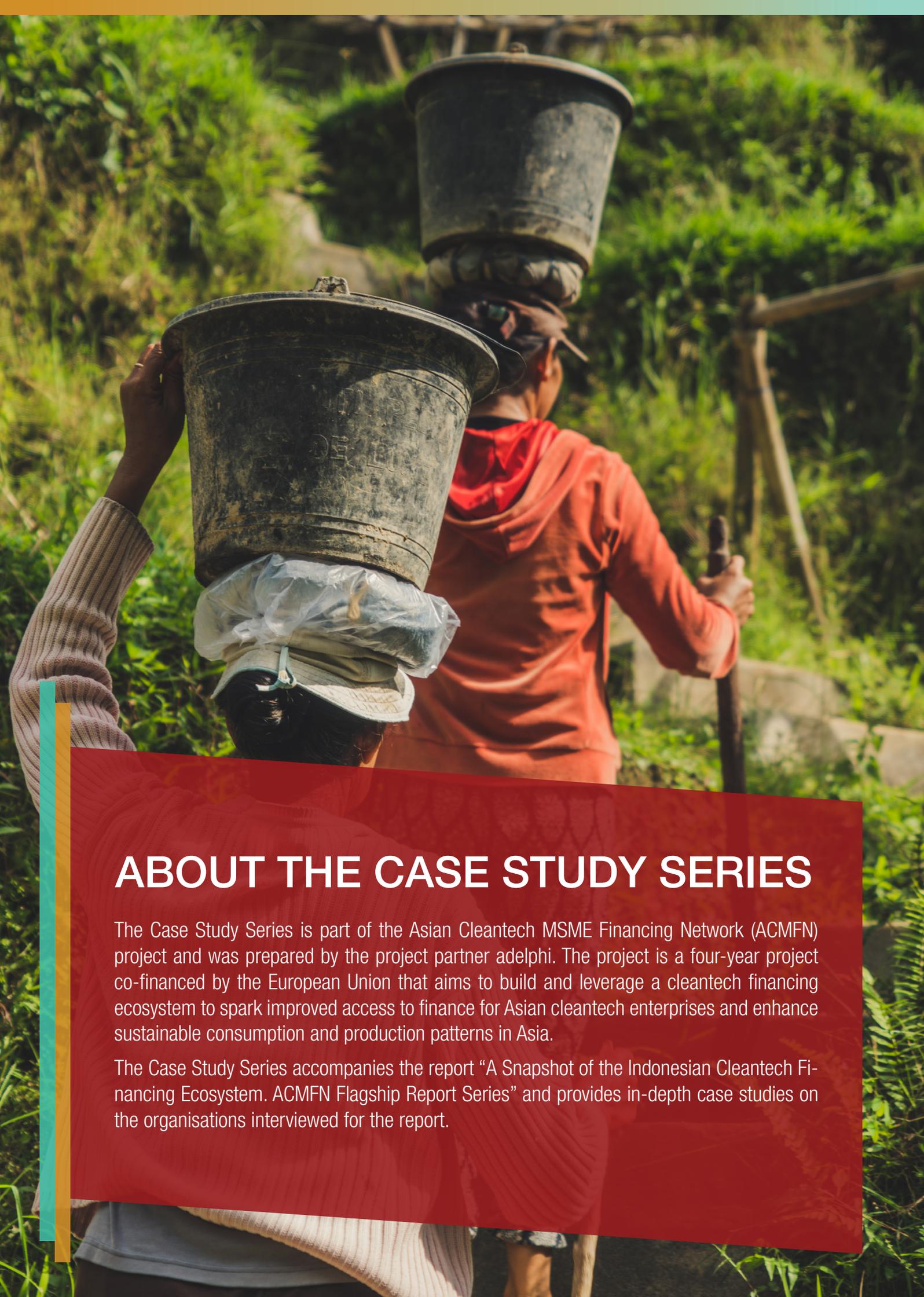




**ACMFN CASE STUDY SERIES**

# A SNAPSHOT OF THE INDONESIAN CLEANTECH FINANCING ECOSYSTEM

*BUILD. ACCELERATE. MAINSTREAM.*



## ABOUT THE CASE STUDY SERIES

The Case Study Series is part of the Asian Cleantech MSME Financing Network (ACMFN) project and was prepared by the project partner adelphi. The project is a four-year project co-financed by the European Union that aims to build and leverage a cleantech financing ecosystem to spark improved access to finance for Asian cleantech enterprises and enhance sustainable consumption and production patterns in Asia.

The Case Study Series accompanies the report “A Snapshot of the Indonesian Cleantech Financing Ecosystem. ACMFN Flagship Report Series” and provides in-depth case studies on the organisations interviewed for the report.

# LIST OF ORGANISATIONS

## Micro-, Small-, and Medium-sized Cleantech Enterprises

Greenhope

Parongpong

Paranti Composter

Green Citarum Foundation

Koperasi Malai Padi

Diet Plus

## Financial Institutions

Bank BJB

Bank Rakyat Indonesia (BRI)

Gandeng Tangan

Mekar

Melania Credit Union

Kogama

Permodalan Nasional Madani (PNM)

## Intermediaries

Aikma

Komunitas 1000 Kebun

Komunitas Organik Indonesia (KOI)

Yayasan Rumah Energi (YRE)

# Case Study



## GREENHOPE

Greenhope actively collaborates with manufacturers, brand owners, non-governmental organisations, local & national governments to address challenges of plastic waste. The clean technology company has two leading brands: Oxium (oxo-biodegradable additive) & Ecoplas (cassava-based plastic).



*"Our mission is to [...] address the problem of plastic waste holistically as well as bringing innovative and useful eco-friendly products and services to the communities."*

### ORGANISATION PROFILE



**Cleantech  
Provider for  
Waste  
Reduction**



**Started selling  
large quantities  
in 2010**



- Contribute to waste reduction**
- ✓ Provide environmentally friendly plastic products
  - ✓ Offer affordable solutions to the plastic bag "end-of-life"-cycle
  - ✓ Demonstrate high quality standard



**2 founders and  
100+ staff**



**Based in  
Jakarta,  
Indonesia**



**Impact:** Produce green plastic with >50 factories; significant plastic garbage reduction since breakdown takes only a few years instead of hundreds of years

### CLEANTECH MODEL SNAPSHOT



### INVESTMENT HISTORY & REQUIREMENTS



- In 2006, Aureos Capital Limited invested US\$ 5 million in the company
- In 2019, annual turnover has reached about US\$ 4-10 million
- Venture capital is in discussion, however, the size is not yet disclosed

### CHALLENGE



- Very high electricity costs for machines
- Not enough partnerships with government and other national and international private sector companies
- Few government incentives to use conventional plastic alternatives

### BEST PRACTICES

Have twelve representatives around the world, scaling garbage reduction impacts globally



Demonstrate Indonesia's cleantech potential through inter-institutional collaboration

# Case Study



## PARONGPONG

Parongpong – meaning “zero, nothing, empty” - provides knowledge and technologies for zero-waste management and encourages individuals and corporations to live a zero-waste lifestyle.



*“We believe that with proper trainings, tools, methods, commitments, and networks, DIY waste management is possible.”*

### ORGANISATION PROFILE



**Cleantech  
Provider for  
Waste  
Recycling**



**Started in  
2017**



### Enable efficient waste management

- ✓ Offer recycling technology & complementary training
- ✓ Workshops on integrated waste management for consumers and businesses
- ✓ Zero-waste store in Bandung and online



**3 Co-Founders  
as main staff**



**Based in  
Bandung,  
Indonesia**

**Impact:** Clients are trained to cut their waste by 20% in the first 6 months

### CLEANTECH MODEL SNAPSHOT



### INVESTMENT HISTORY & REQUIREMENTS

- Self-financing of operational setup
- Limited investment needs due to very low running costs (only wages and safety deposit for machines)
- Scale-up of operations without additional investment enabled by online-training course on the technology



### CHALLENGE

- End consumers who use the technology, especially the middle management of clients, lack awareness about waste management problems
- Consumers need a facility to set up the machine



### BEST PRACTICES



Provide training alongside technology to increase awareness about cleantech



Low-cost business model through online training that allows scaling without high investment requirements

# Case Study



## PARANTI COMPOSTER

Paranti Composter develops and sells composters to intermediaries in the hospitality and service industry, which can then resell their compost based on the compost produced. By using a specific type of bacteria in the composting process, the company revolutionised the productive use of compost.



*"In contrast to other composter machines, [our] machine [...] is able to turn waste into compost in just 24 hours."*

### ORGANISATION PROFILE

**Cleantech Provider for Waste Management**

**Started in 2018**

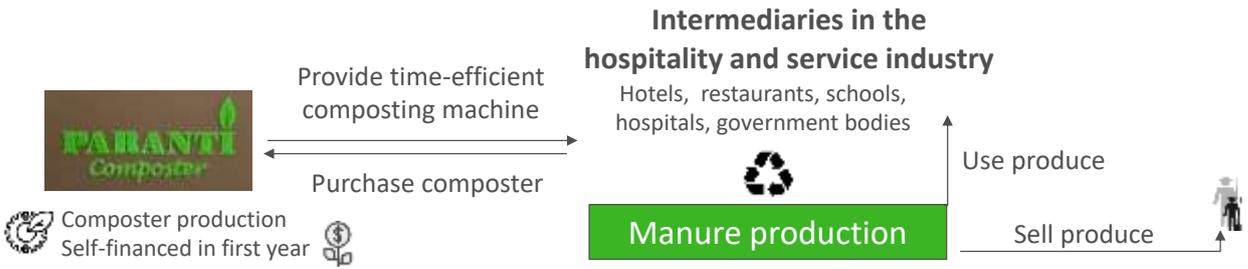
**4 staff members**

**Based in Bandung, Indonesia**

### Enable efficient organic waste management

- ✓ Offer eco-friendly waste management opportunities
  - ✓ Develop time-efficient composting products
  - ✓ Provide households and businesses
- Impact:** Households and businesses can reuse or sell their own organic waste as manure, which has environmental and cost-saving impacts.

### CLEANTECH MODEL SNAPSHOT



### INVESTMENT HISTORY & REQUIREMENTS



- Self-financing of product development in the first year through friends and family
- Initial composter production cost is US\$ 2,100
- Selling price is US\$ 770 per unit

### CHALLENGE

- Paranti Composter is in a new business under Paranti Alam Sejahtera Corporation
- Low demand for product
- Missing financial support for company's scaling-up
- Support needs in marketing and advertising towards customers

### BEST PRACTICES



Revolutionises how compost can be used in the hospitality and service industry by making it usable after 24hrs



Offers an innovative & time-effective waste management solution

# Case Study



## GREEN CITARUM FOUNDATION

The foundation initiated the food processing initiative Banisti Food, which processes and distributes food. Organic and regular products include cookie tempeh (traditional Indonesian fermentation product), sweet potatoes, healthy drinks, lemon tea and natural food diet.



*"We want to encourage others to become greener."*

### ORGANISATION PROFILE

**Cleantech Implementer for Organic Food Processing**

**Started in 2016**

**2-3 employees**

**Based in Bandung, Indonesia**

**Promote sustainable agriculture**

- ✓ Processing of healthy traditional food
- ✓ Offer households incentives to become greener
- ✓ Distribution through associated green Komunitas, e.g. store W1000Kebun

**Impact:** Organic food production promotes more sustainable agricultural value chains, with significant environmental impact.

### CLEANTECH MODEL SNAPSHOT



### INVESTMENT HISTORY & REQUIREMENTS

- Monthly turnover between 140–250 USD
- Self-financing only
- Financing needs to become completely organic

### CHALLENGE

- Producing inexpensive organic food: Constant trade-off between the price and food quality
- Aim to become completely organic is challenging

### BEST PRACTICES

Successful distribution model through Komunitas involvement

Incentive for a healthier diet, more cost-efficient organic food production and sustainable agriculture

# Case Study



## KOPERASI MALAI PADI

Koperasi Malai Padi is a cooperative that supports the development of sustainable agriculture based on local wisdom, to produce healthy and environmentally friendly agricultural products. Among others, organic and premium rice are the signature products sold through the cooperative.



*"Healthy living with healthy rice!"*

### ORGANISATION PROFILE



Cleantech Implementer for Organic Agriculture



Started in 2015



### Support organic production and smallholder farming

- ✓ Organic rice production
- ✓ Promotion of local wisdom
- ✓ Creation of a marketplace for smallholder farmers



10 community members, 30 farmers (Bandung-chapter)

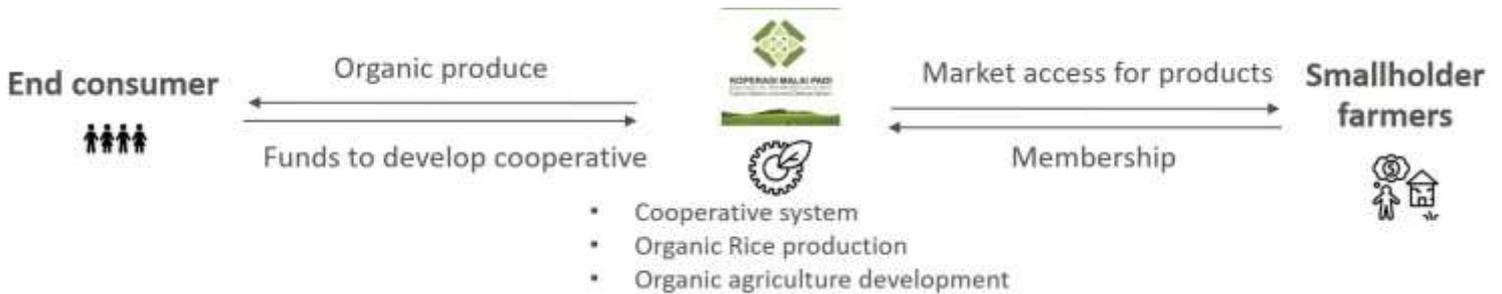


Cooperatives across West Java, Indonesia



**Impact:** Positive environmental impact and economic benefits for farmers, with poverty-reducing effects.

### CLEANTECH MODEL SNAPSHOT



### INVESTMENT HISTORY & REQUIREMENTS

- Cleantech investment needs
- Financing need for equipment and milling capabilities as well as human resources



### CHALLENGE

- Not enough partnerships with different actors
- Increased pest variability and climate change effects
- Investing in cleantech is expensive and awareness is low



### BEST PRACTICES



Addresses rising food needs in Indonesia and the world



Provides modern ways for local wisdom distribution and supports smallholder farmers

# Case Study



## DIET PLUS

Dietplus is a catering firm providing diet plans with healthy meals, which are freshly made from organic and natural produce, and sourced from local farms. Through their business model, Dietplus promotes a healthy lifestyle with lots of convenience.



*"We want you to rediscover the meaning of healthy lifestyle, we are here to simplify your healthy meals."*

### ORGANISATION PROFILE



**Cleantech  
Implementer for  
Organic Food  
Processing**



**Started in  
2017**



### Promote organic agriculture and healthy nutrition



- ✓ Offer diet plans for healthy lifestyle
- ✓ Increase access to organic and natural produce through delivery system



**14+ staff  
members**

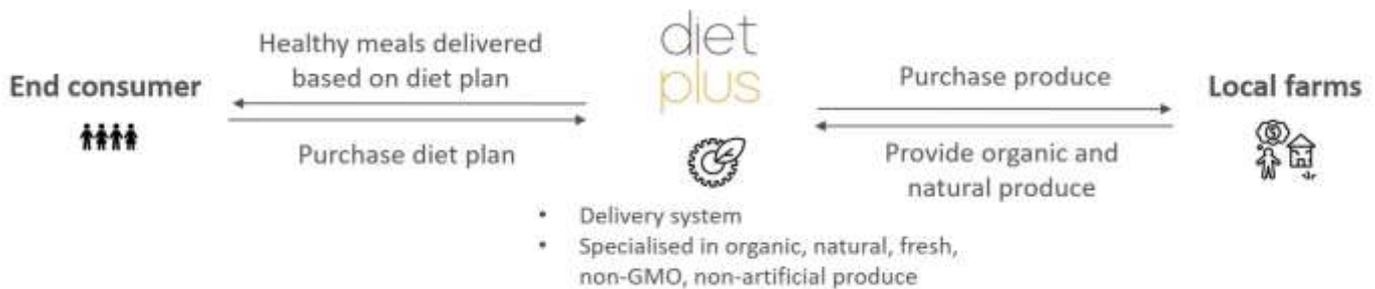


**Based in  
Bandung,  
Indonesia**



**Impact:** Land and air quality improvements through local sourcing, waste reduction

### CLEANTECH MODEL SNAPSHOT



### INVESTMENT HISTORY & REQUIREMENTS



- Self-financing of operational setup
- Limited investment needs due to low running costs (mostly wages)
- Scale-up of operations requires without additional investment

### CHALLENGE



- End consumers lack knowledge and awareness about healthy lifestyle
- Organising logistics around the operations
- Lack of government incentives for sustainable food production

### BEST PRACTICES



Provide incentives for sustainable food production adapted to needs of younger generations



Focussing on local produce saves transport costs and has positive environmental effects

# Case Study



## BANK BJB

BJB Bank is a partly state-owned commercial bank which has several programmes focussing on ultra-micro businesses. Known as a philanthropic bank, BJB has signed a Memorandum of Understanding with PUPUK to scale cleantech financing together.



*“One of our aims is to increase financial literacy through Corporate Social Responsibility, loans, and other services and measures.”*

### ORGANISATION PROFILE

	<b>Commercial Bank</b> (30% state-owned)		<b>Founded in</b> 1961	
	<b>Several thousand</b> SMEs financed		<b>Across</b> Indonesia	

### Increase financial literacy and CSR services for SMEs

- ✓ Village education on clean & healthy lifestyles
- ✓ Financial education in remote areas
- ✓ Cleantech new in portfolio

### Interact directly with SMEs

- ✓ Grants
- ✓ Microloans
- ✓ Business education

### CLEANTECH FINANCING MODEL SNAPSHOT



### INVESTMENT HISTORY



- 271 billion IDR invested in Cleantech
- 183 billion IDR of funding provided to SMEs
- 1500+ enterprises financed only through agriculture-focused loan Kredit Usaha Rakyat (KUR) & Kredit Cinta Rakyat (KCR)

### CHALLENGE



- Cleantech-specific financing still lacking behind
- Limited resources to increase services
- Low awareness and knowledge about cleantech among entrepreneurs

### BEST PRACTICES

Cooperate with local NGOs to foster cleantech development



Implement CSR programme with internal and external cleantech

Case Study



**PT BANK RAKYAT INDONESIA (BRI)**

BRI is a leading bank in Indonesia focusing on banking services for micro, small and medium enterprises.

*“BRI is a first-mover in sustainable finance”*



**ORGANISATION PROFILE**



30% publicly listed, partly state-owned bank



Established in 1968, listed in



**Prioritise financing towards environmentally friendly enterprises**

- ✓ Renewable energy
- ✓ Energy efficiency
- ✓ Waste management
- ✓ Sustainable agriculture and fishery
- ✓ Green building



500+ active members



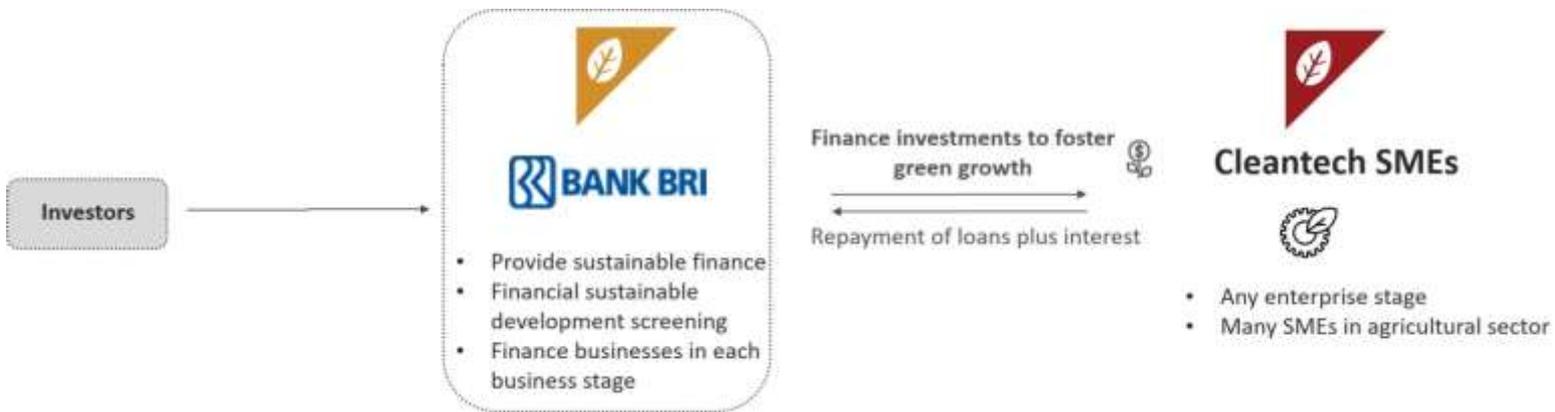
Head office in Jakarta, > 1000 regional and branch offices



**Provide a range of financial products for SMEs**

- ✓ Micro-Community Business Credit
- ✓ Micro-loans & small credits
- ✓ Grants

**CLEANTECH FINANCING MODEL SNAPSHOT**



**INVESTMENT HISTORY**



- Invest in businesses with environmental impact
- More than 46 million EUR of loans disbursed in 2017 of which more than 34 million EUR were disbursed to SMEs

**CHALLENGE**



- Not enough financing opportunities for early-stage enterprises
- Investors general low focus on social & environmental impact

**BEST PRACTICES**



Provide financing instruments targeted for each investment stages



Tap into innovative approaches such as digitization through BRISat



Develop screening criteria to mainstream sustainable financing across the organisation and beyond



## GANDENG TANGAN

Gandeng Tangan is a crowdsourcing platform to connect micro-business owners who need financing and investors who have an interest in creating social impact. With short-term investments, Gandeng Tangan provides a safe and transparent financing system that improves financing options for Indonesian micro-businesses.



*“Our vision is to reduce poverty by focusing on the growth and self-reliance of micro-business owners through technology & impact investing.”*

### ORGANISATION PROFILE

**FinTech Provider**  
(Online Microfinance Marketplace)

**11,700+ lenders**  
registered

**Founded in**  
2015

**Based in**  
Jakarta,  
Indonesia

**Bridge the financing gap of SMEs**

- ✓ Re-investment opportunities
- ✓ Peer-to-peer lending
- ✓ Sponsored by Bank DBS Indonesia

**Interact directly with SMEs**

- ✓ Social impact focus
- ✓ Microloan provision
- ✓ Supervision

### CLEANTECH FINANCING MODEL SNAPSHOT



### INVESTMENT HISTORY

- Start helping micro-businesses from 50,000 IDR
- 1,300+ borrowers funded
- 5 billion IDR disbursed in loans

### CHALLENGE

- Finding good borrowers, i.e. managing risk to be less than 1-2%
- To disperse more loans while preventing high debt/non-performing loans

### BEST PRACTICES

Bridge the 80% financing gap of Indonesian micro-businesses

Safe and transparent financing system for social & green SMEs

One of the only peer-to-peer lending platforms that serves micro-businesses in Indonesia

## Case Study

### MEKAR



 **MEKAR** Mekar – meaning “blossom” in Indonesian - is a Peer-to-Peer (P2P) microlending platform, scaling into an impact fund. The fintech start-up is listed among the top 10 online lending platforms in Indonesia.

*“Unlike traditional financial institutions, Mekar provides financial services to unbankable SMEs in rural area, specifically woman.”*

#### ORGANISATION PROFILE



**Financial Service Provider (FinTech Start-Up)**



**Started in February 2017**



**Promote financial inclusion of cleantech enterprises**

- ✓ Encourage organic farming
- ✓ Support disadvantaged women
- ✓ National availability



**500+ active members**



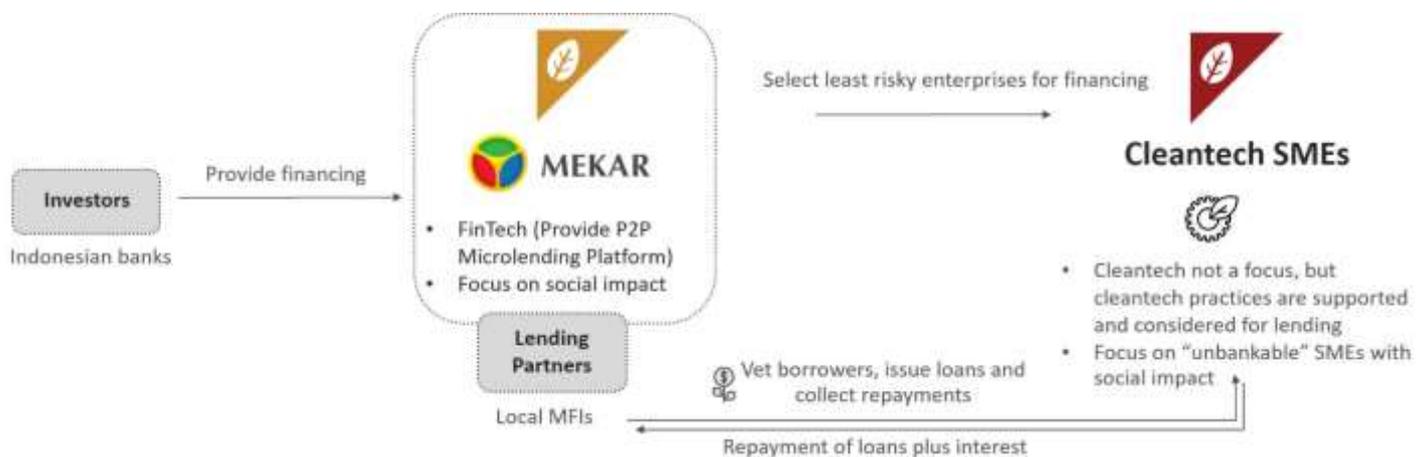
**Focus on Bandung & across Java, Indonesia**



**Interact directly with SMEs**

- ✓ Micro-financing
- ✓ Capacity building
- ✓ Peer-learning

#### CLEANTECH FINANCING MODEL SNAPSHOT



#### INVESTMENT HISTORY



- 124 billion IDR provided to SMEs
- 54.442 loans financed through P2P-Platform
- In addition to P2P, Mekar is setting up an impact fund of up to 700 billion IDR

#### CHALLENGE



- Generally the ecosystem for SMEs is still weak
- More efficient government investment is needed to increase effectiveness of donors & funds
- Limited incentives for SME

#### BEST PRACTICES



Provide capacity building along with financing for improved enterprise performance



Inclusive SME financing with specially designed instruments for women



Boosting impact by scaling into an impact fund

# Case Study



## MELANIA CREDIT UNION

Melania Credit Cooperative is a non-bank financial services institution ranking one of 100 big cooperatives in Indonesia. They provide savings and credit products for community members, including cleantech SMEs.



*"Our mission is to provide financial services and anticipate the dynamics of the development of financial services that occur."*

### ORGANISATION PROFILE

 **Finance Provider (Credit Cooperative)**

 **2000+**

**Established in 1991** 

**Focus on Banduna.** 

**Provide financial support to micro-cleantech enterprises**

- ✓ Committed to community empowerment
- ✓ Promote savings among members

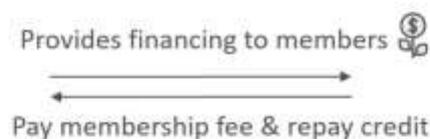
**Interact directly with SMEs**

- ✓ Provide financial Credit and Savings services
- ✓ Local focus
- ✓ 25 years of experience working with SMEs

### CLEANTECH FINANCING MODEL SNAPSHOT



- Credit Cooperative
- Ranks among 100 Big Cooperatives in Indonesia




**Cleantech SMEs**



- Micro-businesses
- Members of credit cooperative

### INVESTMENT HISTORY



- 150 billion IDR provided to SMEs
- Approx. 2000 SMEs have access to finance with Melania

### CHALLENGE



- Only few financing products for SMEs on the market
- Policy & regulation is lacking behind in Indonesia

### BEST PRACTICES



Bridge the gap of SME financing in Indonesia



Provide incentives for poverty reduction through the provision of savings products



Received several local awards for its credit provision

## Case Study



### KOGAMA

Kogama is a cooperative based AIKMA providing financial support to community members. Provided loans are tied to specific purposes and disbursed to mostly female members of the AIKMA Bandung City.



*"We provide three types of loans: For material, tools, and working capital."*

#### ORGANISATION PROFILE



**Financial Service Provider**



**Started in February 2017**



#### Promote financial inclusion of cleantech enterprises

- ✓ Motivation to go green
- ✓ Encourage use of local products



**80 active members**



**Based in Bandung,**



#### Interact directly with SMEs

- ✓ Provide microloans
- ✓ Help finance material, tools and working capital
- ✓ Women empowerment

#### CLEANTECH FINANCING MODEL SNAPSHOT



#### INVESTMENT HISTORY

- Provide 3 types of loan between 1-10 million IDR per customer
- 115 million IDR in total capital assets invested
- Receive 500,000 IDR per membership

#### CHALLENGE



- Only 30% regular repayment rate
- Low awareness for environmental impact
- Limited financing opportunities for SMEs on the market

#### BEST PRACTICES



Monthly meetings encourage community-focused investments



Inclusive SME financing with a focus on women entrepreneurs



Cooperation among Komunitas boosts Komunitas-provided SME services in Indonesia

## Case Study



### PERMODALAN NASIONAL MADANI (PNM)

PNM is a state-owned enterprise dedicated to SME empowerment, which provides financial support and capacity building to SMEs across Indonesia, including cleantech enterprises.



*"Our focus lies on SMEs, and we particularly encourage organic farming."*

#### ORGANISATION PROFILE

**Finance Provider**  
(State-owned enterprise for SME empowerment)

500+ active members

Started in  
1 June 1999

Focus on  
across Java & Indonesia

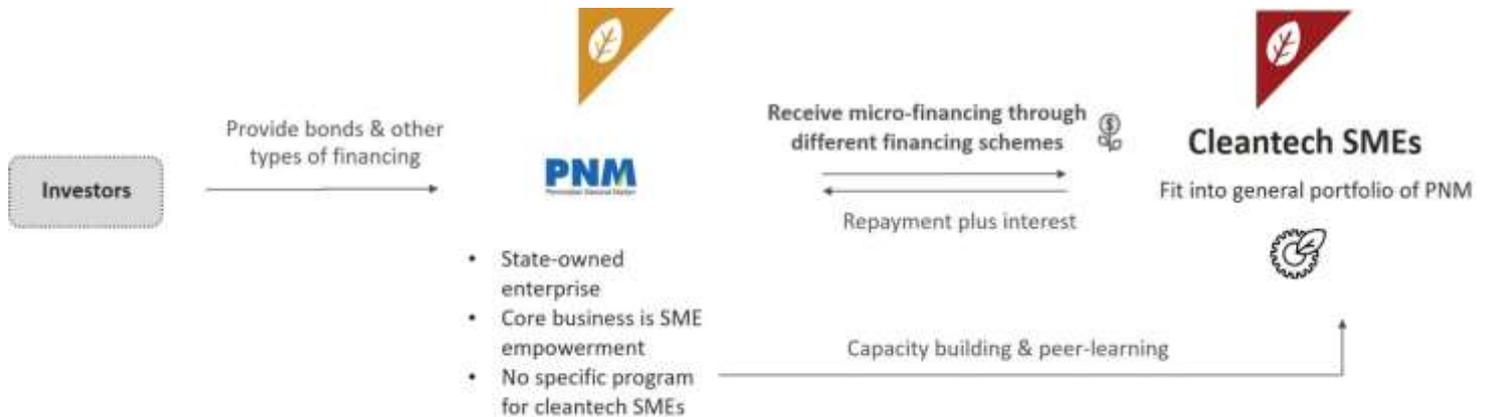
#### Promote financial inclusion of cleantech enterprises

- ✓ Encourage organic farming
- ✓ Support disadvantaged

#### Interact directly with SMEs

- ✓ Micro-financing
- ✓ Capacity building
- ✓ Peer-learning

#### CLEANTECH FINANCING MODEL SNAPSHOT



#### INVESTMENT HISTORY

- ULaMM micro-credit disburses 50-200 million IDR per customer
- PNM Mekaar loan for poverty eradication among women, 2-5 million IDR per customer.
- PNM Venture Capital

#### CHALLENGE

- High cost of capacity building
- Regulation in Indonesia is lacking behind
- High competition for public funds (all 4 big banks in Indonesia are state-owned)

#### BEST PRACTICES

Provide capacity building along with financing for improved enterprise performance

Inclusive SME financing with specially designed instruments for women entrepreneurs

Making cleantech financing a trend in Indonesia

# Case Study



## AIKMA

AIKMA (SME's Association) builds a community connecting food processing companies to educate and help members to green their products. Aikma promotes cleantech application within agriculture, also for investments into cleantech through their partner Kogama Cooperative.



*"We see a green movement starting in Indonesia!"*

### ORGANISATION PROFILE



**Intermediary (Komunitas)**



**Started in 2008**



**Promote healthy lifestyles based on cleantech**

- ✓ Education
- ✓ Workshops on green products



**Growing number of members**



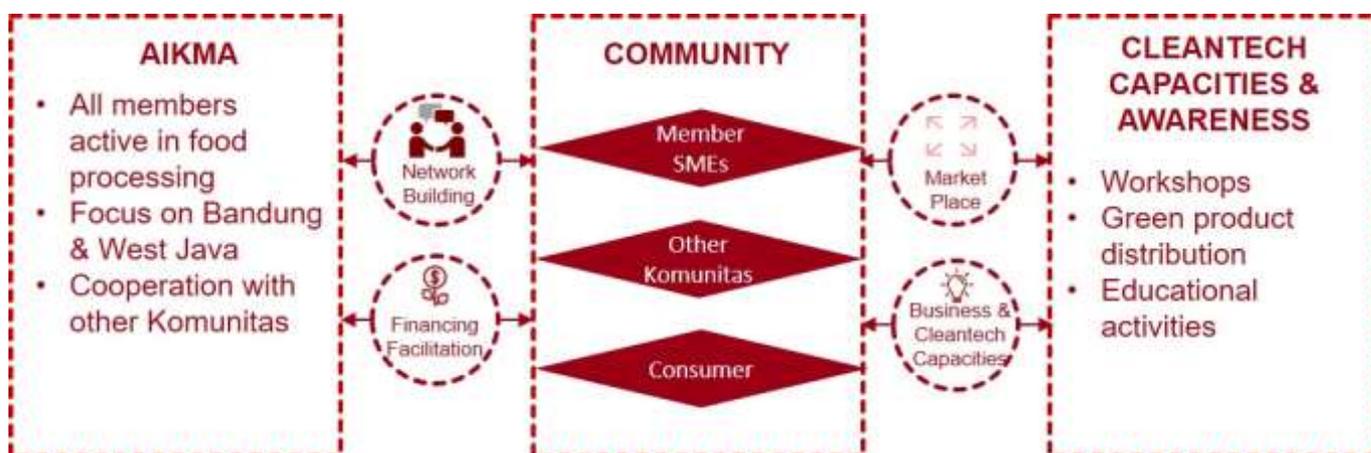
**Focus on Bandung & West Java**



**Interact directly with SMEs**

- ✓ Community building
- ✓ Capacity building
- ✓ Market place

### INTERMEDIARY MODEL



### INVESTMENT HISTORY



- Kogama (also Komunitas) provides financial support for Aikma members
- Aikma experienced 100% growth between 2016 and 2018

### CHALLENGE



- Lack of education about green products
- High process for green products
- Limited use of the internet as a source of knowledge among consumers

### BEST PRACTICES



Cooperation among Komunitas to leverage positive results



Work directly with food processors promoting healthy production



Raising awareness for a healthy lifestyle and the importance of cleantech among consumers

# Case Study



## KOMUNITAS 1000 KEBUN

Komunitas 1000 Kebun builds a community connecting farmers, and also consumers to promote healthy lifestyles and organic farming through workshops, group discussions, social media and their own store, where products from suppliers are directly distributed.



*"We like sharing, not teaching or judging"*

### ORGANISATION PROFILE



**Intermediary (Komunitas)**



**Started in June 2015**



**Promote healthy lifestyles based on cleantech**

- ✓ Organic farming
- ✓ Organic nutrition
- ✓ Waste management



**500+ active members**

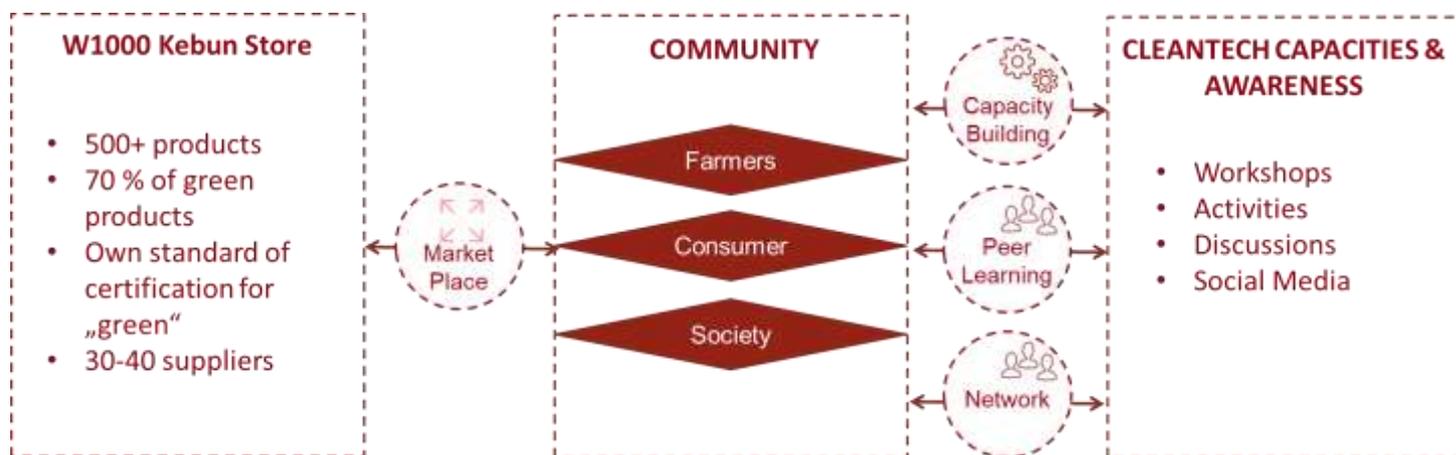


**Focus in Bandung & across Java**

**Interact directly with SMEs**

- ✓ Community building
- ✓ Capacity building
- ✓ Market place

### INTERMEDIARY MODEL



### INVESTMENT HISTORY



- Received financing from an angel investor with 70 mio IDR with payback 2 years
- Make 1 bn IDR turnover (mainly online) which is reinvested in Komunitas

### CHALLENGE

- Shift towards green products only in the W1000 Kebun Store from currently 70%

### BEST PRACTICES



Building an inclusive cross-generational community



Raising awareness for cleantech for all stakeholders from farmers and suppliers to consumers



Making cleantech and organic farming a trend and movement

# Case Study



## KOMUNITAS ORGANIK INDONESIA (KOI) - Chapter Bandung

Komunitas KOI promotes the application of cleantech practices across their network of producers. The intermediary supports the collaboration between farmers to market their organic and all-natural products through small shops, retail agreements with supermarkets and marketplace events.



*"We are witnessing an increasing demand for green and organic products."*

### ORGANISATION PROFILE



**Intermediary (Komunitas)**



**Started in 2010**



### Promote healthy lifestyles based on cleantech

- ✓ Organic product sale
- ✓ Regular marketplace events
- ✓ Product assessments



**Growing number of members each year**



**Nationwide activities across Indonesia**

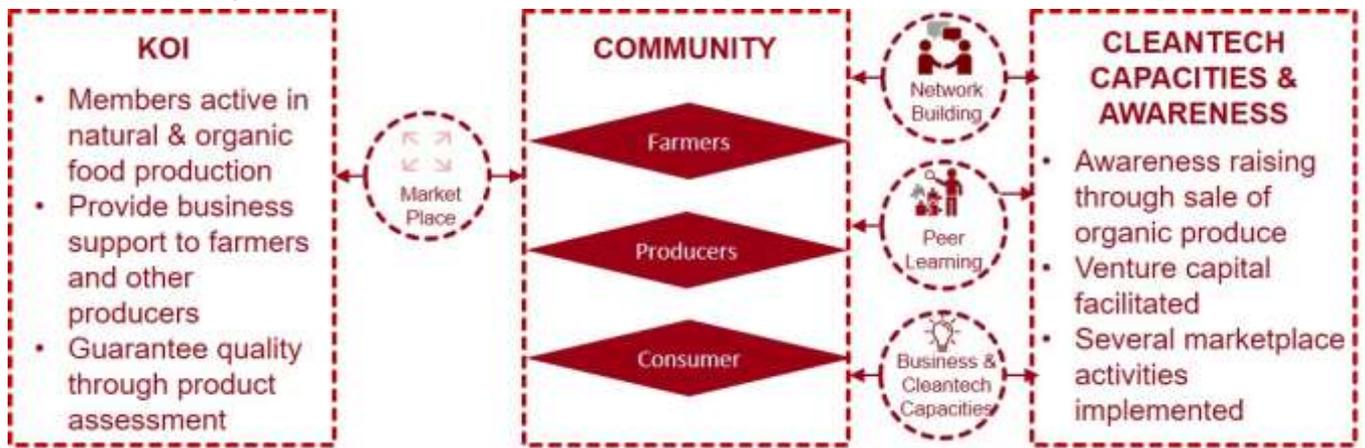


### Interact directly with SMEs

- ✓ Community building
- ✓ Business support
- ✓ Finance facilitation



### INTERMEDIARY MODEL



### INVESTMENT HISTORY



- Members typically financed by venture capitalists (500 million - 1 billion IDR per member)
- KOI has indirectly facilitated finance by being an intermediary between investor programmes and members

### CHALLENGE



- No legal standards for food quality
- Limited government incentives to introduce legal standards across sectors
- Lack of consumer awareness about the benefits of healthy products

### BEST PRACTICES



Providing producers with market access contributes to meeting & increasing the demand for healthy products



Regular product assessments guarantee quality standard of green products

# Case Study



## YAYASAN RUMAH ENERGI (YRE)

In close collaboration with the Indonesian Ministry of Energy and Mineral Resources, YRE implements the BIRU (Biogas Rumah) programme better known as "biogas for the home". The programme aims to promote the use of biodigesters as a local, sustainable, energy source.



*"Our mission is to support Indonesian families by facilitating and enhancing access to new and renewable energy."*

### ORGANISATION PROFILE



Intermediary



Established in June 2012



50+ staff



West Java, Indonesia



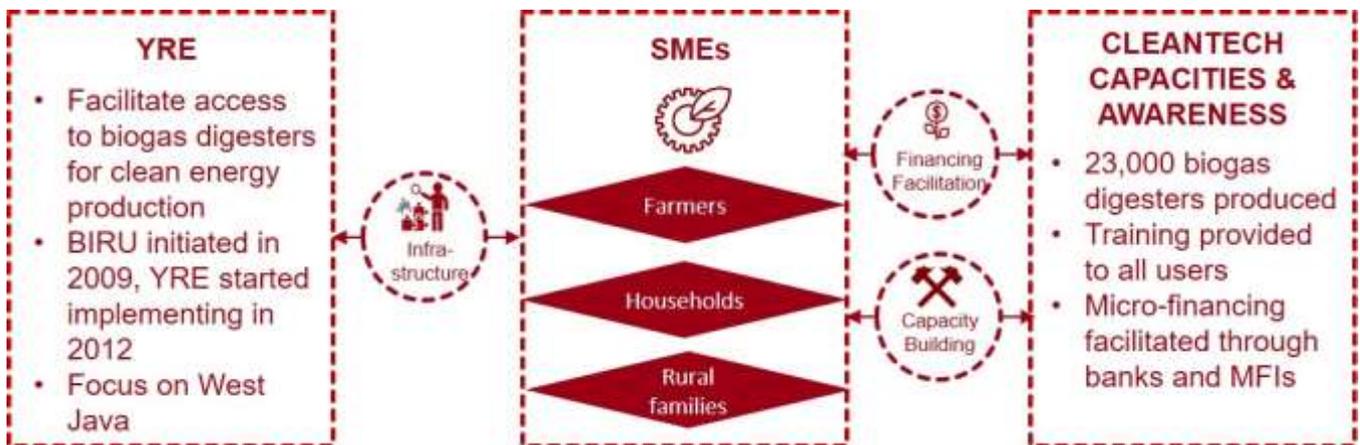
### Enable sustainable energy production

- ✓ Market development
- ✓ Commercialisation of clean energy
- ✓ Technical transfer from Nepal

### Interact with SMEs through partners

- ✓ Provide biogas digesters to farmers
- ✓ Offer local training
- ✓ Micro-loan facilitation through local banks

### INTERMEDIARY MODEL



### INVESTMENT HISTORY



- Financial support from the Netherlands Embassy
- Digesters sold at 1 million IDR per unit
- Financing needs to expand into further provinces

### CHALLENGE



- Low product quality
- Limited available micro-financing opportunities for additional income utilizing biogas
- Customer`s low willingness to pay for biogas digester

### BEST PRACTICES



Building a gender inclusive community by providing equal access for men and women to participate



Raising awareness for cleantech market opportunities among farmers, households and communities

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Lead authors: Benita Rose and Kathrin Kirsch (adelphi).

Contributing author: Mirko Zuerker (adelphi).

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