



Accelerating Investment
for Climate and Clean Energy

Progress Report 2019

Private Financing Advisory Network



UNITED NATIONS
INDUSTRIAL DEVELOPMENT ORGANIZATION

REEEP®

PFAN is hosted by UNIDO and REEEP.



The United Nations Industrial Development Organization (UNIDO) is the specialized agency of the United Nations that promotes industrial development for poverty reduction, inclusive globalization and environmental sustainability.

As of 1 April 2019, 170 States are Members of UNIDO. They regularly discuss and decide UNIDO's guiding principles and policies in the sessions of the Policymaking Organs. The mission of UNIDO, as described in the Lima Declaration adopted at the fifteenth session of the UNIDO General Conference in 2013, is to promote and accelerate inclusive and sustainable industrial development in Member States.

REEEP

The Renewable Energy and Energy Efficiency Partnership (REEEP) is an international non-profit based in Vienna, Austria. REEEP designs and implements tailor-made financing mechanisms, utilising targeted injections of public funding to build dynamic, sustainable markets and ultimately make clean energy and energy efficiency technology accessible and affordable to all. REEEP invests primarily in disruptive approaches led by small- and medium-sized enterprise (SME) players in low- and middle-income countries, facilitating market- and community-led energy transitions.

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1. Introduction

PFAN's global network of expert consultants provides free business coaching and investment facilitation to entrepreneurs developing climate adaptation and clean energy projects in low- and middle-income countries.

Initiated by the UNFCCC and the Climate Technology Initiative in 2006, PFAN bridges the gap between promising entrepreneurs who may not speak the language of international investors, and international investors who have difficulty finding good opportunities in low- and middle-income countries.

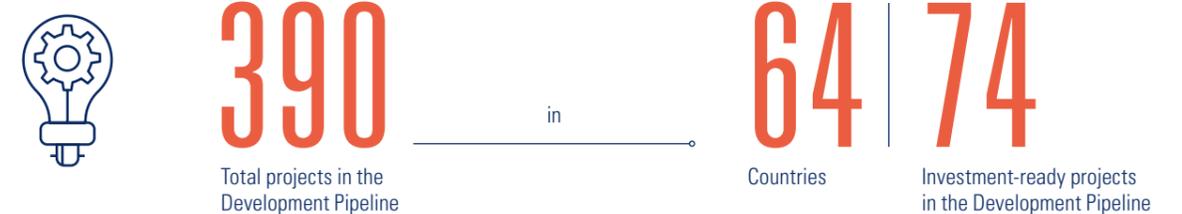
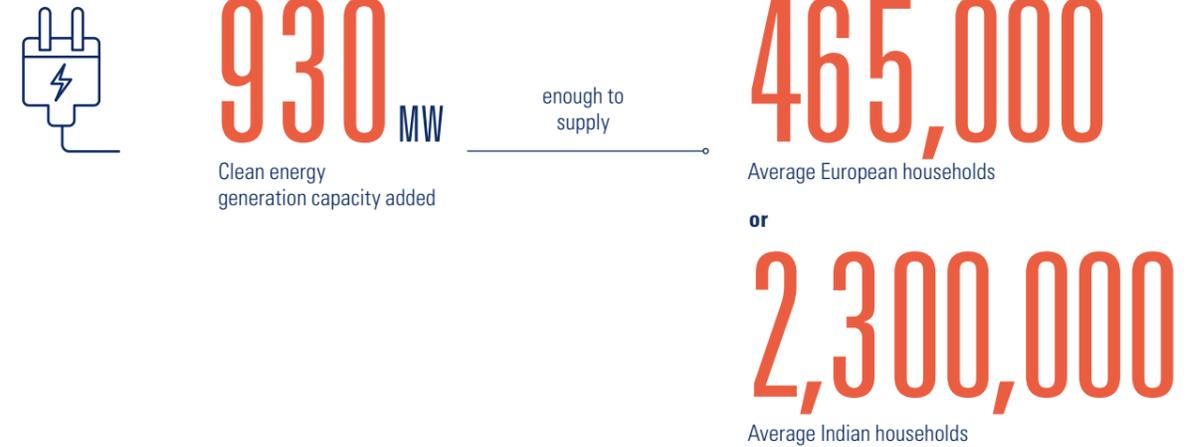
Though our global mission is to mobilise private investment for climate change adaptation and mitigation, in support of the Paris Agreement on Climate Change and the Sustainable Development Goals, in our day-to-day work we are driven by our determination to help promising entrepreneurs succeed.

In 2019, PFAN continues its journey to scale up its activities and reach more project developers in more countries. PFAN now accepts applications year-round from 122 countries in Asia, Central America and the Caribbean, Eastern Europe and Central Asia, Sub-Saharan Africa and the Pacific. We have stepped up our gender mainstreaming efforts (see section 6 for more information) and renewed our focus on supporting projects which provide climate change adaptation benefits, opening PFAN up to a whole range of new sectors and technologies (see section 5).

“
PFAN helps me to build a pipeline, and do some of the heavy lifting so I don't have to do it. You see a lot of projects coming through that are half-baked, but with PFAN projects, they're fully baked and you just have to look at the financials and cross the t's and dot the i's, then you are ready to go.

– Godfrey Mwindaaare
 Partner at Aavishkaar Africa Fund

PFAN in Numbers



*from inception in 2006 until January 2019

2. PFAN in Context

As technology prices continue to fall, clean energy projects become more profitable and the appetite of investors for such projects grows, now is a time of enormous potential for the development of clean energy capacity around the world. PFAN helps investors tap into this potential to expand energy access, reduce damage to the environment, combat climate change and grow local economies.

A rapid scale-up of investment in clean energy generation capacity is required to replace energy generation based on fossil fuels and avoid the worst impacts of climate change. At the same time, significant investment will have to flow towards increasing the resilience of vulnerable populations and helping them to adapt to the changes already here and those still to come. Governments alone will not be able to provide enough investment to achieve the impact required.

Unlocking private sector finance in support of climate action is one of the main challenges that governments, international organisations and development banks have been grappling with since the Paris Agreement entered into force.

PFAN has been tackling this challenge since 2006, using small amounts of public funding to leverage large amounts of private sector investment for clean energy and climate adaptation projects in low- and middle-income countries.

While combating the causes and impacts of climate change is our ultimate goal, in its day-to-day work PFAN is driven by a desire to help entrepreneurs succeed. We know that getting a project off the ground is difficult; we are aware of the barriers to finding investment that project developers face. Helping entrepreneurs overcome those barriers to fulfil their potential and contribute to climate change adaptation and mitigation is what motivates us.

The most visible results of our work are the 112 projects thus far that have found investment, and the resulting biomass power plants, solar mini-grids, crop drying installations and many other facilities that have been built in Asia and Africa. What we are perhaps even more proud of, though, is our network of consultants, who coach our projects to investment-readiness. Many started out as project developers themselves, and some have gone on to become PFAN Country or Regional Coordinators. They receive PFAN support and capacity building where needed. Building and expanding this network of experts who help engineers speak the language of entrepreneurs and investors, based in Nigeria, Cambodia, the Philippines, Tanzania and everywhere in between, is our most important achievement.



Nadège Payet-Tisset of E-Faitou, Senegal, pitches to investors at the Global Climate & Clean Energy Investment Forum in Vienna, May 2018.
Credit: E. Prokofieff for UNIDO.



A rooftop solar installation in a business park in Accra, Ghana, installed by Translight Solar. PFAN supports Translight with coaching and introductions to financiers for scale-up capital.
Credit: CW Studios for REEEP.

3. How Does PFAN Work?

Between submitting a proposal and reaching financial close, PFAN projects undergo intensive one-on-one coaching to perfect their business plans, financial structures and investment pitches. Once investment-ready, projects may be invited to present at an Investment Forum, or receive tailored investment facilitation services.

01. Open-ended Call for Applications

Project developers are invited to submit proposals online, through PFAN's custom-built project management system.

02. Project Selection

A minimum of two expert evaluators assess the maturity, viability and climate change mitigation and adaptation potential of each project, and make a recommendation for acceptance or rejection.

03. Pipeline Induction

At this stage, each project is assigned a coach, usually based in the same country. Coaches are selected from PFAN's global network of clean energy and climate adaptation financing experts.

04. Investment Facilitation

Investment-ready projects are placed in the Investment Facilitation stream, where they benefit from one-on-one support by the Investment Facilitation Team, including targeted introductions to investors.

05. Long-Term Development Pipeline

Projects that are not yet investment-ready are placed in this stream, where they receive coaching for as long as it takes them to reach investment-readiness. After finishing their coaching process, they can be moved into the Investment Facilitation or Investment Forum streams.

06. Climate & Clean Energy Investment Forum

Projects on the verge of investment-readiness can be selected for participation in a Climate & Clean Energy Investment Forum, where developers get the chance to pitch their business plans directly to a room full of investors. In the run-up to the Forum, these projects receive intensive coaching to perfect their business plans and investment pitches.

07. Audit by Investment Facilitation Team

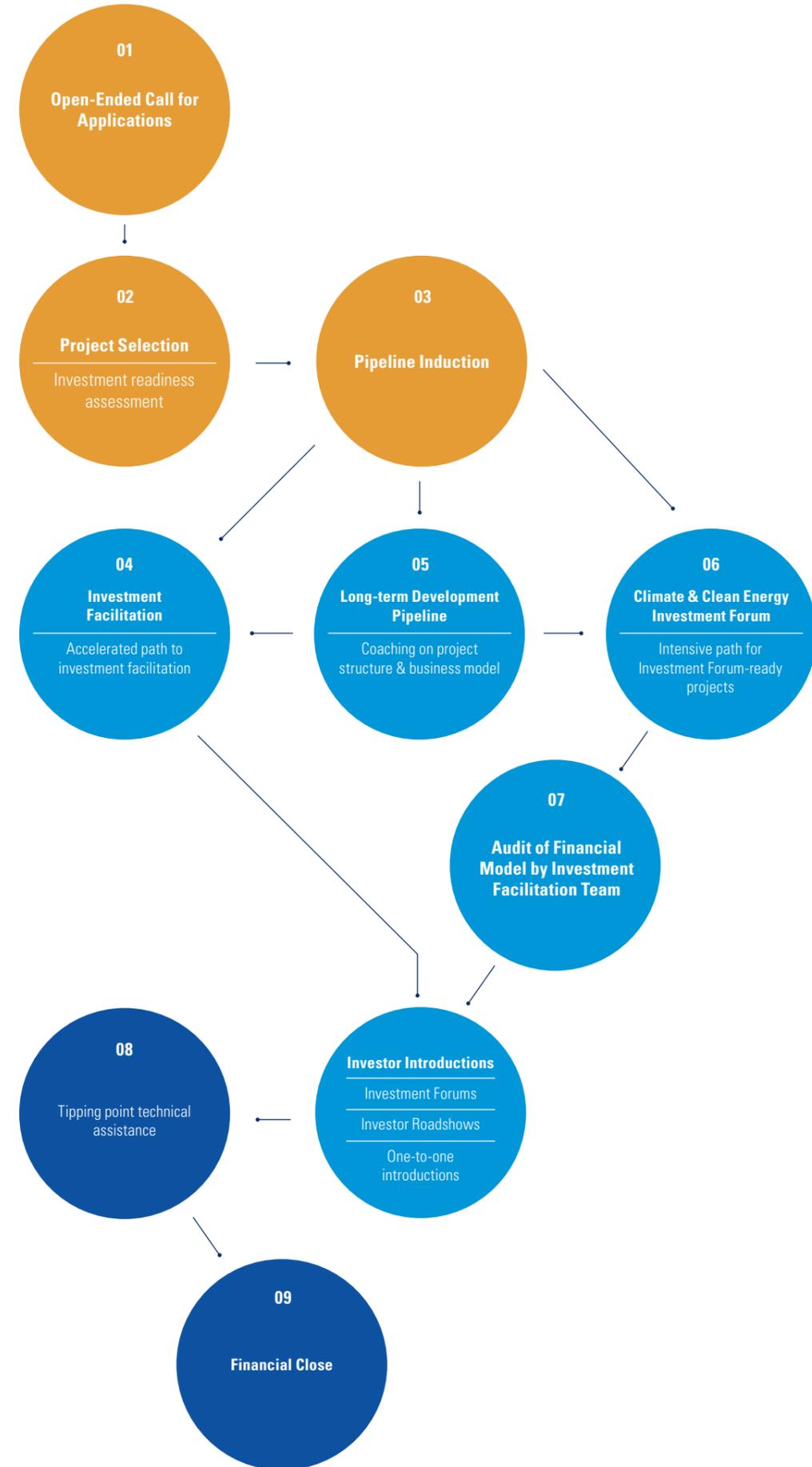
Before progressing to the forum, each project's financial model is audited by the Investment Facilitation Team to confirm its viability and the project's investment-readiness.

08. Tipping Point Technical Assistance

This is late-stage technical assistance a project developer can request when an interested investor has been found, to be used to remove final barriers standing in the way of investment. This assistance can take the form of a legal opinion, technical review or engineering feasibility report. It can also be used to support due diligence and meeting of conditions precedent.

09. Financial Close

The PFAN coach supports a project until one or more deals have been closed for the full amount of the investment asked.



project origination

project development pipeline

4. PFAN in 2018

In 2018, the PFAN Project Development Pipeline underwent extensive consolidation and quality control, which resulted in a lower total number of projects, but a higher overall quality.

Key Statistics

ELEVEN

Projects raised investment

8

of which

Projects raised investment through direct PFAN investment facilitation

3

Projects supported by PFAN raised investment through other avenues

142,500 t/yr

CO₂e emission mitigation potential

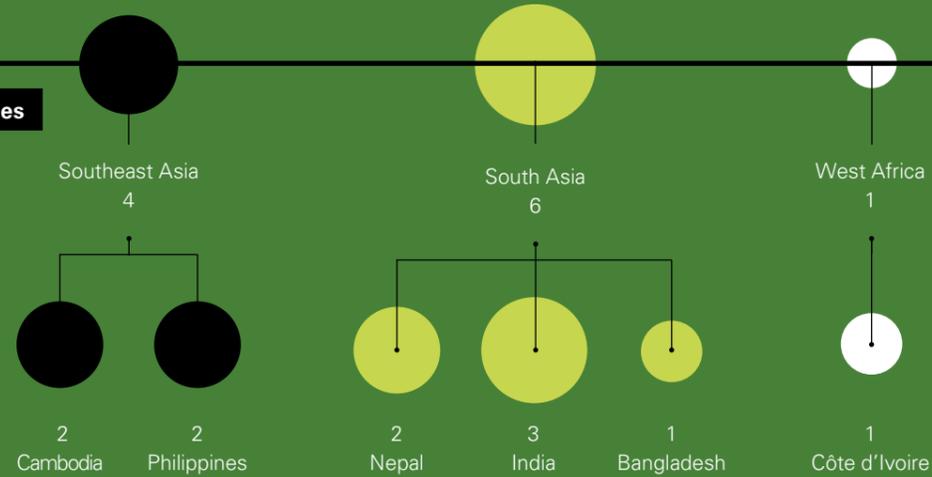
US\$ 215,786,935

Investment leveraged

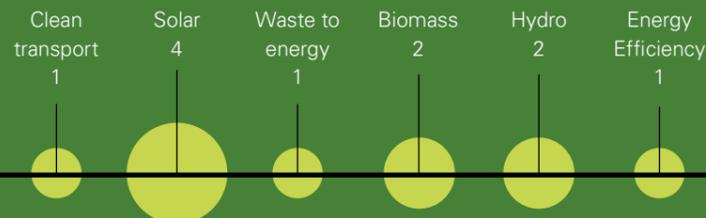
64

Projects added to pipeline

Regions and Countries



Technologies



Events

Mini-Forums/PFAN-facilitated Partner Forums:

Philippines:



Deep-Dive Workshop on Women Entrepreneurship in Clean Energy:
Asia Clean Energy Forum, Manila, 8 June 2018

Singapore:



PowerACE Start-up Competition:
Asia Clean Energy Summit, Singapore, 31 October – 2 November 2018

South Africa:



Catalyzing Investment for Young SMEs:
Africa Investment Forum, Johannesburg, 7-9 November 2018

Forums held

8th

Asia Forum for Climate & Clean Energy Financing:
Singapore, 2 February 2018

3rd

West Africa Forum for Climate & Clean Energy Financing:
Abidjan, 12 April 2018

2nd

Global Climate & Clean Energy Investment Forum:
Vienna, 16 May 2018

2nd

Investment Forum: Sida-PFAN Initiative for Climate & Clean Energy Financing:
Nairobi, 31 May 2018

People

Country Coordinators recruited since January 2018

32

of which

7

women

Country Coordinators

In the following countries

Asia

Bangladesh, Cambodia, India, Indonesia, Thailand, Nepal, Philippines, Sri Lanka, Vietnam, Pakistan, Malaysia, Myanmar

Africa

Côte d'Ivoire, Ghana, Nigeria, Senegal & Guinea, Mali, Togo & Benin, Sierra Leone, Liberia, Burkina Faso, South Africa, Zambia, Tanzania, Mozambique, Malawi, Kenya, Namibia, Rwanda

Eastern Europe & Central Asia

Kazakhstan, Georgia & Azerbaijan, Moldova

Members (coaches) gained since January 2018

44

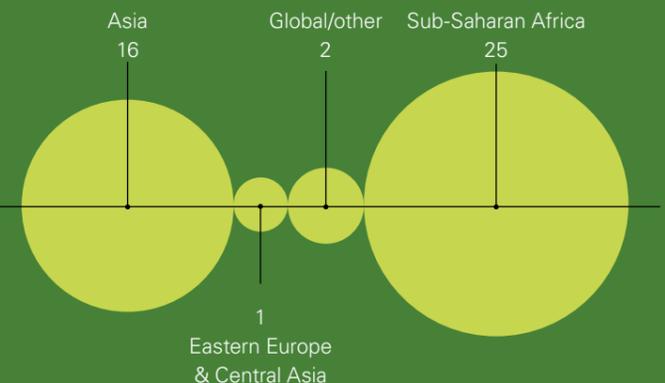
of which

11

women

Members

In the following regions



5. Climate Change Adaptation in Focus



On the outskirts of Accra, Ghana, Dominic Addae secures a load of plastic to his trailer. The plastic will be taken to a sorting facility managed by Environment360. This project, supported by PFAN, employs waste pickers to collect and sort waste plastic, which it sells on to national and international markets. This provides a steady source of income for hundreds of locals, and removes harmful plastics from the environment.
Credit: CW Studios for REEEP.

To highlight the role the private sector, including businesses and investors, can play in climate change adaptation as well as mitigation, PFAN has renewed its focus on supporting projects that deliver adaptation-related and climate resilience benefits in low- and middle-income countries.

Entrepreneurs and investors around the world are becoming increasingly aware of the fact that it is possible to develop commercially viable projects that contribute to climate change mitigation.

In contrast to this, much less emphasis has been placed on developing and sourcing investment for commercially viable projects and businesses that contribute to climate adaptation and resilience. PFAN will address this gap by seeking businesses in various sectors which offer opportunities for commercially viable projects to deliver climate adaptation benefits, by reducing climate vulnerability or increasing the resilience of populations to the effects of climate change.

In 2019, PFAN has begun soliciting applications from businesses that deliver adaptation-related benefits to their communities and will be highlighting these benefits to investors and the wider public. PFAN will support projects in the clean energy sector but also in agriculture, infrastructure, water, tourism, insurance and others. Examples of eligible projects include those that increase the resilience of farmers by providing them with extra income; projects that reduce the ecological and

water footprints of agriculture or industry, thereby reducing pressure on scarce natural resources; and projects that enhance communities' capacity to recycle waste and turn it into economic opportunity.

In the coming years, we hope to support many such projects, to demonstrate how the private sector can contribute to climate change adaptation where it is most urgently needed.



Kwame Agyako-Agyeben is an expert in charcoal production working with the Kumasi, Ghana-based Millennium Development Institute on a sustainable charcoal project. Using only off-cuts from the forestry industry and other waste materials, the project reduces deforestation. Its product is cheaper and burns more cleanly than regular charcoal, reducing the risk of respiratory issues associated with cooking on open fires. "I'm looking forward to PFAN helping me to produce a business plan that will be attractive to investors. I know [this] to be a great business."
Credit: CW Studios for REEEP.

6. PFAN Gender Mainstreaming



The four finalists of the PFAN-CTCN-ECREEE Call for Proposals for Women-Led Businesses in West Africa, Lara van Druten, Managing Director of the Waste Transformers; Nadège Payet-Tisset, Project Development Manager, E-Faitou; Hannah Kabir, Founder and CEO of CREEDS Energy Ltd and Frederique Sheridan, General Manager at VITALITE Senegal, pose with PFAN Gender Ambassador Sabera Khan at the Climate & Clean Energy Investment Forum in Vienna, May 2018.

Over the past two years, PFAN has developed and tested an extensive strategy to guide its gender mainstreaming efforts.

Broadly, PFAN aims through these efforts to ensure that:

1) Women and men have equal opportunities to benefit from and participate in its services; and

2) The projects supported by PFAN target gender impacts, to empower women and girls in their societies and to ensure equal access to and benefits from their climate adaptation and clean energy solutions for women and men.

What is Gender Mainstreaming?

Gender mainstreaming is the process of ensuring that the concerns and experiences of men and women are at the heart of all decision-making within PFAN, with the goal of contributing to the achievement of gender equality.

Women in Clean Energy Business

Though the clean energy sector employs a larger percentage of women than the traditional energy sector - according to IRENA, 32% versus 20% - women remain under represented, particularly in technical jobs. At the same time, employment

opportunities in the sector are growing and clean energy companies in emerging markets often face difficulties finding enough staff.

Women own up to 37% of the small- and medium-sized enterprises that form the backbone of emerging market economies, but women entrepreneurs are less likely than men to be able to access financing for these businesses. Women also tend to have fewer opportunities to influence decision making in their communities, and reduced access to resources including land, education, information and credit.

PFAN has the opportunity to improve this situation by supporting women climate and clean energy entrepreneurs to access financing and grow their businesses. We can also provide them with international visibility, allowing them to become role models for other aspiring women entrepreneurs. We provide capacity building to our coaches and country coordinators so that as a network, we can reach and support women entrepreneurs more effectively.

Women as Clean Energy Users

Clean energy and climate adaptation solutions can have a large positive effect on the lives of women in low- and middle-income countries: improved cookstoves eliminate the need to gather firewood and reduce indoor air pollution; electrification increases access to information through

radio, television and the internet and can also improve food security through solutions for irrigation and cooling or drying of agricultural products. All of these impacts make housework and the provision of food less time-consuming, which frees up time for women to engage in other activities. A study in Nicaragua found that in households

with electricity, women were 23% more likely to be employed outside the home.

PFAN has the opportunity to help more women access clean energy and climate adaptation solutions by building the capacity of project developers to recognise and target gender impacts with their projects.

Women in Business*

In emerging markets, women own

30-37%

of Small- and Medium-Sized Enterprises

In Africa these numbers are even higher: in Nigeria, Ghana and Zambia more than

50%

of business owners are women.

These 8-10 million women-owned SMEs have estimated unmet financial needs of

US\$ 260-320 bn.

Women in low- and middle-income countries are

9%

less likely than men to have a bank account and associated access to credit.

Women in Clean Energy

32%

of clean energy jobs are held by women.

In the traditional energy sector, just

20%

of jobs are held by women.

* Data from World Bank, IFC and the Global Entrepreneurship Monitor.

What PFAN is Doing

PFAN's gender mainstreaming efforts support goals in four different spheres where PFAN can have an impact:



Individuals

Regardless of their gender, ensure individuals have the same opportunity:

- To receive support from PFAN as a project developer; and
- To be part of PFAN as a team member, a coordinator, a network member (coach), a partner, an investor or service provider



Environment

Ensure all persons and institutions PFAN works with are made aware of the importance of gender equality, by making this a constant agenda topic and part of any evaluation discussion.



Clean Energy & Climate Adaptation

Contribute to the goal of women and men having equal opportunity to access and to benefit from clean energy and climate adaptation solutions, either as a final user or as a financial beneficiary.



Entrepreneurs

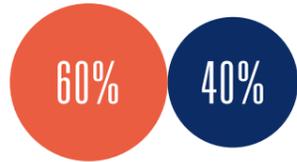
Strengthen local partnerships to support women entrepreneurs, especially to transition from the non-profit model into profitable businesses.

PFAN Gender Statistics

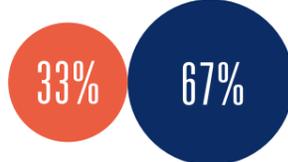
At the beginning of our gender mainstreaming journey, the PFAN team, network and pipeline do not yet all display a gender balance. Improving this balance is central to our gender mainstreaming strategy.



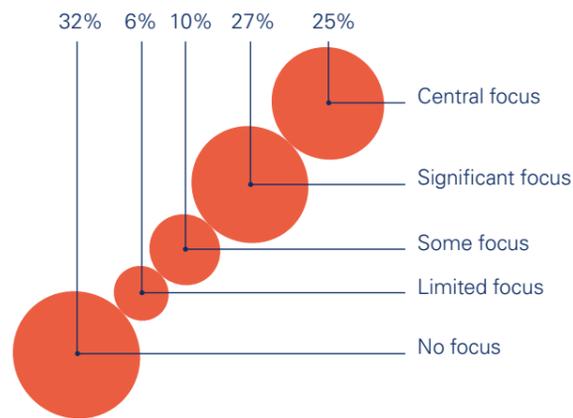
PFAN Operations Teams:
UNIDO and REEEP



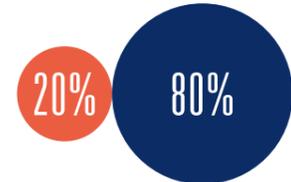
Head Developers of Projects
in PFAN Pipeline



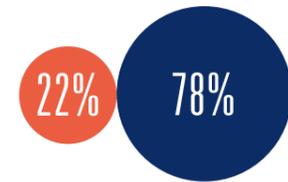
Gender Focus of Projects in PFAN Pipeline



PFAN Network Members



PFAN Country Coordinators



Entrepreneurs, judges and special guests at the 2018 Climate & Clean Energy Investment Forum in Vienna. Credit: E. Prokofieff for UNIDO.

PFAN-CTCN-ECREEE Call for Proposals for Women-led Climate & Clean Energy Businesses in West Africa

In the autumn of 2017, PFAN partnered with the Climate Technology Centre and Network (CTCN) and the ECOWAS Centre for Renewable Energy and Energy Efficiency (ECREEE) to launch a call for proposals for women-led businesses in West Africa, in support of the ECOWAS Policy for Gender Mainstreaming in Energy Access.

“
I learnt a lot about financial models and business planning, and raising finance for running a business in renewable energy. We started talking with a couple of investors who are interested in our business proposition.

– Hannah Kabir
CEO, Creeds Renewable Energy

Over 50 project applications were received, a much higher number of applications by women than PFAN receives in regular calls for proposals. This demonstrates that targeted calls for proposals, including targeted outreach activities, can be a highly effective way to encourage more women to apply. Twelve projects from this call are currently receiving PFAN support, and four pitched to investors at the 2018 Climate & Clean Energy Investment Forum in Vienna.

PFAN’s Gender Workshops at ACEF

In 2017 and in 2018, PFAN organised side events at the Asia Clean Energy Forum (ACEF) in Manila to highlight the experiences of women clean energy entrepreneurs in South and Southeast Asia.

In response to the enthusiastic reception of the event in 2017, in 2018 the Asian Development Bank and PFAN organised a larger session, including presentations by women entrepreneurs and broader discussions about the macro environment and gender lens investment.



Participants at the Deep Dive Workshop on Women Entrepreneurship in Clean Energy, ACEF 2018.

“

As a mother, I am concerned about a clean environment for my child, for my family and for my community. As a woman, I think about gender equality. I started my business in energy, so that I could bring solar energy to the communities and I could get a lot of women participation in the green energy system.

– Quynh Trang Nguyen
General Director, Hoa Phong E&C Investment and Development JSC

“

As PFAN we still have a lot of work to do. We want to say to our female entrepreneurs: be bold, be ambitious, we can help you get to where you want to be. The world needs more balanced businesses. And investors want to see more balanced businesses.

– Sabera Khan
Gender Ambassador



PFAN Gender Ambassador Sabera Khan speaks at the 2018 Climate & Clean Energy Investment Forum in Vienna. Credit: E. Prokofieff for UNIDO.

PFAN’s Gender Ambassador

The role of PFAN’s Gender Ambassador is to lead gender mainstreaming in all operations of the network and the secretariat, and to be a public face for these efforts, speaking at events and to partners about the need to provide private financing to more women in the climate adaptation and clean energy sectors. Sabera Khan, also PFAN’s Country Coordinator for Zambia, has fulfilled this role since 2016.

7. Success Stories

The projects described in the following pages all raised investment with PFAN support in the past year, and give an impression of the wide range of projects in the PFAN Development Pipeline: from Côte d'Ivoire to Cambodia, and from efficient stoves to hydro-power.

Agnisumukh Energy Solutions Pvt. Ltd.



Even game-changing ideas may go nowhere if they are not supported by a solid business model. This was nearly the case with Agnisumukh's energy efficient stoves, said the company's CEO Hari Rao. An income tax officer in his previous career, Mr Rao said it was his love for cooking that led him to investigate the common cook stoves found in Indian households, and to question the lack of innovation in cooking technologies. His investigations would lead to the development of smokeless, residue-free, noiseless and flameless industrial stoves that are more economical to use and present lower health risks to users. Initially, the stoves used half as much gas as traditional stoves. Further R&D would lead to the development of stoves which reduce gas consumption by 70% compared to traditional stoves.

-  Technology
Energy Efficiency
-  Location
India
-  Investment amount
US\$ 1,241,820

But when looking for start-up capital, numbers mean little unless they are the kinds of numbers investors want to see. It was not until the business model was reviewed to reflect the investors' interests that Agnisumukh was able to attract larger investors, refine its products and scale up.

"Every start-up goes through a period of confusion which makes it rudderless," said Mr Rao. During this period, he realised that technological innovation, however promising, was not enough; Agnisumukh also needed a solid business model to succeed. "That is what PFAN helped us with. PFAN helps turn technocrats into entrepreneurs with a strong mission and vision."

Mr Rao highlighted the coaching provided by PFAN as particularly impactful, as coach

Nagaraja Rao "made us build, brick by brick, an attractive business model first on paper and then taught us to translate it onto the ground."

Agnisumukh has grown by garnering high-profile clients in the hotel and restaurant sectors, and has increased the number of different devices it sells from two to 16 in just three years. It has spent time building its brand and improving product design. The company is now gearing up to become a "formidable global brand."

Remaining true to Hari Rao's initial interest and to its name, which means

“ PFAN helps turn technocrats into entrepreneurs with a strong mission and vision. [Our coach] made us build, brick by brick, an attractive business model first on paper and then taught us to translate it onto the ground.

– Hari Rao
CEO, Agnisumukh

'the friendly face of fire', Agnisumukh's goal is to transform lives by providing cleaner, greener, energy-efficient radiant heat cooking solutions that can be used with different gas fuels. Thanks to the investment it has raised, the company is now able to help mitigate the ill-effects of traditional cooking in commercial kitchens. And the stoves provide benefits to customers, too: the radiation and convection heat cooks food more evenly than traditional stoves, leading to less burning, better preservation of nutrients and better taste.

Singrobo-Ahouaty Hydro Power Plant

Located near the villages Singrobo and Ahouaty on the Bandama River in Côte d'Ivoire, the 44 MW Singrobo-Ahouaty hydroelectric plant (SAHP) became the first independent power project of its kind to reach financial closure in West Africa, thanks to financing from the African Development Bank (AfDB) and the Africa Finance Corporation (AFC).

PFAN supported the project in raising US\$ 59 million from AfDB. Later, the AFC followed with a majority equity investment and bridge loan facility to Ivoire

“ Today, however, it is not enough to have just power. We need a cost effective renewable and sustainable energy source so that development is inclusive and does not adversely affect the environment. The Singrobo-Ahouaty Hydropower Project achieves all of these objectives.

– Ekolan Alain Etty
Founder, IHE Holdings

Hydro Energy (IHE) Holdings for a total of US\$197.08 million.

The project, the brainchild of local entrepreneur and founder of IHE Holdings Ekolan Alain Etty and supported by shareholder Thermis, will help increase the country's overall power capacity as well as reduce generation costs, and establish Côte d'Ivoire as a leading power generator in the region.

The journey has been a long one. IHE won the business plan competition at the second West Africa Forum for Clean Energy

Financing in 2015, and has been supported by PFAN ever since.

In a statement released by the company, Mr Etty said he has seen first-hand the opportunities electrification brings to a country in nearly four decades of working as an engineer. "Today, however, it is not enough to have just power. We need a cost effective renewable and sustainable energy source so that development is inclusive and does not adversely affect the environment. The Singrobo-Ahouaty Hydropower Project achieves all of these objectives."

-  Technology
Hydro
-  Location
Côte d'Ivoire
-  Investment amount
US\$ 59,000,000



Gakaon Falls Mini Hydro Project

Hydropower is one of the oldest forms of renewable energy and one of the most affordable. Whereas large hydro projects tend to be controversial due to environmental concerns, smaller, lower-impact hydro projects are becoming increasingly attractive to investors, according to Godolivo Urbiztondo, President of Gerphil Renewable Energy. Gerphil is part of the consortium developing the 2.2 MW Gakaon Falls Mini Hydro Project. “Ten years ago, it would be difficult to find local banks willing to finance the project, but today there are government financial institutions willing to finance renewable energy projects with loans.”

Still, for small-scale projects in the Philippines, government loans come with lengthy and sluggish administrative processes, taking up to three years and requiring the sign-off of some 180 government officials.

Though legislation to fast-track the process is in the pipeline, seeking non-government funding remains an attractive alternative, if the project can reach a stage where investors will consider it.

PFAN provided critical support to get the Gakaon Falls Mini Hydro Project to this stage. “PFAN provided pro-bono technical assistance to improve relevant project documents, such as the business plan with its business model and financial spreadsheet, and make them palatable to funding institutions.”

The project is located on Mindanao, the second-largest island of the Philippines. The majority of the island’s energy is generated by coal and oil-based power plants. Just 35% of energy comes from renewable sources, despite several untapped potential hydro sites.

PFAN offered the project technical assistance to secure government permits and to gain funding from a local bank, but the most impactful support PFAN provided may have been the training to help the consortium improve its pitch to potential investors. “PFAN greatly helped us in presenting our funding requirements to investors.”

Mr Urbiztondo noted that this support was especially valuable as his team was made up of technical experts and engineers, none of whom had the skillset required to attract investment for the project. “We were very glad to have coaches who were experts in financial and environmental issues.”

Having raised the required investment, the consortium is now working towards completing construction. Local people will be prioritised for employment in construction and operation of the project. The project, Mr Urbiztondo said, will not only provide improved access to clean and affordable energy, but will also offer education and employment opportunities to local communities.

Mr Urbiztondo said PFAN’s support had been critical to help the project progress, adding that he thought that many other clean energy projects in the Philippines could benefit greatly from PFAN’s services.

“**PFAN provided pro-bono technical assistance to improve relevant project documents, such as the business plan with its business model and financial spreadsheet, and make them palatable to funding institutions. PFAN greatly helped us in presenting our funding requirements to investors.**”

– Godolivo Urbiztondo
President, Gerphil Renewable Energy



Technology
Hydro



Location
Philippines



Investment amount
US\$ 8,800,000



SURE Angeles City Waste2Worth Project



Technology
Waste to Energy



Location
Philippines



Investment amount
US\$ 33,850,115

Julia Boughton, a specialist in the evaluation of emerging technologies and their integration into high-impact sustainability projects, started her journey in the corporate world. While working in product development at Procter and Gamble, she led an initiative in support of the company’s long-term sustainability vision: stopping all consumer waste entering landfills. Inspired by this experience, she would take the idea of ‘waste to worth’ beyond corporate shores and establish a dedicated company to facilitate the use of waste as a resource.

The new company, Waste2Worth, had an ambitious plan: to build plants that would turn waste into recyclables and fuel. This plan was backed up by positive feasibility studies, initial research funding and concessions from three Asian cities. A PFAN representative heard Ms Boughton, now CEO of Waste2Worth, presenting at an Asian Development Bank conference and struck up a conversation on how PFAN could be a good fit. She was introduced to the programme and a relationship was forged with a plan to take the concept to the next level of technical refinement and get it ready for investment and construction.

“At the time we were seeking funds for front-end engineering,” explained Ms Boughton. “I was introduced to [PFAN] and told the programme could introduce us to entities which may be able to facilitate the funding.” Waste2Worth would soon be presented to the United States Trade and Development Agency, and be awarded a grant which covered three proposed waste processing facilities in the Philippines. Some of the biggest impacts of the cooperation with PFAN were that the funding obtained helped Waste2Worth complete its designs. This in turn enabled the hiring of a construction contractor and making the projects investment-ready.

The planned facility is today on the verge of commencing construction and because it is seen as one of the few “investable and ready projects in this space in Asia,” Waste2Worth has attracted attention from multiple types of financiers, including development banks, major industry players, NGOs and impact investors.

“One of our projects has already been funded and the other two have identified investors and we are going through due diligence,” explained Ms Boughton, adding that in total, the three projects will process

over 1500 tons of waste per day, converting it into valuable commodities including recycled raw materials, electricity, diesel fuel, and compressed gas. “That is why it is called waste to ‘worth,’” she said.

The initiative has great scope to grow as both the supply of waste as a raw material and the demand for the valuable end products such as electricity, fuel and gas are vast. Ms Boughton says the company wants to keep waste on land and out of the ocean and river systems. “[We aim] to keep creating value from waste as a means for creating economically viable infrastructure in places that need it the most.”

“**One of our projects has already been funded and the other two have identified investors and we are going through due diligence. [We aim] to keep creating value from waste as a means for creating economically viable infrastructure in places that need it the most.**”

– Julia Boughton
CEO, Waste2Worth

Peer-to-Peer Electricity Sharing Microgrids - SOLshare

According to SOLshare's Sebastian Groh, PFAN came "exactly at the right time". The company's business model had been developed by a multidisciplinary team as part of the Stanford Ignite Programme in 2013. The goal was to provide sustainable, affordable energy access to low-income communities in rural areas. The newly conceived business model would make use of a solar-powered decentralised peer-to-peer microgrid system and would focus



particularly on contributing to development in Bangladesh. The system integrates households with solar home systems into a community microgrid, allowing customers to sell excess electricity to their neighbours using mobile money.

The innovative system needed a solid business plan, which the team developed with PFAN support. Groh said the opportunity to work with PFAN coaches meant the business was "pushed and mentored to put a first plan in writing and step out into the world and start telling our story." PFAN helped facilitate relationships with key players in the sector. Groh said SOLshare made the most out of the PFAN coaching and support, and gained a better

“
SOLshare is committed to a new energy world fuelled by the five D's: decentralisation, decarbonisation, digitisation, democratisation and disruption.

– **Tanzila Reza**
 Marketing Officer, SOLshare

understanding of the sector and of how best it could grow its business, financial prospects and social impacts.

The company empowers communities to earn a direct income from the sun. SOLshare believes that the solar peer-to-peer grids in Bangladesh can be the future of utilities globally, explains the company's Marketing Officer Tanzila Reza. "SOLshare is committed to a new energy world fuelled by the five D's: decentralisation, decarbonisation, digitisation, democratisation and disruption."

SOLshare has thus far installed 25 peer-to-peer solar microgrids, providing electricity to more than 1,500 beneficiaries.



Technology
Solar



Location
Bangladesh



Investment amount
US\$ 2,000,000

The company will install another 100 grids within the next years in collaboration with Grameen Shakti. Before raising investment through PFAN, it won multiple grants and awards, including the United Nations Department of Economic and Social Affairs Energy Grant.

SOLshare was listed in the Global CleanTech 100 this year and has started piloting its systems in Assam, India. According to Mr Groh, the company continues to benefit from the connections it gained through working with PFAN.

Solar Green Energy Cambodia



Technology
Solar



Location
Cambodia



Investment amount
US\$ 355,000



Solar Green Energy, or SOGE, was the first 100% Khmer-managed and -operated solar company to be established in Cambodia. While other players are also active in the market, providing Cambodians with Cambodian products has been a source of pride for founder and CEO Thida Kheav. The company has been providing a range of "clean and green" solutions to underserved Cambodian communities since 2004.

Today, the company has grown from offering a small range of products to providing a broad range of services to both small- and large-scale initiatives at the national and municipal levels, something Ms Kheav says has been made possible by her experience with PFAN. "PFAN helped me to build a suitable business plan, design monitoring tools and find funding to support my project," said Kheav. She remains in contact with her PFAN coach who "still supports and coaches me on my business".

"Our business has really impacted people's lives," said Ms Kheav, explaining that in some areas where solar water pumps and off-grid solar energy solutions have been provided, communities have been able to phase out the use of diesel and petrol for domestic and agricultural purposes. "People have been really satisfied with the reduction in costs to pay for fuel."

“
PFAN helped me to build a suitable business plan, design monitoring tools and find funding to support my project.

– **Thida Kheav**
 Founder and CEO

8. Meet the Network



Peter Storey
Global Coordinator
Helsinki, Finland

At the time of PFAN's launch, Peter focused on clarifying the vision and set up of the network. As the network evolved, so too did his role, and his focus shifted to the development of the business model and network expansion. More than 360 projects later, Peter's role today is to provide guidance and general management. He still likes to stay involved in the 'nuts and bolts' of the work – something which he remains passionate about more than a decade down the line.

The structural changes that PFAN underwent in recent years have meant great growth potential and capacity to pursue new opportunities. It's Peter's job to ensure the network's branches all maintain focus. "We want to keep a very narrow range of activities and results. The market today contains a lot of noise – some of it useful, some of it not. We need to keep focus, but grow in a meaningful way by identifying key partners. It's an exciting, but challenging time."

“

The real joy is being able to help other people reach their dreams – not only in seeing their work come to life, but also in making money and having a beneficial impact on the planet by reducing carbon emissions and helping to establish a new energy paradigm for a low carbon future.

– Peter Storey



Sabera Khan
Gender Ambassador and Country Coordinator, Zambia
Lusaka, Zambia

Besides her work for PFAN, Sabera heads the Africa Carbon Credit Exchange and the Green Knowledge Institute in Lusaka, Zambia. Sabera works closely with the Southern African Regional Coordinator, connecting country-level projects to regional trends as she believes investors are keen to work with local projects that have regional outlooks.

Sabera supports the mainstreaming of gender into all aspects of PFAN's work. It is not about tokenism or ticking boxes, she says. "Teams that are well balanced make the most effective businesses. It's not just about a good feeling." Her role as gender ambassador includes advocating for gender equality in the way finance is accessed by entrepreneurs, and helping to create increased value for women beneficiaries from private sector activities.

“

We are responding to a growing investor interest in ethical, social and responsible investment opportunities, and for these you need balanced teams with men and women. We want to encourage this and tell projects that investors look for good, strong and balanced teams.

– Sabera Khan



Nagaraja Rao
Head of Investment Facilitation
Bangalore, India

Nagaraja provides investment facilitation support through transaction structuring, financial modelling, project risk identification and investment negotiations support. His role includes outreach, selection and support of clean energy projects while simultaneously seeking out investors and institutions to fund them. He provides strategic support in PFAN scale-up, market penetration and investor outreach activities.

Nagaraja has been with PFAN since 2008 in various capacities as coach, Country Coordinator and as Asia Regional Coordinator. He has coached projects in many countries in the developing world. Several of these have reached financial closure and many have won awards at PFAN Investor Forums.

Nagaraja is a Chartered Accountant from The Institute of Chartered Accountants of India. He has in-depth knowledge and decades of experience in finance and commerce. He enjoys employing this experience to bring together investors and project developers.

“

Every deserving project developer should get a timely opportunity in the markets to raise funds for their project.

– Nagaraja Rao



Albert O. Boateng
Regional coordinator, West Africa
Accra, Ghana

Albert joined PFAN as a coach in 2013. As regional coordinator, he supports project development across West Africa, covering 15 countries and more than 60 projects currently in development.

Albert's role includes connecting projects to coaches, providing guidance to the coaches, building relationships with resource partners and growing the network in the region.

Albert has a background as a financial analyst. He worked in asset management before moving into the clean energy arena, working as an investor and an advisor. He is a certified climate and renewable energy finance expert.

“

My main challenge was that there are many project developers who want assistance, and we were not able to meet the need. As part of the PFAN scale-up, we have now launched an open-ended call so that people can apply whenever they want, and we can give them the assistance they need.

– Albert O. Boateng



Wilfred Mutua Mworira
Regional Coordinator, Eastern Africa
Nairobi, Kenya

Wilfred Mworira started his career in enterprise software and worked for several local and international software houses. With a keen interest in the transformative potential of entrepreneurship, he ventured out into tech enterprise for a number of years before deciding he could have greater impact by enabling other entrepreneurs to thrive. He has since worked in various capacities providing business strategy and investment support to entrepreneurs.

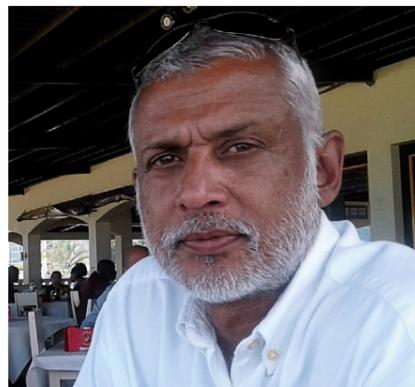
Today, Wilfred serves as PFAN Regional Coordinator for Eastern Africa, where he works to grow investment in clean energy ventures in a manner he describes as “joyfully”.

“Awareness about climate change has generally been on the rise,” he said. While most people are still not very knowledgeable about what climate change means, he said, “the curiosity is definitely there.” Investors are also curious, and there is a growing movement in the investment community, particularly international investors, towards “investing in a climate-aligned manner.” Wilfred said this shift provides great opportunities for both investors and entrepreneurs in the region.



I enjoy working with PFAN because there’s a genuineness about the organisation’s mission. It’s evident the core focus is assisting projects and entrepreneurs.

– Wilfred Mutua Mworira



Thaven Naidoo
Regional coordinator, Southern Africa
Johannesburg, South Africa

Thaven has experience ranging from the mining industry to the media and technology sectors. He first became involved in PFAN through the development of the adaptation work stream, before becoming regional coordinator. PFAN has recently renewed its focus on adaptation, a move he believes has been very positive.

Passionate about innovation and with a deep understanding of the challenges facing entrepreneurs, Thaven enjoys seeing projects grow from concept to financial close. “We’ve seen world-class, large scale projects find investment in Southern Africa, and in East Africa we’ve seen many smaller innovative projects achieve finance.” The market, he says, is full of good ideas that become great projects thanks to the guidance of PFAN’s coaches.



I find it very fulfilling to see people move forward, using the skills and advice learnt through PFAN.

– Thaven Naidoo



Rostyslav Maraikin
Regional Coordinator, Eastern Europe and Central Asia
Kiev, Ukraine

Rostyslav joined PFAN after more than 15 years working in the power sector. He coordinates operations in Eastern Europe and Central Asia – a relatively young market for PFAN and the development of clean energy projects.

“This region faces a number of challenges, which highlights the need for PFAN.” The region lacks professional support for start-ups and has a small private investor pool; banks tend to be the major financiers of renewable energy projects, and they focus specifically on solar and wind projects.

Rostyslav is tasked with growing the network through his team of coaches, sourcing new projects, identifying new opportunities to support climate and clean energy projects and connecting new investors to innovative projects.

An engineer by training, Rostyslav studied at the Kriviy Rih Technical University. He is a member of the Executive Board of the Bioenergy Association of Ukraine.



This region faces a number of challenges, which highlights the need for PFAN.

– Rostyslav Maraikin



Peter DuPont
Regional Coordinator, Asia
Bangkok, Thailand

Peter has more than 30 years’ experience in the design, implementation, and evaluation of clean energy policy and plans, energy and climate finance, and climate change programmes in the U.S. and Asia. He has worked in a variety of roles for non-profit and private consultancies and development agencies, with a focus on energy efficiency, renewable energy, finance and market incentives, and climate change.

Peter is based in Bangkok and is Managing Partner of Asia Clean Energy Partners Limited, an international consultancy that initiates partnerships and initiatives that accelerate the pace of clean energy investment and deployment. Since 2007, he has been the Co-Chair of the Asia Clean Energy Forum, a flagship clean energy event organised annually by the Asian Development Bank, the US Agency for International Development, and the Korea Energy Agency.

As PFAN Regional Coordinator for Asia, Peter is buoyed by the “huge and growing potential” for PFAN in Asia. “In the area of climate and clean energy, Asia is ground zero, since Asia’s economies are growing so rapidly and account for the majority of global GDP. Because of the high growth rates, there is the potential for Asian economies to leapfrog and more quickly adopt transformative low-carbon solutions.”



The energy systems of the future will no longer be based on oil, gas, and coal, but on renewable energy and storage. Investors who have a time frame of more than five or 10 years are shifting their asset allocation to green, low-carbon energy solutions.

– Peter DuPont

9. Get Involved / Funding Partners

PFAN is always looking for new partners. Please get in touch if you would like to:



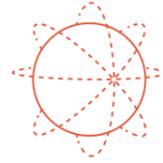
Get help with your project

The experts in our network can offer you free, personalised one-on-one coaching and targeted introductions to investors, providing a fast-track to investment. If you are developing a project and would like to work with us, please contact us or look at www.pfan.net for information on eligibility criteria and the application process.



Find projects for your investment portfolio

We have a pipeline of investment-ready climate and clean energy projects, coached and carefully vetted by experts and selected for economic viability, environmental sustainability and social impact. Join a PFAN Investment Forum for a flavour of what our pipeline has to offer, or contact us to receive information on projects specially selected to match your interests.



Join our global network of coaches

Become a part of our global community and we will offer you the chance to work with exciting, high-potential projects, reliable, timely payments and international visibility. Please contact us for more information.



Support PFAN's work as a donor or resource partner

We magnify the impact of your funding on the ground. We work to leverage investment which goes straight to climate resilience and clean energy projects in developing countries. You can also support us by hosting or co-organising Investment Forums, or working with us on targeted calls for proposals. Contact us for more information.

Funding Partners PFAN is generously funded by:



Department of Foreign Affairs and Trade (DFAT), **Australia**



Federal Ministry for Digital and Economic Affairs (BMDW), **Austria**



Ministry of Economy, Trade and Industry (METI), **Japan**



Ministry of Foreign Affairs (MFA), **Norway**



Swedish International Development Cooperation Agency (Sida), **Sweden**



United States Agency for International Development (USAID), **USA**

Steering Committee

PFAN's strategic direction is overseen by a Steering Committee, composed of representatives of our Funding Partners, plus UNIDO and REEEP.

“

The coaching has been very important, has helped us structure our business plan, to come and pitch in front of the investors, and it's allowed us to look further and be much more ambitious for our project. Our coach was absolutely fantastic.

– Nadège Payet-Tisset
Project Development Manager, E-Faitou

“

PFAN has a global outlook and opportunities, and hence reduces the information asymmetries of selecting opportunities globally. If I am a global fund, it is very easy to attend a PFAN forum and use that as a way to pivot my pipeline development.

– Winnie Odhiambo
Associate Partner, I-DEV International

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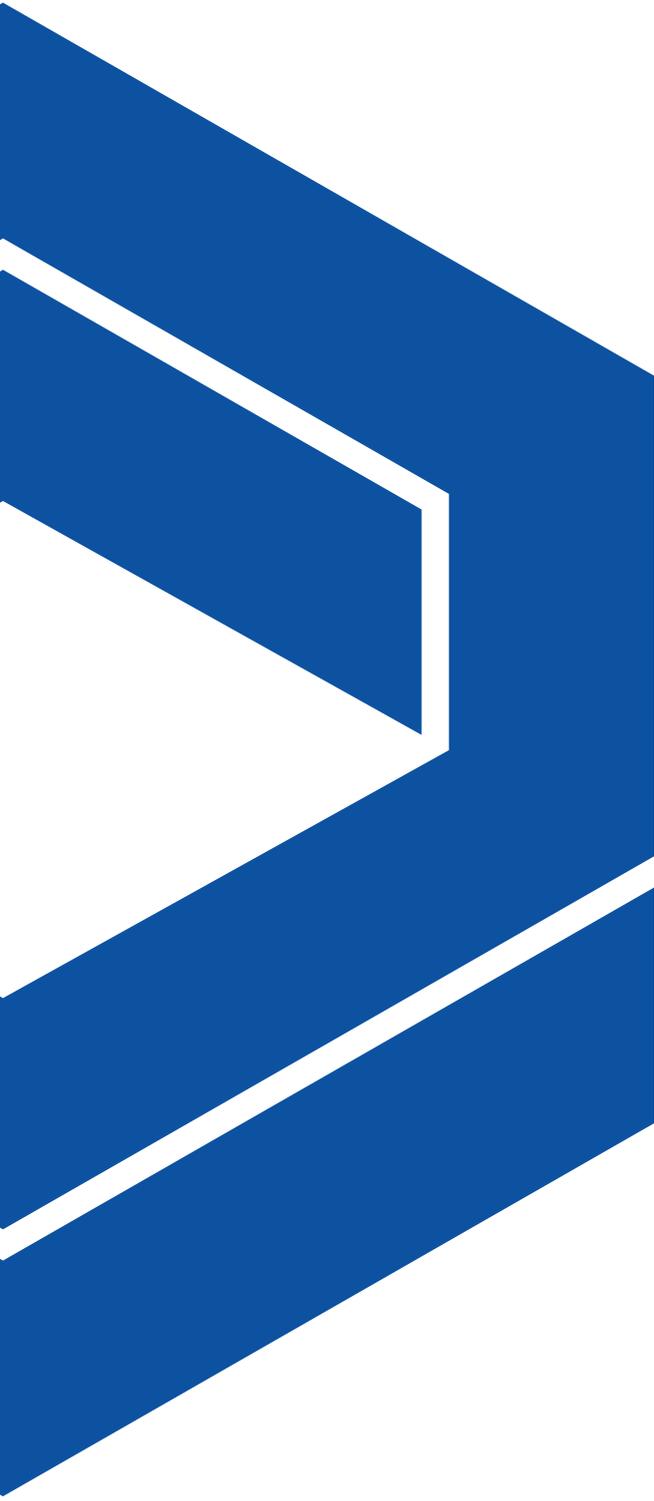
PFAN is a good partner because it has the longest experience of working in this sector, coaching and mentorship and also facilitating deals, and it also has experience across countries and regions. It brings this experience to focus on a specific region, to provide good advice on how these projects can be tailored and made attractive to an international investment environment.

– Monica Maduekwe
Resource Mobilization Specialist, ECREEE

“

I think it is important to fund PFAN because we need to combine public money with more private sector investment in renewable energy, to combat climate change. The unique advantage of working with PFAN is its global reach: together we are able to reach many more countries than Norway would be able to do on its own.

– Kristin Thomassen Wæringsaasen
Senior Adviser, Norad



REEEP



UNITED NATIONS
INDUSTRIAL DEVELOPMENT ORGANIZATION

Hosting arrangement

PFAN is hosted by the United Nations Industrial Development Organization (UNIDO) in collaboration with the Renewable Energy and Energy Efficiency Partnership (REEEP).

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