





#### Water and Energy for Food (WE4F) Grand Challenge for Development

South and Southeast Asia Landscape Mapping

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This document was prepared by a team from Intellecap comprising of Mukund Prasad, Neha Kumar, Ajaykumar C P, Anuja Kaushal, Shraddha Kothari, Ankur Seth and Jui Gangan under USAID INVEST, an initiative that works to unlock the power of private capital to drive inclusive growth in countries where USAID works.

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## **Executive Summary**

#### **100 Enterprises**

#### Aggregate funding demand is USD 375 mn; Median investment demand is USD 1 m

- Most enterprises in the WE4F nexus have revenue under USD 500k but anticipate strong revenue growth over the next 1-2 years
- From an internal perspective, enterprises face challenges in raising finance and lack robust business processes to support growth
- From a market perspective, overcoming skepticism of customers to adopt new interventions, lack of customer financing and lack of stable government policy are the key challenges
- In addition to capital, enterprises need support in building market linkages and improving internal governance / compliance processes
- The aggregate funding demand sought by enterprises is USD 375 mn to largely fulfil working capital or growth needs. 2/3 of this funding need is required within the next year with a preference for equity or blended instruments
- 59 enterprises have demonstrated scale potential in terms of customers reached
  - 13 enterprises have a unit cost of less than USD 100 and customer base of more than 5,000 while 38 enterprises have a unit cost of more than USD 100 and customers more than 1,000. Eight enterprises are on a fast-paced growth path to attain the target customer base
- Enterprises co-founded by women have shown growth rates similar to men founded enterprises; however on average enterprises co-founded by women have greater revenues than wholly men founded enterprises
- 70% profiled enterprises are across India, Indonesia, Myanmar, Thailand and Vietnam. Enterprises exhibit a diversity of business models across geographies in line with local challenges, regulatory policies and market opportunities
- 66 enterprises plan to expand within south and southeast Asia. 26 enterprises plan to expand to other regions with Africa featuring prominently as a target geography, potentially due to similar technology and socio-economic landscape

#### Executive Summary – Snapshot of stakeholders (2/2)

#### **36 Investors**

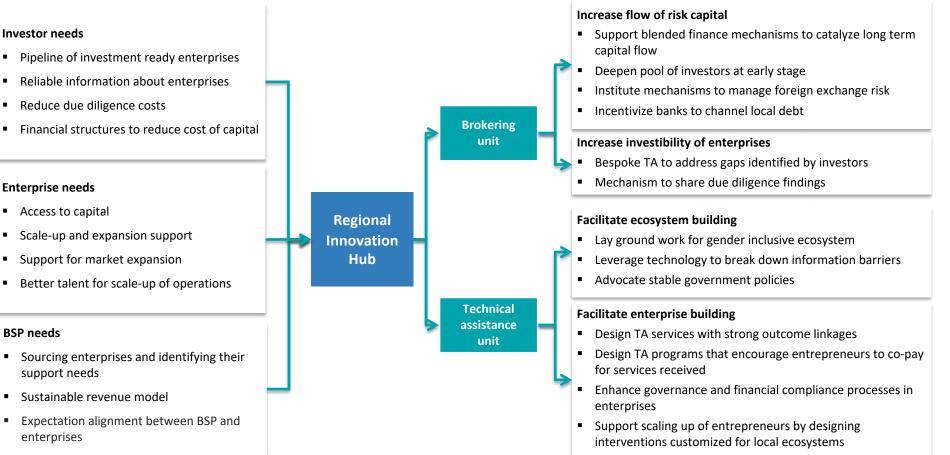
#### Ticket size range USD 1 - 5 mn

- Most investors prefer having a local presence in the regions they seek to invest in and have multiple fund vehicles either differentiated by geography or type of capital
- Availability of early-stage, small ticket size capital is limited
  - 2/3 of equity investors manage a fund size of USD 5mn-150 mn
  - Access to commercial debt is limited by need for collateral, need for track record and pricing
- Grant capital can play a catalytic role in accelerating risk capital flow
  - Key mechanisms include blended finance, risk reduction tools such as first loss cushions / credit guarantees, foreign exchange risk management and deepening pool of early stage investors
  - Investors also mentioned that grant capital can increase investibility of enterprises by reducing pre-investment costs (due-diligence costs, bespoke pre-investment capacity building)
- Investors do not have an explicit gender lens investing (GLI) focus. For most investors, the objective is limited to either not discriminate on the basis of gender or to have a more gender balanced investment team

#### **29 Business Service Providers**

#### ~ 60% BSPs provide technical assistance

- Services offered by Business Service Providers (BSPs) include capacity building, finance and compliance, branding and marketing, investment readiness, business advisory etc.
- BSPs face sustainability challenges as most enterprises are not able to pay service related fees. In models where revenue is linked to success, BSPs are impacted by lumpy nature of cash flows
  - Intermediaries, such as the Hub, can play a critical role in aligning enterprise support needs with BSP sustainability considerations by controlling the scope and depth of interventions
  - Innovative service delivery mechanisms combining grant support with pay for performance mechanisms can be leveraged to address the sustainability challenge
- From an investment support perspective, BSPs highlight that most entrepreneurs lack the ability to articulate their investment need
- From an enterprise growth perspective, enterprises lack organizational bandwidth to absorb capital and grow, have ineffective governance structures to meet external investor needs and capability to track and report ESG impact metrics





## Objective, methodology, and nexus

#### Project objective (South / South East Asia landscape analysis)

Intellecap was mandated to aid in the rapid operationalization of the proposed Asia Regional Innovation Hub by identifying potential WE4F enterprises, aligned investors and BSPs in South / South East Asia

The Water and Energy for Food (WE4F) Grand Challenge for Development (GCD) will scale innovations that impact the nexus of food, water & energy primarily through the private sector to increase the sustainability of agricultural food value chains in developing countries and emerging markets – with a particular focus on the poor, youth and women.

#### Intellecap mandate

- Identify and profile minimum 80 enterprises that operate at WE4F nexus in the focus countries
- Identify and profile minimum 30 investors interested in investing in enterprises at the nexus
- Identify and profile business service providers (BSP) supporting enterprises at the nexus
- Map enterprises to investors and business service providers



#### Sourcing methodology (1/2)

### Intellecap used a three-phased approach to identify, shortlist and collect information on WE4F enterprises in South / South East Asia

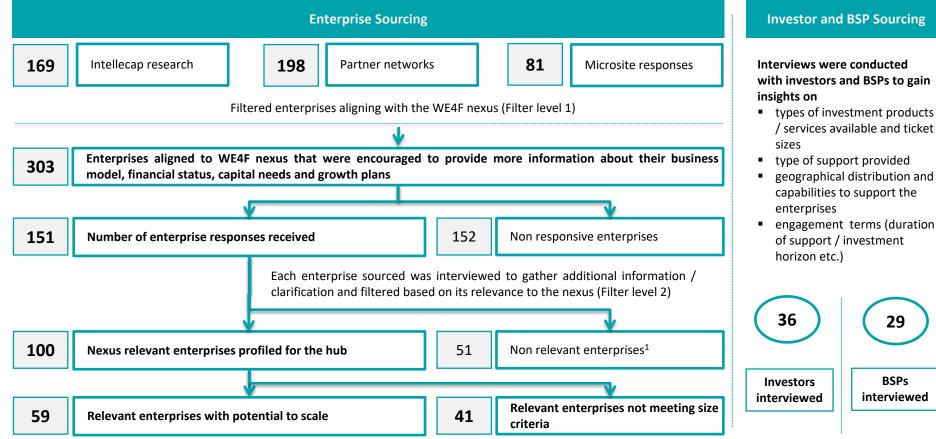
Defining the landscape	<ul> <li>The project team carried out detailed secondary research to create a better understanding of WE4F nexus</li> <li>The research was combined with perspectives of USAID and INVEST team to define WE4F nexus as comprising of Water for Food, Water, Energy for Food, Energy for Food and Food for Energy intersections</li> <li>The intersections were broken down into six themes and 14 sub-themes to define the scope of inclusion and also identified specific exclusion criteria in conjunction with USAID</li> </ul>		
Development of a comprehensive list of enterprises using	database of entrepreneurs in Asia to create a list of articles, websites et	ed the <b>secondary research</b> (papers, c.) carried out to define the y entrepreneurs who may be s	
Intellecap's previous engagements and leveraging partner recommendations	(investors, BSPs, ecosystem coordinators etc.) across information about the	edicated microsite that provided ne program and encouraged Ily respond to an online ess WE4F fit	

Analysis and validation of relevant enterprises

- Basic enterprise profiles were received through microsite, e-mail and partner recommendations
- The team reviewed the information received to assess relevance to nexus definition (Filter level 1)
- For all enterprises that were relevant, we conducted detailed interviews to obtain a better understanding of their business models, financial status, capital needs and business support needs (*Filter level 2*)
- A numerical break down of the sourcing process is provided in the next slide

#### Sourcing methodology (2/2)

The two-level filtering approach narrowed the enterprise pipeline from a long list of 448 enterprises to 100 relevant enterprises; we also carried out detailed interviews with 36 investors and 29 BSPs



<sup>1</sup>e.g. not a for profit enterprise, enterprise in pilot stage of operations, clean cook-stove enterprises, water purification enterprises, enterprises having no linkage to food etc.

29

**BSPs** 

**Breaking down the nexus (1/2)** Intellecap identified 6 themes and 14 sub-themes under 4 nexus intersections that capture the gamut of entrepreneurial innovations at the WE4F nexus

Water for Food (WF) Water, Energy for Food (WEF)		
THEME 1: Innovations in food production to reduce water usage	THEME 2: Efficient use of water resources for food production	THEME 3: Sustainable use of energy and water on farm
Sub-theme 1: Technology for efficient use of water in food production	Sub-theme 1: Irrigation technology (including micro-irrigation)	
<ul> <li>Precision agriculture / IoT / Remote sensing / Weather Forecast /Drones/ AI/ ML</li> </ul>	Sub-theme 2: Waste-water re-use Sub-theme 3: Water storage / harvesting	
<ul> <li>Hydroponics / Aquaponics / Aeroponics/ Vertical Farming</li> </ul>	Sub-theme 4: Water desalination	
Sub-theme 2: Sustainable/ efficient food production		
<ul> <li>Aquaculture</li> </ul>		
<ul> <li>Algae/ spirulina production</li> <li>Marine fisheries</li> </ul>		

#### **Breaking down the nexus (2/2)** Intellecap identified 6 themes and 14 sub-themes under 4 nexus intersections that capture the gamut of entrepreneurial innovations at the WE4F nexus

Energy for Food (EF)		Food for Energy (FE)
THEME 4: Energy innovations for food processing & logistics	THEME 5: Food production with efficient energy use	THEME 6: Leveraging food waste for energy
Sub-theme 1: Solar mini/micro grid-linked food processing applications	Sub-theme 1: Solar cropping	Sub-theme 1: Biogas production
Solar-drying	Sub-theme 2: Clean cooking	Sub-theme 2: Pellet production
Sub-theme 2: Energy efficient logistics for food preservation		Sub-theme 3: Compost from waste
Cold chains		

Sub-theme 3: Storage and warehousing



## **Enterprise analysis**

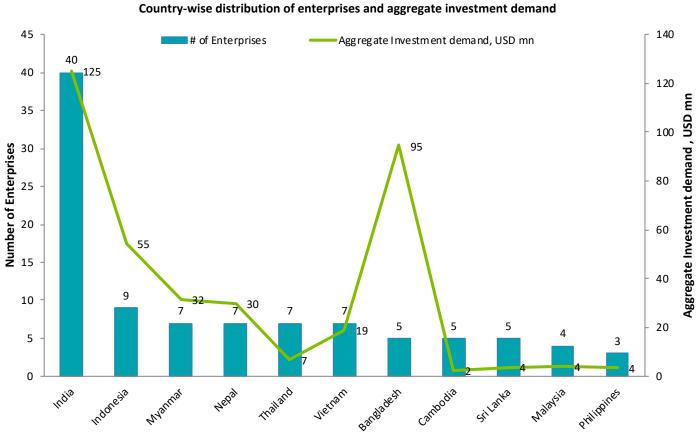
#### **Snapshot of enterprises**

100 enterprises operating at the WE4F nexus are profiled. Most enterprises in the WE4F nexus have revenue under USD 500,000. To facilitate capacity building and scale-up for the enterprises, support is needed in establishing market linkages, accessing new markets, raising stage appropriate capital and in navigating the business environment

- India has the highest concentration of profiled enterprises followed by Indonesia, Myanmar, Thailand and Vietnam together making for 70% of the profiled enterprises
- ~ 75 enterprises generate up to USD 500k in annual revenue; over half of these enterprises are likely to double their revenue in one to two years. Enterprises with a revenue under USD 100k and over USD 1mn expect to double their customer base within the next 1-2 years
- From an internal perspective, enterprise face challenges in raising finance and lack robust business processes to support growth. From a market perspective, adoption of new modes of doing business by customers, customer financing and lack of stable government policy are the key challenges
- 66 enterprises plan to expand within south and south-east Asia. There are 26 enterprises that plan to expand globally with Africa featuring prominently as a target geography, potentially due to similar technology and socio-economic landscape
- The aggregate funding demand sought by enterprises is USD 375 mn to largely fulfil working capital or growth needs. 2/3 of this funding need is required within the next year with a preference for equity or blended instruments
- 13 enterprises have a unit cost of less than USD 100 and customer base of more than 5,000 while 38 enterprises have a unit cost of more than USD 100 and customers more than 1,000. Eight enterprises are on a fast-paced growth path to attain the target customer base
- Water for Food nexus is the dominant nexus in terms of number of enterprises profiled. This nexus also has the most number of smaller size, tech-oriented ventures with revenues under USD 100k that are growing rapidly (>40%). Enterprises in this nexus provide innovative solutions to enable farmers to enhance yields, reduce costs and increase resilience

#### **Enterprise operations**

WE4F enterprises in the region deploy a range of business models across the 4 nexus intersections. These models include a good mix of cutting edge technology and deployment of tested solutions



\* - Investment demand in Bangladesh is skewed by one enterprise that seeks to raise USD 64 mn

Over 50% of enterprises are in the WF nexus. Enterprises in the

WEF nexus account for about

The most common business

models include IoT based smart farming solutions, solar irrigation

pumps, solar cold storage, solar

dryers, and biogas digesters to

operate beyond the country of

currently focused on expanding

within their country of origin, enterprises are also cognizant of

the opportunity to expand to

other countries

produce bio fertilizers

Only 1/4 of the enterprises

While most enterprises are

**FE nexus** 

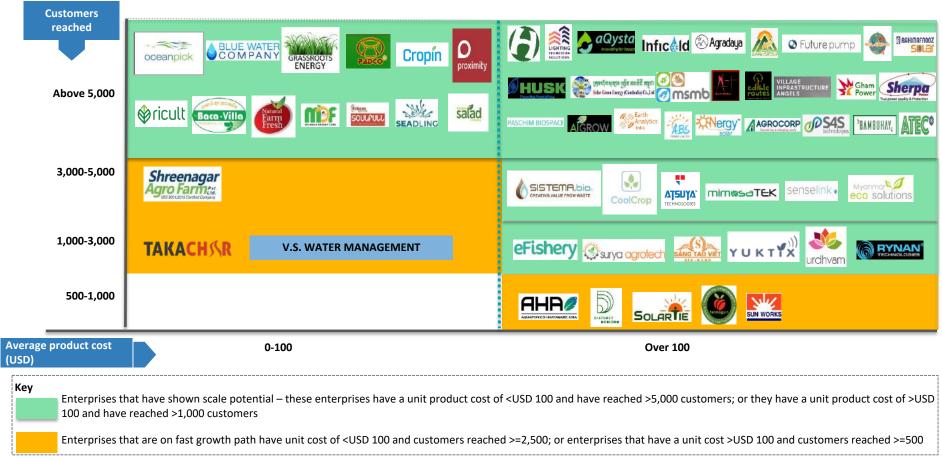
origin

20%. The remaining enterprises

are evenly split between EF and

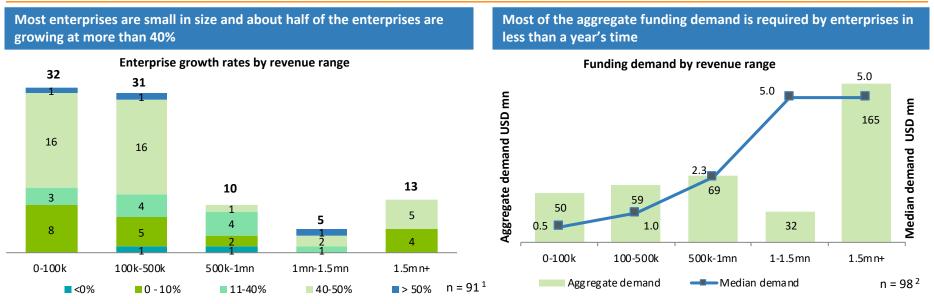
#### Enterprises that meet size criteria

Analysis of the enterprises on the basis of their unit cost and customers reached indicate that 59 have the potential to scale in size and across countries



#### **Enterprise snapshot**

2/3 of the 100 enterprises generate less than USD500k in annual revenue; over half of these enterprises are likely to double their revenue in one to two years

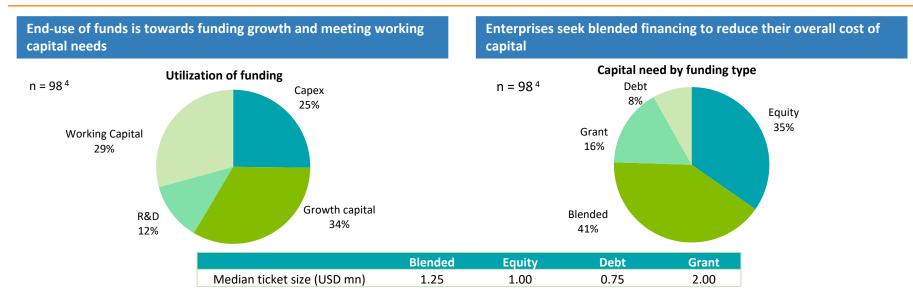


- About 45% of the enterprises have raised funds through a combination of equity, debt and grant. The enterprises that have raised funds through only equity or only debt are about 25% each and the remaining enterprises have raised capital through grants
- Equity is the most sought instrument by the enterprises under USD 500k revenue, which is in contrast to those in the USD 1 mn+ revenue segment, where blended finance is the preferred instrument
- Only larger enterprises (> USD 1 mn in revenue) are able to estimate some ESG parameters. These relate to improvement in economic outcomes of stakeholders, empowerment of women and environmental impact such as savings in water and reduction in CO<sub>2</sub> emissions

Note 1: 5 enterprises did not respond, 3 enterprises operated less than a year; n=91 Note 2: 1 enterprise did not specify funding needs Note: All subsequent analysis excludes Agrocorp as it has a revenue of USD 3bn

#### **Enterprise funding demand**

The aggregate funding demand for 100 enterprises is USD 375 mn; in addition to the ~USD 173 mn capital deployed till date

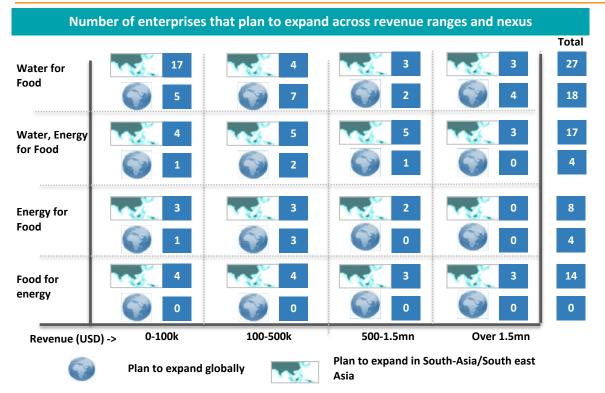


- Enterprises intend to raise equity to prepare for growth most enterprises indicated deployment of equity to fund capital expenditure requirements and also to invest in enhancing sales and distribution capacity
- Lower cost blended capital financing is sought by enterprises to meet growth oriented working capital needs and for supporting R&D
- Grant capital is sought largely for working capital needs, followed by an equal need for capital expenditure and growth capital. Interestingly, grant is sought by at least 10% of the enterprises across all revenue segments but no more than 25% of the enterprises need it in each segment
- Enterprise stated demand for debt is the lowest- this is reflective of the lack of availability of collateral free debt

Note 4: 1 enterprise did not specify type of funding needed and use

#### **Enterprise expansion plans**

Most enterprises perceive an opportunity in expanding to other developing countries with a similar socio-economic and technology ecosystem, especially in South/South East Asia and Africa



"We will utilize the next round of funding to scale-up to new markets, and reach target customers in the international markets" - Indian enterprise in WF nexus

"The enterprise plans to expand its operations in Africa. It is already working opportunistically with clients in Mali, Nigeria, Ethiopia and Rwanda" – Indian enterprise in EF nexus

"We aim to utilize 40% for regional expansion, 30% for development of smart-farm integrated system(new product), 30% for operation" – Myanmar enterprise in WF nexus

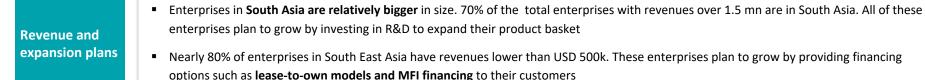
"We will use the next round of capital funding to plan for expansion to regional markets and developing new businesses" – Vietnam enterprise in WEF nexus

- Technology solutions such as farm sensors, solar dryers, and hydroponics/aquaponics have the highest potential for replication
- The biggest barriers to enterprise expansion plans are limited access to funding, difficulty in building market linkages in new markets and customizing solutions that address needs of different geographies

#### **Geographical diversity in enterprise operations**

Enterprises exhibit a diversity of business models across geographies in line with local challenges, regulatory policies and market opportunities

- Enterprises leveraging technology for efficient consumption of water are highest in number and are located across all the 12 countries indicating a growing trend towards technology adoption
- Enterprises that engage in limiting water and energy consumption for sustainable agricultural practices are concentrated in India,
   Bangladesh , Thailand and Vietnam. These enterprises deploy solar irrigation pumps and climate controlled systems such as greenhouses.
   Limited conventional resources and conducive regulatory policies play a key role in this
- Enterprises that offer energy efficient solutions for processing agricultural produce are based mainly in Indonesia, and India. These
  enterprises provide solar dryers and cold-storages. The lack of cold chain and processing infrastructure in these two countries along with
  the volume of agriculture produce are enabling factors for such enterprises
- Enterprises that make optimum use of food and agricultural waste to reduce energy consumption in Food for Energy are mainly located in India and Myanmar



Enterprise business models

#### Geographical diversity in enterprise operations

#### A key barrier to scale is the absence of adequate financing options for enterprises and their customers

- Enterprises located in large countries such as India and Indonesia consider market penetration as their main challenge. Enterprises in these countries cite two drivers for investments
  - Need to invest in supply chain management due to inadequate infrastructure ٠
  - Need to invest in differentiated models of customer outreach and marketing strategies to cater to the diversity in customer ٠ demographics

#### **Challenges**

- Enterprises in emerging economies such as Bangladesh and Sri Lanka consider financing to be their biggest challenge. These enterprises not only find it difficult to raise adequate investment, but are also constrained by lack of customer financing alternatives
- Enterprises in frontier markets such as **Nepal and Myanmar** cite regulatory and other ecosystem challenges such as lack of technology support providers as their key barriers to scale



- For enterprises in South Asia, the median funding requirement is USD 1.5 mn. These Enterprises mainly seek equity financing ٠
- For enterprises in **South East Asia**, the median requirement is **USD 1 mn**. These enterprises seek a mix of **equity**, debt and grant

requirement

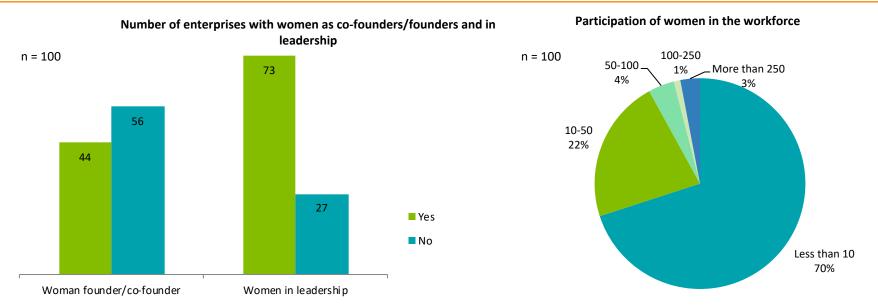
#### **Enterprise challenges**

Enterprises need support establishing market linkages, accessing new markets, raising stage appropriate capital and navigating the business environment

	<ul> <li>Customers, especially farmers, are skeptical of adopting proposed interventions due to upfront investment needs and the time lag between purchase of product and accrual of benefits to the farmers</li> </ul>
Customer related challenges	<ul> <li>Need for increased investment in a direct sales force to build confidence in the reliability of product / service puts additional financial pressure on the enterprises</li> </ul>
	<ul> <li>Government subsidies and regulatory barriers to entry distort market behavior by limiting willingness of customers to engage with private players even if they offer better quality service</li> </ul>
	<ul> <li>Difficulty in identifying investors that share their vision is a key challenge faced by a number of enterprises especially those that need to drive behavior change of customers</li> </ul>
Financing challenges	<ul> <li>Absence of collateral with asset light enterprises in WEF and WF nexus intersections limits the availability of debt for such enterprises</li> </ul>
	<ul> <li>Lack of adequate financial data records is a major deterrent for most early stage enterprises</li> </ul>
	<ul> <li>Early stage debt capital, if available, has a very high interest rate</li> </ul>
	<ul> <li>Infrastructure gaps in last mile logistics increases capital intensity of business</li> </ul>
	<ul> <li>Limited availability of customer financing solutions restricts uptake</li> </ul>
Ecosystem challenges	<ul> <li>In addition, traditional intermediaries provide farmers with timely financial and non-financial support that enterprises find difficult to replicate</li> </ul>
	<ul> <li>Lack of stable government policy to support technology based solutions restricts national expansion</li> </ul>

#### **Enterprise gender analysis**

Enterprises co-founded by women have shown growth rates similar to men founded enterprises; however on average enterprises co-founded by women have higher revenues than wholly men founded enterprises



- Over 50% of enterprises co-founded by women recorded a revenue growth of more than 30% in the previous financial year. This compares favorably to enterprises founded by men 55% of enterprises founded by men grew at more than 30%
- Average revenue of women founded enterprises is USD 1 mn while for men founded enterprises average revenue is USD 730,000
- Most number of women co-founders or in leadership positions are in Malaysia, Vietnam, India, Indonesia, Myanmar and Nepal
- The women participation in employment among enterprises profiled is about 40%
- Nexus related insight: Over 80% of Food for Energy and Water, Energy for Food enterprises have women in leadership positions. Over 60% of Energy for Food enterprises a women co-founder



# Enterprise analysis – Insights from the nexus

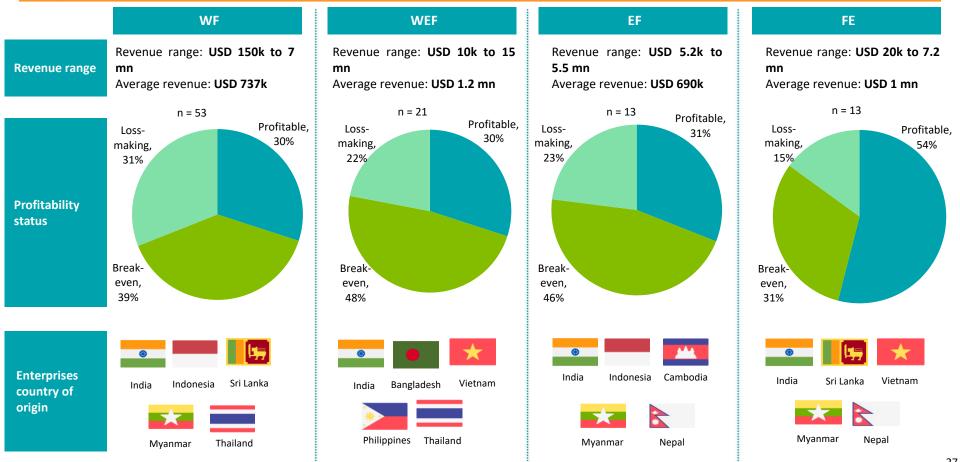
#### Nexus overview (1/2)

WF and WEF enterprises provide solutions to increase yield while enhancing water/energy efficiency; EF and FE enterprises provide solutions to enhance shelf life and convert food waste to energy/bio-fertilizer

	Water for Food (WF)	Water, Energy for Food (WEF)	Energy for Food (EF)	Food for Energy (FE)
Description of nexus	Reduce the need for water or enable efficient use of water during the pre-harvest and harvest phases	Enable sustainable use of energy and water on farm during pre- harvest and harvest phases	Reduce energy consumption in carrying out food processing activities in the post- harvest phase	Reduce energy consumption and improve soil fertility in pre- harvest and harvest phases
Business Models	<ul> <li>Business models include</li> <li>drip irrigation systems</li> <li>rainwater harvesting</li> <li>hydroponics</li> <li>aquaponics</li> <li>IoT based soil and crop monitoring</li> </ul>	<ul> <li>Business models include</li> <li>solar irrigation pumps</li> <li>smart farms</li> <li>climate controlled food production systems such as greenhouses</li> <li>solar net-metering solutions</li> </ul>	<ul> <li>Business models include</li> <li>solar dryers</li> <li>solar cookers</li> <li>solar cold storage</li> <li>environment monitoring systems (temperature, humidity) for better food storage</li> </ul>	<ul> <li>Business models include</li> <li>processing food waste to produce bio fertilizers</li> <li>processing of food using energy produced by burning agricultural waste at point of generation</li> <li>generating feed from agricultural waste for aquaculture</li> </ul>
Indicative Examples	<ul> <li>Aeroroots, Nepal</li> <li>Mitra Sejahtera Membangun Bangsa, Indonesia</li> </ul>	<ul><li>Solargao, Bangladesh</li><li>Gham Power, Nepal</li></ul>	<ul><li>Natural Farm Fresh, Myanmar</li><li>TESSOL, India</li></ul>	<ul><li>PADCO, Vietnam</li><li>Husk Power ,India</li></ul>

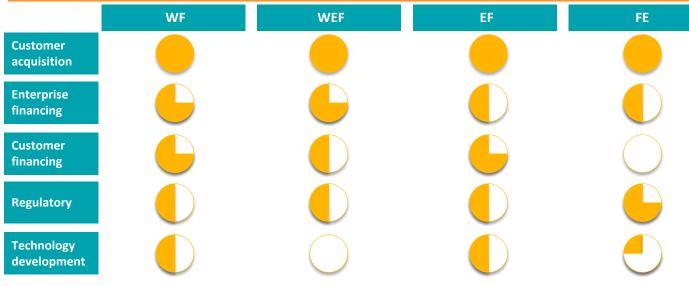
#### Nexus overview (2/2)

Enterprises are at various stages of growth with significant variation in minimum and maximum revenue; average revenue is comparable across all 4 nexus



#### **Challenges faced**

Enterprises across all nexus highlight customer behaviour change as the main challenge. As a result, they invest heavily in onground business development activities



"The enterprise needs to invest heavily in marketing expenses including print publicity, demonstration units, farmer meetings." – Indian enterprise in FE nexus

"Farmers, though interested, are unable to afford solar irrigation kit because of the high initial investment." – Bangladesh enterprise in WEF nexus

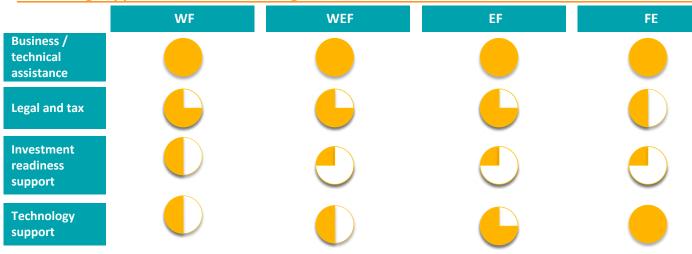
"Access to low cost capital is a key challenge." – Indian enterprise in EF nexus

"The biggest challenge is volatile government policies for agriculture sector, which involves 50-60% population, and accounts for 5-10% of GDP." – Thailand enterprise in WEF nexus

- Access to finance, customer behaviour change and regulatory challenges are common across the nexus. In addition
  - WF enterprises cite R&D investments and challenges in achieving success thereof as a key business challenge
  - FE enterprises face supply chain challenges in sourcing and maintaining a stock of waste to be converted in energy / biofertilizer
  - EF enterprises cite **supply chain challenges in optimizing manufacturing cost of product** as a key challenge (especially in the context of competition from China)
  - WEF Enterprises highlight talent related challenges and also lack of robust pay as you go mechanisms as a barrier to increasing customer adoption

#### Support requirements

Enterprises prioritize business advisory and technical assistance; however awareness about need for investment readiness / brokering support seems to be lacking



- Business and technical assistance support
  - WF, EF and FE enterprises seek technical assistance support on technology validation & cost optimization
  - WEF enterprises seek assistance in identifying the right customer segments, marketing & branding support
- WE4F enterprises identify regulatory compliance as a key challenge and actively seek support for the same
- To scale business operations, enterprises need financing support at two levels
  - First is **internal working capital financing** to manufacture / procure products, create distribution infrastructure, invest in manpower and behaviour change initiatives
  - Second is financing to fund product acquisition by consumers

"There is need to convince investors that impact sectors can also bring stellar returns." – Indian enterprise in FE nexus

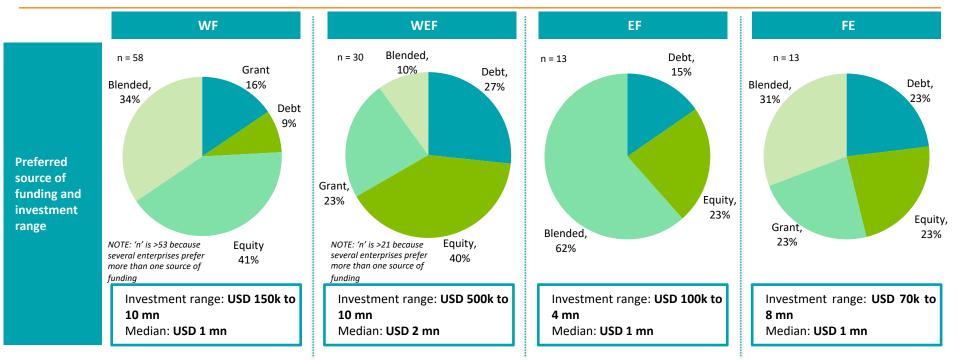
"It is difficult to find the right venture capital provider who can collaborate with the enterprise to empower women and local community." –Indonesian enterprise in EF nexus

"Amongst high political risk, high currency risk, and high payment risks, it is difficult to prove the robustness and resilience of the business model." – Myanmar enterprise in WF nexus

"The enterprise needs to improve its data reporting before the next fund raise." – Indonesian enterprise in WEF nexus

#### **Investment requirements**

Enterprises in WF and WEF nexus prefer equity, while those in EF and FE prefer low cost blended finance and grants



- 80% of WE4F enterprises have articulated an investment need in the range of USD 100k to 10 mn
- Equity is the preferred source of funding for enterprises in WF and WEF nexus. Most of these are technology based/ asset light companies with higher working capital requirement as compared to investments in fixed assets. Consequently, these enterprises do not have collateral to access debt
- Blended finance is the preferred source of funding for enterprises in EF and FE nexus. Most of these enterprises want to access low cost capital for increasing production capacity and rapid scale-up



## **Investor analysis**

#### **Snapshot of capital providers / investors**

Investors support a variety of innovative business models by providing them with growth capital. They are cognizant of gender lens investing (GLI) but do not have an explicit GLI focus. They recognize the role that can be played by blended finance, guarantee mechanisms and grant capital in deepening capital flow to early stage enterprises

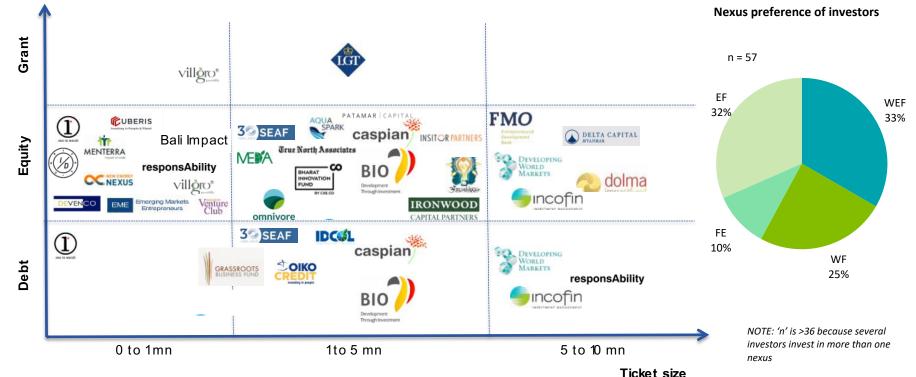
- Investors have multiple fund vehicles either differentiated by geography of operations or type of capital (grant or debt or equity) to comply with local regulations
- Majority of the investors offer equity investments in the ticket size ranging between USD 1 to 5 mn. This indicates that availability of small ticket early stage capital is limited. Access to early stage debt capital is even more limited with most traditional debt providers insisting on collateral
- Most investors prefer having a local presence in regions of operations to better manage deal sourcing and also optimize costs in post-investment monitoring. Investors with a multi-country mandate but with no local presence tend to follow lead of local investors. Such investors are more willing to collaborate on due diligence and sharing information
- Delays in investment take place due to several challenges at enterprise level (such as lack of governance, inadequate maintenance of financial information) and ecosystem level (such as lack of bespoke TA services to address gaps identified by investors, time required for due diligence and lack of trusted information sources)
- Most investors do not follow gender lens investing. Exceptions are Patamar Capital, SEAF Women's Opportunity Fund, C4D and MEDA. Other investors plan to be gender friendly by investing in women owned enterprises, or by having women in leadership roles in their teams
- To accelerate risk capital flow, investors identified blended finance, risk reduction tools such as first loss cushions / credit guarantees, management of foreign exchange risk and deepening the pool of early stage investors as key mechanisms. To increase the investibility of enterprises investors supported grant funded bespoke TA to address investment gaps and mechanisms to share due diligence findings
- Investors and ecosystem players should help enterprises in their growth journey (growth hacking) and not just focus on governance

#### Distribution of types of investors, investment instruments and nexus preference

Type of funding instrument

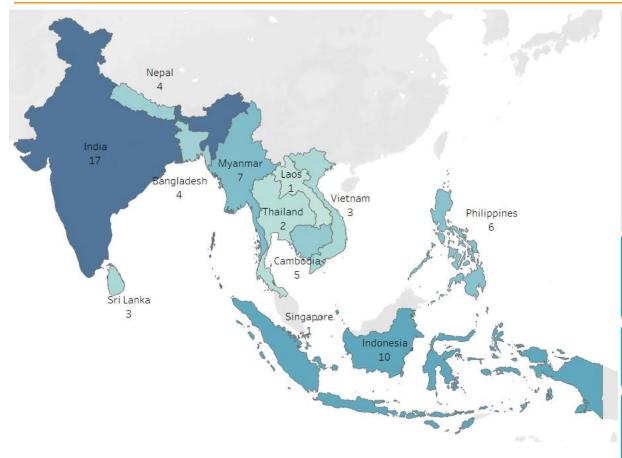
Equity and structured debt are common investment instruments as many early stage enterprises do not have collateral for debt financing; several debt funds offer mezzanine products that link returns to growth

Investors have multiple fund vehicles either differentiated by geography of operations or type of capital (debt or equity) to comply with local regulations in different countries. About 72% of the funds offer equity capital, 23% offer debt and 5% offer grant capital



#### **Geographical focus of investors**

Presence of innovative business models, sound entrepreneurial culture, conducive and stable regulatory environment and robust support ecosystem influence investor decision to set-up base



#### Investor presence is concentrated in a few geographies

- India, Indonesia, Singapore, Myanmar and Philippines are investor hot-spots of investor presence in South and South East Asia
- Limited investor presence and/or activity in Timor Leste, Brunei and Bhutan

#### Investors with global mandate focus on a few countries in South and South East Asia

- FMO focuses on India and Philippines
- AquaSpark has made investments in Indonesia
- AddVentures is present in Thailand

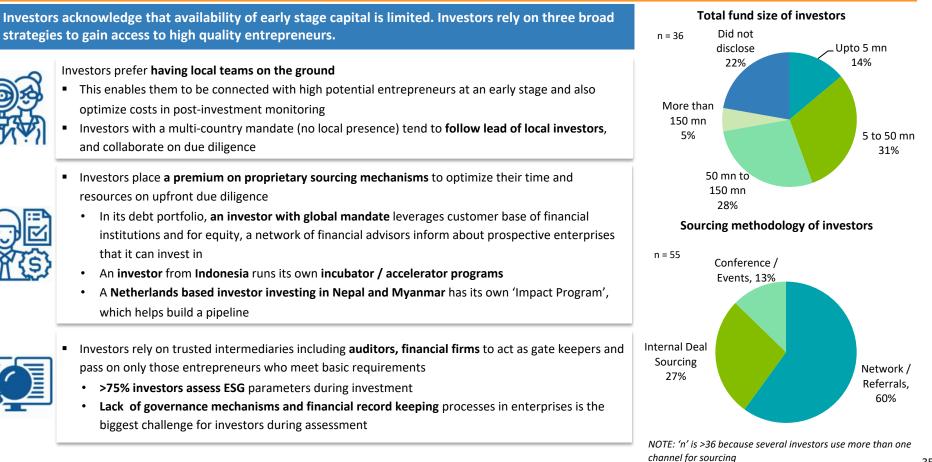
"Focus on low income segment (earning < USD 10/ day) is one of the primary considerations while considering an enterprise for investment." – Leading impact investor from India

*"We need support in sourcing enterprises from remote locations." – Investor from Myanmar* 

"The entrepreneurial ecosystem in Thailand is not as great as in US or Israel." – Angel investor from Thailand

#### Fund size, sourcing and enterprise assessment

Fund economics dictate that smaller fund sizes are more difficult for fund managers to sustainably manage; the corollary of bigger funds managed is an increase in investment ticket size



#### **Regional Insights - Investors** Investors profiled showed diversity across capital instruments, challenges faced and service needs

Capital Instruments	<ul> <li>Investors in South Asia largely deploy equity. Regulatory barriers imposed by the Indian central bank on the flow of debt capital is a major reason for the same</li> <li>Investors in South East Asia deploy provide both debt and equity</li> </ul>
Capital Deployment	<ul> <li>Investor have deployed capital evenly deployed across South Asia and South East Asia. Highest share of funds deployed is in India (25%), Indonesia (19%) and Vietnam (17%)</li> </ul>
Challenges faced	<ul> <li>Global investors highlighted language barriers and lack of local presence as key challenges</li> <li>Investors in South East Asia highlighted the lack of awareness of equity as an instrument among entrepreneurs and corporate governance as key challenges</li> <li>Investors in South Asia observed that enterprises were not well versed with preparing financial documents and preparing pitches</li> </ul>
Service needs	<ul> <li>Investors felt that policy advocacy is important in South Asia as governments are major demand creators and distort the market with subsidies</li> <li>Investors in South East Asia felt the need for support systems to help source enterprises and make them investible</li> </ul>

#### Bottlenecks that impede flow of capital

Insufficient incubation and investment facilitation support at early stages, poor governance mechanisms and inadequate operational processes limit investors ability to deploy capital

"There is a large scope for TA services in the nexus as the sector is still relatively young." – Indian investment firm

"The Nepali FDI law is clear on exits and even offers a favorable tax scheme. However, there are bureaucratic hurdles to overcome for both entry and repatriation . " – Nepal based investment firm



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"There is a need for Investment vehicles that have the ability to deploy stage and time appropriate capital (such as debt, mezzanine)." – An investor with global mandate

"There should be a very clear carrot at the end of the program if pre-investment TA is to be successful." – A global fund investing in India



Investors identified the following barriers to investing in smaller ticket sizes and / or the WE4F sector

#### Enterprise level challenges

Immature state of development of internal business operations and lack of understanding of capital needs

Inadequacy in maintaining financial records in a standard format which can be assessed directly by the investors during due diligence process

Inability to get the right talent and limited capabilities to scale-up business operations

#### **Ecosystem level challenges**

Lack of centralized information hub tracking standardized metrics to provide trust-worthy information about investible enterprises, their investment needs, ESG impact and scale potential

Lack of focused incubation and investment readiness support to enterprises, that also aligns with investor expectations

Lack of off-the-shelf blended finance products and regulatory barriers to structured product design

**Delay in scaling-up** 

Inability to approach appropriate capital source

Longer time taken to close investments



#### Initiatives to improve flow of capital

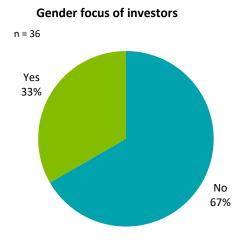
To enhance capital availability investors recommend adoption of blended finance and guarantees to make enterprises more investible, investors recommend bespoke TA and better governance



#### **Gender lens investing**

While many investors have adopted various gender related initiatives, only a very small percentage of fund managers have a gender lens investing mandate

Investors do not have an explicit gender lens investing (GLI) focus. Even among investors who are aware of GLI, the objective is limited to either not discriminate on the basis of gender or to have a more gender balanced investment team



- DFAT promoted "Investing in Women (IW)" is the key initiative promoting GLI in the region and has supported 3 fund managers profiled
  - Capital 4 Development Partners (C4D Partners)
    - Plans to invest at least 30% in women led SMEs
    - o Assesses gender workforce, benefits and inclusion in portfolio companies
  - Patamar Capital
    - $\circ$  Believes GLI will help them make better investment and portfolio management decisions
    - Patamar has a USD 2 mn women-SME focused fund to make 6-8 direct investments of between \$200,000 and \$300,000 in women-led businesses
    - $\circ$   $\;$  Focuses on promoting gender equity in its portfolio firms
  - SEAF Women's Opportunity Fund
    - $\circ$   $\,$  Has women in leadership positions including Senior Managing Director and Vice President  $\,$
    - o Has developed a proprietary assessment approach to make investments in women-led businesses
- MEDA has developed gender toolkit called GEM to enable enterprises leverage their internal data and become more sensitive to gender issues
- Other investors have adopted a range of initiatives to be more gender friendly
  - Woman in founding team of fund / women in leadership Anthem Asia, AquaSpark, Bangkok Venture Club, FMO, Grassroots Business Fund, responsAbility
  - Track record of investing in women owned enterprises Bio Invest, One to Watch, Villgro
  - Follow general ESG standards Delta Capital



# **BSP** analysis

BSPs support enterprises to comprehend and articulate investment needs, improve governance and build capacity for growth. The support providers however struggle in managing their own financial sustainability

- Majority of the BSPs provide Technical Assistance (TA) services including branding and marketing, finance and compliance, capacity building and impact assessment. The remaining provide either only investment support (including enterprise - investor interaction facilitation and curation of pipeline for investors), or both TA and investment support
- BSPs highlight that most entrepreneurs lack the skill to articulate their investment need and then match it to the relevant capital providers. They often have
  ineffective governance structures, human and financial resource management processes. In several cases, enterprises also find it difficult to record and
  communicate impact created
- BSPs collaborate with different local stakeholders such as government authorities, universities, research laboratories and subject matter experts to provide relevant support to enterprises
- BSPs face sustainability challenges as most enterprises are not able to pay service related fees. BSPs are dependent on external support such as grant funding. Even when they seek success fee mandates for fund raising, BSPs are impacted by the lumpy nature of cash flows
- A hybrid model with a fixed grant supported upfront fee and a flexible fee linked to performance can provide a pathway to both sustainability and manage cash flow issues. Such a model also has the potential to enhance the catalytic effect of grant funding
- Similar to capital providers, BSPs do not have a specific focus on facilitating gender lens investing. However, nearly 24% have gender focused initiatives as part of their offering and another 21% engage in gender related advocacy and awareness

#### Services provided by BSPs

Dalberg

O LightCastle

WINROCK

VALUE

FOR

THOMSON REUTERS

HATCH

socialbusiness

OXFAM

International 💦 The Asia Foundation

Solidaridad 6

8

YUNUS

SATTYA phildev

pact

Skills

Success

Koung Lin Khune Co., Lol

Most of the BSPs provide a range of technical assistance services; the rest are equally split between providing investment support only and providing both investment & technical assistance services

Technical assistance		Technical assistance and Investment support		Investment support	
<ul> <li>Finance and compliance</li> <li>Financial modelling</li> <li>Budgeting and business controlling</li> <li>Legal assistance</li> <li>Taxation assistance</li> </ul>	<ul> <li>Branding and Marketing</li> <li>Product development</li> <li>Strategic marketing</li> <li>Brand development</li> <li>Market linkage support</li> </ul>	<ul> <li>Branding and Marketing</li> <li>Business development</li> <li>Sales and market linkages</li> </ul>	<ul> <li>Financial support</li> <li>Access to markets and finance</li> <li>Deal structuring and investment facilitation</li> </ul>	<ul> <li>Network facilitation</li> <li>Stakeholder connections</li> <li>Investor – enterprise connections</li> </ul>	
<ul> <li>Impact showcase</li> <li>Establishing impact matrix</li> <li>Impact assessment and reporting</li> <li>Monitoring and evaluation framework</li> </ul>	<ul> <li>Capacity Building</li> <li>Workforce development</li> <li>Training and development</li> <li>Skill building</li> </ul>	<ul> <li>Investment readiness</li> <li>support</li> <li>Incubation</li> <li>Acceleration</li> <li>Investor pitch, valuation and teaser preparation</li> </ul>	<ul> <li>Capacity Building</li> <li>Mentorship</li> <li>Entrepreneurship development</li> <li>Budgeting and capitalization advice</li> </ul>	<ul> <li>Services for Investors</li> <li>Curating pipeline</li> <li>Gender lens investing</li> <li>Conferences and event support</li> </ul>	
<ul><li>Technology support</li><li>Software development</li></ul>	<ul> <li>Business Advisory</li> <li>Strategy/Management consulting</li> </ul>				

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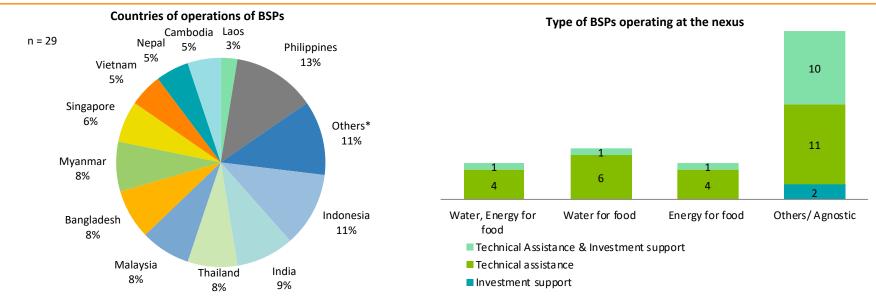
HUB

avpn



#### **BSP operations**

# BSPs profiled are fairly evenly distributed across the region; BSPs rely on other players in the ecosystem to provide specific support to the enterprises



#### **Collaborative approach to support enterprises**

- BSPs recognize that the needs of early stage enterprises are highly varied and their capacity to pay is very limited. They rely on intermediaries (accelerators / TA managers etc.) to define scope and associated service charges in an efficient manner
- Most BSPs collaborate with other firms to provide subject matter specific expertise such as legal advisory, compliance & regulatory advisory, taxation services, and internal control compliance
- BSPs collaborate with universities to seek out domain specific expertise for validation of technology and products developed
- BSPs partner with international development agencies to disseminate learnings

\* Others refer to Africa and Middle East

### **Challenges faced by enterprises – BSP perspective**

Sequenced and incremental acceleration support where innovators experience meaningful short-term results can build momentum for success and help innovators meet milestones at an accelerated pace

Enterprise challenges	Lack of robust business processes hinders investment	Access to appropriate sources of finance is difficult	Limited capital absorption ability creates need for post investment TA
Description	Enterprises do not have adequate internal controls and governance mechanisms	Most enterprises are not able to articulate their investment need and match it to appropriate investor and type of capital	Enterprises lack capacity to deploy capital invested to attain scale and contextualize impact created
Key gap areas	<ul> <li>Weak governance</li> <li>Inadequate financial management and control</li> <li>Customer acquisition and servicing</li> </ul>	<ul> <li>Information asymmetry between investors and enterprises</li> <li>Inability to articulate financial needs in terms of tenor, type of capital required</li> </ul>	<ul> <li>Post investment TA to boost enterprise growth</li> <li>Capacity to build and manage team</li> <li>Creation of structural enablers to support growth</li> </ul>
BSP services	<ul> <li>Preparation of standard operating procedures</li> <li>Preparation of tools for financial management</li> <li>Supply chain optimization services</li> <li>Capacity building in marketing/sales</li> </ul>	<ul> <li>Alignment of enterprise needs with investor offerings</li> <li>Business modeling, business projections and valuation</li> <li>Preparation of pitch documents</li> <li>Legal, financial and taxation advisory for transaction structuring</li> <li>Preparation of due-diligence document to bridge information asymmetry</li> </ul>	<ul> <li>Business advisory services to efficiently structure business units for growth</li> <li>Support market linkages</li> <li>Legal aid including JV agreements, taxation and compliance</li> <li>Talent recruitment , mentoring and management</li> <li>Development of impact and ESG reporting matrix</li> </ul>

## **Challenges faced by BSPs**

Milestone-based funding, paired with bespoke support services, has the potential to deliver greater program and individual innovator impact than non-recourse developmental funding

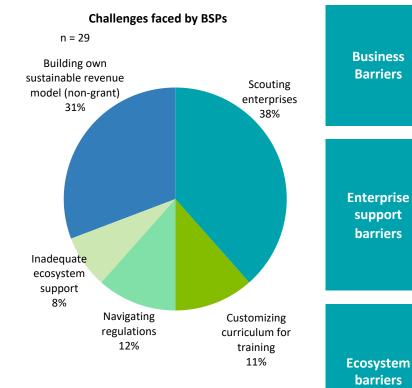
**Business** 

**Barriers** 

support

barriers

barriers



Sourcing enterprises and identifying their support needs is time and resource intensive

- BSPs rely on donor support as enterprises rarely have capacity to pay
- Expectation mismatch between BSP and enterprises in terms of fees and project timelines
- Data for market assessment and feasibility is often inadequate, making it difficult for BSPs to build effective solutions

- Regulatory uncertainty especially for big data, AI and IoT make it difficult for technology based enterprises to expand
- Most enterprises do not capture any gender, ESG and impact related data



#### **Possible interventions**

- Provide match making services and align scope of work to optimize sourcing costs and execution time
- Get enterprise skin in the game: A hybrid model with a fixed grant supported upfront fee and a flexible fee linked to performance can enhance the catalytic effect of grant funding
- Support BSPs with specialized skills (growth / supply chain integration / angel networks / talent management) to enable enterprise to scale especially post investment
- Engage in policy advocacy with government bodies to adopt progressive policies
- **Provide gender sensitization** programs linked to achieving business growth

#### BSP operations are similar across the region

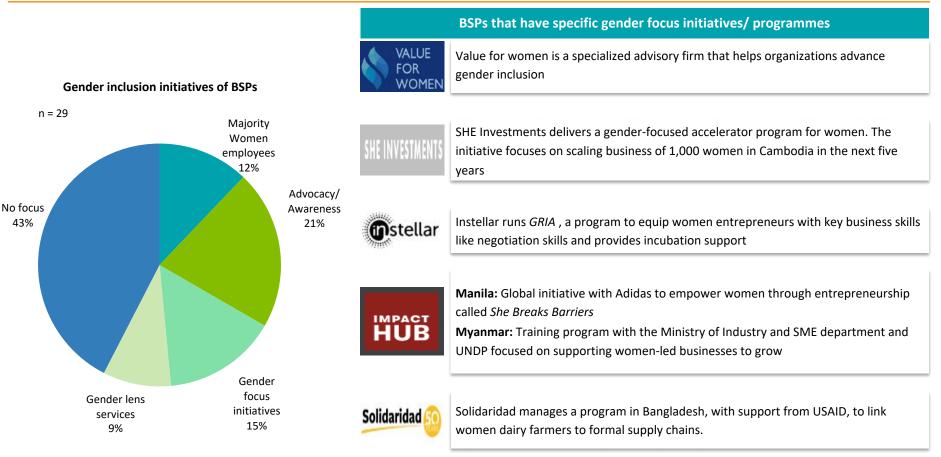
Services provided	<ul> <li>BSPs in South Asia either provide TA services or both TA and investment support services</li> <li>BSPs in South East Asia additionally also provide bespoke investment support services</li> </ul>
Challenges faced	<ul> <li>BSPs across the region find it challenging to get an investment ready enterprise pipeline, the challenges is further augmented by the lack of standardization in data availability</li> <li>BSPs in South-East Asia additionally face challenges due to the diversity of policy across countries and in sustaining partnerships</li> </ul>

# Gender focus BSPs in South-East Asia have a significantly larger focus on women focused initiatives/ programmes as compared to BSPs in South Asia

Nexus alignment ~60% of BSPs in South-East Asia are sector agnostic, whereas most of BSPs in South Asia tend to align their service offerings with a
particular nexus

## **Gender focus of BSPs**

Most BSPs either have no focus on gender inclusion or only participate in generating awareness or advocacy. Only 17% BSPs provide a specific gender lens service or initiative focused on gender inclusion



## 'Value for Women' – BSP focused on gender inclusion

Value for Women is a specialized advisory firm that helps organizations advance gender inclusion

Value for Women (V4W) helps enterprises and investors to adopt more gender inclusive policies	Services provided	Specific activities undertaken
<ul> <li>V4W works with</li> <li>Enterprises to <ul> <li>Reach more women and women-led businesses</li> <li>Mainstream gender across its strategy and decision-making</li> </ul> </li> </ul>	Gender advisory services	<ul> <li>Craft gender action plans for enterprises to integrate gender lens across operations</li> <li>Help investors carry out gender focused due diligence</li> </ul>
<ul> <li>Identify steps to improve women's participation and leadership</li> <li>Investors to <ul> <li>Create a gender lens investment strategy and framework</li> <li>Identify and address the barriers faced by women entrepreneurs</li> </ul> </li> </ul>	Technical assistance	<ul> <li>Develop gender-inclusive sales strategies for enterprises to enhance sales to women consumers</li> <li>Prepare gender-inclusive evaluation process for investors</li> </ul>
Solve investees' business challenges by applying a gender lens     Sector of focus	Landscape mapping and market research	<ul> <li>Landscape Report: Impact Investing with a Gender Lens in Latin America</li> <li>Women-focused market research, market segmentation and value proposition</li> </ul>
Clean energy and climate change Agriculture and infrastructure Gender-lens investing SGBs and entrepreneurship	Gender trainings	<ul> <li>Gender lens investing training</li> </ul>



# Recommendations

#### **Regional innovation hub's support structure**

The Hub can support WE4F enterprises by providing bespoke investment linked support through a brokering unit and curating TA support linked to enterprise growth outcomes through a technical unit

Undertake initiatives to catalyze flow o	ing Unit f additional risk capital and enhance deal e-line	Technical Unit Provide support capacity building for enterprises and build their prevailing ecosystem		
Increase flow of risk capital	Increase investability of enterprises	Facilitate enterprise building	Facilitate ecosystem building	
<ul> <li>Channel long term capital through innovative blended instruments</li> <li>Deepen the pool of investors at the early stage (Pre-series A)</li> <li>Facilitate development of innovative mechanisms to manage foreign exchange risk</li> <li>Incentivize banks to channel local debt through credit guarantee / First Loss Default Guarantee mechanism</li> </ul>	<ul> <li>Bespoke TA to address specific enterprise gaps identified by investors</li> <li>Mechanism to share due diligence findings</li> </ul>	<ul> <li>Design TA services with strong linkages to outcomes achieved</li> <li>Design TA programs that encourage entrepreneurs to co- pay for services received</li> <li>Enhance governance and financial compliance</li> <li>Support entrepreneurs in their efforts to scale by designing interventions customized for local ecosystems</li> </ul>	<ul> <li>Lay the ground work for a gender inclusive ecosystem</li> <li>Leverage technology to bridge information gaps</li> <li>Advocate sector friendly and stable government policies</li> </ul>	
Network facilitation Finance compliance	Investment readiness	Business Advisory Business Advisory	Capacity building	

#### Hubs role in promoting enterprise – investor interactions

Hub can augment flow of investments by establishing trusted mechanisms to disseminate critical information, augment enterprise capacity and establish mechanisms to create a supportive ecosystem

	Increase flow of risk capital	Increase investability of enterprises	Facilitate enterprise building	Facilitate ecosystem building
		Enterprise-Investor		
Interventions by Hub	<ul> <li>Source high potential WE4F enterprises</li> <li>Disseminate accurate enterprise information</li> <li>Reduce due diligence costs</li> <li>Create pool of early stage investors</li> <li>Design structures to blend pools of capital and mitigate foreign exchange risk</li> </ul>	<ul> <li>Bridge information asymmetry – investor's understanding of enterprise's business and enterprise understanding of investor requirements</li> <li>Provide enterprise support linked to investor feedback</li> <li>Provide structural support – updated enterprise information, M&amp;E</li> </ul>	<ul> <li>Support enterprises in preparing for growth and scale         <ul> <li>by providing market linkage support, supply chain optimization, value chain integration etc.</li> </ul> </li> <li>Explore market expansion opportunities for enterprises across hubs in different regions</li> </ul>	<ul> <li>Create awareness of solutions offered by entrepreneurs</li> <li>Curate list of network of service providers in region</li> <li>Support early stage/angel investment networks</li> <li>Awareness generation in investing community about new technology/innovations</li> </ul>
Potential outcome	<ul> <li>Accurate enterprise database</li> <li>Availability of stage relevant capital</li> <li>Increased comfort to local debt providers (credit guarantee/ FLDG / foreign exchange management)</li> <li>Blended finance mechanisms to channel long term capital</li> </ul>	<ul> <li>Enterprises with investability gaps addressed</li> <li>Strengthened processes and internal controls in enterprises seeking to raise capital</li> <li>Robust end use monitoring of funds and impact reporting</li> </ul>	<ul> <li>Enterprises that are able to absorb capital and achieve growth in line with investor expectations</li> <li>Reduced uncertainty in expansion efforts to new markets</li> </ul>	<ul> <li>Seamless exchange of critical information within the investor, incubation and acceleration ecosystems</li> <li>Greater collaboration in the region with respect to WE4F entrepreneurs</li> </ul>

#### Hubs role in creating stakeholder partnerships

Hub can act as a responsible broker to align enterprise support programs with BSP sustainability needs and also build capacity of ecosystem players to support WE4F entrepreneurs

	Increase flow of risk capital	Increase investability of enterprises	Facilitate enterprise building	Facilitate ecosystem building	
Enterprise-BSP					
Interventions by Hub Potential outcome	<ul> <li>Pre- due diligence standardization of enterprise information to reduce transaction costs</li> <li>List of trusted BSPs across the region to support transactions</li> <li>Reduced enterprise need assessment cost for BSPs</li> <li>Better match making between enterprise need and BSP</li> </ul>	<ul> <li>Align enterprise - BSP expectations regarding scope of support and remuneration guidelines</li> <li>Pilot hybrid fee models such as minimum fixed upfront fee and flexible fee linked to performance</li> <li>Efficient and sustainable delivery of services by BSPs</li> </ul>	<ul> <li>Post investment capacity building (talent management, market expansion, go-to market strategy etc.)</li> <li>International expansion support</li> <li>ESG impact assessment support</li> <li>Accelerated growth prospects</li> <li>Better assessment of impact</li> </ul>	<ul> <li>Setting standards for the collection of gender disaggregated data</li> <li>Setting standard documentation and process guidelines for transaction support</li> <li>Gender balance in enterprises</li> <li>Standardization of BSP investment support activities</li> </ul>	
	capabilities				
WE4F Ecosystem					
Interventions needed	<ul> <li>Knowledge sharing for building better investor understanding across WE4F geographies</li> </ul>	<ul> <li>Facilitating impact contextualization and showcase across region</li> </ul>	<ul> <li>Replication of success models from other WE4F hubs regionally</li> </ul>	<ul> <li>Engaging with start-up / sector initiatives of policy makers</li> <li>Advocacy in promoting market mechanisms among policy makers</li> </ul>	



we4f.org