

ANNUAL REPORT

2019- 2020



Technology Informatics Design Endeavour (TIDE)

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Mission

To develop, adapt and disseminate technological products and processes that meet rural and urban needs sustainably.

Vision

Towards a world where innovations positively and equitably impact all sections of society and environment.

Legal & Statutory Information

Registration No : S.No. 131/93-94 dated 11/05/1993 of
Karnataka Societies Act, 1960

FCRA: 094420769

80G: DIT(E)80G/107/W-2/07-08 Dated 31/7/2007

12A: Trust/718/10A/Vol.B. II/T.87/95/CIT-II Dated 28/03/1996

PAN: AAATT1118N

GST: 29AAATT1118N2Z7

TAN: BLRT00701B.

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Social Media

Facebook: [@TIDE.NGO](#)

Twitter: [@TIDE_NGO](#)

Instagram: [@TIDE.NGO](#)

LinkedIn: [Technology Informatics Design Endeavour](#)

A ligning with SDGs

TIDE is proud to be in alignment with several Sustainable Development Goals (SDGs) of the United Nations



**Ensure healthy
lives and promote
well-being for
all at all ages**



**Achieve gender
equality and
empower all
women and girls**



**Ensure access to
affordable, reliable,
sustainable and
modern energy for all**



**Make cities and
human settlements
inclusive, safe,
resilient and
sustainable**



**Ensure sustainable
consumption
and production
patterns**



**Take urgent action
to combat
climate change
and its impacts**



Sumathy Krishnan, Executive Director



Not since WWII has the global social sector seen a humanitarian crisis of this magnitude as with COVID-19. However antediluvian it appears at this time to reflect on the year gone, we believe it's important to undertake the exercise. Now is the time more than ever to remember and use our past wisdom to guide us in these uncharted waters.

With two years gone by after deep reflection during our 25th year, there is a notable change in the organization culture. We are now open to look at things differently to achieve larger impact and efficiency, than be constrained by the 'TIDE way' of defining objectives or methodology. Best example is our rural women leadership program - Queen. The large scale acceptance and demand among rural women has rarely happened before at TIDE, without a PUSH approach. The program got traction from women driven by their own aspirations rather than goals we had set. As our organization mentor Svati Bhogle puts it, a lesson for us to be flexible with our 'innovation-led intervention approach'; if our communities so demand it.

In the urban space, both energy conservation and school programs scaled in numbers and impact during the year. Our ground level data and findings through VidyutRakshaka have resulted in many publications, providing valuable insights to academia, policy makers, civil society and electricity utility companies. In the school program, we are leveraging volunteers in a symbiotic way. Our expertise in biomass technologies continues to be sought, to design and adapt products for livelihoods, and for better quality of life. More people now have access to products and knowledge on biomass conservation, thanks to our deliberately nurtured partnerships.

A quote by Steve Jobs 'Details matter – it's worth waiting to get it right' aptly summarizes what we did last year at the organization level. We analysed what we do around and outside of program implementation, putting processes and systems in place, including digitization and MIS to reduce costs and overheads to make us efficient and proactive.

As we look ahead, one cannot deny the uncertainty and changing priorities from funding agencies to NGOs and communities. The COVID-19 crisis is a test to our nimbleness and an opportunity to adapt. TIDE has initiated a slew of response actions and is strategizing to cope with and address fallouts in the mid to long-term time frame.

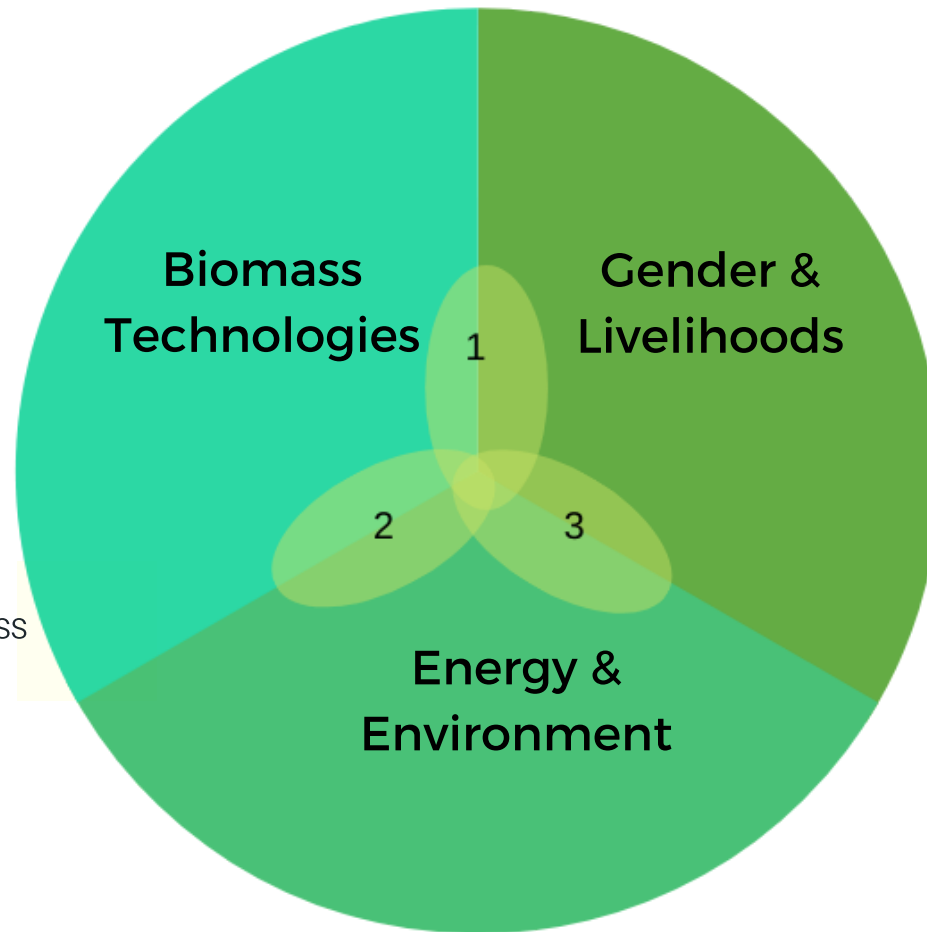
In all of this, we are indebted to our partners and funders for trusting us and nudging us to excel. I am deeply grateful to our Board, Advisory Body and team in steering the organization in the right direction. They have been vocal in praise and vociferous in opinions, but ensuring TIDE always delivers its mandate on societal development.

A big thank you to all of you for being our torch bearers!



ocus Areas

1. Biomass-based livelihoods

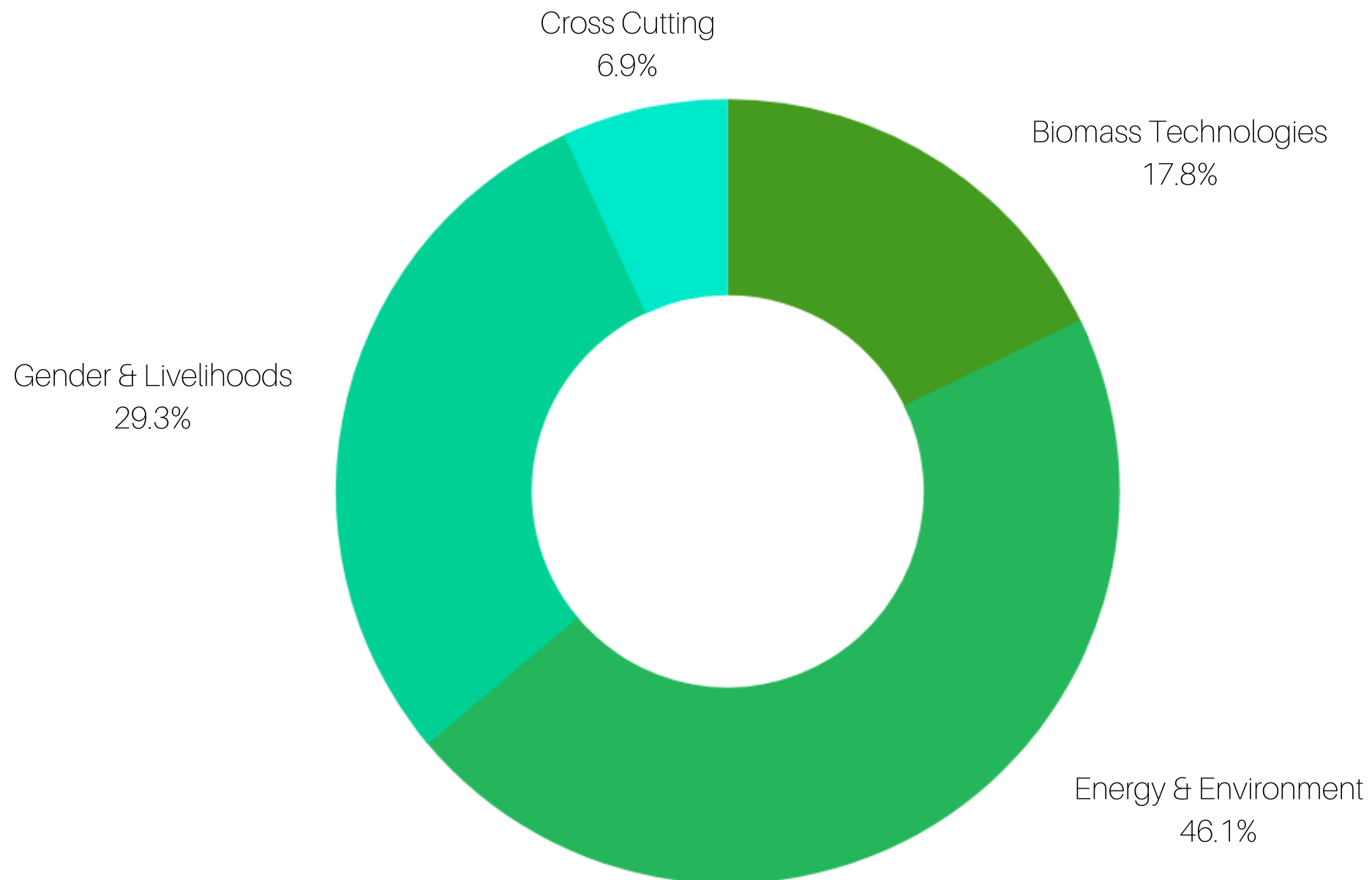


2. Clean and sustainable energy access

3. Promotion of environment friendly livelihoods



Allocation of Funds



Headlines

Over 500 visitors gathered at Women Technology Park to celebrate Graduation Day of Queens and a Santhe showcasing products made by entrepreneurs



Release of our joint publication 'Assessing clean energy opportunities through demand aggregation in Bengaluru's apartment buildings' with WRI India



Volunteers including students, parents, teachers and employees from our CSR partner collected almost 200 kgs of plastic and other recyclable waste items at our first-ever Shramdaan at JNV Urban School



Our much-looked-forward-to annual outing at Prakruthi Resort near Devanahalli was full of adventure and team bonding.

World Environment Day was celebrated at our Women Technology Park (WTP) with local farmers, our entrepreneurs and mentors of our Queen program



eadlines

Our Annual General Body Meeting saw a good turnout



Health Awareness Program at Guddahatti, a remote hamlet in Tumkur District, saw almost everyone present to interact with the visiting doctor who spoke about the importance of drinking clean water



The Model School program launched in Chennai with our on-ground partner Bhumi



TIDE participated in the North East Trade Facilitation Fair 2020 for sustainable energy & livelihood technologies where we exhibited our fuel-efficient biomass dryers and stoves.



Biomass Technologies



Reach of our work

We ventured into new territories geographically and thematically collaborating with partners across India to disseminate improved cook stoves designed by us. We developed three versions of the original Sarala stove that saved fuel, reduced emissions and were compatible with kitchen design and cooking habits. TIDE was the lead partner in a consortium to showcase model midday meal kitchens at Govt. schools in rural Gulbarga and Yadgir. Comprehensive data on improved stoves, fuel saved, cost of fuel saved and the concept of energy security have been shared among key stakeholders facilitating larger adoption. Through our work as core grant partner with the SEED Division, Government of India, we developed new products including a wood fired bakery oven which is at use in our Women Technology Park. We are exploring its potential as a home based livelihood option.

A study done in Sikkim with cardamom farmers to understand and suggest locally-acceptable, fuel-efficient dryers resulted in a strategy for demonstration and replication. We are working in a consortium in North Eastern states to address issues of poverty and climate change using sustainable biomass energy driven solutions as a catalyst. TIDE's role is to recommend suitable biomass products, conduct demonstrations and skill grassroots partners for dissemination. There are several opportunities for TIDE designed stoves/ dryers to improve incomes and provide livelihoods. TIDE continued training cookstoves builders across the country facilitating construction of 1672 Sarala stoves during the year.



Mid-day Meal Production



Cardamom farmers in Sikkim

Achievements in 2019-20

(Credit to Sustaintech Pvt Ltd, TIDE's dissemination partner for commercial stoves)



1672 Sarala cookstoves built by TIDE-trained women



1369 Fuel-efficient commercial cookstoves



2611 MTs fuel saved annually using fuel-efficient stoves



4 products designed in-house



Chamundeshwari Higher Primary School in Kalgi shifts completely to green energy for cooking!

TIDE worked with SELCO Foundation to implement a project on sustainable kitchens for mid-day meals. A survey done in schools of Gulbarga and Yadgir revealed that most schools did not have back-up cooking options when the LPG ran out. Some schools cooked outdoors on makeshift, hastily constructed stoves made with three stones while others sent students home to eat which resulted in large number of post-lunch absenteeism. 99 out of 103 schools surveyed were keen to have an alternate biomass-based cooking energy option. TIDE installed PYRO institutional stoves in 50 of these schools with the most critical need.

Chamundeshwari HPS school in Kalgi was one of these. The headmaster Mr. Ramesh Namdar no longer needs to worry about delays in delivery of LPG cylinders. The cooks are happy as the PYRO stove is easy to use and does not emit smoke. The school is the first one to completely migrate to biomass fuel. An interesting experiment was done with the same meal cooked using LPG and biomass. The data collected showed that the biomass stove was cheaper to use and also cooked the food faster. Monitoring the indoor air quality (CO and PM2.5) showed hardly any change when the PYRO stove was used.

Donor Speak

The product quality and the end to end project implementation strategy followed by TIDE showed the high level of sectoral expertise. The cooks with clean cooking appliances will reap the benefit from them for years to come.

Mohsin Khan, Program Manager, Sustainable Habitats

Selco Foundation

Acknowledging Funders

- Collectives for Integrated Livelihood Initiatives
- Give Foundation
- Novozymes South Asia Pvt Ltd
- OXFAM India
- SEED division, Department of Science & Technology, Government of India
- SELCO Foundation
- WWF India



An improved cook stove awareness & demonstration camp at Dighalbori village, Assam



Energy & Environment - Model School Program



[Watch a video of our work in this area](#)

2019-20 was a remarkable second year for the School Program in TIDE which expanded to 8 schools across Bangalore and Chennai, engaging 7698 children, 800 corporate volunteers, 150 parents and 300 school management and staff.

The Model school program skills schools and students to become Agents of Change for a sustainable future. The program does this through energy, water and waste interventions at school along with class room engagement through modules on conservation. Capacity building is built into this program along with institutionalizing and integrating it with the regular curriculum. We are leveraging digital platforms including our own TIDE Slate for this. The biggest accolade for the program comes from the teachers who report subtle but significant behaviour changes with children; children now take more ownership to switch off lights and fans when they leave a room, follow waste segregation, and even coordinate with the cleaning staff on this.

Partner School Speak

Our association with TIDE for arranging interactions with strategic inputs, technical modifications and live demonstrations of activities with the participation of students and teachers brought clarity in developing a model of engagement with the students on live problems. I will be happy to see this model evolving into a replicable and sustainable model for all school systems.

Mr. Bishwajit Kumar Singh, IFS,
Commissioner, Navodaya Vidyalaya Samiti

Acknowledging Funders

- A Corporate that wishes to remain anonymous
- Societe Generale Global Solution Center

Achievements 2019-20



Energy Savings

- Energy-efficient appliances fixed in 4 of 8 partner schools
- 5.15 MWh of electricity or 4.74 mt of carbon emission mitigated (equal to planting 395 trees in one year) in 2 partner schools.
- 31% reduction in electricity consumption in one day school.
- INR 2 lakh per annum worth of savings on electricity bill with a return of investment of 14 months in one residential school.



Water Savings

- 8114 kilolitres per annum of potable freshwater savings from 25% consumption reduction in 3 partner schools.
- 60 kilolitres per annum of rainwater recharge in one residential school.
- 200 kilolitres per annum of greywater recycling and reuse in one day school.



Waste Segregation

- Provisioned for 100% waste segregation in all 5 partner schools with responsible disposal methods.
- 1500 kg/day of dry and wet waste handling capacity provided in 5 partner schools.
- 320 kg/day of inhouse composting facility between two partner schools.
- 209 Tons/annum of mixed waste diverted from landfill.

ergy & nvironment - VidyutRakshaka (VR)

[Manage, plan & save on electricity bills](#)

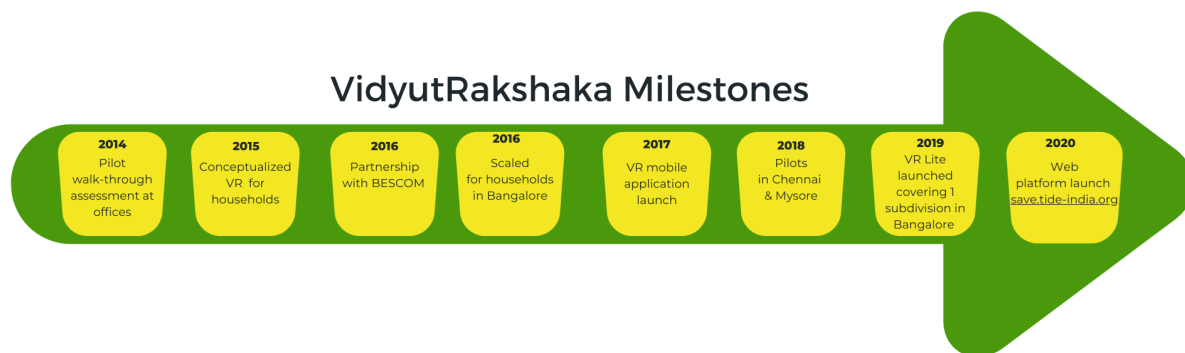
[Read our recent publications](#)

The year saw our flagship VidyutRakshaka program expand in depth and reach. We expanded to cover common areas of apartments and completed a pioneering study on identifying clean energy opportunities and gaps there. A [publication](#) has been released on this.

The scaling of our Home Energy Report program VR Lite is underway with an RCT (Randomized Control Trial) approach where the sample group within a BESCOM sub division would receive the Home Energy Reports, and their electricity consumption behaviour compared with the control group. We have also initiated studies to collect evidence of behaviour change for existing participants of our VidyutRakshaka program. You can read our other publications based on the rich data and learning from the program.

TIDE has launched a [website](#) catering to residential electricity consumers in India. We plan to add water and waste tools also gradually to the site.

VidyutRakshaka Milestones



Partner Speak

"VidhyutRakshaka, a programme strives towards creating awareness about the energy consumption in the households, which in turn helps them to reduce their electricity bills. The customized report provides a detailed picture about where the energy is being wasted and how this can be used optimally. This also benefits in reduction of greenhouse gases".

Demand Side Management (DSM) Department, BESCOM

Achievements in 2019-20



6500+ households in Home Energy report program



25% savings among 44% participants



30 MWh per annum



27 mega tonnes of CO2 emission reduced

Acknowledging funders

- Societe Generale Global Solution Center
- Tata Centre for Development at University of Chicago Trust
- World Resource Institute

Gender & Livelihoods



[Watch a video of our work in this area](#)

The Gender and Livelihood focus area at TIDE adopts a blended approach of furthering social and financial empowerment of rural women and rural communities.

Our rural women leadership program aptly named as 'QUEEN' leaped ahead during this year with phenomenal acceptance in the communities we worked in. The program nurtures rural women as community leaders, while providing them economic, social, and leadership grooming opportunities. A total of 154 QUEENS graduated this year.

Our work in creating rural enterprises, particularly those led by women continues. The year saw us directly facilitate creation of 20 home-based businesses in Tumkur district, with potential profits ranging from Rs about 2000 to Rs. 25,000 per month. We have initiated support facilities and services covering packaging, certification, etc. at our WTP for the enterprises.

With learning from our unusual and challenging pilot project done in a remote village in Gubbi Taluk, we are looking at developing a replicable model for village development, involving local stakeholders, focusing on livelihood and environment.

During the year, women trained under our Improved Cookstove Construction program built 1672 Sarala stoves covering 16 villages. The rural households saved 2508 MTs of fuel annually by using these fuel-efficient stoves.

TIDE's Women Technology Park continues to function as training centre and also provides employment to locals through production activities.



Enterprises training at WTP



Queen being facilitated



Queen Graduation Day



Newly constructed Sarala stove

Achievements 2019-20



154 queens graduated



20 Home-based enterprises facilitated



1672 Sarala stoves constructed by women TIDE trained



Rs. 25,000 individual potential monthly profits



2508 MTs fuel saved annually using fuel-efficient stoves

When the trainee became the trainer

Pushpa comes from a large family in Aralaguppe village and could only study till high school. Her family does not have any agriculture land and her husband works in a brick kiln. She wanted to work to supplement her family's income and take better care of her daughter's health. She heard about the employment opportunity at Women's Technology Park (WTP) and got selected.

Pushpa was trained in making plates using areca leaf sheaths and started operating the manual areca plate making machine at WTP. She was a quick learner, keen to do more so we trained her to construct Sarala stoves. She travelled to various villages to build the stoves which gave her a new exposure and helped build her self-confidence. She says that she feels good when women she built stoves for recognise and acknowledge her.

Pushpa also received training on making paper and cloth bags, millet-based value addition products and biscuit baking. For the past two years she is independently handling the baking from handling the equipment to baking multiples batches of biscuits.

Now she trains other women who come as aspiring entrepreneurs to WTP to acquire livelihood skills. Recalling her initial days she says "In the beginning I was very afraid of committing mistakes, and found many things complicated. Now I am comfortable and confident. The income from this work has enabled me to support my family and the experience has changed me as a person."



Partner Speak

I thank TIDE for giving me the opportunity to spread financial literacy among women. Of the many joint projects we did this year Mahila Uthpadakara Santhe and Queen impressed me most, as they increased opportunities for women to become entrepreneurs.

Rekha P, Senior Counsellor Jhana Jyothi Financial Literacy Centre, Tipturu

Acknowledging Funders

- Alstom Foundation
- FANUC
- Give India
- Novozyme South Asia Pvt Ltd.
- Societe Generale Global Solution Centre



Meet our Board

Management Council



Svati Bhogle
Chairman



A N Jayachandra
Secretary



Dr. Shailaja Ravindranath
Member



Hari Natrajan
Member



N V Krishna
Member



Sumathy Krishnan
Ex-officio Member

General Body

All members of the Management Council are also General Body members



Bithi Agrawal
Member



Dinesh Kagathi
Member



Dr. Hoysala N Chanakya
Member



Gopi Venkataraman
Member



K Ravichandran
Member



Sampath Kumar
Member



Sreenkantha Swamy
Member



Sujatha Byravan
Member



Vinod Vyasulu
Member



Vishwanath S
Member

Meet our Team



Svati Bhogle
Organization Mentor



Sumathy Krishnan
Executive Director



Ashiq Ahmed Chemmalasseri
Biomass Technologies



B H Shreedhara
Gender & Livelihoods



Balaji Rao Gujar
Energy & Environment



Bishal Choudhury
Biomass Technologies



Dheepak Kumar
Energy & Environment



Elizabeth Sebastian
Front Office



G Rangaswamy
Gender & Livelihoods



Gopi Venkataraman
Communication & Outreach



H C Manjunath
Gender & Livelihoods



Hridayananda Goswami
Biomass Technologies



K Ravichandran
Energy & Environment



Kiran Bhagavatula
Energy & Environment



Leela Muninanappa
Accounts



Lokesh Rao Jadav
Energy & Environment



Nishanth Chavan
Gender & Livelihoods



Nishanth Karunakaran
Biomass Technologies



Prachi Bhujbal
Energy & Environment



Pramila Poojary
Gender & Livelihoods



Rathnakara Naik
Accounts



S G Chandrakala
Gender & Livelihoods



Santhosh Cibi
Energy & Environment



Sunil Patil
Gender & Livelihoods



Sunita Suresh
Energy & Environment



Vishank Shet
Biomass Technologies

Publications released

TIDE's noteworthy publications during the year



Saving electricity, one consumer at a time
Lessons from Vidyut Rakshaka,
International Conference for
Advances in Energy
Research 2019,
IIT Bombay

[Read it](#)



Assessing clean energy
opportunities through
demand aggregation in
Bengaluru's Apartment
Buildings
WRI India

[Read it](#)



Understanding Electricity
Consumption and
Appliance ownership in
two cities of South India
Energise 2020
Alliance for Energy
Efficient Economy, India

[Read it](#)



Characterising common
area energy use to assess
clean energy opportunities
in apartment complexes of
Bengaluru
Energise 2020
Alliance for Energy Efficient
Economy, India

[Read it](#)

[View our detailed Audit Report here](#)

Balance Sheet

Particulars	Note No.	As at 31st March, 2020 In Rupees	As at 31st March, 2019 In Rupees
SOURCE OF FUNDS			
Corpus - Award	1	7,36,970	7,36,970
General Fund	2	1,12,56,599	83,42,019
Entrepreneur Development Fund	3	12,07,052	11,30,428
Staff Welfare Fund [SWF]	4	6,73,176	6,71,725
Total		1,38,73,797	1,08,81,142
APPLICATION OF FUNDS			
Fixed Assets	5	11,62,714	12,33,569
Current Assets			
- Advances & Deposits	6	4,25,465	4,09,822
- Receivables	11	11,71,595	13,79,509
- Fixed Deposit with Bank	7	1,38,76,630	1,40,00,000
- Other Current Assets	8	6,30,088	7,85,853
- Cash & Bank Balances	9	40,93,998	89,72,790
Total (A)		2,01,97,776	2,55,47,974
Less: Current Liabilities			
- Sundry Creditors	10	2,36,346	83,787
- Unspent Balances	11	72,50,347	1,58,16,613
Total (B)		74,86,693	1,59,00,400
Net Current Assets C = (A-B)		1,27,11,083	96,47,573
Total		1,38,73,797	1,08,81,142

Income & Expenditure

Particulars	Schedule No.	For the year ended 31st March, 2020 In Rupees	For the year ended 31st March, 2019 In Rupees
INCOME			
(A) Project grants	11	2,47,12,128	2,50,71,519
Add: Interest earned on project grants	11	3,50,638	2,08,950
Unspent balance b/f from previous year	11	1,44,24,338	73,76,436
Less: Unspent Balance at the end of the year	11	60,66,802	1,44,24,338
		3,34,20,301	1,82,32,567
(B) Donations received	11	1,28,263	1,30,500
Add: Unspent balance b/f from previous year	11	12,769	1,27,740
Less: unspent balance at the end of the year	11	11,950	12,769
		1,29,082	2,45,471
(C) Other income			
- Overhead recovery	11	27,40,135	14,09,141
- Usage of TIDE facilities	11	6,31,640	6,57,176
- Interest received		4,98,565	3,12,967
- Miscellaneous income		1,592	15,500
(D) Service income		50,000	4,83,000
Total Income (A)		3,74,71,314	2,13,55,822
EXPENDITURE			
(A) Project expenses during the year	11	3,34,20,301	1,82,31,954
(B) Donation related expenses	11	1,29,082	2,46,087
(C) Administration expenses			
- Secretariat expenditure	12	9,21,515	6,12,212
- Depreciation	5	94,129	1,02,843
(C) Expenses Against Service Income		-	3,33,020
Total Expenditure (B)		3,45,65,027	1,95,26,116
Excess of income over expenditure for the year carried to Balance Sheet	C = (A-B)	29,06,287	18,29,706

Receipts & Payments

Receipts	For the year ended 31st March 2020 In Rupees	Payments	For the year ended 31st March 2020 In Rupees
Opening Balance			
- Cash in Hand	31,211		
- Cash at Bank	89,41,579		
Project Receipts	2,46,22,843	Project Expenditure	2,96,32,241
Overhead Recovery / Receipt - per contra	25,16,684	Secretariat Expenditure	14,72,489
Usage Facilities Recovery / Receipt - per contra	5,12,760	Travel / Project Advance	33,08,629
		Inter office Accounts	5,75,598
Interest Received	7,78,232	Deposits	1,90,50,000
Recoveries			
Travel / Project Advance Recovery	10,31,295	Salary Deductions – Remittance	8,07,405
Salary deductions – Recovery	7,72,108	Tax deducted at source	8,16,811
TDS Recovery (Consultants / Contractors)	10,87,704		
Fixed Deposit withdrawal + Interest receivables	1,92,74,854		
Other Misc Income	31,549		
Entrepreneur Development Fund (Receipts)	1,20,478	Entrepreneur Development Fund	947
Staff Welfare Fund (Receipts)	1,08,806	Staff Welfare Fund (Payments)	71,985
		Closing Balance	
		- Cash in Hand	8,558
		- Cash at Bank	40,85,440
Total	5,98,30,103	Total	5,98,30,103



Reflections 19 - 20

“Thinking out of the box
Prachi”

“Continuous learning”
Manjunath”

“Making life better
Sunil”

“Introspection & reflection
Kiran”

“Cognitive diversity
Sumathy”

“Serendipitous
Ashiq”

How the team described the year that went by and what meant to them,..

Reflections
19-20
By
TIDEians

“Evolving Journey
Lokesh”

“Meaningful
Sunita”

“Climate Awareness
Balaji”

“Contentment
Santhosh”

“Hemme (Pride)
Pramila”

“Rollercoaster ride
Gopi”



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