



IMPACT REPORT 2021

CONTENTS

INTRODUCTION	03
KEY IMPACT FIGURES	04
LETTER FROM EXECUTIVE DIRECTOR	06
<u>1</u> Supporting Carbon Emission Reduction Projects in Southeast Asia by Facilitating Access to International Carbon Markets	07
<u>2</u> SME Lending for Clean Energy & Clean Water Access in Southeast Asia	15
<u>3</u> Knowledge sharing and consultancy activities	20
<u>4</u> Financial results	26

INTRODUCTION

In 2021, Nexus for Development continued to support access to finance for projects and social enterprises that provide clean energy and water access development across Southeast Asia.

Whether by helping projects to access international carbon finance markets, through direct lending to support the growth of social enterprises, or with feasibility assessments and pilot studies that increase understanding of effective interventions, Nexus for Development's impacts were felt throughout the region. Over the year, Nexus for Development increased its activities, deepened its partnerships and achieved significant results in a challenging environment. The following report outlines our most significant accomplishments and ongoing initiatives in 2021.

KEY IMPACT FIGURES



1,534,992

USD unlocked in 2021

30 projects

within Nexus' portfolio in 2021



40% in clean water projects

05

clean water projects
(3 in Cambodia, 1 in Lao PDR,
1 in Indonesia)



60% in clean energy projects

25

clean energy projects
(18 in Cambodia, 1 in Lao PDR,
2 in Indonesia, 2 in Myanmar,
2 in The Philippines)



Reaching...



811,236
new beneficiaries



40% access to clean water



60% access to clean energy



69,855
new HH connected
to clean water



91,861
new HH connected
to clean energy



Delivering...



3,652,687
cubic meter of clean water



4,102,646
kWh of clean energy



Avoiding...



333,619 tCO₂e
of GHG emissions

Since 2009



8million +
new beneficiaries



2.8M access to clean water



5.2M access to energy



19,960,784 USD
unlocked in carbon
revenue (82%) and fund
investments (18%)



5.3 million +
VERs issued



5.4M tCO₂
emissions avoided

OUR LETTER FROM OUR EXECUTIVE DIRECTOR



As I move into the role of Executive Director at the end of a tumultuous year, I'm energized and optimistic. Despite the challenges posed by pandemic disruptions, the dedication and resilience of our staff and of the enterprises we support delivered remarkable impacts at a time when they were sorely needed.

Our team stepped up to help projects issue over 150,000 carbon credits and realize critical carbon revenues to continue to provide clean water, clean cooking and clean energy solutions to underserved communities. We structured loans to drive financing to social enterprises that saw opportunities to increase energy access for the communities they serve in Indonesia, Myanmar and the Philippines. We deepened collaboration with partners and tested new initiatives. All of these accomplishments served to reinforce the unique importance of our work and where more of our efforts are warranted.

At a time of changing market dynamics, Nexus has also begun to sharpen its strategic focus and chart its path forward. We are refining our business models within both impact investing and carbon credits, investing in staff, and inviting additional partners and investors to support our vision. In 2022, I look forward to continuing to guide those pieces into place and for Nexus to deepen its support for the social enterprises that improve lives and benefit the environment.

Laura Alsenas
Executive Director, Nexus for Development

1

Supporting Carbon
Emission Reduction
Projects in Southeast Asia
by Facilitating Access to
International Carbon
Markets





Clean Water



Water purifiers, Cambodia

Nexus continues to work closely with Hydrologic Social Enterprise Company Ltd., an enterprise based in Cambodia that produces and distributes ceramic water purifiers, primarily to marginalized communities. Hydrologic water filters replace the need to use wood or charcoal to boil water to make it safe for consumption. While boiling water helps reduce exposure to water-borne diseases, the indoor air pollution created by wood fires causes serious respiratory and heart problems, with significant impact for children and women. This fuel use also contributes to Cambodia's increasing rate of deforestation. Eliminating the need to boil water and procure fuel saves a significant amount of time that can be used to go to work, school or leisure activities. This program has a strong gender component, as most of the responsibilities of traditional boiling practices are carried out by the women or girls of households. Nexus worked closely with Hydrologic to provide access to finance from emission reduction activities. In 2021 alone, Nexus facilitated the sale of over 75,000 carbon credits to provide a steady stream of revenue to Hydrologic to drive scale and increased benefits for Cambodian communities. With the strong support provided in 2021, Nexus and Hydrologic will continue to work together in 2022 to deliver these benefits.



75,000+
carbon credits

Nexus facilitated the sale to provide a steady stream of revenue to Hydrologic

Clean Water



Water filters Lao PDR

In Laos, over 80% of households must boil their water to make it safe to drink. Despite many taking this boiling precaution, preventable illness from drinking contaminated water is still a leading cause of death for children under five. Boiling water requires the burning of wood and charcoal. Foraging for these fuels require labor and/or consumes valuable financial resources that could be used for other critical necessities. Additionally, the reliance on unsustainable harvesting practices contributes to deforestation.

TerraClear is providing access to safe drinking water through the manufacture and distribution of more than 75,000+ ceramic filters reaching an estimated 415,000+ people in over 500 villages in Laos. With its solution, they contribute to avoiding an average of 63,000 tonnes of CO2 emissions a year.



75,000+
ceramic filters
reaching

415,000+ people
in over 500 villages
in Laos.

Clean Water



Water filters Indonesia

Nazava's initiative started in 2011 in Indonesia where 88% of the population needs to boil their water to make it drinkable. Nazava water filters turn contaminated well, tap, river and rainwater into water that is safe to drink without the need to boil first. A Nazava water purifier provides households with the convenience of a free flow of drinking water in their home. Households with a water filter save money on fuel and spend less time on mundane tasks like boiling and fuel collection.

Nazava sells filters through more than 100 resellers living across Indonesia. The organization is also focused on education, working at the village level and with local organizations to train households on water purification. This approach was developed through local expertise on the ground, targeting long-lasting change in the archipelago.

By helping avoid the process of boiling water, Nazava water filters contribute to reduced GHG emissions by an average of 26,000 tonnes CO₂e per year. Nexus secured the signature of a 3-year contract for over 57,000 Gold Standard certified carbon credits on their behalf in 2020, which is still ongoing and providing critical carbon revenues to the project.



An average of **26,000** tonnes of CO₂ has been reduced GHG emissions per year



57,000
Gold Standard certified
carbon credits



Clean Cooking & Clean Energy

3

GOOD HEALTH AND WELL-BEING

7

AFFORDABLE AND CLEAN ENERGY

8

DECENT WORK AND ECONOMIC GROWTH

13

CLIMATE ACTION

15

LIFE ON LAND



Improved Cookstoves – Lao PDR



The Laos Improved Cookstove Programme is developing a market for cleaner, more environmentally friendly cooking options in Laos. Local producers receive training, while customers are saving on fuel and breathing cleaner air.

In Laos, most people cook with wood and charcoal. The result: carbon emissions, air pollution, and a significant loss of forest cover over the past two decades. However, new stove designs and market models are opening doors for cleaner, more environmentally friendly cooking options.

The ICS project reaches 15 provinces in Laos with 2,210 retailer shops selling the Improved Cookstoves (ICS) and 15 distributors. In 2021, the Laos Improved Cookstove Programme supported 24 ICS producers (including 5 women) and 5 bucket producers in the capital, Vientiane, and produced 136,403 units of ICS. The program avoids an average of 55,000 tonnes CO₂e emissions every year.



avoids an average of **55,000**
CO₂e emissions every year



Clean Energy



3 GOOD HEALTH AND WELL-BEING



7 AFFORDABLE AND CLEAN ENERGY



8 DECENT WORK AND ECONOMIC GROWTH



13 CLIMATE ACTION



15 LIFE ON LAND



ATEC

Biodigesters International Cambodia

ATEC is a social enterprise that produces and sells biogas digesters that process farm waste into both biogas and organic fertilizer. Use of ATEC's household biogas digester creates a cleaner, more hygienic home while also producing free biogas that can be used for cooking, with a significant energy cost saving mechanism. In 2020, Nexus made significant progress with ATEC on further registering and measuring the group's emission reduction activities. Nexus is currently in the monitoring and evaluation stage that quantifies the emission reductions from distributed ATEC biogas digesters. As these emission reductions accumulate, Nexus will work with ATEC to bring additional climate finance to the program. In 2021, ATEC installed approximately 400 biodigesters in rural Cambodia. Nexus's cooperation with ATEC will allow the social enterprise to deliver its products to more users throughout the country.



400
biodigesters
installed in rural
Cambodia



Clean Cooking & Clean Energy

- 3 GOOD HEALTH AND WELL-BEING
- 7 AFFORDABLE AND CLEAN ENERGY
- 8 DECENT WORK AND ECONOMIC GROWTH
- 13 CLIMATE ACTION
- 15 LIFE ON LAND



National Biogas Program Cambodia



The National Biodigester Programme (NBP) is a joint development of the Ministry of Agriculture, Forestry and Fisheries (MAFF) and the Dutch Development Organization (SNV). The program aims to disseminate different types of biodigesters and establish a thriving domestic biodigester sector in Cambodia based on a market-driven approach for sustainable energy. Nexus works closely with NBP to provide access to finance through the management of the programme’s Gold Standard carbon project. In 2021, Nexus contracted over 26,000 VERs (carbon credits, representing 26,192 tonnes of avoided carbon emissions) into the program which supports the production and installation of biogas digesters throughout Cambodia. Nexus will pursue its collaboration with NBP in 2022 to maximize the value of the service to the program.



Nexus contracted over **26,000** VERs

(carbon credits, representing 26,192 tonnes of avoided carbon emissions)



Clean Cooking & Clean Energy



7

AFFORDABLE AND CLEAN ENERGY



8

DECENT WORK AND ECONOMIC GROWTH



13

CLIMATE ACTION



E-Green - Bioenergy on commercial farms in Vietnam

On November 9, 2021, the Green recovery partnerships were officially announced by Australia's Foreign Minister, Marise Payne, during her visit to Vietnam. Among them was the partnership with Vietnamese eco-engineering company E-GREEN, HD Bank, SNV Netherlands Development Organisation, the Australian Government, and Nexus for Development, as the leading carbon project development specialist. The partnership aims to scale up sustainable electricity generation at large and medium-sized pig farms using on-site biogas to generate energy, benefiting the climate and reducing costs for farmers. The initiative will run until August 2024.

Nexus is developing the carbon project component of the partnership which will connect the on-the-ground activities to international carbon markets to drive revenue to the partnership.

Biogas projects are key in the region to tackle emission reductions, which make them good candidates for the carbon market. Beyond climate mitigation, these projects offer substantial co-benefits for local communities by improving health and well-being and supporting economic development. This biogas carbon project would be the third of its kind under Nexus' carbon assets management.

2

SME Lending
for Clean Energy &
Clean Water Access in
Southeast Asia





Clean Cooking & Clean Energy

7



8



13



Sumba Sustainable Solutions (3S)

On the remote island of Sumba, Indonesia, over 250,000 people do not have access to electricity. These are among the country's poorest people, and many rely on kerosene for lighting and firewood for cooking. Without access to productive equipment, farmers process goods by hand, which is very inefficient and time-consuming.

Nexus, as a Kiva Field Partner, raised USD 25,000 through the crowdfunding platform for Sumba Sustainable Solutions (3S), to finance working capital to distribute solar home systems and Capex to increase its bamboo processing capacity.

In addition to the \$25,000 Kiva loan, 3S received \$22,000 from New Energy Nexus, an incubator and investor sponsoring renewable energy companies. Thanks to this combined investment, 3S will electrify 5,000 households in the next three years, install 50 solar-powered appliances and build a new bamboo treatment plant to meet the growing demand for its bamboo products.



\$25,000

Kiva loan



5,000 households

will electrify from 3S in the next three years



50 solar-powered appliances install



Techno-Hill Engineering

Techno Hill



On the 800+ remote islands of Tanintharyi state in Southern Myanmar, over 80,000 households still lack access to electricity from the national grid, relying instead on polluting diesel generators. Since the military coup in February 2021, fuel prices have escalated and the need for renewable energy is even more urgent.

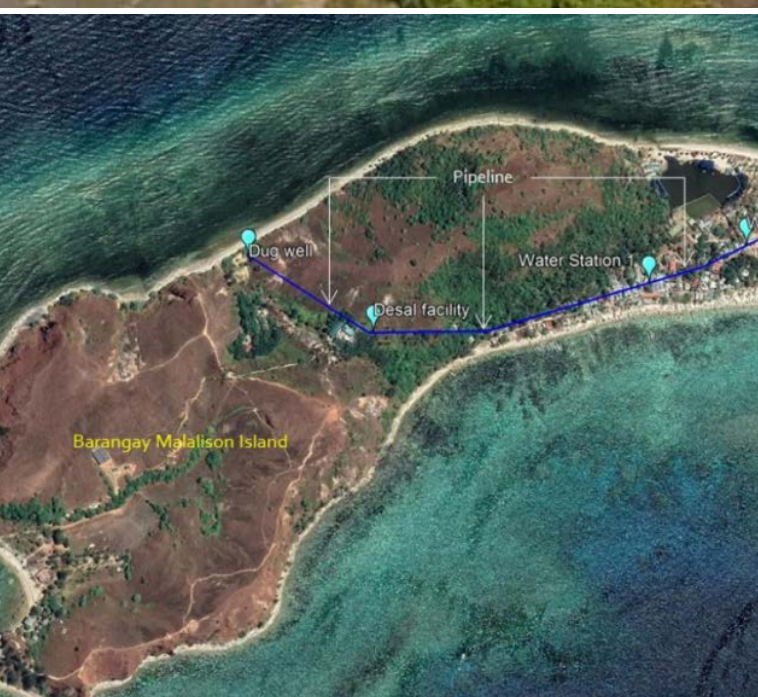
Nexus, as a Kiva Field Partner raised USD 50,000 for Techno-Hill through 1227 Kiva lenders to complete 2 micro-grid projects in rural Myanmar. These 60kW systems will provide clean energy for 2,250 people while avoiding over 200 tons of CO₂ per year. Coming amidst a political crisis, this relief funding is crucial for the company to keep delivering vital and more affordable energy.



provide clean energy for
2,250 people
in rural Myanmar



avoiding over
200 tonne of CO₂
per year



OREEi

In the Philippines, there are still 1,700 islands without reliable access to clean energy and clean water solutions. OREEi's pilot project on Malalison island is demonstrating how these challenges could be overcome step-by-step, from providing access to renewable energy to developing productive use of renewable energy.

On the remote island of Malalison, the community still relies on rainwater catchments during the rainy season and purely on plastic bottles imported from the mainland during the dry season. Through a small-scale solar-powered water desalination plant, the water will be three times cheaper than imported drinking water. This solution will directly improve health and sanitation in the community while avoiding plastic waste from bottles and alleviating social tensions that may arise from the management of a scarce freshwater resource on the island.

Through the Kiva platform, Nexus raised USD 50,000 for OREEi from 1,316 Kiva lenders to build a solar-powered water desalination plant and provide clean water to the Malalison island community of 200 households.

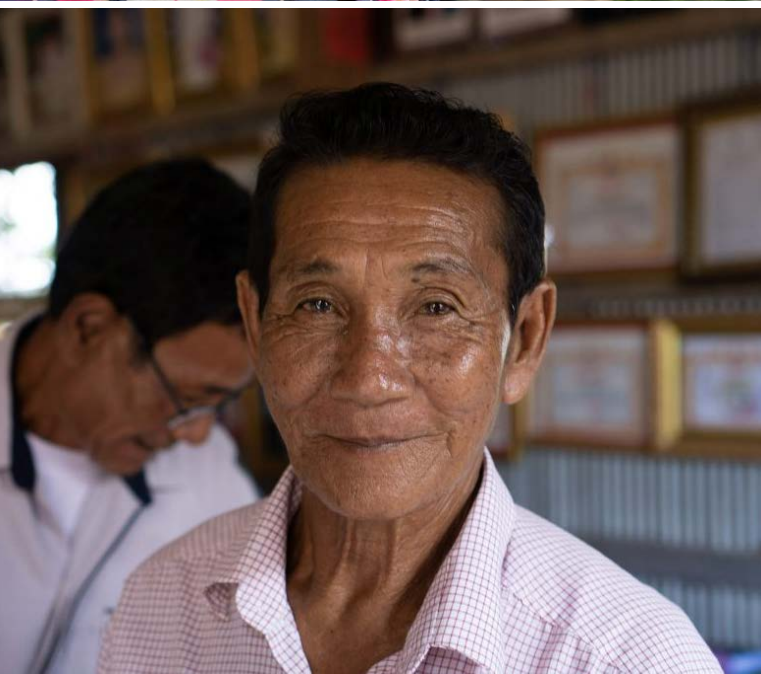
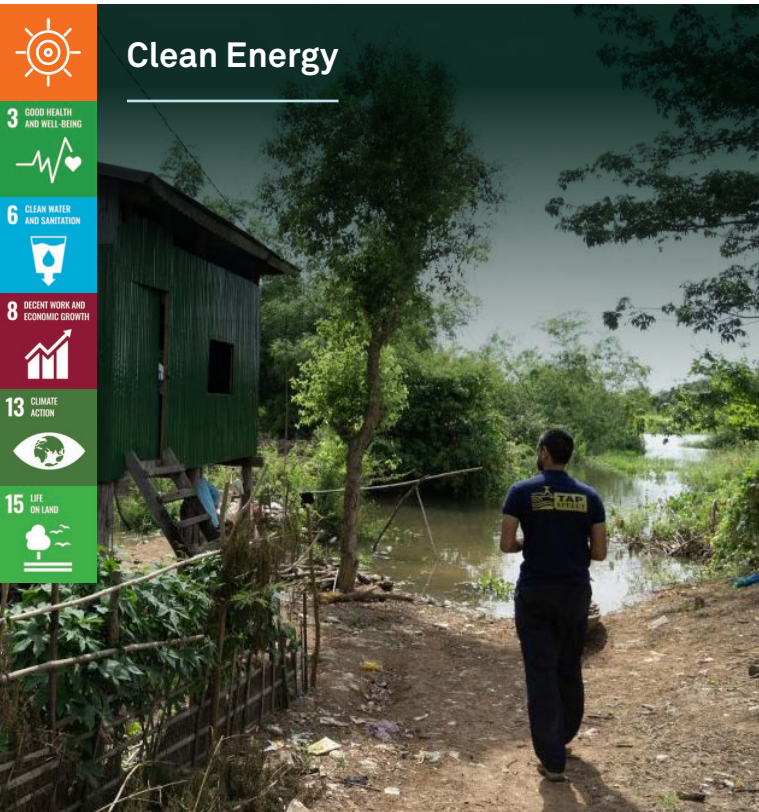
Over 3 years, the plant is expected to supply 6,000 m³ of drinking water and generate over USD 38,000 in income for the women entrepreneurs managing the distribution.



Nexus raised
USD 50,000
for OREEi

to build a solar-powered water desalination

provide clean water to the Malalison island community of 200 households



Clean Water

In 2021, Nexus continued to support vital water projects in Cambodia through two water facility companies within the Pioneer Facility's portfolio. KWSH, which Nexus started supporting in 2019, was able to connect 2,219 new households to piped water. Over the year, the company supplied over 71,000 people with 2.1m cubic meters of clean water. Nexus also added TapEffect – another water infrastructure developer based in Cambodia - to its project portfolio in 2020. TapEffect has been able to build a water treatment plant and a piping network in Banteay Mean Chey province. As of December 2021, and despite some difficulties experienced because of Covid-19, the company was able to connect over 850 households, 12 schools and both health care centers in the communes where TapEffect is present.



2,219 new households
able to connect to piped water



71,000 + people
with 2.1m cubic meters of
clean water

3

Knowledge sharing and consultancy activities



EMPOWER: WOMEN FOR CLIMATE-RESILIENT SOCIETIES PROJECT



As key contributor to the EmPower project¹ in Cambodia, Nexus for Development worked with the National Committee for Sub-National Democratic Development Secretariat (NCDD) and the UN Environment Program (UNEP) teams to conduct scoping and prefeasibility studies in 2019 and 2020. Through this work, several potential livelihood options using renewable energy to power small scale business options for women and women-led enterprises in Cambodia were identified. Expanding on this earlier work, in 2021 Nexus completed feasibility studies for the six preselected livelihood interventions: (1) solar chicken incubation for Tram Kak commune, (2) solar electricity for clean water social enterprise for Pou Pir village, (3) solar individual water pump for vegetable cultivation, (4) solar community water pump for rice cultivation for Bakan village, (5) retail of clean energy products, and (6) cold storage technology. These feasibility

study reports were submitted to UNEP/NCDD. In the process of conducting this study, we met with and surveyed NCDD's staff, farmers, technology providers, and financial institutions for data collection and a deeper understanding of potential impacts of these projects.

Nexus also designed a financing mechanism to promote easier access to finance for renewable energy and women-led businesses. We launched a consultation with Cambodian financial institutions ("FIs"), technical providers, and other industry partners to discuss how to remove barriers to fostering a climate-resilient society where women play an important role.

Finally, to support further scale-up of the project, we authored a handbook for capturing the experiences and lessons learned from conducting the scoping, pre-feasibility, and feasibility studies across different technologies

and provinces. The handbook identified an effective and sustainable model for project development that is relevant to a broad group of stakeholders who may engage in future project assessment, development, and implementation in other provinces and communes –namely technology providers, women beneficiaries, and public and financial institutions.

The project has moved to its implementation phase under NCDD's leadership. Four interventions have already been implemented:

- a solar individual water pump for vegetable cultivation;
- a 2-in-1 solar system designed for both the irrigation of vegetables and chicken egg incubation; and
- a solar electricity system for a clean water social enterprise.



The clean water social enterprise also benefited from a loan with the Agriculture Development Bank under a MoU signed with EmPower, based on the proposed financing mechanism.

Despite the COVID-19 situation, NCDD also managed to arrange ten workshops throughout the year, with the SHE Investment team training 120 women on business and financial literacy through two programs designed to improve the women's capacity and open doors to economic opportunities.

The other interventions are planned by NCDDs for 2022 and, as part of project monitoring, the impacts of the implemented livelihood interventions will be assessed and measured by Nexus to evaluate the number of women who directly benefit from the implemented livelihood interventions; the number of enterprises supported by the program; the amount of savings; and the amount of greenhouse gas (GHG) emissions avoided (tCO₂e).



¹ EmPower – Women for Climate Resilient Societies project (EmPower) is a joint initiative project between UN Women and UN Environment (UNEP), with support from the Swedish International Development Cooperation Agency (Sida). The project is implemented throughout the period 2018 – 2022 and focuses on Bangladesh, Cambodia and Vietnam. It engages many governmental, non-governmental and civil society organization partners as detailed in <https://www.empowerforclimate.org/en> Annual Report 2021 nexusfordevelopment.org

EMPOWER: WOMEN FOR CLIMATE-RESILIENT SOCIETIES PROJECT

In July 2021 International Development Enterprise (iDE) Cambodia, in partnership with Nexus for Development, received the mandate from the Cambodia Climate Change Alliance (CCCA) to undertake its proposed project to scale pilots to accelerate the uptake of efficient electric cooking appliances to mitigate climate impacts through avoided deforestation and reduced emissions.

The project builds on iDE Innovation Labs' previous pilots involving market testing of a range of electric cooking products with various marketing and behavior change approaches, and Nexus' expertise in carbon project development and financial mechanisms.

In this capacity, Nexus will qualify and quantify the accompanying positive climate benefits through avoided deforestation and reduced emissions and identify financing mechanism(s)



to incentivize the transition to electric cooking in Cambodia.

The project will test the uptake of new technology: the magnetic induction stoves developed by ATEC*, combined with their PAYGO financing mechanism. These activities, initiated in 2021, will continue throughout 2022.





CONNECTING THE CAMBODIAN ENTREPRENEURIAL ECOSYSTEM

Nexus also participated in the Entrepreneurial Ecosystem Facilitation project organized by Swisscontact, Khmer Enterprise and EuroCham entitled “Give a Day”. The pilot brought together Ecosystem Support Organisations (ESOs) for periodic meetings during which ESOs acknowledged common challenges in helping start-ups, shared areas of expertise, and laid the groundwork for future collaboration. Through these exchanges, the participating organizations promoted Cambodia’s entrepreneurial ecosystem by fostering meaningful peer learning, voluntary exchanges and collaboration among actors. Nexus was an active participant and provided feedback and discussed steps that could be taken collectively to build a stronger, healthier ecosystem in Phnom Penh. The program will continue in 2022.

4

Financial results

After generating extraordinary revenue in 2020 based on selling carbon credit inventories, 2021 represented a drop in income. Leveraging our prior year's success, we began investing in staff and developing new projects. The result was a loss for the year but sets the path for future growth and financial sustainability.



Statement of Comprehensive Income

For the Year Ended 31st December 2021

	2021 US\$ Unaudited	2020 US\$ Audited
Revenue	1,105,948	5,258,540
Cost of sales	(860,712)	(4,456,828)
Gross Profit	245,236	801,712
Other income	114,797	160,649
Less: expenses		
Administrative expenses	(51,300)	(53,457)
Employee compensation	(318,992)	(280,648)
Operating expenses	(24,114)	(27,295)
Total comprehensive gain for the year	(34,373)	600,961



Statement of financial position

As at 31 December 2021

	2021 US\$ Unaudited	2020 US\$ Audited
Assets		
Current assets		
Cash and bank balances	932,177	986,367
Trade and other receivables	75,329	193,974
Funds held in trust - Net assets	657,689	595,071
Non-current assets		
Plant and equipment	4,030	3,554
Right-of-us- assets	14,321	26,173
Total assets	1,683,546	1,805,139
Liabilities		
Current liabilities		
Trade and other payables	345,418	481,550
Lease liabilities	12,249	11,740
Non-current liabilities		
Amount due to member	148,209	148,209
Lease liabilities-non current	2,618	14,867
Total liabilities	508,494	656,367
Net Assets	1,175,052	1,148,771
Funds		
Accumulated deficit	510,187	544,560
Funds held in trust	664,865	604,211
Total Funds	,175,052	1,148,771

Funding Received and Distributed

Funding received

Funds received from carbon sales	859,992	4,457,383
Total grant funding received	25,000	80,900
Total funding repayments from projects	66,078	178,879
Consultancy fees	66,078	23,194

Service provided, and funds distributed

Carbon funds distributed to projects	719,901	3,792,553
Technical assistance services provided to members	80,864	-
Funds disbursed, and financial services provided	273,462	157,774



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