SELCO FOUNDATION

Case Studies

Narratives of Inclusive Livelihoods in Bodoland



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The Intersecting Realities of Disability, Livelihood and Access

Across the Bodoland Territorial Council (BTC), Persons with Disabilities (PwD) pursue a wide range of livelihoods as weavers, artisans, shop owners, digital service providers, farmers and entrepreneurs. Yet, like many others living and working in rural areas, they often face barriers that make it difficult to sustain and grow their livelihoods. For PwDs, and their caregivers, these challenges are further compounded by limited access to infrastructure, productive assets, finance and support systems.

Over the years, our work in the region has shown that livelihood interventions for Persons with Disabilities cannot be approached through a one-size-fits-all lens. The realities of a weaver in Kokrajhar, a tailor in a market town or a digital service provider in a remote village are very different. At the same time, a common pattern emerges: when key constraints are addressed, individuals are better able to strengthen existing livelihoods, improve productivity and pursue new opportunities. Climate stresses are only increasing the vulnerability of these individuals, both in terms of lives and livelihoods. Floods and heat stress affect PwDs, particularly those with locomotor and visual impairments, by restricting mobility, exacerbating health vulnerabilities, and limiting safe access to essential services and daily livelihood activities.

Our experience has shown that livelihood outcomes, particularly for these individuals, require additional innovations in technology, to improve ergonomics and usability; low-cost financing and gap funding support, to overcome the high barriers for access to credit; institutional partnerships, to leverage the ongoing initiatives of the Government and local partners supporting rehabilitation or psycho-social support; and business development, to build input and market linkages. All of these affect livelihood outcomes and the viability and growth of their businesses over time.

The Bodoland Context

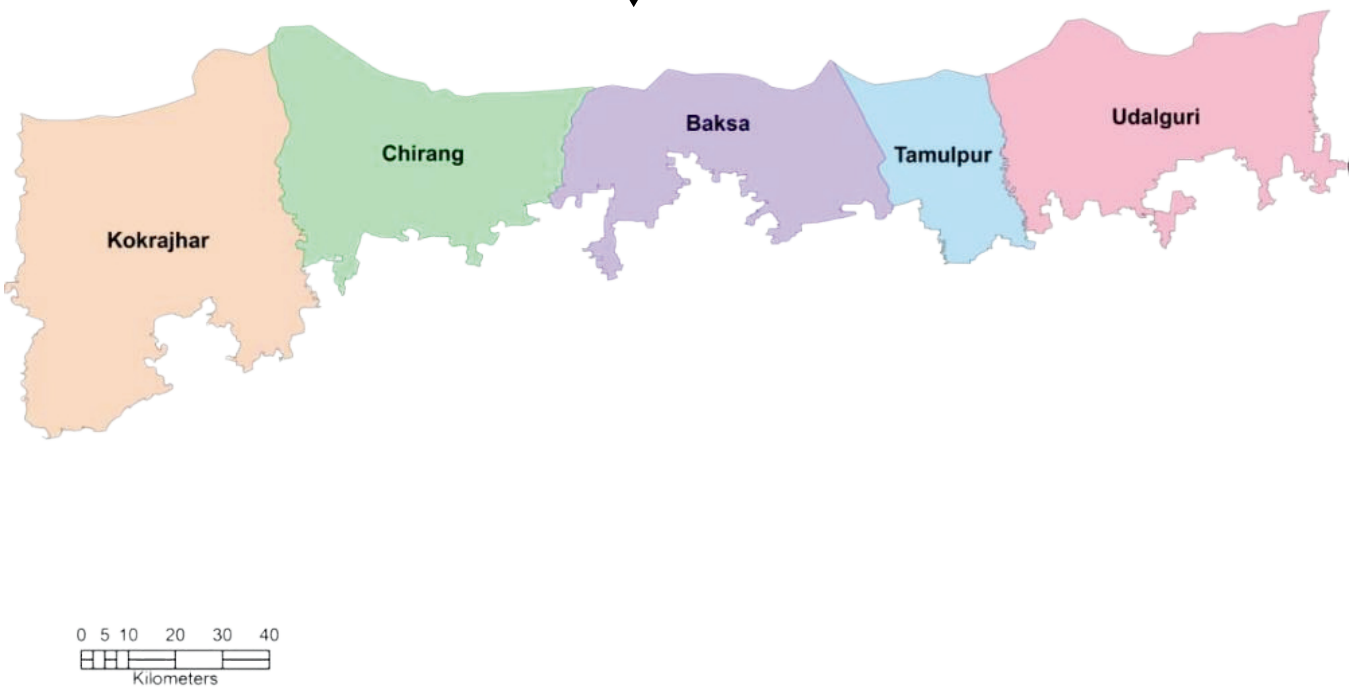
The Bodoland Territorial Council is home to a diverse population engaged in agriculture, weaving, small enterprises and service-based livelihoods. According to data from the Department of Social Welfare, Government of BTC (2022), more than 21,000 persons with disabilities (PwD) reside across the districts of Kokrajhar, Chirang, Baksa, Tamulpur and Udalguri.

While the nature and prevalence of disabilities vary across districts, a proportion of Persons with Disabilities fall within the working-age population. However, the limitations around infrastructure, access to productive assets, markets and skills limit their opportunities for productive livelihoods.

These challenges are often shaped by local realities, including geography, infrastructure gaps, livelihood opportunities and the availability of institutional support. As a result, livelihood interventions need to respond not only to disability-related needs but also to the specific contexts within which individuals live and work.

Across the Five districts, the recorded PwD population is as follows:





5,993 individuals - Kokrajhar

2,545 individuals - Chirang

4,786 individuals - Baksa + Tamulpur

5,993 individuals - Udalguri

Disability Categories and Livelihood Implications Across Districts

A. Kokrajhar District: Scale and Diversity

Kokrajhar has the largest recorded PwD population in BTC, with 7,919 individuals spanning locomotor, sensory, cognitive, and multiple disability categories. The scale highlights both the depth of exclusion and the potential for ecosystem-level impact.

Locomotor and orthopedic disabilities form a substantial share, limiting participation in agriculture and manual labour. Sensory impairments and cognitive disabilities further entrench livelihood exclusion when workspaces and training systems are not designed inclusively.

B. Chirang District: Prime Working-Age Potential

Chirang District tracks 2,545 Persons with Disabilities, with one of the most compelling demographic profiles in BTC.

- Average age: 33.8 years
- Over 75% of individuals are under 47 years

More than 55% (1,414 individuals) live with locomotor and orthopedic disabilities, while the rest are distributed across hearing & speech, visual, and cognitive or neurological categories.

C. Baksa & Tamulpur District: High Physical and Sensory Disability Concentration

Baksa District accounts for 4,786 PwDs, with a pronounced concentration of physical and sensory impairments:

- Locomotor disabilities – 2,049 individuals
- Hearing impairments – 1,057 individuals
- Visual impairments – 525 individuals

The district also includes individuals with cerebral palsy and multiple disabilities, who face heightened vulnerability to climate stress.

D. Udalguri District: Bridging Capability and Access

Udalguri District identifies 5,993 Persons with Disabilities, reflecting both scale and diversity across disability categories. Locomotor disabilities form a significant share, alongside sensory and cognitive impairments.

An Ecosystem Approach to Inclusive Livelihoods

In partnership with local NGOs, specifically AIET,Action for Inclusion & Empowerment Trust, Kokrajhar, Sanjog, and BDF (Bodoland Development Foundation), SELCO Foundation acts as an ecosystem enabler in the Bodoland Territorial Council (BTC). Recognizing that uniform interventions fall short, we integrate decentralized, climate-smart energy solutions to build tailored, inclusive livelihood pathways that reflect the diverse realities of Persons with Disabilities (PwDs).

At the heart of this approach are Decentralized Renewable Energy (DRE) solutions, primarily solar-powered systems that provide reliable, locally accessible energy for productive applications. By powering livelihood assets and reducing dependence on unreliable energy sources, DRE solutions help enhance productivity, income generation, and climate resilience.

Rather than treating technology as a standalone fix, it is embedded within a broader support system to ensure long-term sustainability. This approach integrates:

- **Contextualized Technology:** Climate-smart tools aligned to the type and degree of disability, powered by reliable Decentralized Renewable Energy (DRE) systems, like solar.
- **Accessible Capacity Building:** Training that strengthens technical skills, entrepreneurial confidence, and strategic decision-making.
- **Ecosystem Linkages:** Connecting PwD entrepreneurs directly to credit, markets, and relevant financial institutions.
- **Psycho-Social Support:** Counseling and support networks for both PwDs and their caregivers, facilitated by our on-ground Government and NGO partners.

The following case studies, rooted in the lived experiences of individuals across Kokrajhar, Baksa, Tamulpur, and Chirang, are more than individual success stories. They serve as a practical, scalable roadmap for systemic inclusion.

By working in tandem, these ecosystem components build resilient livelihoods by:

- Eliminating barriers through reduced physical drudgery and enhanced accessibility.
- Creating income opportunities for PwDs, their caregivers, and families via sustainable assets.
- Enabling livelihood growth through reliable, productivity-focused energy interventions.
- Fostering long-term resilience within communities highly vulnerable to climate and economic shifts.

Case Study #01

Nurturing Sustainable Livelihoods through Modernized Enterprise Support



Name of End User :	Pramela Narzary
Type of Entrepreneur :	Individual
Location :	Chirang
Livelihood :	Eri spinning
Key Partner:	AIET

Context and Background

Eri culture is a key livelihood activity for many rural women in Chirang, providing income through silkworm rearing, spinning, and weaving. However, traditional spinning is labor-intensive, time-consuming, and physically demanding, posing significant challenges for individuals with locomotor disabilities.

Pramela faced similar constraints, with manual spinning limiting her productivity and causing physical strain. Limited financial resources further restricted her ability to adopt improved technologies. To address these challenges, AIET, with support from SELCO Foundation, facilitated access to an inclusive DRE-based Eri spinning solution, complemented by financial support, training, and market linkages to enhance her livelihood and reduce drudgery.



About the Entrepreneur

Pramela Narzary, a 62-year-old artisan from Chirang, represents the lived realities of end users embedded within traditional livelihood systems. Living with an 80% locomotor disability, she has sustained her engagement in the eri silk value chain for over three decades, balancing household responsibilities for a family of three while continuing her craft. As a member of the bodo community, she is also a custodian of the *Thaokri* method, a traditional hand-spinning practice that is steadily disappearing from contemporary production systems. Her journey underscores both the resilience of community-led knowledge systems and the urgent need to strengthen enabling ecosystems that allow such practices and practitioners to sustain dignified livelihoods over time.

Key Challenges

Pramela's journey was marked by significant physical and systemic challenges:

- **Physical Drudgery:** Long hours of manual spinning caused severe pain and fatigue.
- **Low Productivity:** Traditional methods yielded only 1 kg of yarn per month.
- **Mobility Barriers:** Collecting silkworm feed was physically exhausting due to her disability.
- **Technological Gap:** Limited access to modern tools and training constrained productivity and income.

About the Intervention

Recognizing her skill and potential, the Action for Inclusion and Empowerment Trust (AIET), NGO based in Kokrajhar and SELCO Foundation partnered to provide a customized intervention. The intervention focused on replacing manual labor with a DRE based Eri-Spinning Machine and lighting system, specifically designed to improve working conditions and output for persons with disabilities.

Pramela's Ecosystem

Technology

A DRE based Eri spinning machine was installed to eliminate the physical strain of manual spinning, allowing her to work more comfortably and efficiently

Module : 15 Watt, 12V.
Battery : 20Ah, 12V.
LED Bulb : 9 Watt.
Eri Spinning Machine : 7 Watt.

Training

She received comprehensive training from AIET on DRE based spinning technology. Additionally, the Agriculture Department provided training in scientific silkworm rearing and disease management.

Market Linkage

Pramela maintains a self-reliant cycle, selling silkworms and cocoons to local vendors and producing culturally significant products like Dokhona and Gamsa based on community demand.

Finance

The end user was identified by AIET. To address the upfront investment barrier, gap funding was provided to access the DRE-based spinning solution.

This allowed her to continue using her earnings for household needs and future expansion.

Additionally, with support from the Department of Sericulture and contributions from her savings, she has established a dedicated rearing house and improved living space, enhancing both her livelihood activities and overall well-being.

Outcomes and Impacts

The intervention has woven a new sense of security into Pramela's life:

- **Increased Productivity:** The time required to spin 1 kg of yarn was slashed from 30 days to 15 days, effectively doubling her monthly output to 2 kg.
- **Financial Growth:** Her monthly income from yarn production alone increased significantly, contributing to a total diversified monthly income of approximately INR 37,000.
- **Reduced Drudgery:** Pramela reported a marked reduction in body pain and manual labor, allowing her to practice her craft without the physical toll it once took.
- **Empowerment:** Beyond the numbers, the intervention has boosted her confidence. She now aspires to expand her business through further capacity building in business planning and product diversification.

Case Study #02

From Systemic Hardship to Self-Reliant Enterprise



Name of End User :	Rina Saha
Type of Entrepreneur :	Individual
Location :	Kokrajhar
Livelihood :	Tailoring
Key Partner:	AIET

Context & Background

In the bustling local markets of Kokrajhar Town, Assam (near the Fish Market), Rina Saha has run a tailoring shop since 2004. Her shop is more than just a business; it is her sole source of livelihood and independence. Her journey highlights profound resilience, navigating the volatile tides of daily trade while overcoming severe familial neglect and physical hardship.



About the Entrepreneur

Rina Saha is a fiercely independent artisan who built her craft from the ground up—initially teaching herself by watching her mother and practicing on a secondhand machine, before later securing formal certifications in embroidery and tailoring. Over the years, she has navigated significant personal and economic challenges while steadily building her livelihood through her craft.

Refusing to depend on anyone, she takes immense pride in her 100% self-owned business.

Key Challenges

Rina faced multiple challenges that hindered her livelihood:

- **Physical Strain:** Her locomotor disability, combined with prolonged use of a manual sewing machine, caused severe pain and fatigue, reducing productivity.
- **Energy Poverty:** Frequent power cuts, especially in summer, forced her to work in extreme heat and darkness, often disrupting production.
- **Financial & Social Isolation:** After her husband's death, exploitation by in-laws left her financially strained and emotionally isolated, initially dependent on a neighbor's support.
- **Operational Costs:** High electricity expenses (₹500–₹700/month) added pressure on her limited income.

About the Intervention

The NGO partner AIET identified Rina based on the physical and operational constraints affecting her tailoring work. The intervention enabled a shift from a manual pedal system to a decentralised renewable energy–based motorised tailoring setup, complemented by DRE-based lighting and ventilation. This reduced physical strain and improved working conditions, strengthening the continuity of her livelihood.

Rina's Ecosystem

Technology

Rina now utilizes a DRE based high-efficiency sewing machine. This setup includes an integrated fan and LED lights, ensuring a comfortable working environment regardless of the external power grid.

Solar Module : 150 Wp (2 Nos)
Battery : 150 AH
DC LED Bulb : 7W, 9W
BLDC Fan: 35W
Sewing Machine: 60W

Training

While Rina is already a certified expert, the intervention streamlined her workflow, allowing her to apply her First Division skills with greater precision and significantly less physical exertion.

Market Linkage

Operating from a long-standing rented stall, Rina maintains a strong, loyal customer base comprising primarily of teachers, students, and homemakers. The increased speed of her new motorized setup allows her to fulfill emergency orders quickly, further cementing her reputation in the Kokrajhar market.

Outcomes and Impacts

The shift to solar power has been transformative for Rina:

- **Economic Stability:** She now earns a steady income of ₹5,000 to ₹7,000 per month, a significant achievement for a solo entrepreneur.
- **Operational Efficiency:** The motor-driven machine allows her to work faster and handle more volume, eliminating the terrible leg pain that previously aggravated her locomotor disability.
- **Climate Resilience & Comfort:** The solar-powered fan and lights have made her shop a year-round workspace, immune to the frequent power outages that previously crippled her productivity.
- **Psychological Empowerment:** After years of isolation and mistreatment, the modernized business has restored Rina's dignity. She continues to operate on her own terms, stating firmly, "*I will set up my own shop and eat what I earn.*"

Case Study #03

Enhancing Productivity and Extending Work Hours



Name of End User :	Ranita Hazowary
Type of Entrepreneur :	Individual
Location :	Kokrajhar
Livelihood :	Weaving
Key Partner:	AIET

Context & Background

In the heart of the Bodoland region, the cultural identity of the Bodo community is woven into every thread of their traditional attire. The Dokhona (women's wear) and Gamsa (men's wear) are more than just garments; they are GI-tagged symbols of heritage. For weavers like Ranita Hazowary, this craft is a primary livelihood, yet it was often overshadowed by the setting sun.



About the Entrepreneur

Ranita Hazowary, 37, is a seasoned weaver from Kokrajhar with 17 years of experience. Despite living with a 50% locomotor disability, she is a pillar of leadership in her community, serving as the Secretary of her local Disability Association. She inherited her weaving knowledge from her parents, carrying forward a lineage of craftsmanship.

Key Challenges

- **Physical Constraints:** Her locomotor disability led to chronic fatigue and discomfort during prolonged work.
- **Limited Working Hours:** Inadequate lighting restricted her work to 5–6 daylight hours, affecting productivity and deadlines.

About the Intervention

Through a partnership between the SELCO Foundation and the Action for Inclusion & Empowerment Trust (AIET), a DRE based solution was installed in Ranita's home to improve her working conditions and productivity, enabling her to work beyond daylight hours and reduce physical strain.

Ranita's Ecosystem

Technology

A DRE based off-grid loom lighting system was installed to improve working conditions during evening hours. The system was designed to eliminate shadows and reduce eye strain, enabling extended and more productive work.

Solar Module : 40 Wp
Battery : 20 AH
DC LED Bulb : 5 W, 10W

Training

Facilitated by AIET, who provided awareness on government schemes and identified Ranita's leadership potential.

Market Linkage

Ranita operates locally, selling designed Dokhonas for up to INR 1,700 in her village and nearby markets.

Finance

The end user, identified by the NGO partner AIET, transitioned to weaving as a primary livelihood following physical challenges that limited earlier work options. A contextualised intervention enabled the adoption of decentralised renewable energy–based lighting, designed in alignment with his working conditions and existing household income of INR 12,000. Reliable lighting improved productivity and extended workable hours, strengthening the viability of weaving activities. Over time, this contributed to a significant increase in income levels.

Outcomes and Impacts

The intervention extended Ranita's workday to 8–9 hours, significantly boosting her efficiency.

- **Productivity:** She can now complete a Dokhona in 1.5 days instead of 3 days, leading to a 30% increase in production.
- **Economic Growth:** Her monthly income rose from INR 12,000 to INR 17,000.
- **Well-being:** She no longer feels the pressure to rush during the day, reducing physical exhaustion and allowing her to manage her work at a comfortable pace.

Case Study #04

Revitalizing Traditional Weaving through Enhanced Productivity



Name of End User :	Dhwrwm Basumatary
Type of Entrepreneur :	Individual
Location :	Kokrajhar
Livelihood :	Weaving
Key Partner:	AIET

Context & Background

For young entrepreneurs in Kokrajhar, traditional weaving offers a path to financial independence. However, for those with physical limitations, the manual labor and dependence on natural light create a "*productivity ceiling*" that is difficult to break without modern intervention.



About the Entrepreneur

Dhwrwm Basumatary is a 27-year-old weaver who turned to the craft as his primary source of income just over a year ago. In his earlier days, he worked as a wood cutter; however, following an accident, he sustained a permanent locomotor disability, which limited his ability to continue manual labor. Living with this disability, Dhwrwm learned the art of weaving from his wife and gradually transitioned into it as his main livelihood. He is an enthusiastic and hardworking individual, deeply dedicated to preserving Bodo culture through the production of Dokhonas.

Key Challenges

- **Limited Working Hours:** Inadequate lighting restricted productivity to 5–6 hours a day, affecting output and timely delivery.
- **Reduced Evening Productivity:** Lack of lighting prevented effective work during evening hours, leading to missed deadlines.
- **Physical Strain:** His disability made it difficult to maintain the same posture for extended periods, resulting in fatigue.

About the Intervention

AIET introduced 2-loom lighting system to Dhwrwm's home-based business. The goal was to provide an environment where he could utilize his free time after sunset and work in a more ergonomically comfortable setting.

Dhwrwm's Ecosystem

Technology

Two loom lights that allow for an additional 3 to 4 hours of weaving every evening.

Solar Module :40 Wp

Battery : 20 AH

DC LED Bulb : 5 W, 10W

Training

He was identified during a disability awareness programme held by AIET, which focuses on empowering PwDs through government schemes and skills.

Market Linkage

Dhwrwm sells directly to middlemen from his home, earning a monthly profit of approximately INR 13,000 after costs.

AIET identified the end user through its field-level engagement with individuals whose livelihoods had shifted due to physical challenges. The end user, who had transitioned into weaving as a primary source of income, was assessed for appropriate livelihood-enhancing interventions. Based on this assessment, AIET facilitated access to a DRE-based lighting solution to support his weaving activity, contributing to an increase in production from 12 to 20 Dokhonas per month.

Outcomes and Impacts

- **Income Transformation:** The lighting allowed Dhwrwm to effectively double his income. His monthly earnings rose from INR 12,000 to INR 22,000.
- **Efficiency:** He now produces 16–20 Dokhonas per month, up from 12. A single Dokhona now takes 1.5 days to complete instead of 3.
- **Comfort:** The flexibility to work in the evening reduced his physical fatigue as he no longer had to rush his tasks during the heat of the day.

Case Study #05

Preserving Cultural Craftsmanship While Expanding Economic Opportunities



Name of End User :	Lamshi Rabha
Type of Entrepreneur :	Individual
Location :	Kokrajhar
Livelihood :	Weaving
Key Partner:	AIET

Context & Background

In the Rabha community, weaving is a generational skill passed down through women. Garments like the Kamlet and Kambang are essential to the community's rituals. For Lamshi Rabha, weaving is not just a job; it is her primary link to her community's heritage



About the Entrepreneur

Lamshi Rabha, 20, has been weaving for nearly a decade. She lives with a 100% speech and language disability, which often presents barriers to communication and group training. Despite this, her talent at the loom is undeniable, producing intricate Rabha attire from her home in Kokrajhar.

Key Challenges

- **Communication Disablity:** Limited communication created challenges in coordination and access to support.
- **Poor Lighting:** Inadequate lighting slowed her work, taking over a week to produce a single Kamlet.
- **Life-stage Constraints:** Pregnancy and subsequent childcare responsibilities reduced her available working time.

About the Intervention

Recognizing her skill, AIET facilitated the installation of a two-loom lighting system in her home. This intervention enabled greater flexibility in her working hours, allowing her to weave based on her schedule while managing her role as a new mother.

Lamshi's Ecosystem

Technology

The core of the solution is a 2-loom lighting system powered by clean energy. This setup ensures that her workspace is adequately illuminated, regardless of the time of day or the reliability of the local power grid.

Solar Module : 40 Wp
Battery : 20 AH
LED Bulb : 5 W, 10 W

Training

Identified by AIET in 2016 during an awareness program, where her visible weaving skills immediately caught the attention of organizers.

Market Linkage

She sells her products, **Kambang, Kamlet,** and **Gamsa,** directly to local vendors who visit her home, earning roughly INR 4,500 per month.

The end user, a young weaver living with a 100% speech and language disability, was identified by AIET through its field engagement with individuals dependent on traditional crafts for their livelihoods. Recognizing weaving as her primary occupation and an activity she could pursue alongside health and family care responsibilities, AIET facilitated access to a loom lighting solution to strengthen her ability to continue weaving. The intervention enabled her to productively utilize available free time and sustain her engagement in the craft as a viable livelihood.

Outcomes and Impacts

While the quantitative assessment is ongoing due to Lamshi's current maternity leave, the qualitative impact is significant:

- **Flexibility:** The loom lights provide the flexibility she needs to balance her weaving with her health and childcare responsibilities.
- **Safety & Learning:** The intervention highlighted critical safety observations; the need for protective casing for solar batteries was identified to ensure the safety of children in the household. This learning will help refine future interventions for young families.

Case Study #06

Building Resilient Rural Enterprises through Tailored Solutions



Name of End User :	Prahlad Kalita
Type of Entrepreneur :	Individual
Location :	Madaltana, Baksa Assam
Livelihood :	Petty Shop
Key Partner:	SANJOG

Context & Background

In the village of Madaltana, Baksa, the rhythm of commerce was often dictated by an unreliable power grid. For local shopkeepers, the onset of the rainy season didn't just mean a change in weather; it meant frequent power cuts and a forced halt to their business operations.



About the Entrepreneur

Prahlad Kalita, 49, is a man defined by his courage. Formerly a vegetable vendor, a life-altering accident left him with a 45% locomotor disability. Refusing to be deterred, he established a home-based petty shop 15 years ago to support his family of four. Prahlad manages the shop from 6:00 AM to 9:00 PM, selling daily essentials and stationery.

Key Challenges:

- **Energy Poverty: Unstable electricity supply limited working hours, particularly during the rainy season.**
- **Financial Strain: Despite the irregular supply, he faced high electricity bills of INR 1,200 per month.**
- **Debt Burdens: Ongoing debt from medical expenses following his accident hindered his ability to expand.**

About the Intervention

For Prahlad, overcoming unreliable energy and high operational costs was essential to sustain his business as a steady source of income for his family. The intervention, facilitated with support from Sanjog, enabled the installation of a decentralized renewable energy system to power his home-based petty shop.

Prahlad's Ecosystem

Technology

A decentralized renewable energy (DRE) system was installed to ensure the shop could operate without interruption during frequent power cuts and the rainy season. This system enables Mr. Kalita to maintain consistent service and extend his operational hours from 6:00 AM to 9:00 PM

Solar Module : 165Wp (3 Nos)
Battery : 200AH 12V C10
LED Bulb : 9W (3 Nos)
BLDC Fan: 34W

Finance

The end user contributed a portion of the solution cost through personal savings. The remaining cost was supported by SELCO Foundation as gap funding, enabling the end user to access the solution without a significant upfront financial burden.

Total project cost: INR 1,20,000
End User's Contribution: INR 12,000 (sourced from savings)
SF Gap Support: INR 1,08,000

Market Linkage

He sources goods directly from local vendors and nearby Dhamdama town, serving customers from his own and three surrounding villages

Outcomes and Impacts

- **Operational Stability:** Business no longer stops during power cuts, allowing for extended evening hours and increased footfall.
- **Cost Reduction:** Monthly electricity expenses dropped by 50%, from INR 1,200 to INR 600.
- **Aspiration for Growth:** With stable energy, Prahlad now dreams of diversifying into construction materials and opening a digital service center (Lok Seva Kendra) to be run by his college-educated children.

Case Study #07

Transforming Traditional Retail into Digital Public Service Hubs



Name of End User :	Dipak Deka
Type of Entrepreneur :	Individual
Location :	Baksa, Assam
Livelihood :	Petty Shop cum LSK
Key Partner:	SANJOG

Context & Background

In Khagragari village, the lack of digital infrastructure forced residents to travel long distances for simple tasks like photocopying or government scheme applications.



About the Entrepreneur

Dipak Deka, 42, is an entrepreneur with a 50% locomotor disability who has spent nine years building a grocery business. His shop serves as a hub for local villagers and students, but his vision always extended beyond just selling goods.

Key Challenges :

- Service Limitations: Frequent power cuts forced early closures and limited his shop to basic grocery sales.
- Infrastructure Damage: Power fluctuations previously damaged his refrigerator.
- High Costs: Monthly electricity bills ranged from INR 700–INR 800 despite the unreliable service.

About the Intervention

The intervention focused on enabling a systemic upgrade of the petty shop into a Petty Shop cum LSK (Lok Seva Kendra) by integrating decentralised renewable energy–based technology with appropriate digital infrastructure. This approach addressed the end user's energy and service delivery constraints, while expanding the scope of livelihood activities. By strengthening energy access and digital capabilities, the intervention supported diversification of the enterprise model and positioned the shop as a locally relevant service node within the community ecosystem.

Dipak's Ecosystem

Technology

A robust DRE based system was provided to not only stabilize existing grocery operations but also to power high-load digital equipment. This intervention allowed for business diversification into digital services like printing and document scanning.

Solar Module : 550Wp (3Nos)
Battery : 200 Ah (4 Nos.) / 12V C10
LED Bulb : 9W
BLDC Fan: 35W
Refrigerator: 200W
Printer : 15W
Laptop : 65W

Finance

The end user contributed a portion of the solution cost through personal savings. The remaining cost was supported by SELCO Foundation as gap funding, enabling the end user to access the solution without a significant upfront financial burden.

Total project cost: INR 2,53,200
End User's Contribution: INR 25,320 *(sourced from savings)*
SF Gap Support: INR 2,27,880

Market Linkage

Dipak sources from local vendors and Nalbari wholesalers. He now serves 10–15 digital service customers daily, with spikes during government enrollment periods.

Outcomes and Impacts

- **Business Diversification:** The introduction of digital services (printing/scanning) has become a major revenue stream, sometimes exceeding INR 1,000 per day during peak times.
- **Financial Uplift:** Monthly income increased from approximately INR 12,000 to INR 15,000, with an additional INR 200–INR300 saved on electricity.
- **Family Empowerment:** Dipak is now looking to introduce a DRE based sewing unit for his wife to further diversify the household's income.

Case Study #08

Integrating Retail and Service Delivery through a Petty Shop–LSK Model



Name of End User :	Manoj Tikadar
Type of Entrepreneur :	Individual
Location :	Tamulpur
Livelihood :	Lok Seva Kendra (LSK)
Key Partner:	SANJOG

Context & Background

In the remote village of Tarungaon, located in the Tamulpur district of the Bodoland Region, reliable infrastructure is a luxury. For residents like Manoj Tikadar, the lack of consistent energy was not just an inconvenience—it was a barrier to maintaining a dignified livelihood after a life-altering accident.



About the Entrepreneur

Manoj Tikadar, 28, is a determined individual who refused to let a locomotor disability (80%) define his future. Formerly a digital service provider at a busy market, his accident forced him to relocate his operations to his home to accommodate his limited mobility. He now manages a household of four, balancing a petty shop with a digital service center (Lok Seva Kendra).

Key Challenges

- **Mobility Barriers:** His physical disability makes commuting difficult, confining his business to his home and limiting his customer reach.
- **Unreliable Infrastructure:** Frequent power fluctuations, low voltage, and outages lasting 2–3 hours daily (extending to days in summer) crippled his ability to use digital tools.
- **Financial Strain:** Despite the poor service, he faced high electricity bills of INR 600–INR 800. Furthermore, his potential income from areca nut trees was tied up with a moneylender due to past medical debts.

About the Intervention

Recognizing his potential, Sanjog NGO facilitated the intervention by enabling access to a comprehensive DRE based solution. The system was designed to power both his retail and digital operations, ensuring uninterrupted work regardless of grid reliability.

Manoj's Ecosystem

Technology

A decentralized energy system was installed to provide a reliable and consistent power supply, enabling him to operate his digital service center and retail appliances without interruption during frequent power cuts and allowing him to extend his business hours.

Solar Module : 550Wp (3Nos)
Battery : 200 Ah (4 Nos.) / 12V C10
LED Bulb : 9W
BLDC Fan: 32W

Training

While Manoj did not receive formal vocational training, he utilized digital skills learned during his school years to run the Lok Seva Kendra.

Market Linkage

His shop serves 3–4 nearby villages, sourcing inventory from Kawli Market and local vendors.

Finance

The end user contributed a portion of the solution cost through personal savings and a loan accessed via a peer-to-peer (P2P) lending platform at a reasonable interest rate. The loan is currently being repaid, with a few months remaining.
The remaining cost was supported by SELCO Foundation as gap funding, enabling the end user to access the solution without a significant upfront financial burden.

Total project cost: INR 2,30,000
End Users Contribution: INR 23,000 *(sourced from savings and a P2P loan via Rangde at 8% interest)*
SF Gap Support: INR 2,07,000

Outcomes and Impacts

- **Income Growth:** His monthly income rose from a maximum of INR 8,000 to approximately INR 10,000–INR 15,000.
- **Operational Efficiency:** Reliable power allowed for extended working hours in the evening and consistent digital service delivery.
- **Cost Savings:** He now saves INR 200–INR 300 per month on electricity bills.
- **Increased Aspiration:** With a stable business, Manoj is now looking toward the future, seeking sustainable irrigation to reclaim and improve his areca nut plantation.

Case Study #09

Integrating Retail and Service Delivery through a Petty Shop–LSK Model



Name of End User :	Khushi Mohan Mandal
Type of Entrepreneur :	Individual
Location :	Tamulpur
Livelihood :	Lok Seva Kendra (LSK)
Key Partner:	SANJOG

Context & Background

For many in Jaypur village, Tamulpur, social leadership does not always translate to financial security. Khushi Mohan Mandal, a well-known community figure, found himself at a crossroads where his passion for public service met the harsh reality of a lack of stable income.



About the Entrepreneur

Khushi Mohan Mandal, 45, is a former block-level political leader with a 40% locomotor disability. Supporting a family of five, his primary income previously came from paddy cultivation and a small government pension, which was insufficient for long-term economic security.

Key Challenges

Income Instability: A lack of accessible job opportunities for persons with disabilities left him without a fixed, reliable salary.

Energy Barriers: His ambition to start a business was constantly thwarted by frequent power cuts in the village, which made digital entrepreneurship seem impossible.

About the Intervention

The Sanjog team identified Khushi's leadership potential and enabled access to a technology-driven intervention, aimed at transitioning him from seasonal farming to a more stable and sustainable micro-business.

Khushi's Ecosystem

Technology

A DRE based system was installed to provide a reliable and uninterrupted power supply, enabling him to operate his digital service center efficiently without being disrupted by frequent village power cuts.

Solar Module : 100Wp (2 Nos)
Battery : 200 Ah, 12V C10
LED Bulb : 7W, 9W (2Nos)
BLDC Fan: 32W (2 Nos)
Laptop: 65 W
Printer: 15 W

Training

He acquired his digital service skills through peer learning within his community.

Finance

The end user contributed a portion of the solution cost through personal savings. The remaining cost was supported by the SELCO Foundation as gap funding, enabling the end user to access the solution without a significant upfront financial burden.

Total project cost: Rs. 1,45,000
End User's Contribution: Rs. 14,500 (from personal savings)
SF Gap Support: Rs. 1,30,500

Market Linkage

He operates from a rented room at Gagon Chowk, a strategic junction frequented by tea estate workers and villagers.

Outcomes and Impacts

- **Financial Independence:** The center now generates a stable monthly income of INR 6,000–INR 7,000, effectively doubling his previous earnings.
- **Reduced Dependency:** The business has provided him with a fixed source of earnings, reducing his reliance on seasonal labor.
- **Community Value:** As an Airtel Bank agent, he provides essential financial services (banking and transactions) to rural residents, saving them long journeys to the city.
- **Overhead Savings:** In addition to new income, he saves INR 300–INR 400 monthly on electricity expenses

Case Study #10

Transitioning from Limited Connectivity to Independent Digital Service Delivery



Name of End User :	Gopal Lohara
Type of Entrepreneur :	Individual
Location :	Tamulpur
Livelihood :	Lok Seva Kendra (LSK)
Key Partner:	SANJOG

Context & Background

Nagrijuli is a remote village nestled within a tea estate area, where access to government services often requires long, difficult journeys. In this isolated community, Gopal Lohara became a vital link between the people and the digital world, despite having almost no equipment.



About the Entrepreneur

Gopal Lohara, 37, is a graduate and a man of many roles: a teacher at a school for tea garden workers, a local singer, and a digital entrepreneur. Despite a 75% locomotor disability, he has spent three years running a digital center to serve his community.

Key Challenges

- **Resource Scarcity:** For years, Gopal operated his "center" using only a mobile phone and a printer. He had to borrow computers from friends for complex tasks like graphic design.
- **Infrastructure Gaps:** Daily power cuts of 2–3 hours and high electricity bills (INR 600) hindered his ability to grow his business.
- **Low Initial Returns:** Limited equipment meant his digital business only brought in about INR 2,000 a month.

About the Intervention

Through a referral from a local social worker, Gopal was connected to Sanjog and SELCO Foundation. The intervention transformed his home-based setup into a fully functional, solar-powered digital hub.

Gopal's Ecosystem

Technology

A comprehensive, decentralized solar energy system was installed to resolve the critical challenge of daily power cuts and hardware deficits. This setup empowered him to transition from relying on a mobile phone and borrowed equipment to operating a fully independent Lok Seva Kendra, ensuring uninterrupted, high-quality digital service delivery.

Solar Module : 200Wp
Battery : 150 Ah, 12V C10
LED Bulb : 7W (2 Nos)
BLDC Fan : 34W
Laptop : 65W
Printer : 13W

Finance

The end user contributed a portion of the solution cost. The remaining cost was supported by the SELCO Foundation as gap funding, enabling the end user to access the solution without a significant upfront financial burden.

Total cost of Solutions: INR 1,07,106.
End Users contribution: INR 10,706
SF Gap Support: INR 96,400.

Market Linkage

His primary customers are local tea garden workers and villagers who rely on him for official letters, document printing, and government scheme applications.

Outcomes and Impacts

- **Independence & Efficiency:** With his own laptop and solar power, Gopal no longer borrows equipment or waits for the grid to return, making his business 100% self-dependent.
- **Significant Income Boost:** His earnings from digital services have increased by INR 2,000–INR 3,000 in normal months, with peak periods bringing in up to INR 10,000.
- **Social Role Model:** Beyond the finances, Gopal has become a respected service provider and a role model for other persons with disabilities in the region.
- **Professional Integration:** He can now perform his official school-related administrative work from the comfort of his home.


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