2025-26

ANNUAL REPORT

SEED

Society for Socio Economic & Ecological Development

Contents

List of Abbreviations

ANM	Auxiliary Nurse Midwife
ASHA	Accredited Social Health Activist
BPCL	Bharat Petroleum Corporation Limited
CAC	Community Advisory Committee
COP17	17th Conference of the Parties
ECCC	Early Childhood Care Centre
FGD	Focus Group Discussion
FLN	Foundational Literacy and Numeracy
GPS	Global Positioning System
GP	Gram Panchayat
HH / HHs	Household / Households
IDSK	Institute of Development Studies Kolkata
LED	Light-Emitting Diode
MHM	Menstrual Hygiene Management
PMU	Project Management Unit
SBIF	SBI Foundation
SHG	Self-Help Group
UNCCD	United Nations Convention to Combat Desertification
VWMC	Village Water Management Committee
WBUAFS	West Bengal University of Animal and Fishery Sciences
WLI	Wetland Link International
WUG	Water User Group

Prologue

Ghoramara Island is disappearing. It has gone slowly enough that a person can grow up there and still be surprised by it and fast enough that the family home now stands somewhere different from where it stood a few years ago. The families SEED works with on that island and on Sagar beside it are not preparing for climate change. They have been living inside it for years.

This report covers April 2025 to March 2026. It was the largest year in the organisation's history. 9 funding partners supported the work and programme spending crossed 2.6 crore rupees; across early childhood care for climate refugee, water, solar energy, livelihoods, sanitation and mangrove restoration.

Growth of that kind is easy to celebrate and harder to justify. What follows tries to do the harder thing. Where children learned to read, we give the number and the starting point. Where a tubewell was not built, we say why. Where a survey turned up something uncomfortable, such as anaemia that would not shift or packaged snacks arriving in tiffin boxes, it sits on the page next to the results that went well.

SEED completed its 30th year in 2026. The founding conviction has not changed. Communities in ecologically fragile places already understand their situation better than any visiting institution does. What they lack is not insight but resources, technical support and someone willing to keep turning up. On the evidence of this year, that last part matters more than anything else.

Message from the President

In August 2025 I spent two days at the two Muskaan centres, one on Ghoramara and one on Sagar, running sessions on water, sanitation and hygiene with the children and their mothers. I went expecting to teach. I came back having mostly listened.

A woman in Raypara village of Ghoramara island told me she had stopped cooking after dusk to save kerosene and that her daughter now studies in the last hour of daylight because the lamp is needed for the meal. She was not complaining. She was explaining a household budget. Standing in that room, the distance between our project categories and the actual arithmetic of a family's evening became very short. We speak of energy access, of nutrition, of school readiness. She was describing one decision that touches all three.

That is the argument for the way SEED works and this year the argument became easier to make. On one island we now run early childhood centre, a water and livelihood programme, a solar energy initiative and a sanitation campaign. These were not designed as a package. They accumulated, because each time we asked what stood in the way of the last thing, the community pointed at the next one.

The results in this report reflect that. Children eating a hot meal six days a week learned faster. Mothers who came for a health camp stayed for the nutrition demonstration. Self help groups formed years ago for savings turned out to be the readiest institution on the island for maintaining solar equipment. None of that was clever planning. It was the community showing us how its own life is already organised.

My thanks go to our partners, who funded work in places that are hard to reach and slow to show results and to our project staff, who stayed through a furry monsoon, an election and a great deal of tidal water. 30 years in, the organisation is larger than it has ever been. The task now is to make sure it has not moved any further from the ground.

Warm regards,

Prof. Jyoti Ranjan Naskar
President, SEED

Message from the General Secretary

Every report SEED sent out this year carried my signature, which means I read all of them. I want to use this page to say what those documents, taken together, tell me.

The first thing is that we did more than we have ever done. 9 partners funded us. Two early childhood centres completed a full year and sent 15 children on to primary school. A three year water and livelihood programme moved from paperwork into construction. A solar programme began that will put lights into 380 homes on an island that has never had grid electricity. A sanitation fortnight reached six villages and nearly 1400 people in fifteen days.

The second thing is less comfortable. Growing this quickly strained our record keeping. An organisation that asks communities to keep registers has to keep better ones itself. We have started tightening this and next year's report will show the difference.

To the staff who live on these islands and work through weather that keeps everyone else away, thank you. To the parents who let us into their homes and to the panchayat members and health workers who made room for us in systems already stretched thin, thank you. The year ahead brings mangrove restoration at Jharkhali, handloom training at Ghoramara and solar lights going up in May 2026. There is a great deal to do.

Warm regards,

Ratna Majumdar
General Secretary, SEED

SEED
Society for Socio Economic & Ecological Development
People | Resilience | Thriving Ecosystems

Different Landscapes One Shared Purpose

OUR GEOGRAPHICAL COVERAGE 2025-26

From river islands to forested plateaus, working with communities for a more just and resilient future.

DIVERSE LANDSCAPES SHARED CHALLENGES

- Forest landscapes (Palamu, Latehar)
- River islands (Ghoramara)
- Coastal island (Sagar)
- Sundarbans landscape (Jharkhali)
- Climate vulnerability
- Marginalised communities
- Limited access to basic services
- Local solutions for lasting change

LATEHAR
Forest Landscape
- Clean energy access
- Climate smart livelihoods
- Community institutions

PALAMU
Forest-Fringe Landscape
- Clean energy access
- Climate smart livelihoods
- Community institutions

GHORAMARA
River Island (Sundarbans)
- Early childhood care
- Water and sanitation
- Mangrove restoration
- Community health & disaster preparedness

SAGAR
Coastal Island (Sundarbans)
- Early childhood care
- Water and sanitation
- Mangrove restoration
- Community health & disaster preparedness

JHARKHALI
Sundarbans Landscape
- Mangrove restoration
- Climate smart livelihoods (eco-tourism)
- Community institutions

FORESTS Palamu | Latehar
RIVER ISLANDS Ghoramara
COASTAL ISLAND Sagar
MANGROVE LANDSCAPE Jharkhali

5 LOCATIONS | **3** DISTRICTS | **2** STATES

PEOPLE | NATURE | RESILIENCE | TOGETHER

Where SEED worked

Geographical coverage for the financial year April 2025 to March 2026
Sundarbans delta of West Bengal and the forest fringe of Palamu and Latehar in Jharkhand

2 states

3 districts

3 islands in the Sundarbans

65 forest fringe villages

Two landscapes, one delta and one forest edge

Both sites on the national map

Sundarbans, South 24 Parganas, West Bengal

Ghoramara Island, Sagardwip block
Raypara, Bagpara, Khashimara, Chunpuri, Hatkhola Para, Mandirtala and Mudpoint
Early years, water, solar, sanitation and livelihoods

Sagar Island
Radhakrishnapur village
Early childhood care centre for 50 children

Jharkhali Island, Basanti block
Mangrove restoration along the tidal edge with 250 women

Palamu and Latehar, Jharkhand

65 forest fringe villages
Around Palamu Tiger Reserve and Betla National Park
Solar street lighting, in coordination with the Forest Department, Government of Jharkhand

The three island sites in the delta

Ghoramara Island
21.92 N, 88.13 E
About 5,600 people across the villages of the Gram Panchayat
Reached only by boat from Kakdwip

Sagar Island
21.83 N, 88.09 E
Radhakrishnapur village
50 children at the second Muskaan centre

Jharkhali Island
22.05 N, 88.68 E
Basanti block, at the forest edge
250 women in mangrove restoration

Island positions follow their recorded coordinates. Shapes are simplified and the panel is not to scale.

What the coverage meant on the ground

- Every island site is reached by boat, and the crossing decides what can be delivered and when.
- Ghoramara carried the widest mix of work: early years, water, solar, sanitation and livelihoods in one place.
- The Jharkhand villages sit along the forest edge, where street lighting is a safety measure before it is an energy one.

The Year at a Glance*

THE YEAR IN NUMBERS

9 funding partners

₹2.72 cr total income

93.9% spent on programmes

100 children in early childhood care

15 children moved on to primary school

1,383 people in the sanitation fortnight

380 solar home systems contracted

270 solar street lights contracted (170 in Sundarbans + 100 in Palamu)

300 fruit saplings planted

OUR IMPACT ACROSS PROGRAMMES

Early Childhood Care for Climate Affected Children

- 2 Muskaan centres run on Ghoramara & Sagar Islands
- 100 children provided nutritious meals, learning and care
- School readiness and parent engagement strengthened

Climate Resilient Water & Sanitation

- 3 drinking water interventions
- 1 Greywater System implemented
- 1,383 people reached through Sanitation Fortnight
- Hygiene & WASH awareness strengthened

Clean Energy Access

- 380 solar home systems contracted
- 270 solar street lights contracted (170 in Sundarbans + 100 in Palamu)
- Promoting clean, reliable and affordable energy

Climate Smart Livelihoods

- 40 farmers with water-user rights
- 30 women in poultry
- 20 women in handloom weaving
- 5 Common Interest Groups active

Mangrove Restoration & Coastal Biodiversity

- Community-based mangrove restoration activities
- Promoting biodiversity and ecosystem resilience
- Building local stewardship of natural resources

Community Health, Sanitation & Disaster Preparedness

- Health camps and screenings
- Nutrition and WASH awareness
- Strengthened community preparedness for climate and disaster risks

2025-26
YEAR AT A GLANCE

Real progress. Stronger communities. Healthier ecosystems.

9 Funding Partners

₹2.6+ crore Programme Spending

EARLY CHILDHOOD CARE FOR CLIMATE AFFECTED CHILDREN

Nurturing young minds for a brighter future

100 children supported at 2 Muskaan centres

15 children transitioned to primary school

268 children screened (for growth, health and development)

0 severe acute malnutrition (down from 3 children)

CLIMATE RESILIENT WATER AND SANITATION

Safer water. Healthier communities.

8 health camps organised

268 child screenings

100% immunisation coverage (among Muskaan children)

1,383 people reached through sanitation action (6 villages)

CLEAN ENERGY ACCESS

Sustainable energy for stronger communities.

3 schools with solar-powered water systems

912 students benefiting

6,000 litres combined water storage capacity

5.5 HP combined solar pumping capacity

2,079 (1,979 LED lights + 100 solar streetlights) installed in 62 villages

CLIMATE SMART LIVELIHOODS

Stronger livelihoods. More opportunities.

100 women supported in handloom

30 women supported in backyard poultry

100 women & youth engaged in eco-tourism

350 households supported with kitchen gardens & horticulture

3,000 fruit saplings planted

MANGROVE RESTORATION AND COASTAL BIODIVERSITY

Greener coasts. Safer tomorrow.

4 hectares mangrove cover regenerated

35,000 mangrove saplings planted since 2022

250 women engaged in restoration initiatives

50+ women earning through nursery & plantation work

COMMUNITY HEALTH, SANITATION AND DISASTER PREPAREDNESS

Healthier people. Safer communities.

1,383 people participated in the Swachhta Pakhwada (6 villages)

250 hygiene kits distributed

195 children & teachers took the sanitation pledge

100 women participated in menstrual hygiene sessions

53% fewer fever cases,
64% fewer diarrhoea cases,
57% fewer respiratory infections
(among Muskaan children)

From Resilient Islands to Brighter Futures

Our Areas of Work

Ghoramara | Sagar | Jharkhali | Palamu | Latehar

PEOPLE
NATURE
RESILIENCE
TOGETHER

CLIMATE JUSTICE | INCLUSIVE DEVELOPMENT | THRIVING ECOSYSTEMS

The year in numbers

SEED Annual Report 2025-26 · April 2025 to March 2026
The largest year in the organisation’s history, across the Sundarbans and Jharkhand

9 funding partners

2.6 cr rupees in programme spending

6 focus areas

30 years of SEED, since 1996

What the year produced, area by area

Early childhood care

100 children at the two Muskaan centres, on Ghoramara and Sagar Islands

15 moved on to primary school, all of them meeting the readiness threshold

0 children left in severe acute malnutrition, down from 3 in May

85% recognise letters A to Z, against fewer than 10% at the baseline

Water and sanitation

5,600 people across six villages covered by the water and livelihood programme

912 students with solar pumped drinking water in three island schools

8 ponds selected and validated for rejuvenation

2 raised tubewell sites taken into construction at Mandirtala and Chunpuri

Clean energy

1,979 LED lights installed across the forest fringe of Palamu and Latehar

100 solar streetlights put up around Palamu Tiger Reserve and Betla

62 villages that now have light along the paths people use after dark

380 island homes to receive solar under VIBHA, prepared during the year

Climate smart livelihoods

100 women trained in handloom weaving at the Raypara loom centre

350 households growing kitchen gardens for food and small incomes

3,000 fruit saplings planted with households on Ghoramara

30 women running backyard poultry units as a second income

Mangrove restoration

4 hectares of mangrove cover regenerated at Jharkhali

35,000 saplings planted along the tidal edge since 2022

250 women supported through the restoration and poultry programme

50 women earning from nursery and plantation work

Sanitation campaign

1,383 people joined the fifteen day Swachhta Pakhwada in July 2025

5,500 beneficiaries covered across the six villages of the island

250 hygiene kits given to coastal families

10 walls painted with hygiene messages in schools and homes

Our Focus Areas

SEED organised its work in 2025-26 around six areas:

CHAPTER 1- Early Years

Early childhood care for climate refugee children

The problem

A child born on Ghoramara today will move house at least once before starting school and possibly several times. Land goes into the river, families shift inland and the ordinary scaffolding of early childhood, a familiar room, a routine, the same faces each morning, keeps getting taken apart and rebuilt somewhere else.

When IDSK surveyed the two island communities (Sagar & Ghoramara) in Feb–March 2025, the picture was consistent with that. A quarter of the children were moderately undernourished. Fewer than one in ten could recognise letters at an age when they should have been starting to write them. Nearly half showed separation anxiety serious enough for staff to record it. Anganwadi services existed on paper and functioned irregularly in practice, which on an island with no bridge is less a failure of will than of logistics.

What We Did

SBI Foundation Muskaan ECCCs

In response to the complex reality, SEED—supported by the **SBI Foundation** under the "Muskaan" Project—has launched two **Early Childhood Care Centres (ECCC)**, one in Raypara village of Ghoramara Island and one in Radhakrishnapur village of Sagar Island. These centres aim to provide holistic support to **children aged 2 to 6** years from displaced and marginalized families, creating nurturing environments that foster their growth and development.

HEALTH & NUTRITION

Nutritious meals every day, regular health check-ups, growth monitoring, full immunisation and hygiene practices to keep children healthy and strong.

SCHOOL READINESS

Joyful, play-based learning that builds foundational literacy, numeracy, language and cognitive skills for confident entry into school and lifelong learning.

PSYCHOSOCIAL SUPPORT

Daily counsellor-led sessions, emotion awareness activities and individual support to build emotional wellbeing, resilience and positive social behaviour.

PARENTAL & COMMUNITY ENGAGEMENTS

Parents as co-educators through regular workshops, and active Community Advisory Committees ensuring shared ownership and community-led decisions.

SBIF Muskaan: Early Childhood Care Centres (ECCCs)

PARTNER	LOCATION	CHILDREN	PERIOD
SBI Foundation	Ghoramara and Sagar Islands	100	March 2025 to February 2026

Two centres opened in May 2025, at Raypara on Ghoramara Island and Radhakrishnapur on Sagar Island, each enrolling 50 children aged 2 to 6.

Enrolment was 52 girls and 48 boys, drawn from landless and displaced households where parents work as daily wage labourers, deep sea fishers or crab collectors.

A team of 13 ran the two centres: a project coordinator, two supervisors, four educators, two counsellors, two cooks and two helpers.

Laying Foundations for a Resilient Future

The "Muskaan" project adopts an integrated approach to early childhood development, combining nutrition, health, psychosocial support, parental education and school readiness—all tailored to the unique realities of climate-affected Sundarbans communities.

We believe that early investment in childhood care can help break the cycle of poverty and vulnerability for these families. By addressing both the immediate needs of children and the structural gaps that perpetuate disadvantage, we can ensure that children in the Sundarbans grow up with the nurturing care, dignity and opportunities they deserve.

We remain committed to learning, adapting and scaling this model across other climate-vulnerable blocks—because in a region where the tides are rising, the resilience of the next generation must rise even higher.

PROJECT · SBIF MUSKAAN ECCCS

Muskaan at a Glance

Two centres, Ghoramara and Sagar Islands · March 2025 to February 2026

100 children enrolled	**52 / 48** girls / boys	**82%** average daily attendance
15 children moved on to school	**260** psychosocial sessions	**27** parental workshops
13 staff across both centres	**20** community committee meetings	**₹62.63 L** expenditure

Photo: World Wetland Day celebration in February 2026 at Muskaan ECCC– Ghoramara Island

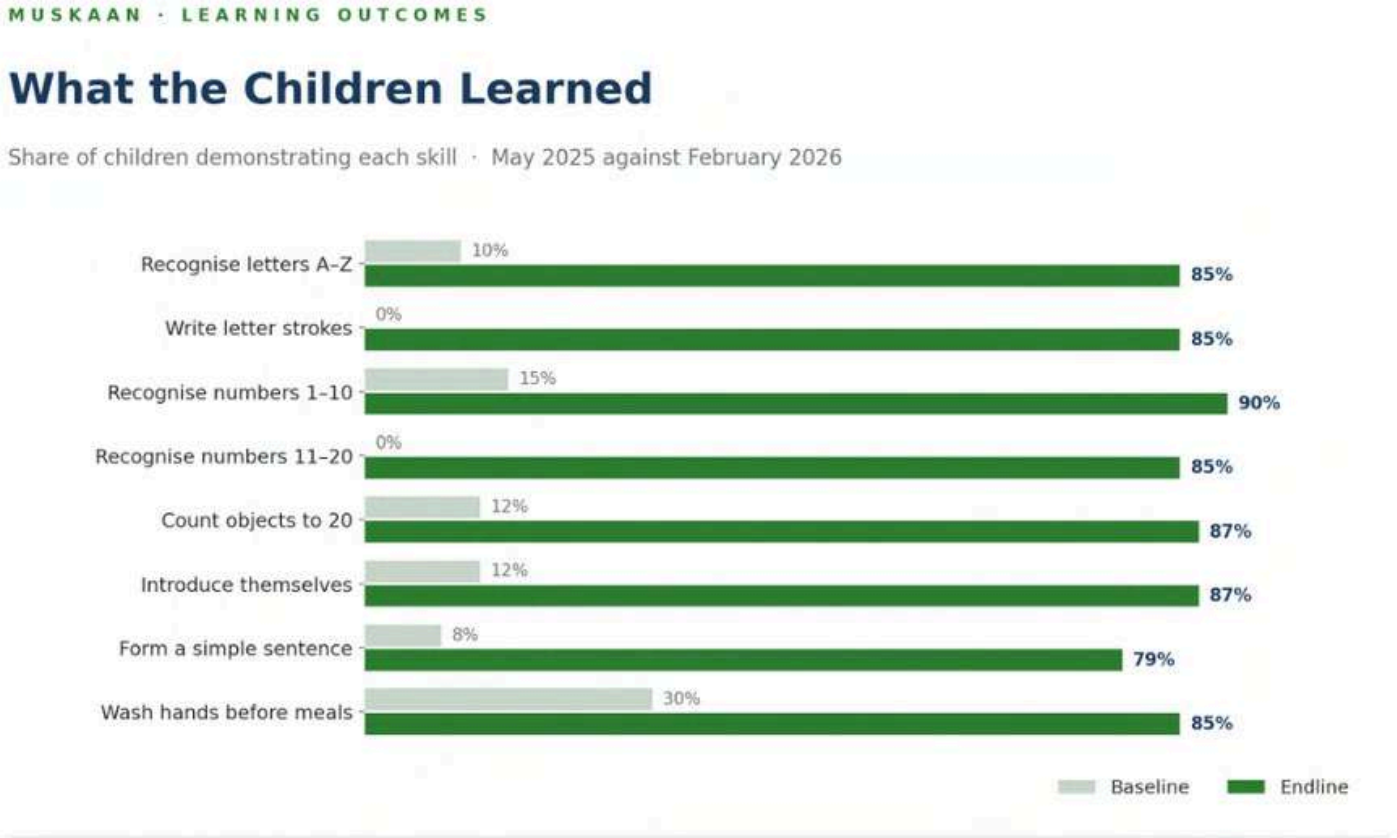
Learning and School Readiness

The gains in foundational skills were the clearest result of the year. Children were assessed at the start in May 2025 and again at the end in February 2026, using the same instruments both times. Fifteen children reached the age of transition and moved on to formal primary school, twelve from Ghoramara and three from Sagar. All fifteen met the readiness threshold on literacy, numeracy, hygiene independence and communication confidence. Fourteen of the fifteen met it on social and emotional readiness and on attention span.

Skill	Baseline	Endline	Change
Recognise letters A to Z	<10%	85%	+75 pp
Write letter strokes correctly	0%	85%	+85 pp
Recognise numbers 1 to 10	15%	90%	+75 pp
Recognise numbers 11 to 20	0%	85%	+85 pp
Count objects accurately to 20	12%	87%	+75 pp
Introduce themselves aloud	12%	87%	+75 pp
Form a simple sentence	8%	79%	+71 pp
Wash hands before meals unprompted	30%	85%	+55 pp

Photo 1 : the daily meal at Muskaan ECCC, Raypara (Ghoramara Island)

Photo 2: handwashing stations installed at child height at both centres.



Panel 1: Foundational literacy and numeracy outcomes across 2 Muskaan ECCCs

Panel 2: Parental engagement and home practice adoption outcomes across 2 Muskaan ECCCs

Nutrition

Growth was tracked at four points across the year. Every child was measured for weight, height and mid upper arm circumference, and the results were reviewed each time by an external doctor rather than by project staff.

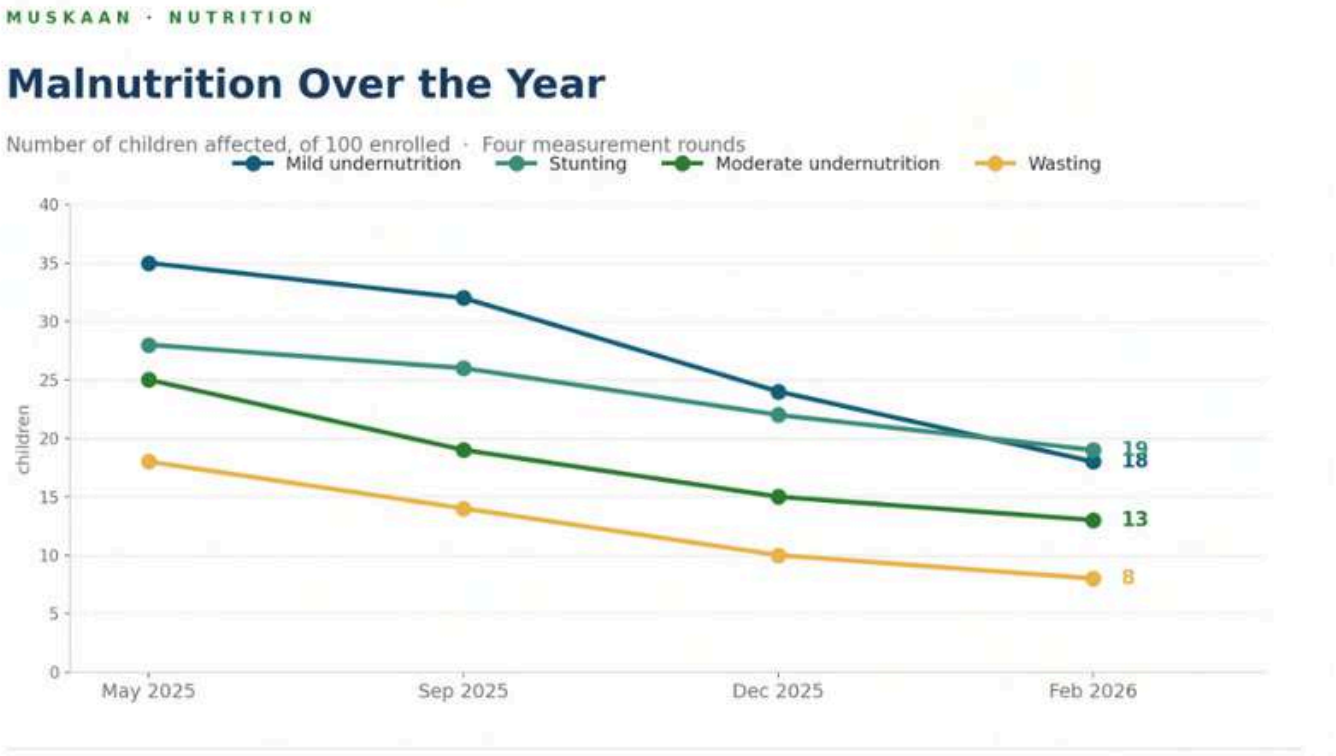
Severe acute malnutrition reached zero. Moderate undernutrition fell by just under half, and wasting by more than half. The dietary change behind it shows up in what families reported eating: children consuming four or more food groups a day rose from fifteen in a hundred to eighty two in a hundred, and consumption of dairy, eggs and fish rose by more than forty percentage points each.

Two things did not resolve. Anaemia indicators persisted in a minority of children, tied to irregular compliance with iron supplements. And in the final quarter staff recorded packaged snacks arriving at the centres in growing quantities, which prompted a healthy tiffin initiative and a round of parent sessions in February.

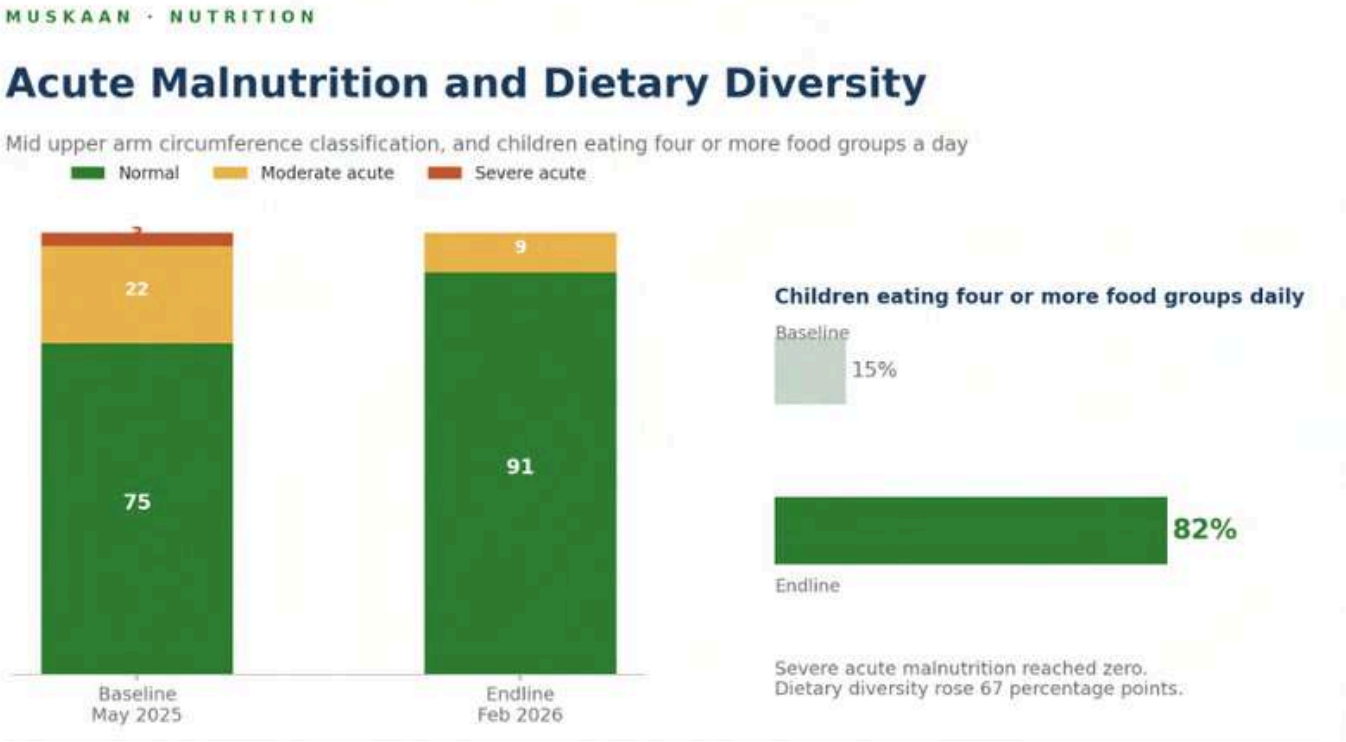
Indicator	May 2025	Sep 2025	Dec 2025	Feb 2026
Moderate undernutrition	25 children	19	15	13
Mild undernutrition	35 children	32	24	18
Stunting	28 children	26	22	19
Wasting	18 children	14	10	8
Severe acute malnutrition	3 children	3	1	0
Normal MUAC band	75 children	82	87	91

Photo 3: National Nutrition Week 2025 at Muskaan ECCC, (Sagar Island)

Photo 4: Children making art from lentils during a nutrition sessions; Muskaan ECCC



Panel 3: Malnutrition across four measurement rounds during 4 quarterly assessments of the year 2025-26



Panel 4: Acute malnutrition classification and dietary diversity during year end assessment of 2025-26

Health

The project also strengthened preventive child healthcare. 8 health camps reached 268 child screenings, immunisation coverage reached 100%, including catch-up vaccination for 15 children and two rounds of deworming achieved full coverage. Reported morbidity declined substantially, with fever reducing by 53%, diarrhoea by 64%, acute respiratory infections by 57% and skin problems by 61%. Illness-related absence also fell from 2.8 to 1.3 days per child per month.

Indicator	Q1	Q2	Q3	Q4 / Endline
Children assessed	100	100	100	100
Average height gain	1.8 cm	1.9 cm	1.7 cm	1.2 cm
Growth status	On track	On track	On track	On track
Psychosocial individual support	18 children	15 children	12 children	10 children
Illness-related absence	2.8 days/child	—	—	1.3 days/child
Health camps / screenings	2 Camps	2 Camps	2 Camps	2 Camps/ 268 screenings cumulative
Immunisation	Follow-up initiated	Catch-up vaccination	Gaps addressed	100% coverage
Deworming	—	1 Round	-	1 Round

Photo 5: A child being screened during a health camp at Muskaan ECCC (Ghoramara Island)

Photo 6: Maternal Health Camp at Muskaan ECCC (Sagar Island)

Panel 5: Morbidity reduction and preventive health coverage during year end assessment of 2025-26

Photo: Global Handwashing Day 2025 celebration at Muskaan ECCC- Sagar Island

Emotional Wellbeing & Psychosocial Support

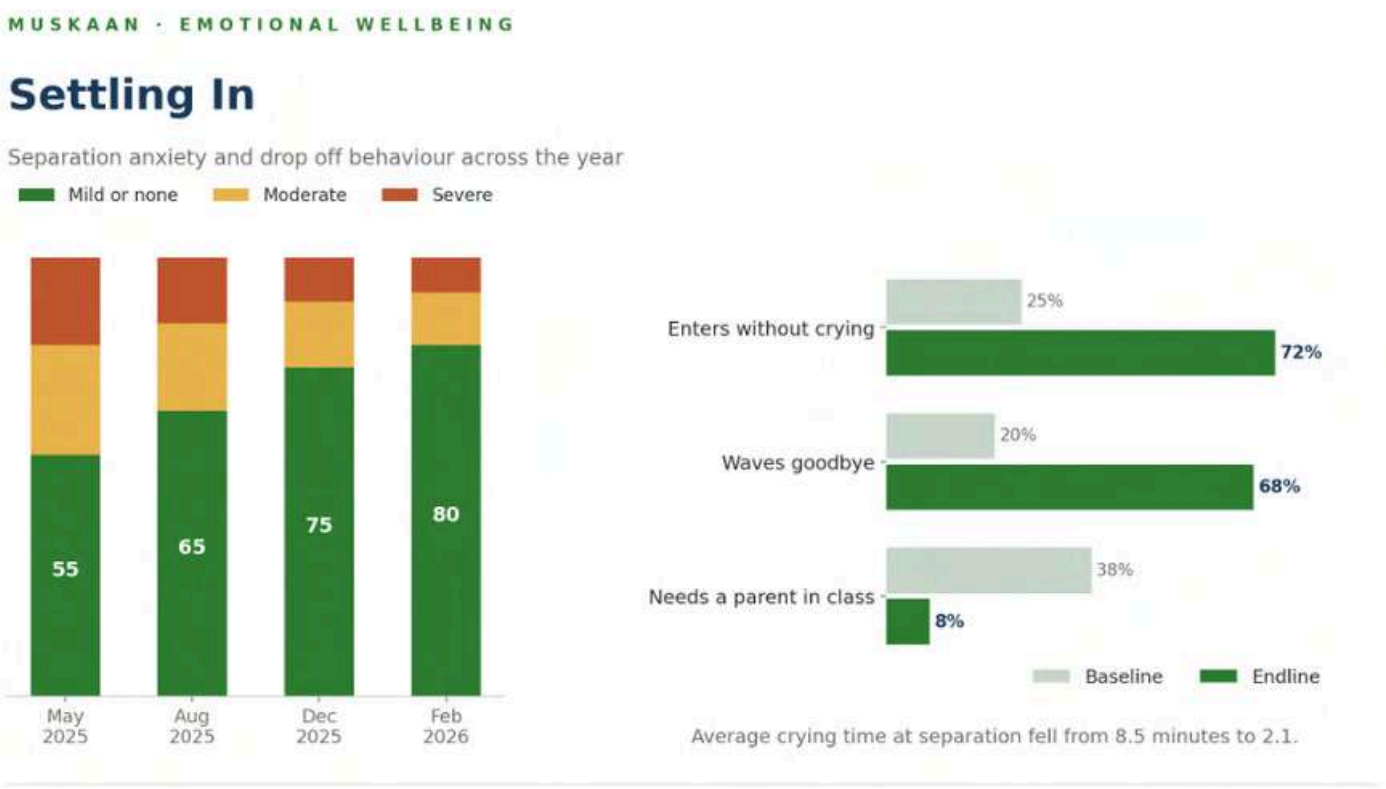
Emotional wellbeing was embedded into the daily functioning of the two Early Childhood Care Centres through structured psychosocial sessions using emotion mapping, storytelling, role-play, cooperative games, art therapy, breathing exercises and emotion-based activities. Across the year, 260 structured sessions were conducted, with an average participation of 86% of children. Children receiving individual support reduced from 18 in Q1 to 10 in Q4, indicating a gradual decline in the number requiring additional one-to-one support.

The intervention contributed to measurable improvements in children's emotional awareness, social interaction and self-regulation. By the end of the intervention, 84% of children could correctly identify five or more emotions, 89% actively participated in cooperative group activities, 64% used calming strategies when upset, and 53% were able to resolve minor conflicts independently. Storytelling and role-play also strengthened peer bonding, emotional expression and perspective-taking.

Indicator	Q1	Q2	Q3	Q4 / Endline
Psychosocial sessions conducted	52	78	78	52
Children attending sessions	85%	87%	84%	86%
Children receiving individual support	18	15	12	10
Emotion identification	Sessions initiated	Continued practice	Improved recognition	84% identify 5+ emotions
Cooperative participation	Activities introduced	Regular participation	Strengthening teamwork	89% actively participate
Self-regulation	Breathing/relaxation introduced	Practised regularly	Increasing use	64% use calming strategies
Conflict resolution	Role-play introduced	Practised through games	Improvement observed	53% resolve minor conflicts independently

Photo 7: Cooperative play at Muskaan ECCC (Ghoramara Island)

Photo 8: Circle game at Muskaan ECCC (Sagar Island)



Panel 6: Separation anxiety and drop off behaviour across 4 quarters of the year 2025-26

Photo: An Educator enagding children during a story circle at Muskaan ECCC- Sagar Island

Parents & Community Engagement

Parents were engaged as co-educators rather than only beneficiaries, through regular workshops on nutrition, early learning, responsive caregiving, emotional development, home-based learning, numeracy, child rights and school readiness. Across the reporting period, 27 workshops were conducted, including 22 monthly parental workshops and five thematic sessions. Average attendance was 86 parents per workshop, with participation consistently above 88%.

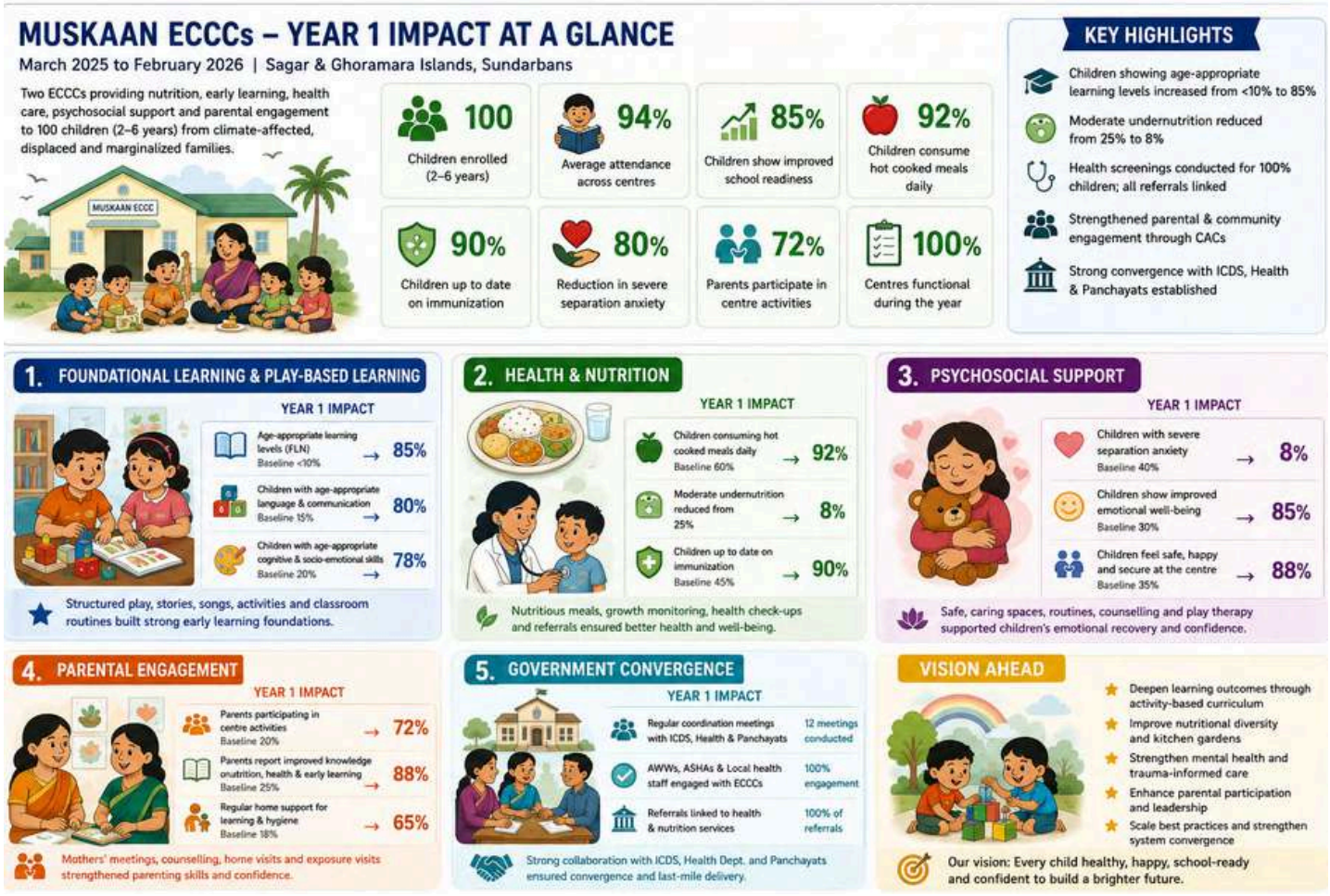
Community ownership was strengthened through Community Advisory Committees (CACs) established at both centres. Each committee had 10 members, including four parents, Anganwadi Workers, ASHA, ANM, a local development practitioner and a community leader. Together, the two CACs held 20 monthly meetings, with an average attendance of 80%. Members contributed to discussions, proposed action points, followed up on tasks and brought community feedback into centre-level decisions.

27 parent workshops | 86 average parents per workshop | 90%+ participation | 22 Community Advisory Committees (CACs) meetings | 20 community representatives

Indicator	Q1	Q2	Q3	Q4
Parent workshops	6	8	9	4
Average parent attendance	87	85	84	88
Participation rate	91%	89%	88%	92%
Key focus	Orientation, nutrition, early learning, responsive caregiving	Emotional growth, home learning, numeracy, nutrition	FLN, pneumonia awareness, child rights, behaviour	School readiness, continued learning, emotional intelligence
CAC monthly meetings	6	6	6	4

Photo 9: World Breastfeeding Week 2025 at Muskaan ECCC (Ghoramara Island)

Photo 10: Parents during Child Rights Week session at Muskaan ECCC (Sagar Island)



The year ahead

The first project cycle ended in February 2026. Priorities for the next phase are:

- Sustaining nutritional recovery rather than assuming it holds.
- Closing the gap on iron compliance and anaemia.
- Preparing the next group of children for school transition.
- Deepening the convergence with ICDS so that the centres strengthen the public system rather than substituting for it.

CHAPTER 2- Water

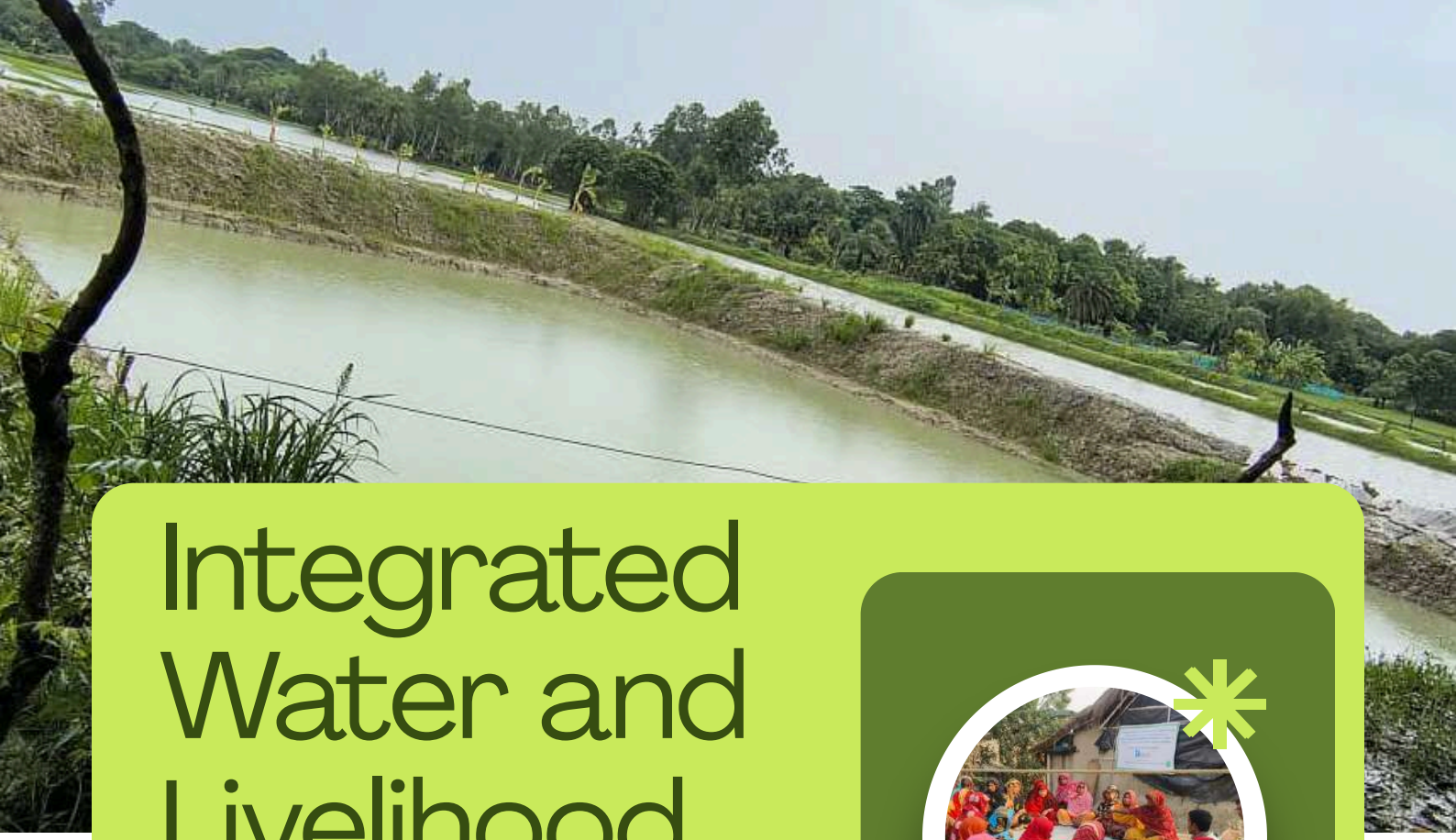
Climate Resilient Water and Sanitation

The problem

Ghoramara is an island where water insecurity is inseparable from climate vulnerability. Salinity enters groundwater and surface water, tidal flooding contaminates drinking-water sources, and ponds that once supported cultivation have progressively filled with silt or become saline. For families whose livelihoods already depend on uncertain agriculture, fishing and wage labour, unreliable water means unreliable income.

The Programme Design Document recorded groundwater salinity of 7.4 PPT, compared with a safe level of less than 1 PPT, while many existing shallow handpumps and borewells were unsuitable for drinking. Agriculture was similarly constrained: only about 75 acres were being cultivated during the Rabi season by around 250 farmers. At the same time, 50 landless families, many headed by women because of climate-induced male migration, had lost their land-based livelihoods and depended largely on irregular daily wages.

Photo 11: An inundated pond after cyclone Yass at Ghoramara Island, Sunderban



Integrated Water and Livelihood Solutions

The Integrated Water and Livelihood Solutions programme, supported by the **Azim Premji Foundation**, takes an integrated, community-led approach to address freshwater insecurity, climate vulnerability and livelihood instability on Ghoramara Island. The programme combines **resilient water infrastructure, pond restoration, community-led water governance and climate-resilient livelihood support for 50 landless families**, particularly women, to strengthen water security, food security, incomes and long-term resilience.

WATER SECURITY FOR ALL

We build climate-resilient drinking water solutions through raised tubewells located above flood levels to ensure safe, reliable water for every household throughout the year.

RESTORING PONDS, REVIVING LIVELIHOODS

We rejuvenate silted agricultural ponds to harvest rainwater and improve irrigation access, strengthening agriculture, fisheries and climate resilience for farmers.

LIVELIHOODS THAT EMPOWER

We support landless families, especially women, with skill training, productive assets and market linkages in poultry and handloom enterprises to build sustainable incomes.

COMMUNITY-LED GOVERNANCE & LASTING IMPACT

We strengthen community institutions and build local capacity for water management, operation and maintenance ensuring shared ownership and long-term sustainability.

PROJECT AT A GLANCE

The project was launched in September 2025, with the first phase focused on building the technical, institutional and community foundations for implementation.

1,150	families across six villages
~5,600	people
6	villages covered
6	raised tubewells planned
24	ponds planned for rejuvenation
50	landless families targeted for livelihood
~250-300	farmers targeted through improved irrigation
₹98 lakh	three-year grant

Photo 12: Livelihood orientation meeting in progress at Raypara village, Ghoramara Isand

Year 1: Building the foundation

The first seven months were deliberately spent getting the basics right before major infrastructure investments were made. SEED recruited and oriented the project team, secured formal endorsement from the Panchayat and Block administration, completed cadastral and hydrogeological assessments, validated beneficiary lists and began livelihood training.

A community orientation held on 24 October 2025 brought together 80 participants from six villages. It was used to explain the three-year roadmap and validate the proposed water institutions and the selection of 50 landless families, with particular attention to women-led households.

Progress by 31 March 2026

Component	Year 1 plan	Progress by 31 March 2026	Status
Raised tubewells	2 sites	Sites finalised; construction	Under implementation
Pond rejuvenation	8 ponds	8 ponds selected and validated	Ready for earthwork
Livelihoods	50 families	30 women in poultry; 20 women in loom-	Training underway
Water User Groups	Pond-level groups	WUGs constituted around selected	Operational foundation
VWMCs	Village-level institutions	Committees formed and oriented	Functional foundation
Baseline & technical studies	Six villages	Cadastral, GPS and hydrogeological	Completed
Capacity building	Year 1 training	Multiple technical and livelihood trainings completed	Ongoing

Photo 13: An FGD in progress during baseline survey at Multipurpose Community Centre, SEED

Water that can withstand the tide

The first two raised tubewell sites were selected at **Mandirtala** and **Chunpuri** after hydrogeological assessment. The structures are designed to place the handpump above flood level and reduce the risk of contamination during tidal flooding.

By March, installation had begun at Mandirtala, while materials had been mobilised for the second site. Community members were oriented on the raised-platform design, and operation and maintenance training was conducted for WUG and VWMC members. Door-to-door consultations also resulted in small design changes, including stronger pipe joints and more ergonomic handles for elderly users.

The point was not simply to install another handpump. It was to leave behind a water source that the village can operate, monitor and maintain.

Bringing ponds back into production

Eight ponds were identified for the first phase of rejuvenation across Raipara, Bagpara, Mondirtola, Khasimara and Hatkhola. Site selection was preceded by ownership verification, cadastral mapping and community consultation.

Irrigation planning sessions conducted from 20–24 November 2025 brought together 100 marginal farmers in four phased sessions. The discussions covered Rabi cultivation, irrigation scheduling, horticulture, fisheries and collective water management.

The ponds had not yet entered the earthwork phase by March because high water levels and electoral restrictions made excavation impractical. Rather than rushing the work, SEED kept the farmer groups engaged and rescheduled earthwork for the appropriate seasonal window.

Photo 14: A raised tubewell under installation at Mandirtala village, Ghoramara Island (Sunderban)

Livelihoods: started with evidence

The livelihood component deliberately changed course after the baseline.

The original project design proposed poultry, duckery and water-hyacinth-based craft. Discussions with landless women showed that **loom-based weaving and poultry** were more feasible and more strongly preferred, because of existing skills, availability of trainers and raw materials, lower risk and better prospects for market linkage. The change was made within the approved budget and reported to the Foundation.

For poultry, training covered housing, hygiene and breed selection, followed by technical guidance on vaccination and disease prevention. For weaving, the women received hands-on training from the **Weavers' Service Centre (GOI), Kolkata**, followed by refresher sessions.

The project also brought all **50 women together for financial literacy training** covering cost calculation, budgeting, record keeping, profit margins and pricing—important skills for turning training into an actual enterprise.

Livelihood	Women	Progress by March 2026
Backyard poultry	30	Two training sessions completed; poultry shed construction initiated
Loom-based weaving	20	Orientation, hands-on training and refresher training completed
Financial literacy	50	Cost calculation, budgeting and pricing training conducted

Photo 15: A trainee during hands on loom training by Weavers' Service Centre (GOI), Kolkata

Photo 16: A group formation meeting in progress for the CIGs linked to livelihood component

Building institutions, not dependency

A central part of the project is the creation of community institutions that can manage water assets after SEED's involvement reduces.

The project established two levels of water governance:

- Village Water Management Committees (VWMCs) for drinking-water infrastructure; and
- Water User Groups (WUGs) around rejuvenated ponds.

The committees were designed to include women, youth, elderly residents and community representatives. Their responsibilities include operation and maintenance, monitoring, water allocation, record keeping and community-level problem solving.

Formal engagement was also secured with the Gram Panchayat, Block Development Office and Gram Sansad before implementation. This helped place the project within existing local governance rather than creating a parallel delivery system.

A closer look at participation

One lesson from the first phase was that participation cannot simply be assumed because a committee has been formed.

The interim report recorded the need for continued facilitation to ensure meaningful participation of women and landless households. Traditional social norms, existing land ownership patterns and the practical demands of household work all affected participation. SEED responded through repeated door-to-door engagement and smaller informal meetings.

This is particularly important for the water institutions: livelihood participation is predominantly women-led, while access to land and ponds remains more heavily controlled by men. The programme therefore needs to continue deliberately creating space for women's participation in water governance rather than assuming that representation will happen automatically.

WHAT THE FIRST PHASE TAUGHT US

1 SEQUENCE MATTERS

Completing surveys, ownership verification and community validation before construction reduced the risk of disputes and redesign.

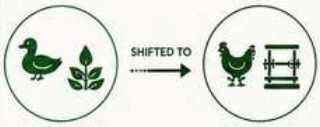
Better planning, less conflict, smoother implementation.

2 CLIMATE RESILIENCE IS NOT ONLY ABOUT INFRASTRUCTURE

The project had to work around elections, tidal transport, high water levels and salinity. Flexible scheduling and a field team based on the island allowed activities to continue rather than simply stopping when conditions changed.

Flexibility + local presence = resilience in action.

3 LIVELIHOOD CHOICES NEED TO COME FROM THE WOMEN THEMSELVES



The move from duckery and water-hyacinth craft to poultry and weaving was not a cosmetic change. It came from baseline evidence and community preferences.

Women's choices lead to ownership, confidence and better outcomes.

4 TRAINING HAS TO LEAD SOMEWHERE

The project has moved beyond skill training towards veterinary support, production systems and market linkage. The market-linkage plan proposes collective procurement, aggregation, buyer relationships and channels for both poultr y and handloom products.

From skills to income – creating sustainable livelihood pathways.

THE ROAD AHEAD

Building on a strong foundation, Year 2 (2026–27) will focus on turning plans into lasting impact.

1. DRINKING WATER SECURITY

- Complete and commission all 6 raised tubewells
- Conduct water quality testing and ensure safe, year-round access
- Handover to VWMCs with O&M training and support

Reliable, safe drinking water for every household

2. PONDS & IRRIGATION

- Rejuvenate 24 ponds and strengthen bunds
- Improve rainwater harvesting and water storage
- Enable irrigation for Rabi and dry-season cultivation

More water for crops, fisheries and livelihoods

3. POULTRY LIVELIHOODS

- Support the first production cycle
- Strengthen veterinary linkages and vaccination support
- Improve housing, feed management and flock health

Healthy flocks, stable production and better incomes

4. HANDLOOM LIVELIHOODS

- Move from training to regular production
- Improve design, quality and productivity
- Strengthen linkages with markets and buyers

Sustainable weaving enterprises and market access

5. INSTITUTIONS & GOVERNANCE

- Strengthen WUGs and VWMCs
- Build skills in record keeping, O&M and financial management
- Ensure inclusive participation of women, youth and marginalized groups

Strong community institutions for sustainable management

6. MONITORING & RESILIENCE

- Community-led monitoring of water assets and livelihoods
- Strengthen climate resilience and disaster preparedeess
- Use data for better planning and decisions

Resilient communities, better decisions and preparedness

7. MARKET LINKAGE & PARTNERSHIPS

- Implement market-linkage plan for poultry and handloom products
- Promote collective procurement, aggregation and branding
- Build long-term buyer relationships and sales channels

Stronger markets, higher value and sustainable incomes

OUR GOAL

- Water security for all
- Productive agriculture
- Sustainable livelihoods
- Inclusive, empowered communities
- Resilient today, stronger tomorrow

Solar Powered Drinking Water for Schools

For children studying on Ghoramara Island, access to safe and reliable drinking water is an essential part of a healthy learning environment. The island's vulnerability to salinity, flooding and limited infrastructure makes dependable freshwater access particularly challenging. Recognising this need, SEED, with support from **T&I Global Limited**, introduced solar-powered water pumping systems in 3 schools, using renewable energy to strengthen access to drinking water without dependence on conventional electricity.

SOLAR POWERED DRINKING WATER FOR SCHOOLS

Solar-powered pump systems were installed in three schools on Ghoramara Island to provide safe, reliable drinking water for students and school communities.

A clean, sustainable solution that supports health, hygiene and better learning environments.

OFF-GRID ISLAND, SMART SOLUTION

Ghoramara is an off-grid island with limited infrastructure.

Conventional electricity or diesel-based pumps are not reliable, costly and harmful to the environment.

Solar power ensures dependable water access without fuel dependency or pollution.

RELIABLE WATER, EVERY DAY

Solar pumps ensure a steady supply of safe drinking water for children throughout the school day.

Less disruption, more learning.

THREE SCHOOLS, 912 STUDENTS BENEFITED

The systems are supporting three schools across Ghoramara Island, ensuring better access to safe drinking water for 912 students and school communities.

CLEAN ENERGY. CLEANER FUTURE.

By replacing diesel-dependent systems, the initiative reduces greenhouse gas emissions, pollution and noise—contributing to a cleaner environment and a sustainable future for the island.

3 SCHOOLS across Ghoramara Island

912 STUDENTS benefited

6,000 LITRES total storage capacity

SAFE WATER. HEALTHY CHILDREN. Stronger schools. Resilient island.

PROJECT AT A GLANCE

Partner: T&I Global Limited
Location: Ghoramara Island, South 24 Parganas
Reach: 3 schools (912 students)

The Intervention

Solar-powered pump systems were installed in schools to draw and store water for use by students and school staff. The intervention combines clean energy with essential water infrastructure, providing a practical solution suited to the island's remote and climate-vulnerable context.

The systems installed in three of the schools have a combined pumping capacity of 5.5 HP and a total storage capacity of 6,000 litres. Together, these schools serve 912 students.

School	Students	Pump Capacity	Storage Capacity
Ghoramara Milan Vidyapith High School	635	2 HP	3,000 litres
Khashimara Nimno Buniadi School	165	2 HP	2,000 litres
Raypara Pre-Primary School	112	1.5 HP	1,000 litres
Total — 3 schools	**912**	**5.5 HP**	**6,000 litres**

Photo 18: A solar powered storage tank at Raypara Pre-Primary School, Ghoramara Island

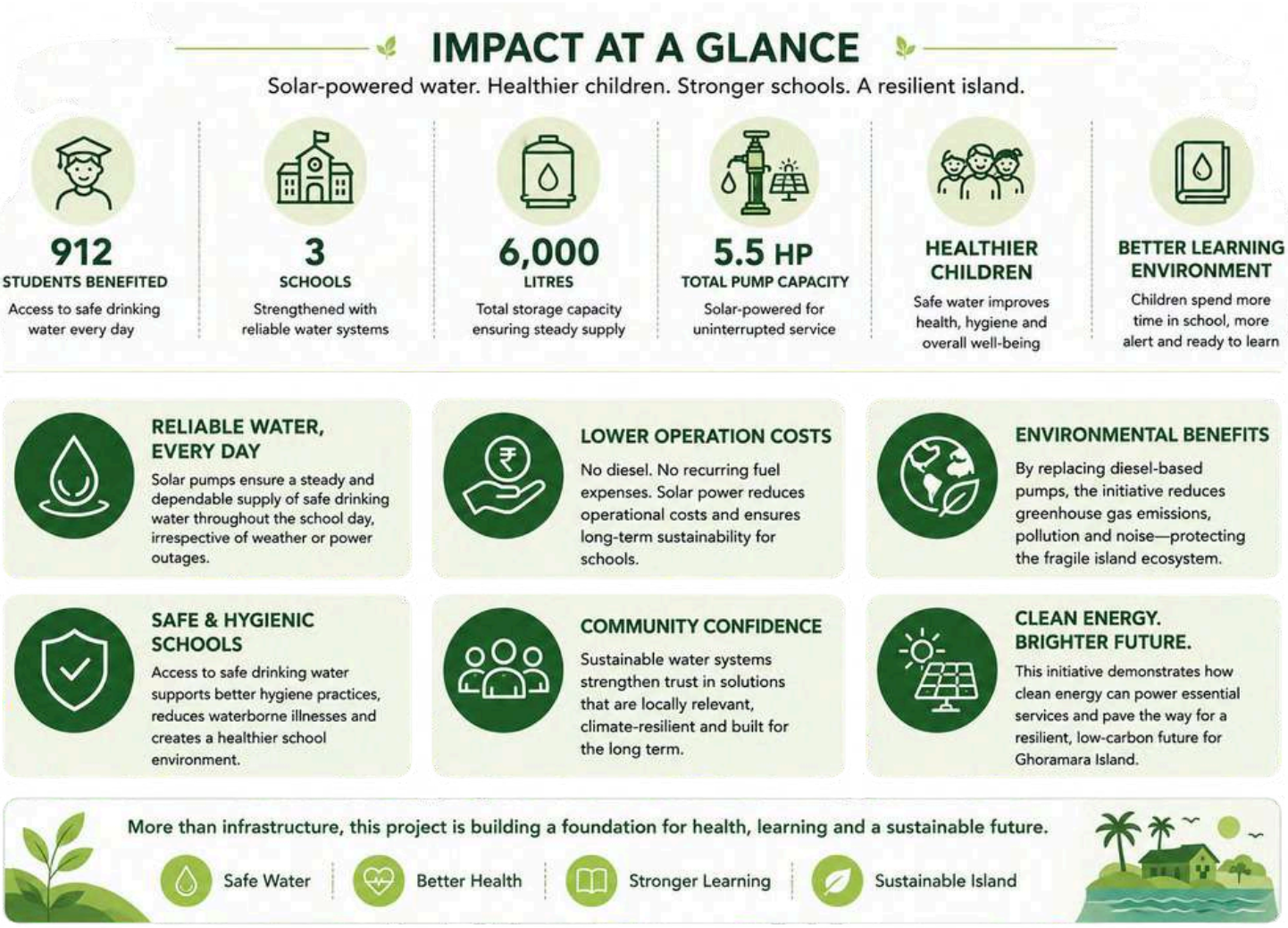
A Clean Energy Solution for Water Security

Solar power was selected as a practical solution for Ghoramara's context, where reliable grid-based electricity is limited. By powering water pumps through solar energy, the intervention reduces dependence on conventional energy sources while making essential water infrastructure more viable in a remote island setting.

The project also builds on SEED's experience of combining renewable energy, water security and climate resilience in Ghoramara. Earlier initiatives in the island included a solar-powered deep tubewell with an overhead tank and distribution network for potable and irrigation use, as well as solar electrification of community infrastructure.

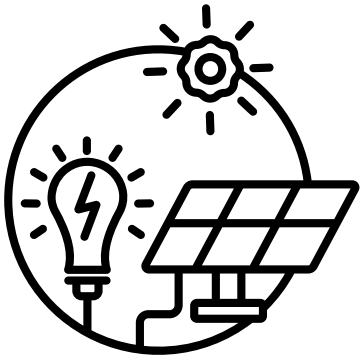
The Difference

The intervention is more than the installation of pumps and storage tanks. It strengthens the basic infrastructure needed for children to spend their school day in a healthier environment, while demonstrating how decentralised solar solutions can support essential services in climate-vulnerable and geographically isolated communities.



CHAPTER 3- Light

Clean energy access



In 2025-26, SEED's work on clean energy access addressed two very different forms of energy vulnerability: energy poverty on the off-grid island of Ghoramara and night-time safety in forest-fringe communities of Latehar and Palamu. Across these locations, solar energy was used not simply to provide electricity, but to reduce dependence on polluting fuels, improve access to lighting and enable safer, more productive lives for communities living in geographically and climatically vulnerable settings.

Ghoramara- The island remains completely off-grid, leaving communities dependent on kerosene lamps and diesel generators for basic lighting and energy needs. Its remote location and exposure to cyclones, flooding and erosion make conventional electricity infrastructure difficult to establish and maintain. Before the solar intervention, this energy poverty limited productive and study hours, increased household energy costs and exposed families to the health risks and pollution associated with kerosene and diesel use. The environmental cost is equally significant. Diesel generation and kerosene combustion add greenhouse-gas emissions, indoor air pollution and noise in an already climate-vulnerable island ecosystem.

THE PROBLEM 1

GHORAMARA – AN OFF-GRID ISLAND

Ghoramara is a remote island in the Sundarbans delta and remains **completely off-grid.** Households and public facilities depend on **kerosene** lamps and **diesel generators** for basic lighting and energy needs.

This energy poverty makes energy expensive, unreliable and polluting, and affects health, education, livelihoods and overall quality of life.

ENERGY POVERTY

is not just a lack of electricity— it limits opportunities, increases vulnerability and undermines human well-being and environmental sustainability.

THE PROBLEM: KEY FACTS

0
GRID CONNECTION
Ghoramara is completely off-grid with no access to conventional electricity supply.

2.5 LITRES
KEROSENE USE
Average kerosene consumption was 2.5 litres per household per month at baseline.

DIESEL DEPENDENCY
Dependence on diesel generators is expensive, unreliable and causes noise, air pollution and operational challenges in a remote island.

HIGH ENERGY COSTS
Fuel has to be transported from the mainland, making energy costly and unaffordable for many households and public institutions.

POLLUTION & EMISSIONS
Kerosene and diesel use lead to indoor air pollution, greenhouse-gas emissions and environmental degradation in an already fragile ecosystem.

UNRELIABLE & UNSAFE
Frequent power disruptions and fire risks from kerosene lamps affect safety, comfort and daily routines.

THE EFFECTS ON PEOPLE AND COMMUNITIES

AFFECTS LEARNING
Poor lighting reduces study hours, affects children's learning and academic performance.

HEALTH RISKS
Kerosene smoke causes respiratory problems, eye irritation and other health issues, especially among women and children.

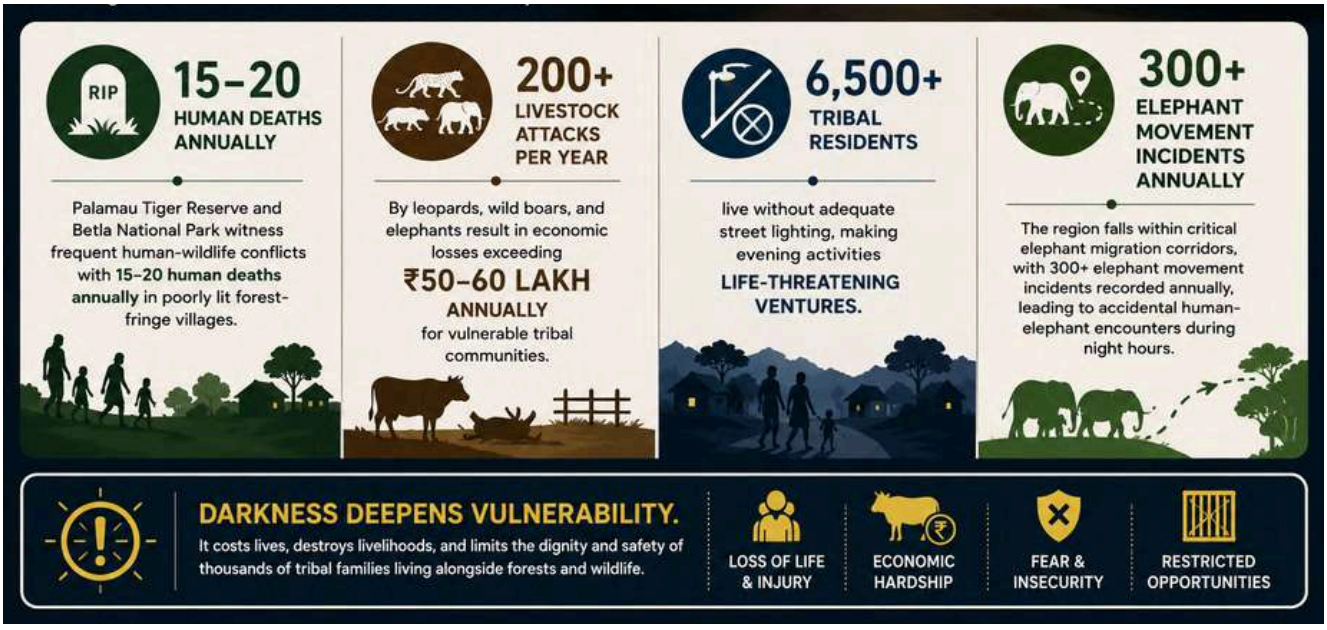
LIMITED PRODUCTIVITY
Early evenings and lack of power limit livelihood activities, reduce income opportunities and constrain daily work.

FINANCIAL BURDEN
High recurring expenditure on kerosene and diesel reduces household savings and diverts money from other essential needs.

NOISE & DISRUPTION
Diesel generators create noise and disrupt peace, affecting sleep, health and overall well-being.

DEEPER VULNERABILITY
Energy insecurity deepens the island's vulnerability to climate shocks and limits resilience and quality of life.

Forest-fringe communities – Latehar and Palamu: Across 65 forest-fringe villages in Latehar and Palamu, communities face recurring human-wildlife conflict, particularly with elephants. Elephant movement into farms and settlements can result in crop losses, damage to homes and property, and threats to human safety, while fear of night-time encounters restricts mobility and access to fields and forest-based livelihoods. Limited early-warning mechanisms and community preparedness further increase the vulnerability of households whose livelihoods depend heavily on agriculture and forest resources.



VIBHA: Renewable Energy Solutions

Bringing clean energy to an off-grid island

Ghoramara Island remains without grid electricity, leaving many households dependent on kerosene and other limited lighting options. Its geographic isolation, climate vulnerability and difficult transport links make conventional energy infrastructure difficult to extend. The VIBHA initiative, supported by **SBI Foundation** under **CONSERW**, was designed to respond to this energy gap through decentralised solar solutions tailored to the island's conditions.

The two-year programme will provide **solar home lighting to 380 vulnerable households** across the seven villages of Ghoramara Gram Panchayat and install **170 solar streetlights** to improve safety, mobility and community resilience. The programme also goes beyond infrastructure: **105 local women and youth** will be trained in **solar maintenance**, **2 community-based repair units** will be established, and a Solar User Group will support community oversight and long-term sustainability.

PROJECT AT A GLANCE

PARTNER: SBI Foundation – CONSERW
LOCATION: Ghoramara Gram Panchayat, South 24 Parganas, West Bengal
PERIOD: February 2026 – January 2028

Indicator	Year 1 position / Programme
Villages covered	7
Households targeted for solar home systems	380
Solar streetlights planned	170
Households covered in baseline	100
Solar User Group	70 members
Community solar repair units	2
Women and youth planned for solar capacity building	105
Project duration	2 years

Photo 18: Solar User Grop orientation meeting in progress at Raypara village, Ghoramara Isand

Photo 19: A solar stretlight under installation by a trained local youth at Mandirtala village, Ghoramara Isand

Laying the foundation in 2025–26

As VIBHA commenced only in February 2026, the first phase focused on establishing the systems needed for responsible implementation rather than claiming premature impact.

During the reporting period, SEED recruited and oriented a five-member Project Management Unit, finalised vendors for the planned solar systems and streetlights and initiated an independent **baseline survey** through the Institute of **Development Studies Kolkata**. Community mobilisation was undertaken across all seven villages, while procurement and logistical arrangements were put in place for implementation.

The baseline survey covered 100 households across **Raypara, Bagpara, Mandirtala, Hatkhola, Khasimara and Chunpuri**, collecting information on energy use, livelihoods, housing, education, health and community infrastructure. This evidence is intended to guide beneficiary selection and establish a credible starting point for measuring the project's outcomes.

THE APPROACH

CLEAN ENERGY, DESIGNED FOR THE ISLAND

VIBHA is built around a **decentralised, community-led energy model** to power homes, light up public spaces and build local capacity.

VIBHA will deliver clean, reliable solar energy to the **7 villages** of Ghoramara Island.

1 SOLAR ACCESS FOR HOUSEHOLDS

The programme provides **380 vulnerable off-grid households** with solar home lighting systems, reducing dependence on kerosene and creating more reliable lighting within homes.

380
HOUSEHOLDS
Solar home lighting systems provided

2 SAFER PUBLIC SPACES

170 solar streetlights are planned across the seven villages to improve night-time visibility, public safety, mobility and community resilience. Streetlight locations are identified and verified in consultation with community members and local stakeholders.

170
SOLAR STREETLIGHTS
Across 7 villages

3 LOCAL REPAIR CAPACITY

Because equipment failure on an island can mean long delays, the programme establishes **2 community-based solar repair units** at Raypara and Mandirtala. Each hub is managed by trained women technicians, supported by SEED's technical team.

2
SOLAR REPAIR UNITS (HUBS)
Raypara & Mandirtala

4 WOMEN & YOUTH AS ENERGY ACTORS

A 70-member Solar User Group, representing all seven villages, will oversee system use and provide community feedback. A village-level cadre of women will be trained to respond to basic maintenance and troubleshooting needs.

70
MEMBER SOLAR USER GROUP
Representing 7 villages

105
TRAINEES FOR SOLAR O&M
70 women + 35 youth trained in solar operation & maintenance

105 local trainees (70 women and 35 youth) will be equipped with skills in solar operation, maintenance and basic troubleshooting, creating **local green jobs** and ensuring **long-term system sustainability.**

CLEAN ENERGY FOR HOMES | + SAFER NIGHTS FOR ALL | LOCAL CAPACITY, LOCAL SOLUTIONS | A RESILIENT GHORAMARA

Photo 20: A group of women attending an FGD by the IDSK during the baseline survey of VIBHA

Looking Ahead

The next phase moves VIBHA from preparation into field implementation:

- Installation of 380 solar home systems and 170 solar streetlights.
- Establishment of 2 community repair hubs at Raypara and Mandirtala villages.
- Formation of the 70 member Solar User Group.
- Training of 70 women and 35 youth in solar maintenance and entrepreneurship.

The longer-term ambition is not simply to provide lighting, but to create a locally managed renewable-energy ecosystem capable of functioning despite the island's geographic and logistical constraints.

For Ghoramara, clean energy is not only about replacing a kerosene lamp. It is about making homes safer, extending the hours in which children can learn and families can work and building an energy system that the community can maintain for itself.

Lighting Pathways

The problem

For communities living along the forest edge of Palamu and Latehar, darkness is more than an inconvenience. Villages around **Palamu Tiger Reserve and Betla National Park** experience frequent movement of elephants and other wildlife, while people continue to travel to homes, water sources, schools and community spaces after sunset. Poor visibility increases the likelihood of accidental encounters and leaves women, children, older people and forest-dependent families particularly vulnerable. The project was designed around this everyday reality: making the spaces between homes and community areas safer without disrupting wildlife.

The response

Lighting Pathways combined **energy-efficient LED lighting** and **solar-powered streetlights** to improve visibility across vulnerable forest-fringe settlements. Rather than treating lighting as stand-alone infrastructure, the intervention was designed as part of a broader approach to human-wildlife coexistence, community safety and preparedness. Lighting locations and implementation were coordinated with local communities and the **Forest Department (Govt. of Jharkhand)**, with the project formally verified by Range Forest Officers.

LIGHTING PATHWAYS

Safe pathways in the forest fringe

Partner: Signify Innovations India Limited
Location: Forest-fringe villages across Palamu Tiger Reserve and Betla National Park, Jharkhand
Period: August 2025 – January 2026
Reach: 65 villages across 8 forest ranges

Lighting for coexistence

The project goes beyond illumination. Better visibility can help people recognise and avoid potential wildlife encounters, particularly along frequently used village routes after dark. The intervention also sought to improve the perceived safety and mobility of women, children and elderly residents, while strengthening community preparedness in an ecologically sensitive landscape.

Working with the Forest Department

Implementation was undertaken in coordination with the **Forest Department and Palamu Tiger Reserve**, ensuring that lighting infrastructure was placed within the context of the protected-area landscape and local human-wildlife dynamics. The completed installations were verified and endorsed by the concerned Range Forest Officers.

All installations were reported as completed, verified and operational by January 2026.

Photo 21: Solar street lighting in a forest fringe village of Palamu Tiger Reserve, Jharkhand

From infrastructure to safer communities

The project's underlying idea is simple: where people and wildlife share the same landscape, safer human movement should not come at the cost of wildlife. By improving visibility around forest-fringe settlements and combining it with community awareness and preparedness, Lighting Pathways contributes to a more practical and non-lethal approach to coexistence. The project agreement explicitly identifies reducing accidental human-elephant encounters, improving community safety and strengthening coexistence as key intended outcomes.

1,979 LED lights and 100 solar streetlights now illuminate 62 forest-fringe villages—helping communities navigate the night with greater safety while supporting a more informed, non-lethal approach to living alongside wildlife.

Photo 22: A solar street light in a forest fringe village of Betla National Park, Jharkhand

LIGHTING PATHWAYS

Lighting for Safety. Pathways for Coexistence.

A solar & LED lighting initiative in forest-fringe villages of Palamu Tiger Reserve to build safer communities and support non-lethal coexistence with wildlife.

Implemented with support from
Signify Innovations India Ltd.
August 2025 – January 2026

WHAT WE ACHIEVED

65
VILLAGES COVERED
across 8 forest ranges

1,979
ENERGY-EFFICIENT LED LIGHTS INSTALLED

100
SOLAR STREETLIGHTS INSTALLED

PALAMU & LATEHAR DISTRICTS, JHARKHAND
Across PTR North & PTR South Divisions

COMPLETED & OPERATIONAL
All installations verified as of January 2026

THE IMPACT

ENHANCED SAFETY AT NIGHT
Improved visibility in villages helps reduce the risk of accidental human–wildlife encounters.

SAFER FOR ALL
Women, children, elderly and forest-dependent families can move more safely after dark.

STRONGER COMMUNITY PREPAREDNESS
Better lighting strengthens community readiness and confidence in responding to wildlife movement.

ENERGY EFFICIENT & SUSTAINABLE
LED and solar lights provide reliable, clean energy with low maintenance needs.

PARTNERSHIP FOR COEXISTENCE
Implemented in close coordination with the Forest Department, Palamu Tiger Reserve.

WHERE WE WORKED

Covering villages in Garu, Mahuadanr and Barwadih blocks under Palamu Tiger Reserve.

8 FOREST RANGES
- Betla
- Chipadohar East
- Chipadohar West
- Kutku
- Garu East
- Garu West
- Mahuadanr
- Barwadih

VERIFIED & CLOSED

All installations were completed, verified and operational as of January 2026.

The Forest Department, Palamu Tiger Reserve, has verified and endorsed the implementation.

1,979 LED lights. 100 solar streetlights.
65 villages. 8 forest ranges.
Brighter nights. Safer communities. Stronger coexistence.

Photo 23: A solar street light in the forest fringe village of Palamu Tiger Reserve, Jharkhand

Looking Ahead

Building on the experience of Phase 1, SEED is planning a second phase of Lighting Pathways to extend the intervention to remaining uncovered blocks and forest-fringe villages in the wider Palamu-Latehar landscape. The next phase will prioritise communities facing high exposure to human-wildlife conflict and limited access to safe night-time infrastructure. The expansion will retain the core principle of the programme: lighting as a tool for safety, mobility and non-lethal coexistence, rather than treating street lighting simply as an infrastructure intervention.

Phase 2 will also use the lessons from Phase 1 to improve site selection, community participation, maintenance mechanisms and coordination with forest authorities, while exploring how solar lighting can be integrated with broader community preparedness and wildlife-conflict mitigation efforts. The Phase 1 project itself was conceived to improve night-time safety, community preparedness and non-lethal coexistence in elephant-affected forest-fringe communities.

Lighting Pathways is more than a solar lighting project; it is an investment in safer nights, stronger communities and coexistence with wildlife.

By bringing clean, reliable light to forest-fringe villages, SEED is helping people move, work and live with greater confidence after dark.

The next step is to measure that change, learn from it and take the light to communities that remain beyond Phase 1.

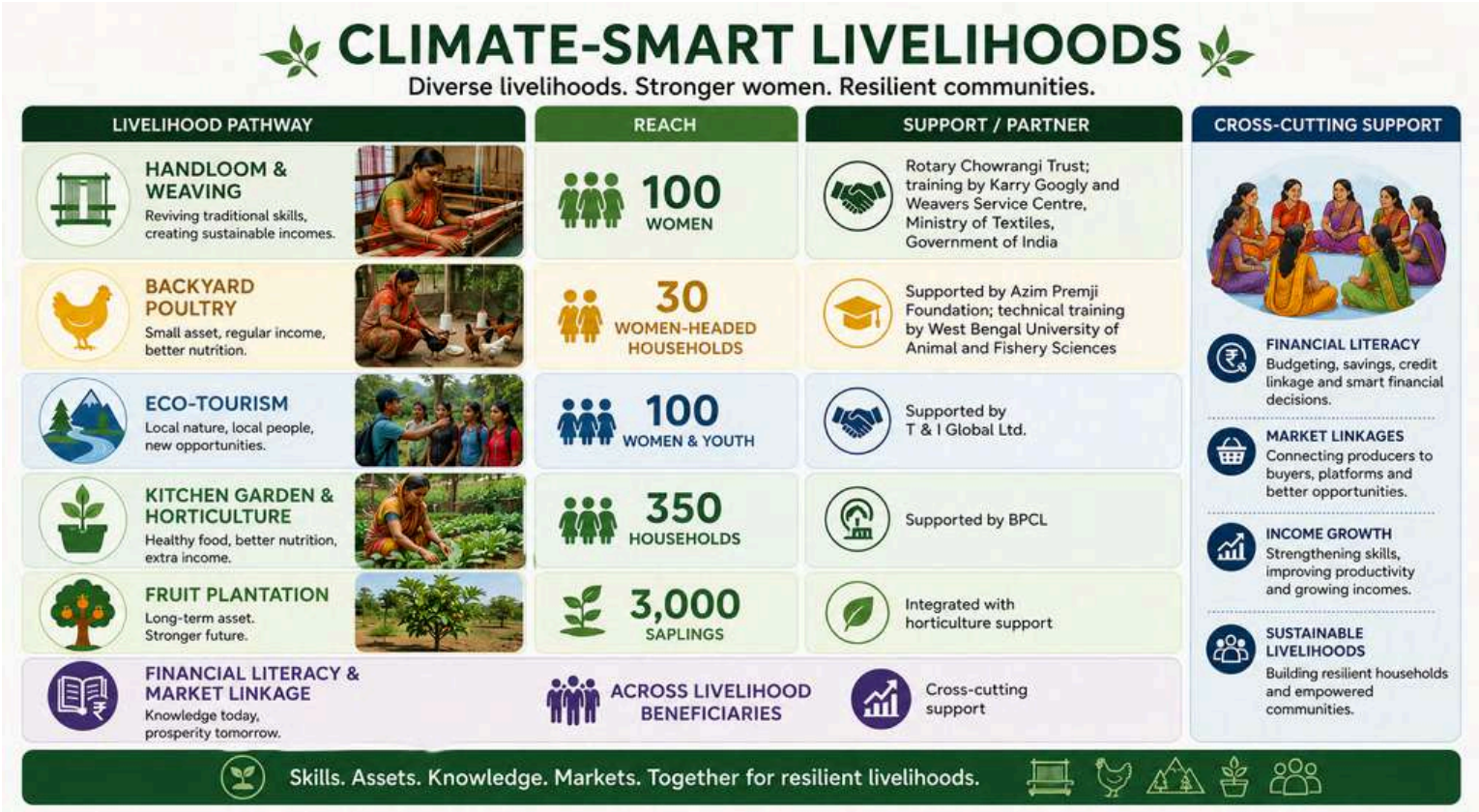
CHAPTER 4- Work

Climate-Smart Livelihoods

Building resilient incomes, strengthening women's economic agency

Climate change is not only an environmental challenge for vulnerable communities—it is an economic one. For households dependent on agriculture, daily wage labour and other climate-sensitive livelihoods, floods, droughts, changing seasons and declining natural resources can quickly translate into loss of income. SEED's climate-smart livelihoods portfolio therefore focuses on diversifying household incomes, strengthening women's economic participation, developing locally relevant skills and connecting beneficiaries to markets and financial knowledge.

During 2025-26, SEED supported women, youth and vulnerable households through a combination of **handloom weaving, backyard poultry, eco-tourism and kitchen gardening/horticulture**. Rather than treating skill development as an end in itself, the interventions were complemented by financial literacy and market-linkage support, helping beneficiaries move from training towards viable livelihood opportunities.



Handloom
Turning Traditional Skills into Livelihood Opportunities

Partner: Rotary Chowrangi Trust
Location: Raypara village, Ghoramara Island, South 24 Parganas
Period: January 2025- Ongoing
Reach: 100 women

Handloom weaving was taken forward as a livelihood pathway for 100 women, with a focus on strengthening skills that can translate into productive and income-generating opportunities. The programme brought together community-based training with institutional technical support.

Training was facilitated by **Karry Googly** and the **Weavers Service Centre** under the **Ministry of Textiles, Government of India**, giving women access to structured learning and technical inputs related to weaving.

The intervention aims to strengthen women's confidence and productive capacity while creating a pathway towards organised production and market engagement.

100 women

Skills → Production → Market opportunity

Photo 24: A woman beneficiary works on a handloom at Raypara SEED's Loom Centre

Photo 25: A women with her backyard poultry unit at Mandirtala village, Ghoramara Island

Backyard Poultry
Small Assets, Diversified Household Income

Partner: Azim Premji Foundation
Location: 6 villages, Ghoramara Island, South 24 Parganas
Period: September 2025- Ongoing
Reach: 30 women

For 30 women-headed households, backyard poultry was promoted as a practical livelihood option requiring relatively modest household-level investment while allowing families to build productive assets close to home.

With support from the Azim Premji Foundation, beneficiaries received technical training from the **West Bengal University of Animal and Fishery Sciences**. The emphasis was on building practical knowledge and enabling households to manage poultry as a livelihood activity rather than simply distributing assets.

The intervention forms part of SEED's broader approach to helping vulnerable households diversify away from dependence on uncertain wage labour and climate-sensitive income sources.

30 women-headed households | Technical poultry training | WBUAFS (West Bengal University of Animal and Fishery Sciences)

Eco-Tourism
Creating New Opportunities for Women and Youth

Partner: T & I Global Ltd.
Location: Ghoramara Island, South 24 Parganas
Period: Ongoing since 2024
Reach: 100 women and youth

SEED's eco-tourism intervention explores the potential of nature-linked livelihoods for women and young people, particularly in communities located within ecologically sensitive landscapes where livelihood opportunities are often limited.

With support from T & I Global Ltd., 100 women and youth were brought into the initiative. The approach seeks to build local capabilities around eco-tourism while connecting livelihood development with the conservation value of the surrounding ecosystem.

By positioning local communities as participants in the tourism economy, the intervention aims to create livelihood opportunities that are compatible with the protection of the natural environment.

100 women & youth | Eco-tourism livelihood pathway | Supported by T & I Global Ltd.

Photo 26: An eco-friendly stay facility for tourists on the island, providing a comfortable base for responsible tourism.

Photo 27: Fruit sapling being unloaded from the ferry by local villagers at Ghoramara Island

Kitchen Gardens & Horticulture
Food and Income from Small Plots

Partner: BPCL
Location: 6 villages, Ghoramara Island, South 24 Parganas
Period: Ongoing since 2023
Reach: 350 HHs

Kitchen gardening and horticulture were promoted among 350 households, combining household-level food production with the potential for diversified income. The intervention also included the plantation of **3,000 fruit saplings**, creating a longer-term horticultural asset base within participating communities.

Beyond immediate food production, kitchen gardens can provide households with an opportunity to make productive use of available land while diversifying what they grow. The horticulture component therefore connects food security, household resilience and potential income generation within a single livelihood pathway.

350 households | 3,000 fruit saplings | Kitchen gardening & horticulture

The climate-smart livelihoods portfolio reflects a shift from single-source livelihood dependence towards diversification. By combining skills, productive activities, technical knowledge, financial literacy and market access, SEED is working to ensure that livelihood support does not end when a training programme ends.

The goal is not just to train people, but to help vulnerable households build livelihoods that can withstand uncertainty, generate value locally and grow over time.

CHAPTER 4- Roots

Mangrove Restoration

The problem

Mangroves are the only barrier standing between these islands and the water. West Bengal holds the largest share of India's mangrove cover, and the Sundarbans is the largest mangrove forest on earth, but the Indian Sundarbans has lost more than a quarter of that cover in recent decades to erosion, salinity change and cyclones that arrive more often than they used to.

Restoration that treats planting as the whole task tends to fail. Saplings need protecting for years, and the households living beside them need a reason to protect rather than clear them. SEED's approach ties restoration to household livelihood support, so that the people guarding the plantation have an income that depends on it surviving.

Photo 28: An eroding coastline of Jharkhali Island, Sunderban

Community-Led Mangrove Restoration in Jharkhali

Restoring the commons, strengthening the community

Partner: Tiger Widows, Ireland
Location: Jharkhali Island, Sunderban, South 24 Parganas
Period: Ongoing since 2022
Reach: 250 women

Jharkhali Island, located in Basanti block of South 24 Parganas, lies at the edge of the Sundarbans, where tidal erosion, cyclones and increasing salinity continue to threaten homes, agricultural land and livelihoods. The exposed tidal flat outside the embankment acts as a natural buffer between the river and the island, but its gradual degradation has brought the river closer to settlements and cultivated areas.

In response, SEED has supported local women, particularly women from households affected by tiger-related deaths, to take collective responsibility for restoring and protecting the tidal edge through community-led mangrove regeneration.

In Jharkhali, women who once experienced the forest as a source of loss are now becoming its custodians—restoring the mangrove commons to protect their island, livelihoods and future.

Photo 29: A plot at Jharkhali with planted mangrove saplings by local village women

The challenge

Jharkhali's river-facing edge is a dynamic tidal landscape. The mudflat is submerged twice a day, while erosion, cyclones and saline water continue to put pressure on the island's embankment and agricultural land. The impact is particularly severe for vulnerable households whose livelihoods are already dependent on agriculture, fishing and forest-based activities. For women widowed by tiger attacks, the loss of household income is compounded by social exclusion and limited livelihood opportunities.

The degradation of the tidal edge also has consequences beyond erosion. The exposed land is part of the everyday livelihood landscape, used for activities such as cattle grazing, prawn seed collection and access to boats. This makes restoration a question not simply of planting trees, but of negotiating the shared use and protection of a common resource.

A community-led restoration model

Since 2022, women from Jharkhali have been at the centre of the restoration effort. Rather than treating mangrove restoration as an externally managed plantation activity, the programme places decision-making with local women's groups. Women collect mangrove seeds and propagules from surviving forest areas, raise them in community-managed nurseries and plant the saplings along exposed sections of the island's tidal edge.

Plantation is undertaken around the tidal cycle and is particularly suited to the monsoon period when conditions are more favourable.

The work does not end with planting. Women organise themselves to monitor and protect newly planted areas, maintain planting rosters, decide which stretches should be restored and determine suitable mangrove species and planting locations. This has gradually transformed the initiative from a plantation exercise into a locally governed system for protecting a shared landscape.

Photo 30: A group of women planting mangrove saplings at the Biyadri river mudflat in Jharkhali Island

Women at the heart of the restoration

A defining feature of the initiative is the leadership of women who have themselves experienced the consequences of environmental and livelihood insecurity. For many tiger widows, participation in Self Help Groups has provided an entry point into collective action, livelihood opportunities and greater confidence.

Tripti Jana, a tiger widow with two children, illustrates this connection. Having previously depended heavily on fingerling fishing and irregular income, she now combines poultry, mangrove plantation work and kitchen gardening as multiple sources of livelihood.

The programme therefore connects ecological restoration with livelihood resilience—creating opportunities for women to earn while contributing to the protection of the landscape on which their communities depend.

The restoration work has so far regenerated approximately **4 hectares** of mangrove cover, with around **35,000 saplings** planted since 2022. More than 50 women earn through nursery and plantation-related work, while the wider livelihood component has supported around 2**50 women-headed households** through backyard poultry. The current planting cycle is targeting a further 20,000 saplings along the exposed edge.

From plantation to local governance

The most significant shift is not simply the number of saplings planted, but the emergence of a community institution around the restoration of a shared resource. The tidal flat has no individual ownership, yet its use affects multiple groups within the village. Women have therefore built their role through sustained engagement, collective decisions and visible results, with support from local institutions.

This approach recognises that mangrove restoration will only last if communities have a reason and a mechanism to protect the plantation after the initial planting. The women themselves determine responsibilities, manage plantation schedules and continue to monitor the restored stretches.

Building resilience beyond the plantation

Mangrove restoration is being linked with livelihood diversification so that vulnerable households are not forced to depend entirely on seasonal or high-risk activities. For women participating in the initiative, plantation work is complemented by opportunities such as poultry and kitchen gardening, helping create more than one source of household income.

The approach reflects a simple principle: protecting the ecosystem and strengthening the people who depend on it have to happen together.

Photo 31: A women planting mangrove saplings at a mudflat in Jharkhali Island

TigerWidows.org

SEED
Education, Empowerment, Environment

COMMUNITY-LED MANGROVE RESTORATION IN JHARKHALI

Restoring the commons. Protecting the island. Empowering women.

At the edge of the Sundarbans, Jharkhali's tidal flat is the island's first line of defence. Twice a day the river takes this land and returns it. For years it was going bare. Since 2022, women—many of them tiger widows—have taken charge of restoring this common land, planting mangroves and building a greener, safer future for their island.

OUR PROGRESS AT A GLANCE (SINCE 2022)

Mangrove restoration

Approx.
4
HECTARES

Mangrove saplings planted since 2022

35,000

Women earning through nurseries and plantation

50+
WOMEN

Backyard poultry support among women-headed households

Around
250
HOUSEHOLDS

Saplings planned in the present cycle

20,000

IMPACT

- Stronger protection for the embankment and island
- Healthier ecosystem and biodiversity
- Livelihood opportunities for women
- Greater community resilience

From collecting propagules to raising nurseries, planting thousands of saplings and protecting the young mangroves, women of Jharkhali are restoring the commons and securing their island for generations to come.

In Jharkhali, women who once experienced the forest as a source of loss are now becoming its custodians—restoring the mangrove commons to protect their island, livelihoods and future.

Photo 32: Women collecting mangrove propologues from a nearby forest in Jharkhali Island

Looking ahead

The next phase will focus on extending mangrove restoration along the exposed river edge, with **20,000 additional saplings** planned, while continuing community-based protection and monitoring.

The longer-term objective is to strengthen the women's groups as local custodians of the restored commons and deepen the link between ecological restoration, livelihoods and community resilience.

CHAPTER 5- Clean

Sanitation & Hygiene

The problem

For Ghoramara's climate-vulnerable island communities, sanitation and hygiene are closely linked to flooding, salinity and unreliable water access. Tidal flooding and saline-water intrusion can contaminate freshwater sources and create conditions that increase health risks, while inadequate waste-management systems and plastic pollution add pressure to the fragile island environment. Women and adolescent girls face additional challenges around menstrual hygiene, particularly where privacy, water and sanitation facilities are limited. SEED's earlier assessments have also documented the heightened difficulties faced by women and children during periods of flooding and disruption.

Swachhta Pakhwada

In July 2025, SEED implemented a fifteen-day Swachhta Pakhwada campaign on Ghoramara Island in partnership with **Bharat Petroleum Corporation Limited (BPCL)**. Rather than treating sanitation as a one-time cleanliness exercise, the campaign brought together behaviour change, school-based action, community participation, water and sanitation infrastructure, menstrual hygiene, environmental stewardship and public awareness.

The campaign began with schoolchildren and teachers taking the Swachhta pledge and continued through village rallies, plantation drives, cleanliness campaigns, menstrual hygiene sessions, children's art activities, wall paintings and improvements to school water facilities.

By combining awareness with visible action, SEED sought to make cleanliness and hygiene part of everyday community practice rather than a fortnight-long activity.

Swachhta Pakhwada 2025
Turning Cleanliness into Community Action

Partner: Bharat Petroleum Corporation Limited (BPCL)
Location: 6 villages, Ghoramara Island, Sagardwip Block, South 24 Parganas
Duration: 1–15 July 2025
Participants: 1,383

Photo 33: Women participants in an awareness rally on “Swachhta Pakhwada” day 2 in Ghoramara Island

Photo 34: School students participating in "Swachhta Pakhwada" pledge on July 1st 2025 in Ghoramara Island

From a pledge to everyday practice

The campaign opened on *1 July with 195 children and teachers taking a Swachhta pledge at three schools in Ghoramara*. The pledge went beyond keeping surroundings clean: children committed to using dustbins, avoiding littering, reducing plastic use, conserving water, planting and protecting trees, avoiding open defecation, maintaining personal hygiene and encouraging others to participate in the cleanliness and environmental protection movement.

This emphasis on children was complemented by direct engagement with adults and community institutions. *On 2 July, 138 women, SHG members, students, Panchayat representatives, ASHA workers and SEED volunteers participated in a rally through Ray Para, Bag Para and Khashimara*. Participants carried messages on cleanliness, hygiene, toilet use, waste disposal, water conservation, tree planting and reducing plastic use.

A second school-led rally on *3 July engaged 79 students and teachers*, extending awareness to Khashimara, Chunpuri and Hatkhola Para.

Improving water, sanitation and hygiene in schools

For Ghoramara's schools, sanitation cannot be separated from access to water. The island's geographical and environmental conditions make reliable water infrastructure particularly difficult, creating challenges for school toilets and hygiene.

During the campaign, SEED initiated the construction of water reservoir facilities at schools, including **Ray Para Nimno Buniyadi Vidyalay**.

At Mandirtala **Avaitanik Prathamik Vidyalay**, construction of another reservoir was accompanied by a water-conservation session attended by 74 students. Children were encouraged to explore rainwater harvesting and the reuse of collected water for cleaning, gardening and toilet flushing.

The intervention therefore linked physical infrastructure with behaviour change—addressing both the availability of water and the way it is used.

Photo 35: Construction of water reservoir in progress at Ray Para Nimno Buniyadi Vidyalay, Ghoramara Island

Photo 36: Women attending an MHM session on July 4th 2025 at Multipurpose Commuity Centre, SEED

Making menstrual hygiene part of sanitation

The campaign also addressed an issue that is often left out of conventional sanitation programmes: menstrual hygiene management (MHM).

On *4 July, 47 women participated in an MHM awareness* session facilitated by a senior ANM from the local health centre and a school teacher. The session focused on menstrual hygiene and health practices.

On *8 July, a further MHM session reached 53 women*, including adolescent girls. The session addressed menstrual health, safe disposal and washing of reusable pads, common health concerns, myths and taboos, and was followed by a basic health check-up.

Together, these activities helped position menstrual health as an integral component of sanitation, health and dignity.

Growing a cleaner and greener island

Environmental action formed another important pillar of the campaign. Plantation activities engaged children, parents, SHGs and other community members in planting fruit-bearing trees around schools, roadsides and community spaces.

On 9 July, 130 fruit saplings were planted around Khashimara Nimno Buniyadi School, with protective fencing provided for vulnerable plants. Community members also formed a group responsible for watering and caring for the saplings.

On another plantation day, 27 participants planted *50 fruit saplings in Khashimara village*. The activity connected environmental restoration with nutrition, education and climate awareness while encouraging community ownership of the plants.

Photo 37: A sapling being planted by students at Khashimara Nimno Buniyadi School, Ghoramara Island

Photo 38: Students participating in clean up drive at Ghoramara Milan Vidyapith High School

Clean-up drives that built local ownership

SEED's approach went beyond awareness messaging to community-led cleaning and waste management.

At Chunpuri village market, 58 residents came together to clean the market area and the front yard of a local temple despite heavy rain earlier in the day. Importantly, participants committed to repeating the activity every month, with different teams taking responsibility in rotation.

Cleaning activities were also organised in common areas and along an embankment in Bag Para and Ray Para, where 36 participants collected waste for segregation and recycling. The activity was used to discuss the health risks associated with poorly managed waste, including vector-borne diseases, as well as the environmental hazards of plastic pollution.

At Ghoramara Milan Vidyapith High School, 38 community members cleaned the school grounds and learned about waste segregation and the harmful effects of plastic waste.

Children as messengers of change

Children were not treated merely as recipients of awareness messages. They were given opportunities to interpret and communicate Swachhta themselves. Two sit-and-draw competitions engaged schoolchildren around cleanliness, personal hygiene and environmental protection. In one documented competition, 67 students used art to explore issues including littering, waste management, tree planting and waste segregation.

At Ghoramara Milan Vidyapith High School, another competition engaged 68 students, encouraging them to think critically about everyday sanitation challenges and express possible solutions through art. Wall paintings extended these messages beyond the classroom. Murals communicated practical messages on handwashing, cleanliness, sanitation and environmental protection, creating visible reminders for both students and residents.

Hygiene support for vulnerable households

The campaign concluded with the distribution of 250 hygiene kits to coastal community members. Before distribution, SEED organised an interactive awareness session where community members were encouraged to incorporate sanitation, hygiene, cleanliness and environmental care into their daily lives. The use of reusable cloth bags was also promoted as an alternative to plastic carry bags.

This helped bridge the gap between knowing what good hygiene requires and having practical resources to act on that knowledge.

Photo 39: A student from Ghoramara Milan Vidyapith High School participating in swachhta message competition

Swachhta Pakhwada 2025 · Impact at a glance

Ghoramara Island, Sagardwip Block, Sundarbans, South 24 Parganas · 1 to 15 July 2025
Implemented by SEED with the support of Bharat Petroleum Corporation Limited

5,500 beneficiaries reached

1,383 people took part

6 villages covered

18 activities in 15 days

What the fortnight delivered

250 hygiene kits given to coastal families

200 fruit saplings planted and fenced

2 water reservoirs built at school toilets

10 awareness programmes on cleanliness

3 rallies with women, students and ASHA workers

3 menstrual hygiene sessions with health checkup

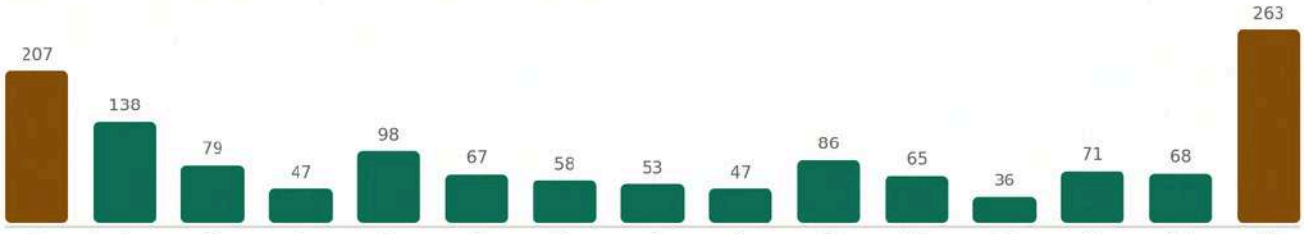
5 villages and schools cleaned by residents

10 walls painted with hygiene messages

2 sit and draw contests for school children

Participation on each day of the fortnight

Number of people joining the day's activity, 1 to 15 July 2025



July 2025 · the opening pledge day and the closing kit distribution drew the largest gatherings

What stays on the island after the fortnight

- Two school toilets now have their own water reservoir, so girls no longer skip class for want of water.
- Chunpuri villagers pledged to clean the haat every month, with teams taking turns.
- Student and parent groups were formed to water and guard the saplings through the year.
- Ten painted walls in schools and homes carry hygiene messages in Bengali, seen every day.

Villages covered

Ray Para · Bag Para · Khashimara · Chunpuri · Hatkhola Para · Mudpoint

2025-26

SEED's Published Work & Recognition

United Nations Convention to Combat Desertification (UNCCD)

SEED was granted provisional accreditation as an observer organisation to the Conference of the Parties in February 2026, after the secretariat reviewed the organisation's documentation and placed the application before COP17 in Ulaanbaatar, Mongolia. The status brings SEED's work on land degradation, salinity and coastal erosion in the Sundarbans into a global forum where these questions are debated.

Wetland Link International (WLI)

Featured SEED's community led World Wetlands Day 2026 initiative in the Sundarbans in the March 2026 edition of WLI World, highlighting the work with children through environmental education, storytelling, mangrove learning and community participation in wetland conservation.
Link: https://wli.wwt.org.uk/wp-content/uploads/2026/02/WLI-World-March-2026.pdf

The Bridge, SBI Foundation

Published "Building Resilience through Early Years: The Muskaan ECCC Story from Sundarbans", an account of SEED's integrated early childhood development model for 100 children on Ghoramara and Sagar Islands whose lives are shaped by erosion and displacement, covering nutrition, early learning, psychosocial care, health and the close involvement of parents.
Link: https://l1nq.com/ifypnq4

United Nations Convention to Combat Desertification (UNCCD)

United Nations
Convention to Combat Desertification

Telephone: + 49 (0) 228 815 2800
Fax: + 49 (0) 228 815 2898/99
Email: secretariat@unccd.int

Date: 13 February 2026

Dear Mrinal Bhattacharya,

We acknowledge receipt of the required documentation for the accreditation of SEED as observer to the Conference of the Parties to the United Nations Convention to Combat Desertification.

After careful review of the documents presented by your organization we have the pleasure to inform you that the UNCCD secretariat will submit your request to the consideration of the forthcoming Conference of the Parties, which will be held in Ulaanbaatar, Mongolia, from 17 to 28 August 2026.

On the basis of this, SEED can be considered as provisionally accredited organization, pending a final decision to be taken by Parties during COP17 according to the provisions contained in paragraph 7 article 22 of the Convention and Rules 6 and 7 of the rules of procedure of the COP, adopted by decision 1/COP.1.

Please check regular information on the UNCCD on https://www.unccd.int and with your representative of the UNCCD CSO panel https://www.unccd.int/convention/partners/civil-society-organizations/civil-society-organizations-panel

We encourage you to continue to be involved in the UNCCD implementation and kindly ask you to keep the secretariat informed on your activities.

Please do not hesitate to contact us if you need further guidance on this important matter.

Sincerely,

Marcos Montoiro

Marcos Montoiro
External Relations Officer

SECRÉTARIAT DE LA CONVENTION SUR LA LUTTE CONTRE LA DÉSERTIFICATION
UNCCD

Wetland Link International (WLI)– March 2026 edition

Children of the Sundarbans Celebrate Their Wetland Home Coastal Biodiversity Conservation Centre, Ghoramara

Young participants proudly display their artwork themed on wetlands during the World Wetlands Day celebration at the Coastal Biodiversity Conservation Centre. Credit: Photo by Surajit Singh Mahapatra, Project Coordinator, SEED

On 2 February 2026, the islands of Ghoramara and Sagar in the Indian Sundarbans observed World Wetlands Day with children, families, and community members coming together to reflect on the importance of the wetlands that shape their lives. The programme, organised by the Society for Socio-Economic & Ecological Development (SEED), engaged 100 children from the Muskaan Early Childhood Care Centres (ECCCs) along with more than 200 villagers.

Living with Climate Reality

The Sundarbans, a UNESCO World Heritage Site, is one of the most climate-exposed regions in India. Rising sea levels, recurring cyclones, and continuous erosion have altered both land and livelihoods. In Ghoramara alone, hundreds of families have lost portions of their land to the sea. For these communities, wetlands are not just ecosystems—they provide protection from storms, support fishing-based livelihoods, and help sustain daily life.

Many of the children participating in the event have grown up witnessing these changes. Some have seen homes relocated or agricultural land damaged. World Wetlands Day offered them an opportunity to understand these changes in a structured and hopeful way.

Learning Through Art and Dialogue

The day began with an art workshop where children painted scenes of mangroves, fish, birds, and village life along the water. Their drawings reflected a growing awareness that mangrove forests act as natural barriers against storms and erosion. The artwork, created using simple and recycled materials, has been displayed

WLI Continued.....

in local centres as a reminder of the community's shared responsibility.

Elders from the villages spoke to the children about how wetlands once supported richer fisheries and provided stronger natural protection. These conversations helped connect past experiences with present challenges.

Children also performed a short play about the Sundari tree, highlighting its role in protecting the coastline and supporting biodiversity. Through storytelling and performance, complex environmental ideas became easier to understand.

Seeing the Wetlands Up Close

A guided visit to nearby mangrove areas allowed children to observe crabs, waterbirds, and the distinctive root systems of mangrove trees.
Local fishermen and SEED's educators explained how mangroves prevent soil erosion and act as breeding grounds for fish that sustain island families. For many children, it was their first time viewing the wetlands with this level of attention.

Community Participation

The programme concluded with a small rally across the villages. Children carried handmade placards in Bengali calling for the protection of wetlands and mangroves. Villagers joined in, reinforcing that conservation requires collective effort.

World Wetlands Day in Ghoramara and Sagar was not only about raising awareness. It strengthened understanding among children who are growing up in climate-affected landscapes. By linking early childhood education with environmental learning, SEED continues to support communities in building knowledge and responsibility for the wetlands that sustain them.

In the words of SEED's Programme Director, Mrinal Bhattacharya: "When children of climate-vulnerable island communities become wetland protector, we create intergenerational action. These 100 young voices represent the future guardians of the Sundarbans."

An educator addresses children during the World Wetlands Day programme at Muskaan ECCC, highlighting the ecological importance of wetlands and fostering early environmental consciousness among young learners in the Sundarbans. Credit: Photo by Surajit Singh Mahapatra, Project Coordinator, SEED

The Bridge, SBI Foundation
September 2025 edition

Building Resilience through Early Years

The Muskaan ECCC Story from Sundarbans

Alima Ahmad
Sr. Manager- Partnership, SEED (Society For Socio-Economic & Ecological Development)

The SBI Foundation-supported ECCCs (Early Childhood Care Centres) project in the climate-affected islands of Sundarbans under the Muskaan vertical has been creating transformative change since March 2025. Implemented by SEED (Society for Socio-Economic and Ecological Development) across Ghoramara and Sagar Islands, this initiative demonstrates how quality early childhood intervention can build resilience in communities facing the harshest climate realities.

A Child's Transformation

Three year old Anisha walks confidently to the Muskaan Early Childhood Care Centre each morning, her clear voice calling out, "Good morning, Teacher!" This simple greeting represents a profound transformation. Just months ago, Anisha wouldn't speak at all, hiding silently behind her mother's sari, unable to engage with the world around her.Her journey mirrors that of 100 children now enrolled across two centres; children who might otherwise have spent these critical developmental years in unsafe environments while their families grappled with climate induced poverty and eroding livelihoods.

The Climate-Childhood Nexus

The Sundarbans is ground zero for climate change. Families are displaced repeatedly. Livelihoods centered on fishing, farming and honey collection become increasingly precarious. In this context, early childhood often becomes an afterthought; a luxury families cannot afford when survival itself feels uncertain.

Yet it is precisely in such settings that early childhood intervention becomes most critical. Children in these regions face compound vulnerabilities- nutritional deficiencies from food insecurity, developmental delays from chronic stress and psychological trauma from witnessing displacement and loss. The Muskaan ECCCs programme was designed to interrupt this cycle. Over the past months, we have enrolled 100 children across two centres, providing comprehensive support encompassing nutrition, foundational learning, psychosocial care and health interventions.

Beyond Feeding: Nutrition as Education

Our Mid-Day Meal Programme serves freshly prepared, nutritious meals to every child, six days a week and it has evolved into something far more significant than a feeding initiative. Nutritional assessments revealed that 25% of enrolled children showed signs of undernutrition. Children were given nutritional supplements and parents and caregivers were imparted training on using those nutritional supplements.

Children now create rainbow salads; learning colour recognition while understanding food groups. They use lentils to create artwork; making the concept of nutrition tangible and memorable. Vegetable painting let them explore shapes and textures. These are not just creative exercises; they are building foundational cognitive skills while embedding nutritional awareness that children carry home.

The impact extends beyond the centre walls. Parents report replicating recipes they have seen at the ECCCs. One mother from Ghoramara shared, "I never knew dal and green vegetables could be combined in

Continued.....

so many ways. Now my children ask for what they eat at the centre." This spillover effect represents the kind of sustainable impact that outlasts any single intervention.

The Invisible Wounds: Addressing Psychosocial Needs

Perhaps the most overlooked aspect of climate vulnerability is its psychological toll on young children.

When five year old Gulfam Mallik first arrived at our Ghoramara centre, he was restless and disruptive; shouting, snatching toys, refusing instructions. His behavior wasn't defiance; it was distress seeking expression.

Through daily sessions incorporating emotionmapping charts, storytelling circles, roleplay activities and drama using animal masks, Gulfam gradually learned to recognise and articulate his feelings.

The breakthrough came during a puppet show when he whispered his first coherent feeling, "The lion is angry because his home got wet." This transformation resulted from expert led interventions by child psychologists. Now the Muskaan ECCCs have been established as a emotionally responsive place where children feel heard, valued and secured; essential foundations for all other lifelong learnings.

Parents as Partners

ECCCs' monthly parental workshops have evolved into interactive capacity-building platforms, repositioning parents from passive beneficiaries to active co-facilitators of their children's development.

A mother from Ghoramara reported: ***"My son now counts everything; mangoes on the tree, utensils while washing, even boats passing by. He's teaching me to see learning everywhere."***

At Community Advisory Committee meetings, caregivers now actively suggest programmatic improvements. This ownership is what makes change sustainable.

Maternal Health: The Foundation

Our most unexpected intervention emerged from recognising that child well-being is inseparable from maternal health. The Maternal Health Camp in September screened 92 mothers and revealed a hidden crisis of anaemia, reproductive health concerns, hypertension and elevated blood sugar. These numbers tell a story rarely acknowledged; you cannot build healthy children on the foundation of unwell mothers.

The World Breastfeeding Week campaign in August reached over 300 families across two islands. Follow-up workshops reported that most of the mothers felt more confident in breastfeeding practices, with measurable improvements. During National Nutrition Week in September parents participated in awareness sessions on locally available nutritious foods and healthy cooking practices. Families received take-home recipe cards featuring cost-effective, nutrient-rich meals suitable for young children.

Building Future Resilience

After seven months, we are seeing what's possible when early childhood development is approached holistically. One hundred children who might have spent these critical years in unsafe environments are now thriving. Their parents have become co-facilitators and partners. But the most significant indicator might be the hardest to measure: the shift in community consciousness about early childhood itself.

The Sundarbans will continue facing climate challenges. But within that reality, Muskaan ECCCs are demonstrating that quality early childhood development can create pockets of resilience; spaces where children develop the cognitive, emotional and social capacities needed not just to survive but to eventually transform their communities. The seeds we are planting today are the foundations of that future transformation.

Note: All children's names used in this article are pseudonyms to protect their privacy and identity.

Our Funding Partners

Nine organisations funded SEED's work in 2025-26. Our thanks to each of them for backing work in places that are difficult to reach and slow to show results.

SBI Foundation

Signify Innovations India Ltd

Azim Premji Foundation

T & I Global Limited

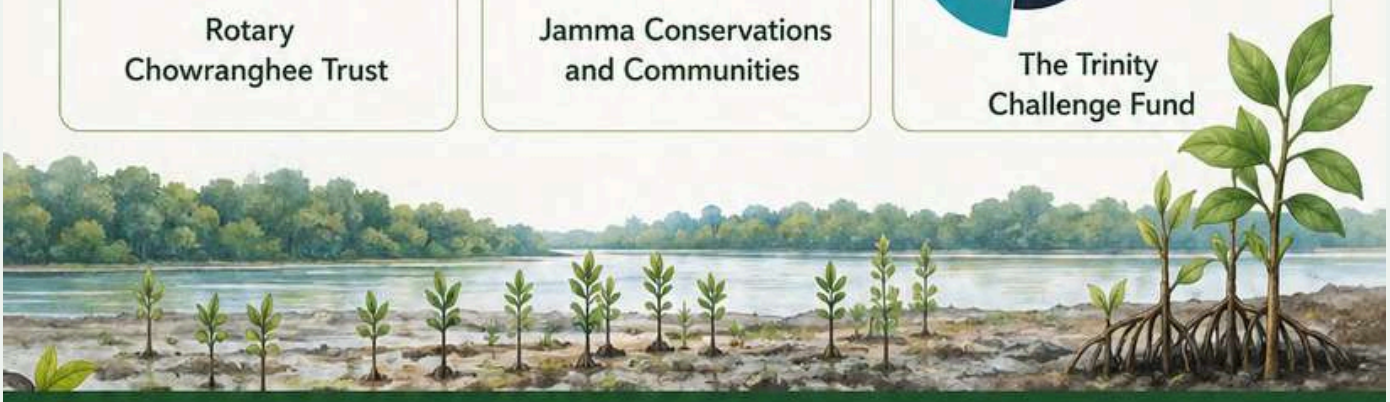
Bharat Petroleum Corporation Ltd

Tiger Widows Organisation

Rotary Chowranghee Trust

Jamma Conservations and Communities

The Trinity Challenge Fund



Together, we are supporting communities, restoring ecosystems and building a more resilient future.

Our Knowledge Partners

Technical and academic institutions that shaped the design, evidence base and delivery of our programmes this year.

Institute of Development Studies Kolkata

Weavers' Service Centre, Ministry of Textiles, Government of India

West Bengal University of Animal and Fishery Sciences

Wetland Link International (WLI)

UNCCD (United Nations Convention to Combat Desertification)

UN Climate Technology Centre & Network (CTCN)

Global Mangrove Alliance (GMA)

Global Evergreening Alliance

CANSA

IIT Kharagpur

UN Environment Programme

India Handloom Brand

By working together with leading institutions, we strengthen learning, innovation and impact for resilient communities and ecosystems.

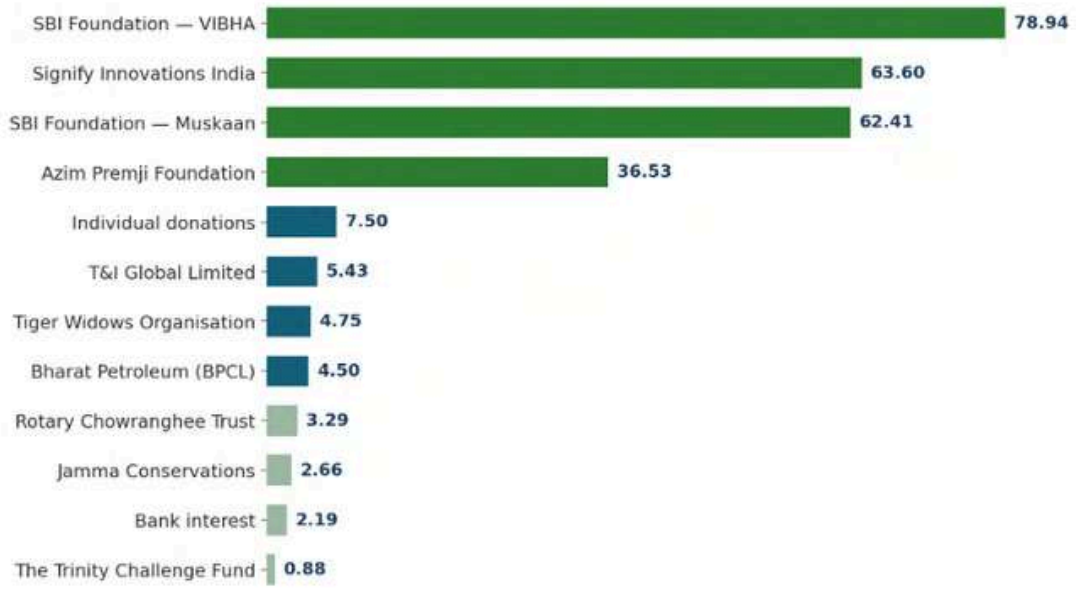
2025–26

Financial Statement

FINANCE

Where the Money Came From

Income by source, ₹ lakh · Total ₹2,72,66,547



Every Hundred Rupees

Split of total expenditure, 2025-26

93.9% Programme spending
₹1,97,33,061 delivered to the field

6.1% Administrative cost
₹12,86,813 including rent, salaries, utilities, accounting and audit

PROGRAMMES

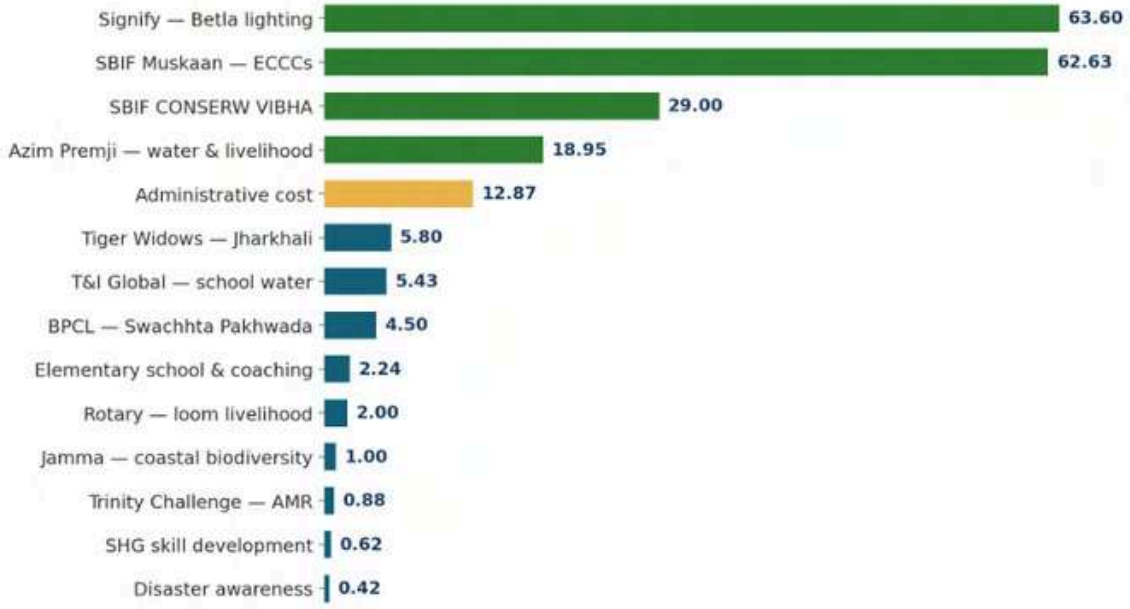
Spending by Thrust Area

Programme expenditure only, ₹ lakh · Administrative cost excluded

Water and sanitation combines the APF tubewell component, T&I Global school water and BPCL Swachhta Pakhwada.

Where the Money Went

Expenditure by programme, ₹ lakh · Total ₹2,10,19,874



Acknowledgement

Thirty years of SEED have been built on a simple belief: lasting change begins when communities are heard, trusted and supported. The work reflected in this report is the result of many people and institutions coming together across some of the most climate-vulnerable landscapes.

We are deeply grateful to the communities, families, women, children, youth and local institutions who have welcomed us into their homes, shared their experiences and knowledge, and participated in shaping and implementing our programmes. Their resilience, local knowledge and willingness to take collective action remain at the heart of SEED's work.

We sincerely thank the Panchayats, frontline workers, schools, health workers, community leaders and other local stakeholders whose cooperation has enabled our programmes to reach communities and respond to their changing needs.

Our heartfelt appreciation goes to our funding partners for their trust and continued support in enabling work across early childhood care, water and sanitation, clean energy, climate-resilient livelihoods, mangrove restoration and community health. In 2025-26, nine funding partners supported SEED's work.

SBI Foundation · Signify Innovations India Ltd · Azim Premji Foundation · T & I Global Ltd · Bharat Petroleum Corporation Ltd · Tiger Widows Organisation · Rotary Chowrenghee Trust · Jamma Conservation and Communities · The Trinity Challenge Fund.

We also acknowledge our knowledge, technical and academic partners whose expertise has strengthened the evidence, design and implementation of our programmes—including **Institute of Development Studies Kolkata, Ministry of Textiles, Government of India, West Bengal University of Animal and Fishery Sciences, Wetland Link International, UNCCD, Climate Technology Centre & Network, Global Mangrove Alliance, Global Evergreen Alliance, CANSA, IIT Kharagpur, UN Environment Programme and India Handloom Brand.**

We are equally grateful to our project teams and field colleagues, who continue to work alongside communities through difficult terrain, changing tides and challenging weather. Their commitment makes it possible for SEED to remain grounded in the realities of the people and ecosystems we serve.

Finally, we thank the partners, practitioners and knowledge platforms that have helped bring the experiences and lessons from the Sundarbans to a wider audience, including **The Bridge (SBI Foundation)** and **Wetland Link International**.

To everyone who has walked with us this year—thank you for helping us listen better, learn continuously and keep showing up.

SEED
30 Years of Working with Communities for a Resilient Future

2026-27

The Road Ahead

Continuing

SBIF CONSERW VIBHA- first phase installation of 380 solar home systems and 170 street lights from May 2026, formation of the Solar User Group, establishment of two community solar repair units at Raypara and Mandirtala and training of 70 women and 35 youth in solar maintenance and entrepreneurship.

Azim Premji Foundation water and livelihood- completion of the raised tubewells at Mandirtala and Chunpuri with water quality testing and handover to the village committees, pond earthwork and bund strengthening across eight sites and the first production cycle for the thirty poultry households and 20 handloom trainees.

SBIF Muskaan- consolidation of nutritional gains, focused work on iron compliance and anaemia and preparation of the next group of children for school transition.

New this year

Solar Sathi supported by TSDPL- Home solar systems for 100 households on Ghoramara island.

Handloom and handicraft skill development supported by T&I Global Ltd for 100 landless women on Ghoramara, with training delivered by the Weavers' Service Centre, Ministry of Textiles (GOI)

Mangrove restoration on Jharkhali Island with Tiger Widows Ireland- 150 women, 1.5 hectares of degraded land and 28,000 mangrove saplings, linked to backyard poultry training and support for 250 households on a bio rights basis.

BPCL Swachhta Pakhwada, 2026 in Ghoramara

Thank You

Since 1996

Building Climate Ready Inclusive Communities for a Sustainable Future.

Contact

+91 7980964138

www.seedin.org

seed.naktala@gmail.com

17A, Naktala Road, Kolkata