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Building energy businesses: Knowledge sharing workshop with business incubators and entrepreneurs from Asia & Africa

22 – 27 September 2014 | Bangalore, India

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Cover Photos (from left): An incubator from Africa mapping the experience of supporting energy enterprises; A panel on enterprises in session; Entrepreneurs and Incubators learning from a SELCO staff member









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Executive Summary

A workshop on 'Building energy businesses: knowledge sharing sessions with business incubators and entrepreneurs from Asia & Africa' was organised from 22nd to 27th of September, 2014 by the International Renewable Energy Agency (IRENA) and co-sponsored by the UK Aid Department for International (DFID). This knowledge sharing workshop was targeted at energy business incubators and entrepreneurs from South Asia and East Africa. The programme was anchored by the Centre for Innovation Incubation and Entrepreneurship (CIIE) at IIM Ahmedabad and SELCO Incubation Center, two businessincubator vehicles supporting entrepreneurs in the renewable energy and energy access space in India. The workshop brought together about 30 participants from 11 business incubators, 2 renewable energy associations and 10 energy enterprises from 8 countries within Africa and Asia - Kenya, Tanzania, Uganda, Egypt, Bangladesh, Myanmar, Nepal and India.

The idea of bringing together these stakeholders was seeded following a successful workshop organized by IRENA, DFID, CIIE and Asian Development Bank (ADB), as part the International Off-Grid Renewable Energy Conference (IOREC) held on 16 June 2014 in Manila, Philippines.

The key objectives of this workshop were to:

- Share knowledge and perspectives between incubator vehicles and energy entrepreneurs from different countries
- Inculcate thinking of holistic ecosystem approach into incubator vehicles
- Orient incubator vehicles into the ground realities and challenges of energy businesses
- Enable broader access of opportunities for energy entrepreneurs through incubator vehicles
- Build partnerships among incubator vehicles and entrepreneurs from different countries

Notable outcomes of this program included commitment from the incubators to establish inter- and intraregional partnerships for knowledge sharing and collaboration. The entrepreneurs on their part committed to establishing a peer platform to learn from similar enterprises operating elsewhere.

Challenges - Enterprises & Incubators

The challenges faced by enterprises and incubators although are distinct and specific to the conditions they operate in, there were some common elements that emerged out of the discussions. These elements were reported to require solutions that target the energy enterprise ecosystem as a whole. A summary of these challenges is captured in a tabular format below:

	Enterprises	Incubators
Finance	Access to finance and investments across growth stages	Funding and financing challenges to stay operationally sustainable
Infrastructure	Lack of infrastructure including banking and rural connectivity	Resources for operational support, banking and rural connectivity
Talent	Absence of a pool of trained human resource both technical and general	Attracting and managing multi-functional teams to service incubatees
Policy	Lack of coherent Government policies and support for SME's	Absence of common platform to influence policy

Key Insights

Incubators:

- <u>Holistic Approach</u>: Incubation support that encompasses a spectrum of issues facing energy enterprises ranging from operationalizing the business to policy support that can create a conducive ecosystem. This ecosystem approach is a major requirement across the growth stages of the enterprise.
- <u>Selecting Entrepreneurs</u>: Initial selection needs to be robust to mitigate dropout rates. A mix of methods like conducting exposure visits to established organizations in this space and multiple interview rounds to assess potential and passion of the entrepreneur can be leveraged to strengthen this process.
- <u>Mentorship</u>: To help overcome the startup and scale up barriers, incubators provide a mix of practitioner and academic resources. While typical incubators have dedicated team members for an incubatee to develop in-depth understanding of the enterprise and facilitate the right set of mentors, practitioner incubators play a pivotal role in sharing their experiences and helping to overcome familiar barriers. Also crucial to the incubation is mentorship that lends support beyond business processes i.e., motivational support.
- <u>Evaluating Incubator Models</u>: Incubators are varied in their structure and models and rightly so as contextual challenges are varied. Thus it would be hard to find an "ideal incubator model". The approach of evaluating the input to output/impact ratio to gauge the success of the model in addition to applying relevant sustainability metrics has proven to be effective.
- <u>Sustaining Operations</u>: A multifunctional team can be leveraged by incubators to offer complementary services to its incubatees and also provide its core services like deal sourcing, investment facilitation, etc., to third-party organisations to generate revenue for sustaining its operations.
- <u>Facilitating Investments</u>: In the initial phase, incubators must facilitate financing through debt, guarantees, etc., for working capital needs followed by mediation for investments at the startup phase. Further, based on the needs of the entrepreneurs supported, incubators can set up seed or venture capital funds on their own.
- <u>Policy Coordination</u>: Regional partnership networks of incubators can go a long way in ensuring policy coordination and knowledge transfer of successful policies between regions.

Enterprises:

- <u>Incubator Support</u>: Enterprises should choose to work with incubators whose mission and objectives align with theirs to make the most out of the incubation experience.
- <u>Access to Finance</u>: Enterprises still find it difficult to find funding for their growth due to various reasons. These range from the highly competitive nature of grants wherein proposals carry more weightage compared to actual business performance, collateralization and absence of balance sheet performance to access bank debt and high costs associated with raising equity funding. Also, seed stage risk capital was identified as the most crucial to ensure the initial success of the enterprise.
- <u>Robust Processes</u>: Organizational structure is the primary determinant of the processes that are implemented. Need to have internal processes to monitor the after sales services, distribution mechanics and also financial control even during periods of increased cash flow and funding.
- <u>Training</u>: Traditional training modules like exhaustive toolkits are time-consuming for entrepreneurs. Trainings can be simplified and re-configured as topic-wise mentoring for the management and shadow-training for quality human resource at multiple levels.
- <u>Investor Due Diligence</u>: The onus is on the enterprises also to perform similar due diligence on investors to ensure mission alignment and agree on the business bottom line.

Key Recommendations

The session was concluded with a letter of intent signed by twelve of the participating incubator vehicles to initiate a knowledge sharing platform that can concretize the action items that were agreed upon during the workshop. Apart from this, the enterprises also came to a consensus on a few action items, as outlined below:

Incubators:

- Establish regional networks for sourcing deal flow, sharing pool of mentors, sharing best practices on skill development, investment opportunities, opening up investor networks, and grants
- Provide inputs in creating similar existing seed funds in participating incubation centres with other centres who do not have one to support the operations of enterprises and incubators especially in the initial stages
- Create a communication platform that can inform and foster cross-border partnerships among incubators and incubatees
- (A draft of the letter of intent can be found <u>here</u>)
 - Conduct joint webinars on specific topics and hold online conference calls to exchange information
 - Design accreditation for incubatees to provide a stamp of approval

Enterprises:

- Build and facilitate peer platforms to share learnings and troubleshoot enterprise issues with inputs from entrepreneurs operating in similar conditions
- Provide inputs in creating customised training manuals as a reference that capture specific aspects of enterpriseDevelopment and facilitation of virtual mentorship for entrepreneurs working in remote areas. These must be modular with examples and not complicated.



Participants' group picture

Annexure I: Workshop Session Break-up

Session #1 - Introduction to CIIE Model

Presented by: Mohsin Bin Latheef, Program Manager (Cleantech), Vipul Patel – Sr. Manager (Social Impact), CIIE

The session was anchored by Mr. Latheef and began with an introduction to CIIE Initiatives (a Sec.25 Company) at IIM-Ahmedabad and proceeded to highlight in detail the genesis, objective, evolution of programs and the overall organization of the Centre. A model for mapping support provided to energy access enterprises was provided to participants to help them model their operations with inputs from the CIIE team. The template is annexed. CIIE has so far facilitated USD \$1.62 mn in grant money and USD \$2 mn in investments to enterprises by leveraging the following key activities of the centre - business plan competitions / bootcamps, stakeholder coordination, partnerships with organisations for technology support (Department of Science & Technology; universities, etc), investment support through seed funding and venture funding (at a later stage) and working closely with the IIM-A community including the faculty/experts, students and alumni.

Apart from these activities, the Centre has also established focused initiatives and partnerships to catalyze the entrepreneurship ecosystem in India, such as:

- Infuse Ventures is an INR 125,00,00,000 venture fund focusing on early stage cleantech enterprises
- Aarohan Ventures is an initiative that works with early stage social enterprises across sectors
- iAccelerator is a 3 month accelerator that takes solutions from idea stage to prototype in the ICT, web, mobile and internet sectors

Feedback: The participant incubators were interested in understanding the model for sourcing and pricing resident and external mentors, managing mentor - incubatee expectations, business plan competitions for deal sourcing, university-incubator dynamics and the overall investment process.

Mentors are engaged on a pro-bono model initially and their efforts may be compensated on a sweat equity basis dependent on the entrepreneurs comfort. In order to make the engagements sustainable, in the initial stages, the mentorship may be externally sponsored. Typically, the mentors are looking at companies for angel investments and may co-invest in the company after the engagement period and CIIE educates the angel investors by providing information on the investment process. In order to source enterprises across the early stage spectrum, The Power of Ideas competition has twin categories covering idea/startup stage, and grants/soft funds are utilized to bring the idea stage enterprises to prototype stage during the program. In order to function more efficiently as a business incubator, CIIE Initiatives was spun out as an independent entity from CIIE-IIM Ahmedabad. For investments, CIIE performs in-house due diligence replete with conditional performance checks which is vetted by an internal investment committee prior to investing.

Closing Remarks: Mr. Latheef and Mr. Patel concluded their presentation on the note that incubators play a vital and perhaps crucial role in supporting and nurturing the ecosystem that an enterprises operates in, and that is the mandate on which CIIE Initiatives is working in India.

Session #2 - Introduction to Department for International Development (DFID)

Presented by: Aloke Barnwal, Adviser (Climate & Environment) - DFID

This session began with Mr. Barnwal providing an overview of the Energy, Climate & Growth unit at DFID India, and was followed by an introduction to its Knowledge Partnership Program ('KPP') that aims to foster south-south cooperation to facilitate knowledge transfer in the area of climate change interventions, technologies and processes. Mr. Barnwal pointed to an International Energy Agency (IEA) study that states that over 40% of all installed capacity needed to achieve universal access to electricity by 2030 could most economically be met through mini-grids. Mr. Barnwal also underscored the importance of decentralized / off-grid sources in the energy mix of the future. He put forth DFID's view of energy access as a gateway to economic growth for the most underserved population globally. To this end, DFID engages and establishes key partnerships with academic institutions (such as TERI), central government agencies and state government agencies in the country to coordinate the energy access policy. By establishing an *'Energy Access Policy Fund'*, DFID also provides training for these stakeholders to formulate cogent policies to further energy access. He also outlined the shifting impetus within DFID from a grant-led approach to an incubator/equity model as part of investing in programs in this area. Some of the broad challenges facing the decentralized energy enterprises as identified from DFID's perspective are-

- Scaling up models / interventions
- Facilitating commercial finance (private equity; consumer financing)
- Research & development limitations in small enterprises
- Knowledge exchange to facilitate peer learning

Feedback: The enterprises had follow up questions on the scope and coverage of the KPP program and the activities covered via the Energy Access Fund. Mr. Barnwal reported that currently the KPP program covered South Asia and had planned to expand this further in future. He explained that the policy fund was earmarked for technical assistance to government bodies for policy research and piloting innovative solutions.

The incubators were interested in understanding the mix of funds from bilaterals and private sector for development financing, and also the level of policy outreach beyond dedicated ministries as undertaken by DFID. Mr. Barnwal also explained that DFID is taking a cautious approach by financing credible institutions in the country and also encouraged private funding, for instance, by supporting the compilation of 'Ease of Starting Business' indicators and report. In terms of policy outreach, DFID's role in strengthening institutions in program country has been crucial. Specifically, the parliamentarians and legislators are engaged via the foreign office to educate them on climate change issues and potential interventions.

Closing Remarks: Transparency and being upfront in terms of explaining the background of DFID as an entity under the UK Government, is key to establishing trust in liaising with legislators and parliamentarians on educating them regarding climate change and its implications.

Session #3 - Introduction to SELCO Umbrella

Presented by: Harish Hande, Founder - SELCO India / Sudipta Ghosh, Asst. General Manager- SELCO

Mr. Ghosh began the session with a detailed overview of the SELCO model and its various initiatives in the past two decades. He spoke about the government's increasing impetus on expanding the central grid network and how this still leaves significant gaps in reaching the underserved households in various states. He espoused SELCO's approach of viewing the poor as asset creators and not as consumers. In line with this view, the shareholders of SELCO are three not-for-profit holding companies.

Mr. Ghosh also described the bottom-up innovation approach of SELCO whereby solutions are customized to particular settings of the bottom-of-the-pyramid (BoP) as opposed to selling standardized solutions that fail to meet the needs of the underserved. This approach is also complemented by the provision of decentralized servicing for decentralized solutions, whereby more than 40 service centres and branches have been established to extend services to customers even in remote locations. In order to finance its products from the consumer's end, SELCO leverages existing banking infrastructure including regional rural banks, cooperative banks, MFI's, etc., to facilitate such end user financing. So far, 75% of the energy systems have been financed through banks. SELCO taps into existing synergies between SELCO Foundation and SELCO Incubation Centre to operationalize and implement its in-house innovations on ground. Innovations that have been developed at the Foundation span across education, health, livelihoods and agriculture. The idea that drives these initiatives has been to look at different aspects of life at the BoP where energy can be augmented by solar, biogas, pico-hydro etc.

Mr. Harish Hande (Founder-SELCO) introduced in detail the different entities under the SELCO Umbrella and the reason behind their establishment- SELCO India (1994), SELCO Foundation (2010), SELCO Incubation Centre (2012). He also detailed the policy work that SELCO has undertaken so far including the establishment of CLEAN Network- an industry body for stakeholders working on clean energy, differential rate of interest for the most underserved customers and easing the Priority Sector Lending (PSL) norms to extend its cover to solar lighting customers. He described how skill training imparted in the Rural Self Employment Training Institutes (RSETI's) had driven the Agricultural revolution in 1970's in India and called for a similar institutionalized skill training for solar industry. He also highlighted the difficulties that trouble social enterprises ranging from commercial-equivalent taxation to securing soft funds for financing the operations initially and mission-aligned growth capital at later stages. Mr. Hande also remarked that often times the incubatees lack knowledge of how & when to use equity and grant funding and the support extended by incubators must extend to educating the enterprises in utilising the funds efficiently. In this context, the key aspect of SELCO's model and its incubation philosophy is the replicability of its processes and practices (eg:street vending model) for its incubatees.

Feedback: The entrepreneurs had follow-up questions on training the field staff of SELCO at the branch and head office level. Mr. Ghosh explained how existing managers of SELCO act as mentors for newly joined managers who shadow them as part of training. This approach extends to training for service personnel, business associates and other SELCO staff.

The incubators had specific questions regarding managing the single bottom-line of revenues from an investor's perspective, sales margin / average system cost, client income profile, alternate models of equipment financing like leasing, relationship building with bankers, mitigating client defaults and SELCO entrepreneurs. Mr. Hande explained that the bottom-line for SELCO has been to reach maximum number of underserved households and so it is crucial to perform due diligence on investors before accepting funding to ensure right-fit and mission alignment. In terms of margin on SELCO's products, it typically does not extend more than 2% and the average system costs between USD \$110-140. The priority client segment of SELCO has a monthly earning of USD \$40-100 and pay a monthly installment between USD \$2-3. In line with SELCO's expertise in door-step servicing, SELCO works and builds relationship with banks to bridge the financing for end users and banks have not actively explored leasing in rural markets and typically go for larger projects for such financing. To leverage existing relationship with bankers who are transferred to other regions, SELCO introduces its local branch manager in the region to take forward the relationship. SELCO Incubation Centre's entrepreneurs are differentiated by the quantum of investments- Micro (upto \$6000), Small (upto \$25,000), Medium (upto \$100,000) and large (>\$100,000) with a greater emphasis on Micro to medium entrepreneurs.

Closing Remarks: Mr. Hande closed the session with a remark that only entrepreneurs from the BoP can really solve the issues facing the underserved population as they have an in-depth understanding of the unique needs and pain points.

Session #4 - Pursuing Energy Access Businesses: Experiences from India, Africa + Elsewhere

Moderator: Greg Briffa - Team Lead, Low Carbon Development-DfID

Panel participants: Abhilash Tripathy - SuryaPower Magic (India) / Piyush Jaju - Onergy (India) / Allen Himes -Indigo Energy (Myanmar) / Abu Musuuza - Village Energy (Uganda) / Susmita Bhattacharjee - Pushan Renewable Energy (India) / Collins Kyalo - Cocatech Enterprises (Kenya)

The panel session was opened by Mr.Briffa stating the importance of bringing together entrepreneurs to share their experiences of operationalising and running social enterprises in the energy space. The panel discussion began with each panelist introducing their organisations and sharing challenges that they are facing presently or in the recent past. The major issues that were discussed by the panel include-engaging suppliers (local/international), access to finance, distribution challenges and human resource issues. Some of the specific challenges identified by entrepreneurs include:

- Surya PowerMagic (India): Inconsistent policies and stances from the government have confusing implications for the solar PV industry.
- ONergy (India): Infrastructure challenges in operating region; human resource issues; incoherent government policies; ecosystem issues like value chain development
- *Indigo Energy (Myanmar)*: Funding to scale-impact investors demand size & track record for their investments; human resource issues in Myanmar, specifically technical issues with products
- *Village Energy (Uganda)*: Geographic spread coupled with lack of infrastructure adds to the costs in after-sales models; Customer education; Information gap
- *Pushan Renewable Energy (India)*: Gender divide in accessing energy; human resource challenges; identifying the right model to scale and sources of funding
- Cocatech Enterprises (Kenya): Access to finance in Kenya; human resource; foreign competition; drop in customer trust and product quality due to NGOs giving away free products; government impetus on large panels (>45 KW)

Feedback:The feedback from enterprises and incubators centered around the data collection and aggregation aspect of the of the organizations, the support they received from the mentors / incubators, monitoring & evaluation, skilling technician / human resource training, standards & certification, international suppliers & inferior products, angel investments / crowd funding for startups, government engagement for tax exemption, government regulations, incubators role in raising money & providing investor connections and facilitating practitioner's perspective.

Closing Remarks: The session was concluded with a call from the entrepreneurs to address access to finance issues in order to fund operations, ecosystem support from the incubators pertaining to issues of human resource training and government policy coordination.

Session #5 - Mentorship for Entrepreneurs

Presented by: Ashok Das, Mentor & Founder & CEO - SunMoksha

This session primarily dealt with the contradictory and challenging perspective with which a mentor engages with the entrepreneur to validate the basic assumptions of the business. Mr. Das outlined how a clear distinction needs to be drawn between mentors who can provide technical support and organizational support. Mr. Das also spoke about how crucial mentor-mentee matchmaking is for the success of any mentoring engagement. Personality tests and other alternate approaches by the incubators to understand the entrepreneur were discussed as a potential supplement to ensure the right mentor-mentee fit. Also, crucial to this engagement is to ensure that mentors are domain experts in order to provide sound inputs that can be taken up as action items by entrepreneurs. Another aspect to ensuring successful mentorship is to manage expectations of the entrepreneur by incubators. The experts could be compensated in terms of remuneration although this mode is not highly preferred by the incubators or through sweat equity / angel investment for their support and efforts. The concept of distinguished mentors who could potentially inspire the entrepreneur and technical mentors who can troubleshoot specific issues pertaining to technology, finance, HR, etc was also put in perspective during the session. Specifically for incubators, Mr. Das mentioned that it is necessary to have a network of mentors and keep building on this network based on the nature of the pipeline of entrepreneurs.

Feedback: CIIE provided insights into the concept of 'Deal Champions', who anchor a specific investment, understand the needs of the entrepreneur. A mentor-mentee matching is conducted and the engagement is monitored to ensure its success. SELCO's concept is markedly different, in that the mentorship is directed at aligning organizational goals with end user needs (practitioner's perspective). The participant's also provided feedback that the practice of making the past mentees interact with the current ones facilitates understanding of success and failure points.

Closing Remarks: Mr. Das's concluding remark was that incubators must understand the entrepreneur, the enterprise needs and requirements to facilitate successful mentor-mentee matching.

Session #6 - Financing & Investments

Moderator: Mohsin Bin Latheef, CIIE - IIM Ahmedabad

Panel participants: Shyam Menon, Infuse Ventures / Revathi.K, SELCO India / Abhilash Tripathy, (SuryaPower Magic) / Piyush Jaju (ONergy)

The session was opened with a poll on the range of funding accessed by participant entrepreneurs, which was followed by a high level discussion that covered the various financing options available for entrepreneurs to fund their venture by Mr. Menon. Most common kinds of funding for energy entrepreneurs include:

External Sources	Internal Sources
Funding from friends & family	Personal financing (Personal loan, credit cards)
Grants- Awards / CSR/ Donors	Cash Flows:
Equity	Customer money
Debt	Vendor money
Convertible notes	
Government subsidies & grants	

The crucial aspect of cash flow financing i.e., customer money that can be utilised for product experimentation and vendor money that could be used for supply and distribution experimentation was stressed by the entrepreneurs and investors alike. Also discussed was an ideal model for utilisation of funds at different stages of enterprise growth. Some pointers regarding the financing options for entrepreneurs that was discussed were:

- *Grants* are non-dilution funding options and could be utilised for any activity that can potentially develop the business further. Grants may have stringent reporting norms to the donors. In most cases, the proof-of-concept should be in place before accessing this source of funding.
- *Debt* is not the most easily accessible instrument especially in the early stages of the business but, it becomes progressively easy to access debt after the first instance as the credit history builds up. This source of funding in non-dilutory. There are government agencies (SIDBI, DST) providing soft loans (although time consuming to access) which can be leveraged.
- *Equity* funding comes at a later stage of the business. This source of funding takes extremely long time to process owing to the significant investment process with detailed due diligence that may take anywhere from a few months upto a year. So, entrepreneurs were advised to account for this time lag prior to accessing equity funding. In most early stage investment cases, this funding is milestone pegged.

Feedback: The entrepreneurs' feedback was on the concept of grants vs equity, impact investing and investor exits, assessing management strength, managing excessive money and alignment of investment philosophy of the enterprise and the investor. Mr. Menon spoke about how grants are free money and can be utilized for any value addition activity of the business while equity is much more expensive and must be geared toward revenue generating activities. He mentioned that early investors typically do not have full exits and can have partial exits over a period of time. In terms of assessing the management strength, Mr. Menon spoke about the practice at Infuse Ventures to favourably look at enterprises with co-founders that bring in complementary skill sets.

Ms. Revathi spoke of the importance of having tight internal finance control to ensure that funds that are excessive are not squandered. In the investor context, she recounted SELCO's experience of dealing with an

impact investor who was not aligned with the mission of the organization and said the onus was on the enterprise also to vet the investor before accepting funding.

Closing Remarks: The session was concluded with the agreement that as equity funding takes the longest duration, the entrepreneurs must factor in this period and quote the respective fund requirement to investors. Also, entrepreneurs were advised that, as long as their business was sustainable, investors will find the enterprise as they are also looking for quality deals.

Session #7 - SELCO Incubation Centre: Evolution, Processes & Learnings

Presented by: Ashis Kumar Sahu - Advisor, SELCO Incubation / Sreeharsha Karanam - Asst. General Manager-SELCO

The session was opened by Mr. Sahu with brief remarks on SELCOs Incubation Centre's uniqueness in terms of being an operational incubation centre as opposed to incubators that are investor or academic centric. SELCO understands that the Indian geographic spread and diversity demands decentralized and customized solutions to cater to the underserved population in the country. SELCO's philosophy of decentralization has driven its idea to incubate organisations with similar focus and goals, in spite of the scope for competition from them.

Following the opening remarks, Mr. Karanam presented in detail the background, workings and the processes involved in operating the SELCO Incubation Centre. He delved into the ecosystem approach undertaken by SELCO Incubation Centre in its incubation processes and objectives. Furthermore, the overall focus of the incubation was also highlighted as balancing social & commercial aspects of a business, facilitating linkages for capital & rural credit, business development, training for team building and financial intermediaries. The presentation also detailed the following facets to SELCO's incubation:

Incubation role: Replicate decentralized models and provide mentorship for social enterprises to enable efficient service delivery and access to mission aligned capital

Approach: The incubation approach at SELCO Incubation Centre, is geared toward various stages of a business and across the scale of the enterprise-

Stage / Size	Micro	Small	Medium	
Startup	Understanding the entr	Understanding the entrepreneur and his/her capacity & concept validation		
Expansion	Growing the business to	Growing the business to scale		
Maturity	Cross learning between	Cross learning between SELCO and its incubatee		
Training Phases #	1. Strategy Building &Business Plan	2. Field visits & validating processes	3. Business linkages & policy knowledge	

Process: The process of incubation follows a standard model of *Entrepreneur identification* that is based also on passion and commitment exhibited during multiple rounds of interviews. This is followed by the *Training* phase in which actual knowledge transfer and partnerships are facilitated. Business support in terms of systems, processes and vendor linkages are also part of the training phase. Finally, *Investments* are facilitated to the enterprise based on investor-enterprise fit and mission alignment

Mr. Sahu outlined a few challenges encountered by SELCO Incubation Centre, in terms of ensuring a robust and successful entrepreneur cohort, ecosystem challenge like spatial and infrastructural difficulties of operating in rural locations and managing entrepreneurs' expectation. He also discussed some areas where the incubator could potentially price its services: legal assistance, financial / book keeping services, mentor matching investment advisory services, etc. **Feedback**: The questions from the participant incubators involved revolved around whether incubators should be sector-focused, issues in exiting an investment, building pipeline of incubatees and gaining visibility for an incubator.

Mr. Sahu elaborated on how incubators that are sector-focused may face difficulties in a narrow incubatee pipeline. The official incubatee-incubator relationship concludes on raising investments but the relationship may continue if the incubator takes a board position later (after which partial exits may be leveraged if necessary). SELCO Incubation Centre leverages its channels and partner networks for entrepreneur identification like entrepreneurship training institutes, workshops, nominations and word-of-mouth. SELCO Incubation Centre also relies on SELCO's 20 year history and this creates significant buzz apart from workshops and word of mouth publicity.

Closing Remarks: Mr. Sahu concluded that the incubation model needs soft/risk capital to be sustainable while maintaining that 100% sustainability may be impossible to achieve. Thus incubators could price certain services to ensure operational sustainability.

Session #8 - Evaluation of Business Incubation Centre

Presented by: Thomas Pullenkav - Renewable Energy Consultant

The session dealt with the evaluation of SELCO incubation centre model and its learnings. Mr. Pullenkav provided a brief on the approach to incubation and went on to detail the evaluation and the parameters used to gauge the success of SELCO Incubation Centre.

Evaluation Parameters: SELCO Incubation Centre used the OECD-DAC evaluation model to measure the success and effectiveness of its model.

- Relevance: SELCO Incubation Centre's relevance has been clearly established due to the existing gaps in energy in the market.
- Efficiency: It was found that there was no precedent to evaluate the efficiency of this model. Since, SELCO Incubation Centre's model is quite unique and also due to the absence of comparables. The measure of fund utilization may be used for gauging efficiency. Instead of exhausting its funds, SELCO Incubation Centre took an extension from donors to deploy the same in the right entrepreneurs.
- Impact: 13 medium / 88 small scale entrepreneurs were incubated so far. Nearly 4924 tonnes of carbon offsets contributed by the incubation model.
- Sustainability: SELCO Incubation Centre has been able to raise co-funding based on the original funding from Deutsche Gesellschaft fuer Internationale Zusammenarbeit (GIZ). The Centre has committed funding from donors for the next two years.

Learnings: The key learning's from SELCO Incubation Centre's experience of incubating has been:

- Holistic approach to incubation is crucial in incubation. This involves training bankers, the team, providing supplier liaison and all this contributes to the success of the incubatee.
- Entrepreneurs working in the BoP are generally first generation entrepreneurs and so the field exposure provided by SELCO Incubation Centre has been crucial to understand the realities of business.
- Almost all the incubatees at the Centre signed up due to the practitioner's perspective that SELCO provides as part of its incubation.
- Peer learning platform is crucial to share the learning between the past incubates who have been successful and current incubatees.

What will work?

- In-depth selection and due diligence process right to the selection of the incubatee.
- Ecosystem approach works effectively and so does paying attention to field immersion.

- Multifunctional team for the incubator is crucial to provide complementary services.
- Incubators must manage relationship with financial intermediaries, government and policymakers.
- Senior advisory team that can share their experiences and peer support.

Feedback: The participants had specific questions on the skills and expertise needed in an incubator team, premature exits/drop outs, compensation terms for advisors/mentors, success indicators (from donor perspective). Climate Innovation Centre (CIC), an incubator based in Kenya, recounted their experience of working with IFC to resolve the issue of VAT levy on off-grid solar entrepreneurs and asked how policy issues were dealt by SELCO Incubation Centre in India.

Mr. Pullenkav highlighted that SELCO Incubation Centre has leveraged the technical expertise from its parent organization to provide hands-on practitioner led incubation. Most pre-mature exits happened at SELCO Incubation Centre due to absence of mission alignment- either too social or too profit oriented. In terms of compensation of mentors, SELCO Incubation Centre leverages the support of its network to provide pro-bono support to incubates. Also, from donor evaluation perspective SELCO Incubation Centre has trained more than 100 entrepreneurs with a funding of USD \$200,000 i.e., \$2000/entrepreneur which is still efficient. In response to SELCO Incubation Centre's role in resolving policy issues, Mr. Pullenkav said the newly established CLEAN network's role is to help aggregate the players and their inputs to influence policy making.

Closing remarks: Mr. Pullenkav closed the session by mentioning that instinct plays a crucial role in determining incubatees but also added that this process also needs to constantly evolve.

Session #9 - Sustaining Business Incubators

Moderator: Kavita Rai, Programme Coordinator-IRENA

Panel Participants: Minhaz Anwar, BizCube (Bangladesh) / Serha Nderitu, Kenya Climate Innovation Centre / Vipul Patel, CIIE-IIM Ahmedabad (India) / Surabhi, SELCO Incubation Centre (India) / George Kosimbei, Chandaria Business Incubation and Innovation Centre, Kenyatta University (Kenya)

This session began with the incubators introducing their work and sharing their experiences in their respective geographies. The session was anchored by Ms. Rai who posed a question to the panelists on the need for a business plan for incubators. Most panelists agreed that their incubators either did not have a detailed business plan or were in the process of building one. There was consensus among the panelists that the strategy plan has proved to be successful in guiding their operations, at least during the initial stages and going forward a business plan was necessary to drive the growth of the incubator and ensure its sustainability.

Ms. Rai followed up with questions on financing the operations of the incubator in each panelist's case. The incubators agreed that a multi-functional team can go a long way in providing services to finance the operations of the business. On involving government and influencing policies, the incubators put forth the view that identifying an internal champion and nurturing the relationship is crucial for policy influence and involving the government entities makes sense after the pilot of a solution with strong evidence base for larger impact. In order to pilot and validate the solution, incubators can leverage the support of donors and then gain the backing of the government at a later stage.

Feedback: The participant incubators' questions were on gaining visibility for the incubator and managing talent. The panel's response was to leverage affiliations, partner networks and on-ground activities (such as roadshows prior to a proposed accelerator programme) to market the incubator. In terms of talent, the panel found the need to build teams that have functional experience and also an entrepreneurial culture to foster it.

Entrepreneurs followed up on nurturing the skills required for entrepreneurial talent and impact investments. Involving students by providing opportunities to start a business at the university level in their related field i.e., web development, product design, etc., was identified as an effective way to groom entrepreneurial talent. The panel agreed with the participants that impact investments are difficult to access due to stringent parameters and checks that even the entrepreneur might not be aware of.

Closing remarks: There was consensus that a multi-functional team is significantly better positioned to provide complementary services to financially sustain the incubator and that incubators need to have a strong case for becoming sustainable vehicles in the long run, if not currently.

Field Visit

The workshop participants and representatives from SELCO travelled to Hassan, Karnataka for a day-long field visit. The group visited SELCO's branch, SKDRDP (SELCO's partner NGO that provides affordable loans for families to buy life-enhancing products), a SELCO branch, a "hawker light entrepreneur" to understand the different local components of the SELCO enterprise model. The field visits allowed participants to experience the Indian rural environment, engage solar stakeholders and witness the implementation of concepts that were discussed as part of the workshop sessions.

Incubators Learnings:

Incubators learned about SELCO's approach of engaging with the hawkers, fruit vendors and replacing their kerosene consumption with alternate clean sources of energy while significantly contributing to their primary / secondary income.

• They also understood the scope of demand for SELCO's products which is estimated to be growing at 30% (y-o-y) and the corresponding sales volume increase of 25% and its related risks associated with the expansion of centralized grid.

Entrepreneurs Learning:

The entrepreneurs were impressed with the client break-up- financed clients vs cash sales clients. While 70% of SELCO's clients were financed through loans and around 15% to 20% were cash sales clients and the rest of the clients are deeper in the BoP segment.

Entrepreneurs were also given information on SELCO's practice of partnering with certain financial intermediaries who do not charge exorbitant interest rates (Banks:12-14%; MFI's:20%) in order to ensure that clients are not burdened while paying back.

Entrepreneurs were acclimatised to the challenges in end user financing associated with relatively small ticket size of solar loans as opposed to loans in Agri/MSME sectors. The solution for this has been educating and relationship management with bankers which was highly relevant in the African and South East Asian context.

Entrepreneurs were provided inputs on SELCO's waste management policy of engaging with the original manufacturers to deploy the used battery as part of recycling efforts. The battery disposal rate varies from INR 25-30/kg for redundant batteries.

Entrepreneurs learned the crucial role of SELCO's Energy Service Centre as an inventory point, marketing base and financial facilitator. It engages in non-commercial marketing like demonstrations and installations in local champions household.

Closing Remarks: The participating incubators were impressed by the presence of a market for solar lighting in rural India, its related demand and SELCO's engagement with clients via the hawker/street vendor model. The entrepreneurs were keen on understanding the engagement with financial intermediaries and related challenges, the working of the street hawker model, battery waste management and role of SELCO's energy service centre in generating sales.

Session #10 - Role of SELCO Incubation Centre in building a sustainable enterprise - Mangaal

Presented by: Devakishor Singh Soraisam, Founder-Mangaal

In this session Mr. Soraisam presented the genesis of Mangaal from experiencing the bane of acute power shortage in Manipur where only 60% of the households are electrified. Complicating this further, there are very few organized firms in the solar market with the proliferation of sub-standard products. The buyers of these products are significantly exploited through over promises, design failures, wrong implementation and absence of after-sales services. Significantly, there is no end user financing for the products available in the market making it highly unaffordable for the users who most need them.

Mangaal is positioned as a systems integrator that assembles quality solar lighting products, advises and consults on right implementation and facilitates financial linkages by working with partner MFI's, NGOs, etc. The key aspect of Mangaal is its innovation in business model to service low-earning population in Manipur. Also, it hopes to transition the beneficiary mindset of its target user's to a customer's mindset. Some key aspects of its business model includes, engaging with multiple suppliers, customer consulting to ensure right installation and after sales and financial linkages with banks for user financing.

Mr. Soraisam highlighted the areas of support extended by the SELCO Incubation Centre and how it helped grow Mangaal's business-

- *Gap Funding*: Channeling of funds at the initial stage of the business
- Technical Training: Providing technical training for the entrepreneur and his technician
- Industry Knowledge: Knowledge transfer regarding industry & availability of products
- *Market Research:* Field survey support to understand the market & exposure to business models
- Vendor/ Supplier Linkages: Reference to quality vendors, negotiation and conflict resolution
- *Technology:* Providing access to various innovations to be customised for the market in Manipur
- *Financial linkages:* Providing access to banking network and facilitating bankers training

Challenges & related innovations (Relevant to Africa/South East Asia)

- Financial linkages in the absence of banks by leveraging small entrepreneurs in the region who operate revolving funds
 - o Marups: Traditional chit fund-like structure to finance solar lamps. Although, there could be risks involved in the Marup structure, similar model to Chamas-Women group in Kenya, Africa.
- Manipur banks are relatively inexperienced in lending to companies (Agri loans are deployed the most). SELCO's security guarantee through fixed deposit was leveraged to enable loan financing for solar products.
- In order to operate in regions that are politically volatile, Mangaal works with local partners in NGOs, Churches and local contacts to do business in the region.
- By ensuring quality and not lowering the price for the same, Mangaal ensures that products are reliable for the end users thus creating a trusted brand.
- Not working in areas that cannot be serviced by the team owing to the increased cost for the same.

Feedback: The participants were interested in knowing the service coverage of a branch office, LED usage and the warranty associated with the lights, general usage of the light in a household, training new technicians, helping customers qualify for bank loans and its related terms, Government subsidies and support availed and livelihoods interventions of Mangaal.

Mr. Devkishor explained that a radius of 15km can be serviced through a branch including the hilly areas. He explained that LEDs have a warranty of 6 months while Polycrystalline Panels have an 8years replacement warranty. The general usage of the light in the household is 4-5 hrs. Initially the founder and the technician were trained through SELCO, and subsequent training happens through the trained personnel. Almost all the financed customers are diverted from the local bank branches to buy the lighting product and the customer lock-in period for the same is 3 yrs. The support of MNRE has been leveraged for bank financing 40% subsidy

from the government's side and it is deployed through the state nodal agency. Some livelihood interventions leveraged from SELCO Incubation Centre by Mangaal with design iterations to suit the local conditions include: solar powered sewing machines and water pump systems.

Closing Remarks: Mr. Devakishor closed his presentation by stating that the intention was not to replicate the SELCO model as a whole, which is impossible due to the differing needs and problems of the target users. The idea was to replicate the practices and processes to suit the local conditions.

Session #11 - Feedback Session

The final session of the day was dedicated to feedback from the participants, wherein the entrepreneurs and the incubators were grouped separately and were asked to ideate on the following broad questions-

- How do we want to collaborate with each other? What concrete steps can we take?
- How can we effectively address financing challenges that we face? What specifically can incubators do?
- What sort of capacity do we want to be strengthened/built? Does a 'curriculum' + course for energy incubators make sense?
- What communication steps can we take to keep the discussion going?

Entrepreneurs:

- The entrepreneurs identified that a platform will be crucial to share learning and solve each other's problems-LinkedIn was identified as a potential platform. Also, an entrepreneur volunteered to actively anchor / moderate the platform.
- The need for financing options across the growth stage of the enterprise: Seed capital, Working capital, Expansion / New business development capital.
- In terms of capacity building a strict curriculum based toolkit was felt as monolithic and cumbersome to navigate by the entrepreneurs so a bi-weekly Skype conversation with a mentor to guide through specific interactive and relevant modules-topic-wise was mooted.
- Another recommendation that was floated in this context includes availing services such as accounting/CA, technology support, legal, etc., locally in their respective region instead of having it done elsewhere.

Incubators:

- The incubators proposed having regional partnerships/networks in South / South East Asia and Africa to facilitate networking, knowledge sharing and opening up incubatee / deal pipelines, mentoring & advisory networks to partner incubators. Also coordination to learn about successful policy interventions in a region and replicating the same in other regions was also recommended
- Incubators agreed to collaborate in creating support documents for grant applications; incubators that have already successfully received funding from donors will help other incubators with their applications, or each incubator will explore brining other incubators on board as a consortium if possible.
- They also agreed to help each other create seed funds to support operational costs of the incubators themselves and incubatees.
- For capacity building, incubators recommended sharing trainers and mentors to bring them to their respective region.
- In terms of communication, the incubators felt that Google Groups platform can be leveraged and supported through bi-monthly conference calls for follow-ups.

Closing Remarks: Ms. Kavita Rai (IRENA) remarked that IRENA is working to accredit solar energy installers across the Pacific and with significant support locally it can be brought to Asia and Africa regions. She called for the participants to focus on specifics like skill building, financing, etc., instead of having too broad an

approach initially that can spread their efforts thin. She also urged the participants to build on and take concrete steps post the workshop.

The closing remarks were made by Mr. Harish Hande, who mentioned that 1.2bn people still lack electricity in the world and the problem is real. He asked the participants to create innovative business plans that can address this issue and concluded that there was a need to see more African entrepreneurs and incubators on the world stage to ensure that the Sustainable Energy for All (SE4ALL) goal is fulfilled.

Annexure II: Participants' List

Institution	Name	Country
Climate Innovation Center, Kenya	Serah Nderitu	Kenya
Entrepreneur from CIC (Coacatech Enterprises)	Collins KyaloKamole	Kenya
Chandaria Business Incubation Center	George Kosimbei	Kenya
Entrepreneur from CBIC	Joab Oito	Kenya
The Unreasonable Institute, East Africa	Joachim Ewechu	Uganda
Entrepreneur from UI (Village Energy)	Abubaker Musuuza	Uganda
Renewable Energy Incubator, Makere University	Shira Bayigga Mukiibi	Uganda
Small Industries Development Organization (SIDO)	Kalumuna Benedicto	Tanzania
Entrepreneur from SIDO	Mussa Kayungi Abdul	Tanzania
Institute of Management and Entrepreneurship Development (IMED)	Francis Julius Rwebogora	Tanzania
EGG Energy	Jamie Yang	Tanzania
The Industrial Technology and Innovation Council - Ministry of Industry, Trade and SME's	Hanan El-Hadary	Egypt
Egypt National Cleaner Production Center - Ministry of Industry, Trade and SME's	Mohamed Ahmed Salem	Egypt
SELCO Entrepreneur (Mangaal)	Soraisam Devakishor Singh	India
Biruwa Ventures, Pvt. Ltd.	Vidhan Rana	Nepal
One to Watch	Niraj Khanal	Nepal
One to Watch	Willem Grimminck	Nepal
Indigo Energy	Allen Himes	Myanmar
CIIE, IIM Ahmedabad	Mohsin Bin Latheef	India
CIIE, IIM Ahmedabad	Vipul Patel	India
CIIE, IIM Ahmedabad	Harshad Sambamurthy	India
CIIE Entrepreneur (ONergy)	Piyush Jaju	India
CIIE Entrepreneur (Surya Power Magic)	Abhilash Thirupathy	India
Bangladesh - BizCube	Minhaz Anwar	Bangladesh
Bangladesh - Bright Green Energy Association	Dipal Chandra Barua	Bangladesh
Ashok Das	Ashok Das	India
IRENA	Kavita Rai	UAE
IRENA	Tijana Radojicic	UAE

DFID India	Aloke Barnwal	India
IPE Global	Indira Khurana	India
GIZ	Nilanjan Ghose	India
GIZ	Hari Natarajan	India
Infuse Ventures	Shyam Menon	India
SELCO	Kanchana V.	India
SELCO	Harish Hande	India
SELCO	Ashis Sahu	India
SELCO	Revathi K.	India
SELCO	Sudipta Ghosh	India
SELCO	Sreeharsha	India
SELCO	Jagdish Pai	India
SELCO	Surabhi	India
SELCO	Thomas Pullenkav	India
SELCO	Ravi Kanth	India
SELCO	Senthil A. Kumar	India
SELCO	Susmita Bhattacherjee	India
SELCO	Arvind Balaji	India

Annexure III: Select Pictures



Photos (Clockwise from top): SELCO presentation in progress; Dr. Indira Khurana (IPE Global) providing the funders perspective; Participants during a field visit to a solar home.

Annexure IV: Workshop Agenda



Building energy businesses: knowledge sharing workshop with business incubators & entrepreneurs from Asia & Africa

21-27 September 2014 | Bangalore, India

Workshop Goals

- Share knowledge and perspectives between incubator vehicles and energy businesses from different countries
- Inculcate thinking of holistic ecosystem approach into incubator vehicles
- Orient incubator vehicles into the ground realities and challenges of energy businesses
- Strengthen potential opportunities for energy entrepreneurs through incubator vehicles
- Build partnerships between incubator vehicles in different countries

Participants – Approx. 35 people

- Incubators from East Africa (Kenya, Tanzania, Uganda) + entrepreneurs (nominated by incubators)
- Incubators/support organizations from Egypt, Nepal, Bangladesh, Bhutan and possibly Myanmar
- Representatives from CIIE & SELCO Incubation Center and their supported entrepreneurs
- Invitees from support organizations such as DfID, GIZ, The Climate Group, etc.
- IRENA staff

Outline of activities:

Session	Time	Points to cover	Who/how	
Day 0 (Sept 21, Sunday) – Participants arrive in Bangalore				
Day 1 (Sept 22, Monday)				
Registration	8:30 to 9 AM			
Ice-breaking	9 to 11 AM	Participants introduce themselves		
Introduction to the CIIE model	11 AM to 1 PM	 Running an incubator with various programmes and initiatives - ecosystem + investment - right mix 	Program Managers from CIIE	

Session	Time	Points to cover	Who/how
Introduction to SELCO Umbrella	1 to 3 PM	 SELCO Introduction Evolution of SELCO Incubation Centre and overview of approach Videos 	Senior SELCO Manager + Senior Advisor, SELCO Incubation Centre
Pursuing energy access businesses – experiences from India, Africa + elsewhere	3:30 to 5 PM	 Energy access business – key points (sourcing / EPC / sales & distr. / financing & payment / O&M) What kind of support do energy access companies need to succeed? Key areas of support required? What has worked well? What hasn't? What further role can incubators play? 	Panel + interactive discussion: entrepreneurs from India & Africa
	7 to 9 PM	Networking dinner	
Day 2 (Sept 23, Tue	sday)		
Mentorship for entrepreneurs	11:30 PM to 1:00 PM	Importance of mentoring energy access businesses	Ashok Das
Lunch	1:00-2:00pm		
Financing & Investment	2:00-5:00pm	 Various financing options for supported entrepreneurs (seed/equity/debt/grant, etc.) – pros/cons of each type Due diligence and seed investment: How do seed/impact investors carry out due diligence prior to investment Case study on ONergy & SPM 	PPT + interactive disc. – entrepreneurs + representatives from CIIE, Infuse & SELCO
Day 3 (Sept 24, We	dnesday)		
Incubation process breakdown. with emphasis on failures	9:00AM to 11:30 PM S	 Selection: What are the strategies used to identify and select candidates? Preparation to handle a business: HR, basic operations End user financing: What are the different models employed? Supply chains: Building local vendor linkages and how? Other key challenge areas and role of the Centre 	Presentation by Manager & Senior Advisor, SELCO Incubation Center
Evaluating the incubation centre (external perspective)	11:45-1:00	 Evolution of role of an incubation center evolve as part of larger SELCO Umbrella Overview of the approach, milestones and challenges of the centre Moving forward 	Presentation Consultant, RE and Energy Access

Session	Time	Points to cover	Who/how
Sustaining business incubation	2:00 to 4 PM	 Various options available – government support, CSR, grants, etc. – how have CIIE & SELCO done it so far? What are the experiences from Africa and elsewhere? 	Panel discussion – incubators from Asia & Africa
Day 4 (Sept 25, Thurs	day) - Field	visit (whole day)	
		 Leave by 6 AM and back by 10 PM Places to be visited – Hassan, Karnataka (entrepreneur-streetvendor model, home lighting, institutional, banker interaction) 	
Day 5 (Sept 26, Friday	y)		
Role of the SELCO Incubation Centre in building a sustainable energy enterprise	10 AM to 12 noon	 Incubator / entrepreneur perspective- Introduction to business model: need, region Key aspects of the business model: financing/sales&distribution/ awareness/human resources Key support areas from the Incubation Center and why Milestones 	Presentation by Maangal/ Entrepreneur
Presentation by visitors - incubators (and those interested in setting up incubators)	1 to 3 PM	 What could other incubator vehicles learn from their models? What other practices would the incubator include? How can partnerships be built between incubators? 	Interactive
Key learnings from workshop	3 to 4 PM	• What would work well in the Africa context and Asia context?	Interactive
Day 6 (Sept 27, Satur	day) - half d	ay for conclusion with CIIE, IRENA and SELCO	

Sept 28 – Participants return to home country/city