

Contents

1.	Executive summary 4			
2.	Overview of AIC - SELCO Foundation			
3.	Snapshot of Incubatees onboarded in the Financial Year 2022- 2023 5			
4.	Incubation - support activities and knowledge building			
	-	Onboarding of new enterprises	7	
	-	Induction and knowledge building workshops for the enterprises	7	
	-	Field testing of various innovations	8	
		Portable Paddy Thresher	9	
		Eri Spinning Machine	9	
		Tea Dryer	10	
		Bobbin Winder	10	
		Paddy Transplanter	10	
		Egg Incubator	11	
	-	Working capital support	11	
5.	Partnership and outreach programs & events of Financial Year 2022 – 2023			
	-	CatalyseTech North East Chapter 2022	12	
	-	State-level Innovators' Meet	13	
	- Workshop and challenge for grassroot innovators and entrepreneurs fr			
		Mizoram	14	
	-	State-level stakeholders' meet	14	
	-	Joint collaborative workshops	15	
	-	Mizoram Trade Facilitation Fair (MTFF)	16	
6.	Form	alisation of Memorandum of Understanding	17	
7.	Other activities			
	-	IKEA Foundation visit	17	
	-	Startup20 Sikkim Sabha	17	
	-	State Science Fair, Assam	18	
8.	IEC materials produced			
	-	Video documentation of enterprises	18	
	-	Collaterals for enterprises	19	

Abbreviations used

AEDA Assam Energy Development Agency

AIC – SELCO Foundation Atal Incubation Centre - SELCO Foundation

ASTEC Assam Science Technology and Environment Council

ASTU Assam Science and Technology University

CEE Clean Energy Enterprise

CIPET Central Institute of Petrochemicals Engineering & Technology

DRE Decentralised Renewable Energy

ITI Industrial Training Institute

MASTEC Manipur Science & Technology Council

MIMS Manipur Institute of Managements Studies

MISTIC Mizoram Science, Technology & Innovation Council

MoU Memorandum of Understanding

MSME Micro, Small & Medium Enterprises

MSRLS Meghalaya State Rural Livelihood Society

MTFF Mizoram Trade Facilitation Fair

NE North East

NEDFi North Eastern Development Finance Corporation Ltd

NEIDA North East Initiative Development Agency

NGO Non-Governmental Organisation

NTTC Nagaland Tool Room and Training Centre

PVT LTD Private Limited

R & D Research & Development

SDG Sustainable Development Goals

SDGCC Sustainable Development Goals Coordination Centre

TRTC Tool Room & Training Centre

Executive summary

During the financial year 2022-2023, AIC - SELCO Foundation has onboarded twenty-two (22) new incubatees from the North-eastern states of Assam, Meghalaya, Mizoram, and Manipur. This has been achieved through strategic partnerships with the Manipur Science and Technology Council (MASTEC), Manipur Institute of Managements Studies (MIMS), Tool Room and Training Centre, Assam (TRTC), Mizoram Science, Technology & Innovation Council (MISTIC), Meghalaya State Rural Livelihood Society (MSRLS), and Assam Science Technology and Environment Council (ASTEC). All these partner organizations supported in identification of the innovators and brought in mentor support, experts, and technical facility support. These partnerships have laid the foundation for a strong technology incubation ecosystem in the Northeast.

The newly onboarded incubates have been identified from Assam (06), Manipur (01), Meghalaya (03), and Mizoram (12). Sector wise, two (02) are from Agriculture, three (03) are from Animal Husbandry, six (06) are from Food Processing, two (02) are from Textile, two (02) are from Craft, two (02) are Clean Energy Enterprises and five (05) falls under other categories.

AIC – SELCO Foundation made its strong presence felt throughout the geography of Northeast by organizing twenty-six (26) workshops and events for the key stakeholders of the ecosystem. To strengthen the capacities of the incubates, AIC – SELCO Foundation organized eight (08) training workshops on different themes for knowledge-building and skill-enhancement.

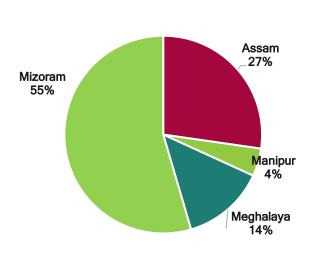


Figure 1: State-wise distribution of new incubatees

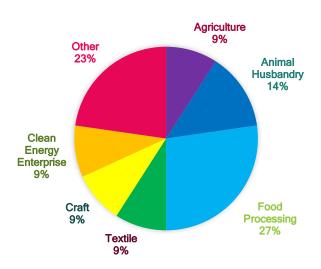


Figure 2: Sector-wise distribution of new incubatees

Overview of AIC - SELCO Foundation

AIC - SELCO Foundation is a joint initiative of SELCO Foundation, a not-for-profit entity, and Atal Innovation Mission (AIM), NITI Aayog, Government of India. It is situated at the Don Bosco Technical School campus, Maligaon, Guwahati, Assam. It is acting as a one-stop incubation cum innovation centre in Northeast India and acting as a catalyst to achieve the Sustainable Development Goals, especially focusing on integrating "affordable and clean energy" (Sustainable Development Goals 7). The incubation centre has so far incubated sixty-three (63) grassroots entrepreneurs from the North-eastern states (Assam, Meghalaya, Manipur, and Mizoram) and working towards building the ecosystem for local innovators and entrepreneurs to develop technology-based enterprises that deliver need-based solutions primarily to rural communities.

AIC – SELCO Foundation via its mandate shall encourage mushrooming of North East-led innovations to further SDGs thus ensuring an inclusive development of the region. The aim is to showcase to developing parts of the world multiple templates to achieve most of the 17 SDGs sustainably.

Snapshot of incubatees onboarded in the financial year 2022- 2023

States	Sector Focused	Total
Mizoram	 Food Processing (03) Animal Husbandry (01) Agri (01) Craft (01) Other (04) Clean Energy Enterprise (02) 	12
Assam	Food Processing (03)Textile (01)Animal Husbandry (01)Craft (01)	06
Meghalaya	Animal Husbandry (01)Agri (01)Other (01)	03
Manipur	- Textile (01)	01
	22	

Incubation - support activities and knowledge building

ONBOARDING OF NEW ENTERPRISES:

The journey of an entrepreneur within the AIC – SELCO Foundation incubation program starts from the day of getting onboarded in the program. AIC - SELCO Foundation conducted five (05) such onboarding events in the financial year 2022-23 wherein a total of thirty-eight (38) entrepreneur innovators, who have developed technology solutions in the sectors of agri and allied, food processing, textile and crafts were called in to be signed up.





Figure 3: Onboarding interview 1

Figure 4: Onboarding interview 2

INDUCTION AND KNOWLEDGE BUILDING WORKSHOPS FOR THE ENTERPRISES:

AIC - SELCO Foundation initiated the incubation journey for the onboarded entrepreneurs by providing them knowledge and hand holding support in various fields such as setting up an enterprise, legal compliances required for their business, technology IPR, the technical know-how for DRE - Solar system components and the capital investment for scaling up business ventures etc. AIC - SELCO Foundation during the financial year 2022-23 conducted three (03) nos. of induction training programs for the Technology Entrepreneurs hailing from the states of Assam, Meghalaya, Manipur and Mizoram wherein they were



Figure 5: Induction training of incubates 1

provided with the detailed understanding on the AIC - SELCO Foundation's incubation program followed by knowledge sessions on business and technology outlook within the program leading them to have a broader sense on the milestone to be achieved during their entrepreneurial venture.

Before the onboarding interview of potential innovators from Meghalaya, AIC - SELCO Foundation in collaboration with Meghalaya State Rural Livelihoods Society organized an exposure visit to the AIC - SELCO Foundation Office for the innovators for a better understanding of the incubator ecosystem and how AIC - SELCO Foundation can play a crucial role for their business expansion.





Figure 6: Exposure trip 1

Figure 7: Exposure trip 2

In addition to the induction training, AIC - SELCO Foundation in collaboration with some of the core stakeholder of the incubation ecosystem has facilitated some training workshops to enhance the knowledge and skills of the incubatees. The purpose of these trainings was to orient the incubatees on developing enterprise business plan, accounting and taxation norms to be followed, and also on how to build a skilled work force with the learnings of using conventional production machineries etc. with a larger goal to equip the incubatees with the essential competencies which will contribute towards their overall growth and success of their business venture. Below is the list of activities conducted during the year for the incubatees -

- a. Technical, Vendor & Business planning workshop
- b. Workshop on business plan development & Leadership & HR Management for the enterprises
- a. Machine Learning in collaboration with Don Bosco Technical School, Maligaon, Guwahati
- b. Machine Learning for Tech Incubatees under Micro, Small and Medium Enterprise (MSME), Guwahati
- c. Awareness and Exposure Training in partnership with the Central Institute of Petrochemicals Engineering & Technology (CIPET)
- d. Refreshers course on Company Accounting and Compliance



Figure 8: Machine learning programme



Figure 9: Technical exposure to machine







Figure 11: Incubate interaction programme

Through these workshops, champion partner organizations have been mapped such as Don Bosco Technical School, Central Institute of Petrochemicals Engineering & Technology, Ankita Goswami and Company, Tool Room and Training Centre under MSME. These organizations are supporting for technical training, strengthening the business expansion, compliances, leadership skill, exchange of knowledge and resources.



Figure 12: Incubate capacity building workshop

FIELD TESTING OF VARIOUS INNOVATIONS:

AIC - SELCO Foundation is working on the technical aspects of the types of machinery innovated by grassroots entrepreneurs from the states. The objective of field testing is to identify problems and develop mitigation strategies along with product optimization (design, quality, performance & efficiency), determine compatibility at different geographies, assessment of the product for Decentralised Renewable Energy (DRE) integration, and product standardization, and improvement in user experiences.

1. Portable Paddy Thresher:

Mr. Saruj Chetia, the founder of Aicheng Innovation and Research Private Limited hailing from the Sivasagar district of Assam has developed a Portable Paddy Thresher which AIC - SELCO Foundation has been providing the required technical support to fully develop and standardize the technology product to make it market ready. At present the efficiency and portability of the product are being tested in real world scenario. The integration of solar energy has been done to power the paddy thresher. These efforts and supports aims to obtain the required certification from relevant authorities and gain recognition within the grass root communities as a leading product technology for best practices in the agri - sector.



Figure 13: Paddy thresher during the test

2. Eri Spinning Machine



Figure 14: Saraswati Eri spinning machine

Mr. Satish Choudhury founder of Saraswati Hasta Tat Shilpa from Assam has innovated the Eri Spinning machine which is under the testing phase. In collaboration with Diya Foundation (NGO), the machine has been tested in different parts of Assam. With the feedback from the end users, the machine is in the product modification phase with support from AIC – SELCO Foundation's Technical team. AIC – SELCO Foundation is also helping the innovator in preparing a business plan and customer support plan.

Similarly, another Eri spinning machine has been innovated by Mr. Nipen Kalita, and the machine is tested as a demo to understand the user experience from the ground. Post feedback and recommendations from the end user the product has been modified to mitigate the identified problem.

While the product modification is going on, these two Eri spinners have got good response from the end users and the innovators are already getting orders in good numbers.



Figure 15: Eri spinning machine of Nipen Kalita

3. Tea Dryer

Mr. Nilotpal Gogoi, a sole proprietor representing Gogoi Innovation from the Sivasagar district of Assam has innovated a Tea Dryer machine which is under preliminary testing and the evaluation process has been completed. This dryer has been specifically designed for tea drying. The next level of field test will be conducted on the modified product to evaluate drying efficiency and performance.





Figure 16: Tea dryer

Figure 17: Tea dryer

4. Bobbin Winder



Figure 18: Bobbin winder

Mr. Ameet Baruah, the founder of the enterprise KynKoo from Kamrup district, Assam has developed a Bobbin Winding Machine for which AIC - SELCO Foundation has provided with an intense support from redesigning the machine ergonomics till testing of the product technology in collaboration with North Eastern Handicrafts & Handlooms Development Corporation Limited (NEHHDC). Based on the recommendations, the next level of the field test is required to evaluate the overall product efficiency.

5. Paddy Transplanter

AIC - SELCO Foundation has tested a paddy transplanter innovated by Mr. Amar Jyoti Chamuah, Director of Chamuah Machinery and Engineering from Assam. The machine is tested in different terrain and soil types in parts of Assam to evaluate its efficiency and effectiveness. Further finetuning of the transplanting claws is going on.



Figure 19: Paddy transplanter

6. Egg Incubator

One of the grassroots innovators from Darrang district of Assam, Mr. Mridul Kumar's egg incubators have been tested with the help of the technical team from AIC – SELCO Foundation. The machine is tested to evaluate the efficiency which is considered Seventy-Four percent (74%). Already solar integration is done, and the product is standardized.



Figure 20: Egg incubator

WORKING CAPITAL SUPPORT:

Within the AIC - SELCO Foundation's Incubation Support activities a key component is enabling the Incubatees to acquire capital investment for their business operation and sustaining it in the longer run. With this overarching goal AIC - SELCO Foundation provided its extensive handholding and knowledge support to the Incubatees in creating the Enterprise Business Plan and a well drafted pitch deck representing their business enterprise. Having provided with the required knowledge support, AIC - SELCO Foundation recognized the entrepreneurial potential and business acumen of three (3 nos) Clean Energy Entrepreneur namely Mr. Dilip Kumar Seal representing Star Solar Sales and Services (OPC) Pvt. Ltd, from Bongaigaon, Assam, Mr. Starfill Sangma, representing Sangma Solar (OPC) Pvt. Ltd, from Sonitpur, Assam and Mr. Anguvika Ypthomi, representing Aboriginal Energy Pvt. Ltd. and one (1) Technology Entrepreneur Mr. Mridul Kumar representing Keshab Sons Incubator and Machinery, from Darrang district, Assam have been provided with the funding support in the form of SEED Capital for expanding their businesses in accordance with their meticulously crafted business plans.



Figure 21: Working capital provided to Dilip Seal



Figure 22: Working capital provided to Starfill Sangma



Figure 23: Agreement signing with Mridul Kumar

Partnership and outreach programs & events of FY 2022 – 2023

CATALYSETECH NE CHAPTER 2022:

CatalyseTech NE Chapter 2022 is the challenge that was launched on 9th April 2022 with a goal through which AIC - SELCO Foundation has reached out to the three (03) North-Eastern states and identified the potential innovators and entrepreneurs who have the interest to provide an impact at a grassroots level. AIC - SELCO Foundation has organized 22 numbers of workshops and outreach activities across the state of Assam and Meghalaya. The technical institutions and the ITIs were good potential stakeholders for identifying innovators and entrepreneurs. Catalyse Tech Challenge NE Chapter 2022 marked its beginning in the month of April'22 and by the end of September 2022, the identification and mobilization drive was completed. Through the identification and mobilization drive, more than one hundred and eighty (180) applications were received and twenty-one (21) were shortlisted by the internal team of AIC - SELCO Foundation.





Figure 24: CatalyseTech NE outreach programme

Figure 25: CatalyseTech pitching

The shortlisted applicants were invited to make a presentation before the committee during the Catalyse Tech Challenge NE Chapter 2022 Closure Event on 29th September 2022. During the event, the major partnerships have been formalized with ITI, Bishwanath Chariali, as on-ground cum scouting champion partners where there is potential to identify students with ideas or prototypes as in long-term plans.

Assam Science and Technology University (ASTU), Assam Don Bosco University, North Eastern Finance Corporation Limited (NEDFi), and Assam Energy Development Agency (AEDA) have been identified as potential partners for a long-term partnership. Through CatalyseTech NE Chapter 2022, a good number of ideas and prototype applications have been received.





Figure 26: Catalyse Tech NE Chapter'22

Figure 27: Catalyse Tech NE Chapter'22: Closure Event

STATE-LEVEL INNOVATORS' MEET:

Under the flagship program "TechnoVation", AIC - SELCO Foundation has organized three Innovators meetings in the states of Meghalaya, Manipur, and Nagaland in partnership with Meghalaya Rural Livelihood Mission Society (MSRLS), Manipur Science and Technology Council (MASTEC) and Sustainable Development Goals Coordination Centre (SDGCC), Nagaland respectively. The aim of these workshops was to provide a platform for the innovators to discuss their ideas and product for better understanding and further association with the innovators in terms of scaling up as an efficient solution in Northeast India.



Figure 28: TechnoVation Manipur



Figure 29: TechnoVation Manipur



Figure 30: TechnoVation Meghalaya



Figure 31: TechnoVation Nagaland

Through these workshops, AIC - SELCO Foundation is building a vibrant startup ecosystem in North-eastern states that fosters innovation, creativity, and collaboration. These programs focus on key sectors such as renewable energy, agriculture, and healthcare and encourage startups to develop solutions that address pressing social and environmental challenges. More than one hundred (100+) innovators and entrepreneurs participated in these events.

WORKSHOP AND CHALLENGE FOR GRASSROOT INNOVATORS AND ENTREPRENEURS FROM MIZORAM:

CatalyseTech – Mizoram was organized on 27th May 2023 to engage vernacular innovators and entrepreneurs by providing them to understand and build linkages between inclusive innovations. The workshop aimed to build the capacity of the innovators to understand the inclusive innovation ecosystem and support them to identify their growth needs. A total of thirty (30) innovators participated in the workshop who are from the rural parts of the state of Mizoram.





Figure 32: Catalyse Tech Mizoram: Group photo

Figure 33: Catalyse Tech Mizoram: Workshop

STATE-LEVEL STAKEHOLDERS' MEET:

During the financial year 2022 -2023, AIC - SELCO Foundation conducted state-level stakeholders' meetings in Manipur and Nagaland which was an open dialogue to bring together various stakeholders working with the rural communities in these states. The aim of the workshop was to understand and explore various channels and organizations that are working towards providing technical and business development support to innovators and promoting local technologies by looking at available resources and gaps in the current ecosystem in these states. The champion partners are Manipur Science and Technology Council from Manipur and SDGCC, Planning and Transformation Department, Nagaland. During the meet, more than forty (40) stakeholders were invited from Manipur and Nagaland.







Figure 35: Stakeholders' meet - Nagaland

JOINT COLLABORATIVE WORKSHOPS:

AIC - SELCO Foundation conducted three awareness programs in ITI, Polytechnic, and Engineering colleges in Assam to promote the Technology Entrepreneurship program. The objective of these workshops was to encourage the youth to collaborate and contribute their knowledge in the field of innovation and to promote and explore linkages in the field of mentor pool, outreach, and potential innovators in North East.

Students from ITI Morigaon, B. N. College, Dhubri, TRTC, Amingaon, ITI Bongaigaon, and Assam



Figure 36: Workshop in Assam Don Bosco University

Don Bosco University, Azara participated in these collaborative programmes.



Figure 37: Entrepreneurship Development workshop



Figure 38: Entrepreneurship Development workshop

In the state of Manipur, a similar workshop has organized by AIC - SELCO Foundation in collaboration with the Manipur Institute of Management Studies, Manipur University on 28th May 2022. It was a one-day workshop on the topic of 'Entrepreneurship Development' where sixty (60) numbers of participants attended the workshop. The aim of the workshop was to leverage mentorship support and connecting MIMS with various relevant stakeholders for the incubation program.



Figure 39: Workshop in MIMS

MIZORAM TRADE FACILITATION FAIR:

On 16th March 2023, AIC - SELCO Foundation and SELCO Foundation along with the Planning and Programme Implementation Department, Govt of Mizoram, Northeast Initiative Development Agency (NEIDA), Mizoram Science, Technology and Innovation Council (MISTIC) organized the Mizoram Trade Facilitation Fair at the Millennium Centre in Aizawl. The event cum trade fair was a combination of demonstrations, interactive learning sessions, and collaborative discussions which was planned with an aim to showcase in Mizoram how developmental needs for the remote and vulnerable populations in the State can be met by using solar energy. It was a two-day event till March 17th and began with an official inauguration by the Hon'ble Minister Dr. R Lalthangliana, (Health & Family Welfare, Higher & Technical Education, Commerce & Industries Dept.), Govt. of Mizoram, who was also joined by Mayor Lalrinenga Sailo and Mr. Lalmalsawma Pachuau, Secretary of Planning and Program Implementation Dept., Govt. of Mizoram. The event had more than fifteen hundred (1500) footfalls including participants from Government bodies, NGOs, University students, innovators, and entrepreneurs.







Figure 41: Stalls in MTFF 2022

Formalisation of Memorandum of Understanding

To strengthen the partnership with different ecosystem institutions Atal Incubation Centre - SELCO

Foundation has signed a Memorandum of Understanding (MoU) with Manipur Science & Technology Council (MASTEC) on 29th July 2022. The objectives of the MoU are:

- To identify and support grassroots innovators from the Manipur state.
- To encourage and support startups, innovators, and the development of innovation-led business ideas to achieve Sustainable Development Goals.

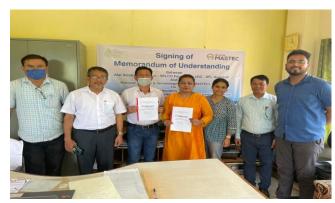


Figure 42: Signing of MoU with MASTEC

Other activities

IKEA FOUNDATION VISIT:

On 31st July 2022, a team from IKEA Foundation visited the AIC - SELCO Foundation centre. The purpose of the visit was to explore the opportunities of partnership and map out the need of the enterprises in the sector and address the gap through a collaboration of both organizations.



Figure 43: Interaction of IKEA team with AIC - SF team



Figure 44: IKEA team's visit to Incubate workshop

STARTUP20: SIKKIM SABHA:

AIC - SELCO Foundation along with eight (08) incubates from Assam, Manipur, and Mizoram participated in the Startup20 Sikkim Sabha (G20) which was organized by Atal Innovation Mission, on

18th and 19th March 2023, at Gangtok, Sikkim. This event provided a networking opportunity to the innovators wherein they could meet delegates, experts, and resources persons from various G20 countries.







Figure 46: An incubate displaying a Paddy thresher

STATE SCIENCE FAIR, ASSAM:

AIC - SELCO Foundation participated in the State Science Fair in Tezpur on 16th December 2022. The main objective of the event was to create channels with different stakeholders from various R&D institutes, experts from Universities, Industry Experts, and Individual Mentors from the region. This event was hosted by Assam Science Technology and Environment Council (ASTEC), where along with the incubatees AIC - SELCO Foundation has presented the processes and models of the incubation program.



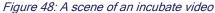
Figure 47: State Science Fair, Tezpur

IEC materials produced

VIDEO DOCUMENTATION OF ENTERPRISES:

AIC - SELCO Foundation has captured video documentation of technology innovators and clean energy enterprises to showcase their journey. These videos have helped the enterprises in their outreach activities. These have also helped AIC - SELCO Foundation to connect with various stakeholders and showcase its work.





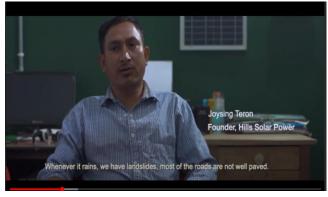


Figure 49: A scene of an incubate video

COLLATERALS FOR ENTERPRISES:

In the financial year 2022- 2023, AIC - SELCO Foundation has incubated 22 enterprises from Assam, Meghalaya, Mizoram, and Manipur. AIC - SELCO Foundation has developed technical specification profiles for the innovators and supported them to reach out to the various stakeholders for their business growth and sustainability.





Atal Incubation Centre - SELCO Foundation

Don Bosco Technical School Campus PNGB Rd, Nambari Railway Officers' Colony, Gotanagar, Maligaon, Guwahati - 781011. INDIA.

https://aicselco.org/ Email: info@aicselc