



BUSINESS
PARTNERSHIPS
PLATFORM

Impact spotlight

Scaling the production of circular bioenergy from commercial farms in Vietnam

Partners: SNV Vietnam, Nexus for Development, EGreen, HD Bank, STD & T Engineering Services Co., Chin Phat Co., and the Australian Government



Australian Government

Timeframe

August 2021

September 2024

GREEN RECOVERY

FUNDING

DFAT

\$756,951

Partners

\$2,854,528

TOTAL

\$3,611,479

In Vietnam, a transformative BPP partnership has been supporting commercial pig farms to convert excess biogas into affordable, renewable electricity since 2021.

This partnership between SNV Vietnam, Nexus for Development, EGreen, HD Bank, STD & T Engineering Services Co., Chin Phat Co., and the Australian Government has helped cut greenhouse gas emissions, lower energy costs, and create new income streams for farmers, contributing to a more sustainable and environmentally-responsible livestock sector.

The partnership has helped farms transform animal waste into renewable electricity, reduce operational costs by up to 25 per cent and cut 12,156 tonnes of CO₂ emissions over three years. By 2024, it had installed 120 biogas systems across 24 provinces, treating over 3.2 million tonnes of livestock manure annually.

It also created green jobs, supported women and young workers and improved environmental and health conditions for over 1,600 female farm staff. More than 500 full and part time generator operators were recruited and trained, including 98 women, alongside 40 student interns.

As Vietnam's livestock sector faces stricter regulations and rising energy costs, the partnership is laying the foundation for a more circular, climate smart future. With plans to install more than 450 additional biogas systems by 2028, the partnership continues to power change across Vietnam's livestock agriculture sector.



Highlights

3.2 million

Tonnes of livestock waste treated

98

Commercial livestock farms

120

Biogas generators

507

Jobs created

12,156

Tonnes of CO₂ emissions reduced



Climate Impact

Biogas-powered generators have replaced fossil fuels at large-scale farms across 24 provinces, directly reducing methane emissions and reliance on Vietnam's carbon-intensive national grid.

- **12,156 tonnes of CO2** avoided over three years
- **16,840 MWh** of electricity generated
- **3.2 million tonnes** of livestock waste treated annually
- **25% energy cost savings** for commercial farms using biogas



Socio-Economic Impact

Farmers and workers are gaining new livelihoods, higher wages and safer working environments, while communities see tangible benefits from cleaner energy and healthier conditions.

- **45%** increase in average gross income.
- **6,760** farmers benefit from reduced air pollution and decreased reliance on traditional energy sources
- **507** green jobs created (80 full-time staff and 427 part-time generator operators)
- **40** student interns trained in biogas operation and energy technologies



Gender Impact

The partnership has prioritised women's participation across technical, administrative and operational roles, ensuring women have access to training, stable jobs and safer workplaces.

- **81** women trained in cricket farming.
- **1,604** female farm workers benefited from improved environmental and working conditions
- **28** women recruited into full-time technical and administrative roles
- **98** women trained as generator operators, with ongoing efforts to improve retention



Catalytic Impact

Through national workshops and partnerships with livestock giants like BaF and Hoa phat, the partnership has positioned biogas as a core solution in Vietnam's circular economy transition.

- **120** bio-generators installed at 98 farms across 24 provinces
- **167** new generator contracts signed after public awareness events
- **Over AUD \$2.85 million** invested by the partners to scale the initiative
- **30+** articles and features across Vietnamese TV and online platforms to raise awareness

Turning waste into watts

Vietnam's livestock industry is on the cusp of major regulatory reform. In the coming decade, commercial farms will face stricter standards on waste discharge, emissions and biosecurity. At the same time, rising electricity prices will put pressure on operational costs.

The partnership offers a proactive solution: clean, on-site electricity generation using farm waste. By reducing reliance on the national grid and converting methane emissions into renewable energy, bio-generators help future-proof farms against economic and regulatory risks while delivering major environmental and social benefits.

With climate-smart technology, circular waste solutions and a growing carbon credit pipeline, the partnership is well-positioned to support the next generation of sustainable livestock farming across Vietnam.



What's next?

The partners aim to:

- Install 450+ new biogas systems on commercial farms
- Generate over 70 MW of clean, renewable energy
- Expand access to carbon markets and reduce emissions at scale
- Attract millions in private investment to scale circular agriculture
- Create more green jobs and training pathways for youth and women.