TARA

2024 Annual **Report**

ORGANISATION AT A GLANCE

Vision : A world where every citizen can live a secure, healthy and fulfilling life, in harmony with nature

Mission : To create sustainable livelihoods at scale

Strategy : Build capacities and incubate business models for widespread and accelerated creation of economic, social and environmental value

Society Registration : Societies Registration Act, XXI of 1860; Registration No. S/15240

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CHAIRPERSON'S MESSAGE

By transforming innovations into tangible products and integrated solutions, we empower businesses and communities with tools to build a sustainable future. Our efforts reach a diverse range of stakeholders, from community groups and MSMEs to industries, governments, and international organisations, in India and beyond.

Chairman
Dr Ashok Khosla

In our role as the incubation and commercialising wing of the Development Alternatives Group, TARA remains dedicated to transforming the Group's pioneering laboratory innovations into practical, market-ready solutions. By converting these innovations into tangible products and integrated solution packages, we support businesses and communities with tools to create a sustainable future. Our approach extends to a broad range of stakeholders, including community groups, micro, small, and medium enterprises, industries, governments, and international organisations in India and beyond.

Throughout the year, TARA has continued to lead in developing and customising eco-solutions that lower carbon emissions, minimise environmental impact, and foster social well-being. Some notable highlights include:

Air Pollution Mapping: In collaboration with UNDP India, TARA generated hyperlocal datasets targeting specific air pollution sources.

Brick Sector Modernisation in Bangladesh: Leveraging the GeoAI tool, TARA has embarked on a project to reduce GHG emissions and boost resource efficiency within the Bangladesh brick sector.

LC^3 Feasibility Study in Nepal: TARA conducted an LC^3 feasibility study aimed at promoting a sustainable built environment in Nepal, showcasing alternative cement solutions.

Green Briquetting Initiative: Partnering with NECTAR (North-East Centre for Technology Application and Reach), we demonstrated the potential of a green briquetting enterprise, emphasising a sustainable business model.

Gramayan- Rural Immersion Program: Through Gramayan, we facilitated immersive field experiences across Lalitpur, Ladpura Khas (Madhya Pradesh), Orchha (Uttar Pradesh), and Haridwar (Uttarakhand), where participants engaged with sustainable livelihood models and climate resilience practices alongside field experts.

Uttar Pradesh Power Distribution Network Rehabilitation: Collaborating with CRISIL, TARA undertook a project to boost rural bill collections while creating employment opportunities for women as "vidyut sakhis."

Nirmal Agra Project: Under this initiative with AEPW (Alliance to End Plastic Waste Inc.), TARA worked toward enhancing plastic waste management systems in Agra.

In order to decarbonise the building sector, TARA being the technical partner for **Ashraye - Transforming the Built Environment through Sustainable Materials** is a part of the global project supported by the Federal Ministry for Economic Cooperation and Development of the Government of Germany (BMZ) and implemented and administered by the UN Environmental Programme, worked in Odisha and Maharashtra for sustainable housing.

Bihar projects:

Pond Ash Brickmaking in Muzaffarpur

TARA conducted a survey in Muzaffarpur to explore the potential of using pond ash from NTPC Kanti for sustainable brickmaking, adhering to BIS and FABQRS standards. This initiative reduces carbon emissions, conserves topsoil, and provides year-round employment, promoting economic and environmental benefits.

Transition to Fly Ash Bricks in Bihar :

With Bihar's booming construction sector, TARA advocates for cleaner brick technologies like fly ash bricks to reduce pollution, conserve fertile soil, and offer sustainable livelihoods. This transition aligns with the state's goal of balancing economic growth with environmental preservation.

TARAlife is a division of TARAlife Sustainability Solutions, a social enterprise promoted by TARA, committed to developing innovative products to meet rural needs.

TARA Nirman Kendra, is a leading manufacturer of construction materials using eco- friendly materials and processes. The products manufactured use less energy while utilising industrial waste and other local raw materials.

As we continue to expand our reach, TARA remains steadfast in its commitment to building resilient communities and empowering local economies with sustainable, scalable solutions.

Message From The Chief Operating Officer

In keeping with our resolve to make a positive difference to people, planet, and prosperity we strived hard the last year. In the pursuit of achieving our goals, we actively collaborated with the Governments, Corporates, and people in our march to make the planet a better place to live especially so for the future generations. We continue to play an important role in measuring and reducing carbon footprints by encouraging circular economy models. We stand committed to regenerating biodiversity and in stepping up our efforts in Water Conservation and also in working towards promoting climate resilient agricultural practices. We are also steadfast in encouraging and helping setting up of non-traditional enterprises supported by green energy solutions to promote livelihood security.

We must continue to strive to reduce the damage to planet earth so as to rescue a better future for the coming generations.

Maj Gen Rahul Bhardwaj
VSM (Retd)

IMPACT 2023-2024

Resource Efficiency and Circular Economy

19,240 green houses enabled

20,202 million tonnes (LC^3, brick kiln, fly ash) CO_2 mitigated

1.9 million tonnes of natural resource saved

291 fly ash brick enterprises supported

47,376 million tonnes (Plastics, constructions & demolition, fly ash, agri- residues) of waste managed

400 million litres made available/ recycled water and air

1.2 million tonnes Limestone Calcined Clay Cement (LC^3) produced by cement companies

Livelihood Security and Inclusive Entrepreneurship

77,600 livelihoods secured

15,000 workers upskilled

11,700 job opportunities created

5,030 enterprises established

INR **40** cr + raised in 2023-24 competitive advantage of systemic prototypes

27% decline in project cost/enterprise in 2023-24 from INR 13,246 to INR 9,407

Climate Resilience and Ecosystem Restoration

630 million litres of water potential enhanced

50+ ponds restored

1500+ hectares of area impacted through land and soil conservation activities

1 lakh women made aware on Climate Resilient practices through Radio Bundelkhand

2.5 lakh people made aware on health, nutrition, WASH, agriculture and other practices through Radio Bundelkhand

Technology Solutions

TARA aims to build capacity, incubate business models, and manage processes to create economic, social, and environmental value on a large scale. Business models based on sustainable technological packages offer a more sustainable future by integrating environmental, social, and economic considerations.

Overview

Tech solutions encompass numerous innovations and practices that promote low carbon emissions, resource efficiency, reduced environmental impact, and foster social well-being. The benefits extend beyond environmental advantages by creating opportunities for innovation, entrepreneurship, and job creation. This drives a circular economy model and social development in parallel. The impacts align well with the Sustainable Development Goals (SDGs) set by the United Nations.

Through sustainable technologies, TARA aims to improve the quality of life and create a healthier planet for future generations.

Waste Management: The linear take–make–waste model, which spans from raw material extraction to product disposal, not only perpetuates the continuous consumption of natural resources but also imposes significant economic costs associated with waste management.

Water Solutions: The most significant challenge today is ensuring access to both the quantity (security) and quality (safety) of water, exacerbated by rapid modern development, climate change, and diminishing natural resources. Integrated water management approaches advocate for the coordinated development and management of water, land, and related resources.

Green Energy: India has made remarkable strides in renewable energy, ranking fourth globally with a total installed capacity of 168.96 GW. Despite this, the rooftop solar sector remains largely underutilised, with only 13.956 GW installed. Collaborative efforts are essential to address this gap, and the micro, small, and medium enterprise (MSME) sector offers a significant opportunity for growth.

Key Initiatives

Reducing Air Pollution from the Brick Industry of Bangladesh - Use of Data Science: The GeoAI Tool

The overall mission of the program is to reduce GHG emissions and enhance resource efficiency in the brick sector of Bangladesh. The GeoAI methodology for India has been developed by Nottingham University (UoN) in association with the UNDP Accelerator Lab, India. It has emerged as a primary tool to enable decision-making at the multi-stakeholder level, involving the State Government, brick kiln owners, the brick kiln association, and civil society. Development Alternatives Group, in collaboration with UoN and UNDP, has worked with the Bihar State Pollution Control Board (BSPCB) and the Department of Environment, Forest, and Climate Change, Government of Bihar, to implement the GeoAI platform to support regulatory governance in the state of Bihar. This initiative considers regional air pollution from brick kilns, particularly from India and Nepal, for the overall improvement of air quality in Bangladesh.

Hyperlocal Mapping of Air Pollution and GHG Emissions in Gurugram and Patna, Bihar

TARA collaborated with UNDP India to create hyperlocal datasets on targeted point sources of air pollution and measure emissions in hyperlocal environments in two cities in India: Patna and Gurugram. This study's approach to mapping air pollution involves innovative methods like Citizen Science and utilising Low-Cost Air Quality Sensors (IoT devices) for hyperlocal data collection. The strategy combines technology for data collection with

> Throughout the journey of LC^3 Cement, great emphasis was laid on the capacity building and knowledge sharing, particularly amongst the esteemed projects led by TARA and IIT Madras and the cement companies who now possess comprehensive expertise in identifying and characterising clay resources essential for the cement industry in India and beyond. TARA continues to serve as one of the steadfast ambassadors for Limestone Calcined Clay Cement, fostering goodwill with eminent cement companies, both large and small scale. We extend our best wishes to TARA and its partners as they embark on their journey to become an effective solution provider for LC^3 in India and worldwide.
>
> **Jonathan Demenge PhD**
> *Head of International Cooperation and Counsellor Embassy of Switzerland*

community involvement for a more effective and sustainable approach to tackling air pollution. This collaborative initiative, led by partner organisations, deployed 50 IoT sensors in each geography, i.e., Gurugram and Patna, to map hyperlocal air quality.

Improving Sustainability of Traditional Terracotta and Pottery Business in Asharikandi, Assam

TARA introduced modern and scientific processes and techniques without affecting traditional skills. Two key areas were primarily addressed by TARA, first, a de-airing pugmill was introduced for soil processing, second, improved firing techniques were introduced using both wood and oil-fired furnaces. Sixteen people from the local artisan group (Omkareshwar) were trained. The efficiency of the production system increased by almost two times with improved quality of the products.

LC^3 Cement Feasibility Study, Nepal Cement companies in Nepal are following the LC^3 project with great interest and have already expressed interest in adopting it. However, this is subject to proving the availability of the required quality of clays within feasible distances of cement plants. Once the availability of quality clay is established, cement companies will invest on their own in further tests and the feasibility of producing LC^3 with their raw materials.

Green Briquettes: A Sustainable Fuel Solution for Brick Kilns and Pottery Units

TARA and North East Centre for Technology Application and Reach (NECTAR) have worked to demonstrate the viability of a green briquetting enterprise through a sustainable model. Resource mapping of agricultural waste in Dhubri District of Assam was also conducted. Samples were collected, and tested at TARA's lab and technical parameters were set for the production in the market. TARA and NECTAR have also worked on models and campaigns to generate awareness amongst potential stakeholders in the market. The feasibility of the briquettes was also successfully tested for commercial purposes in the pottery and clay brick industries.

Taisei Soil System (TSS) – Successfully incubated and handed over to Municipal Corporations

Taisei Soil System (TSS), a decentralised, zero-discharge, waste-water treatment technology developed and manufactured by Taisei Kogyou Co. Ltd., Japan, was successfully incubated and demonstrated by TARA at Varanasi, Muzaffarnagar, and New Delhi cities in India.
The TSS technology treats wastewater without any requirement of electricity or chemicals. Implemented entirely below the ground, no surface land area is required for the technology to operate. The technology is treating 4000 liters of wastewater per day that is discharged from public toilets in Varanasi under the supervision of Varanasi Municipal Corporation. In Muzaffarnagar, over 8000 liters of wastewater is treated per day that is discharged from Shri Ram Group of Collage. In New Delhi, the technology treats 1000 liters of wastewater being discharged from TARA ghitorni workshop.
The two units of TSS plants are preventing 12,000 liters of wastewater every day from mixing with Ganges river, thereby serving as an eco-friendly solution under the Namami Gange Programme from Government of India. In collaboration with E- Square Inc. and Original Engineering Consultants Co., Ltd. from Japan, post pilot, the TSS technology has been incubated in Indian conditions, and transferred to the Municipal Corporations of Varanasi and Muzaffarnagar respectively. The technology was incubated in Ghitorni, New Delhi using components made in India and has been verified.

HIGHLIGHTS

- Technology and Action for Rural Advancement (TARA) signed an MoU with Promac Engineering on March 21, 2024, to provide turnkey solutions for calcined clay cement production in India and globally.
- TARA signed an agreement on August 17, 2023, with the Swiss Federal Department of Foreign Affairs, acting through the Embassy of Switzerland in Nepal, for Limestone Calcined Clay Cement (LC^3) feasibility studies in Nepal.

WAY FORWARD

During the year, TARA has established itself as a preferred organisation for supporting various stakeholders especially academic institutions, corporates and research organisations in incubating profitable, environmentally and socially relevant business models.

TARA will continue to prioritise technology transfer support to commercial companies in achieving its goal of mitigating carbon emissions in the construction sector with emphasis on the cement and building material sector. Management priorities are aimed to strengthen and expand the outreach of TARA Applied Research Centre (TARC) in India and across the globe. Partnerships and collaboration with the private sector will be accelerated to provide a turnkey solution on low carbon technologies.

The LC^3 initiatives in Nepal is poised to provide a transformative solution to the Nepali cement industry for reducing emissions and initiate a low carbon growth. Partnerships will be initiated with other Government Departments for LC^3 Standards in Nepal and favourable incentives and policies to create demand for LC^3. It is also planned to take the Nepal initiatives to select countries in Africa and the Pacific countries.

Towards enabling the use of data science for mapping of air quality and socio-environmental conditions of brick kilns, the GeoAI tool will be extended across West Bengal, Uttar Pradesh and Assam. Since air quality and associated pollution in trans boundary across countries, thus the GeoAI tool is also planned to be implemented in Bangladesh and Nepal.

Availability of water and its quality is always a concern for TARA. Thus, new water purification products will be tested and deployed across rural India in the states of Punjab, Haryana, Uttar Pradesh, Bihar and Madhya Pradesh to enable access to safe and healthy drinking water across the rural areas of the Indo Gangetic plains. Partnerships will also be sought with various Government Departments in the state of Uttar Pradesh to scale-up the pond rejuvenation initiative across the state to make the state of Uttar Pradesh a water sufficient state.

Continued focus of TARA will be to ensure reduction of emission and utilisation of wastes in the construction sector. Thus renewed emphasis will be placed on accelerating the adoption of fly ash bricks and other non-fired products across the states where clay bricks are a major source of building materials. Focus will also be to demonstrate use of renewables e.g. waste biomass or RDF as a replacement of fossil fuel use in clay brick firing.

Advisory Services

Innovating pathways for an inclusive, just, and green economic transition in India through interventions in policy, finance, technology, research, and dialogue to help transition to a circular economy in the plastics, building sector, and agriculture. This also includes advocating for smooth access to sustainable finance in India.

Overview

TARA's advisory services build knowledge and advocate for Climate Change Resilience and Biodiversity Conservation, Resource Efficiency and Circular Economy, and Inclusive Entrepreneurship and Livelihood Security. TARA has structured its work in the following thrust areas in response to the emerging triple planetary crises of climate, resources, and livelihoods:

- **Climate Change Resilience:** Providing technical support on climate change adaptation in regenerating agriculture and water conservation sectors, and providing Sustainable Development Goals-Climate Change (SDG-CC) interlinking support to state and national governments.
- **Sustainable Consumption and Production:** Bringing evidence-based policy change towards reducing virgin resource usage by applying principles of resource efficiency and circularity.
- **Inclusive Development:** Shaping policy shifts towards decentralised green and inclusive economies through partnership building, dialogues, and supporting the Ministry of Micro, Small and Medium Enterprises (MSMEs).

Key Initiatives

The project, '**Easing Access to Climate Financing for Local CSOs in India**,' supported by Swissnex Knowledge2Action Small Grant, aimed to address the issue of scattered and jargonised information on climate financing. It broke down the information into a user-friendly toolkit providing a step-by-step guide to availing climate financing. The primary audience for the toolkit is local CSOs working in the climate change space, but the publication is open to other civil society actors to leverage and utilise for building their own capacities or developing interventions based on the information to increase financing flows for climate action at the grassroots level.

The project, '**Establishing Impact of the Rural Enterprise Clusters supported by IMEDF under SFURTI Scheme**,' involved developing and piloting a Sustainability Assessment Framework with four rural enterprise clusters supported by IMEDF as the Nodal Agency under the SFURTI Scheme. The objective was to assess their triple-bottom-line impact and establish a case for investing in these clusters to drive just transition to a green economy in India. The project report targets policymakers, financiers, enterprise support organisations, and other similar groups.

India-Australia Industry and Research Collaboration for Reducing Plastic Waste
This was conceived as a result of the first bilateral India-Australia virtual leaders' Summit held in June 2020 between the Prime Ministers of India and Australia. Six research organisations from both India [The Energy and Resources Institute (TERI), CSIR-NEERI, and Development Alternatives) and Australia (University of New South Wales (UNSW), University of Technology Sydney (UTS), and the Commonwealth Scientific and Industrial Research Organisation (CSIRO)] collaborated on this three-year research project. It lays the foundation for a circular economy transition to enable India to meet its commitments towards signing the global treaty on plastic pollution by identifying the size of the issue and creating a roadmap co-developed with industry and government stakeholders to drive change in plastics supply chains. The project developed a comprehensive

> "National, coordinated approach is important as we are dealing with a complex problem of plastic waste. We must integrate regional solutions into a national framework and encourage the research and startup community to collectively come up with solutions that can be scaled up to help solve the problem of plastic waste in India, Australia, and even globally."
>
> **Dr. Heinz Schandl,**
> *Senior Principal Scientist,*
> *The Commonwealth Scientific and Industrial Research Organisation*

knowledge base tracking plastic flow from import to reuse, with a full supply chain analysis in sectors like packaging, agriculture, construction, automotive, electronics, and household appliances. It developed a roadmap for technical innovations and established principles and strategies for transitioning to a circular plastics economy.

Ashraye - Transforming Built Environment through Sustainable Materials

The SED Fund grant aims to support the development of sub-national roadmaps for decarbonising the building and construction sector and fostering an enabling ecosystem for the transformation of the sustainable building materials market, particularly for affordable housing in Odisha and Maharashtra.

This initiative is part of an ongoing project funded by the Federal Ministry of Economic Cooperation and Development, Germany, and administered by the UN Environment Programme, implemented by the Development Alternatives Group. It focuses on creating subnational roadmaps to decarbonise the buildings and construction sector in Odisha and Maharashtra. Through continuous stakeholder engagement facilitated by UNEP, the BMZ project has gained support of the Housing and Urban Development Department (HUDD) in Odisha.

The proposed roadmaps utilise methodologies and frameworks developed by GlobalABC, addressing sectoral challenges across Policy Frameworks, Material and Carbon Footprint, and Markets and Finance.

In addition to roadmap development, the project will demonstrate appropriate technology solutions and policy interventions to generate performance data, aiming to mainstream these approaches. It also emphasises learning, information sharing, and knowledge dissemination to enhance awareness and build capacities among stakeholders involved in these processes.

HIGHLIGHTS

- CSIRO Report Launch with the Ministry: Union Minister of Science and Technology, Dr. Jitendra Singh, released the 'National Circular Economy Roadmap for Reduction of Plastic Waste in India,' developed through collaborative research between India and Australia.

WAY FORWARD

TARA's interventions across themes of sustainable livelihoods, climate action and circular economy adopt a collaborative approach that focuses on co-creating processes and demonstrating proof of concept for solutions, documenting the learnings and making it accessible for the other ecosystem actors (including community groups, CSOs, policymakers, financiers and networks) to replicate and scale up. Through support of our funders and partners, we link local needs to national commitments and global discourses, amplifying the voices of Global South in the process.

Capacity Building

Recognising that informed minds drive movements for change, TARA offers packages tailored to the needs of various groups. These include a diverse range of stakeholders, from students to corporates, entry-level government officials to seasoned administrators, and social development practitioners to thematic experts seeking upskilling opportunities.

Overview

All our capacity-building initiatives aim to equip passionate individuals with the necessary knowledge to create a positive impact for our ultimate clients: people and the planet.

Technology for Action and Rural Advancement (TARA) has implemented numerous capacity building programs in India.

Key Initiatives

Rural Immersion Programme

Gramayan - Our Rural Immersion Program was held simultaneously at four different locations: Lalitpur (MP), Ladpura Khas (MP), Orchha (UP), and Haridwar (UK). Under this unique capacity-building program, 267 trainee officers from IIPA Indian Institute of Public Affairs (IIPA) and Institute of Secretariat Training & Management, ISTM attended this programme.

The program includes field visits, demonstrations of sustainable models for livelihood and climate resilience, and interactive sessions with field experts. These activities aim to develop a better understanding of rural communities and various stakeholders.

The program is specially designed for ASOs to engage with the community, understand rural realities, and identify the challenges faced by these communities. Sessions are structured to delve deeply into policy frameworks and develop a solution-oriented approach, ensuring inclusivity for all societal strata. This tactical approach aims to address grassroots problems and develop solutions by future leaders of the country.

The Monitoring and Evaluating Climate Communication and Education Project (MECCE)

The MECCE Case Study explores the impact of climate change awareness and education programs delivered to marginalised farming communities in Bundelkhand through FM 90.4 Radio Bundelkhand implemented by Development Alternatives. Using in-depth interviews, focused group discussions, and questionnaires, the study assesses the effectiveness of these community radio programs in raising climate change awareness and addressing informational gaps among farmers.

The findings reveal that Radio Bundelkhand has successfully introduced farmers to climate adaptation techniques like line sowing, drip irrigation, water harvesting, and organic composting, leading to the adoption of low-cost strategies and government subsidies for initiatives such as farm ponds and biogas plants. Enhancing the capacities of community radio reporters through training can further bridge the knowledge gap between communities and local authorities, making this climate communication model an effective tool for grassroots engagement and policy advocacy.

The Uttar Padesh Power Distribution Network Rehabilitation Project

This project was implemented through the technical partner CRISIL. The Uttar Pradesh Power Distribution Network Rehabilitation Project has been implemented in four model distribution of Uttar Pradesh. The project aim was to develop the model distribution divisions (MDDs). These divisions will showcase replicable strategies that maximise the rural electricity bills collections. For this purpose, four divisions have been selected, namely, EDD-II Varanasi, EDD-II Barabanki, EDD-II Kosi and EDD-II Meerut and the SHGs women were engaged to make collections of electricity bills. The SHG women working as bill collection agents also known as Vidyut Sakhis have been involved in the project since April 2022. Since then, they have been provided multiple trainings on the application being used by them to collect bills, life skills, aspiration building, financial literacy, sakhsham application, consumer handling, etc. to help build their capacities to increase the collections in their areas.

The **Nirmal Agra** project is undertaken by Technology & Action for Rural Advancement (TARA) with Lead Sponsorship from the Alliance to End Plastic Waste Inc. (AEPW) with an aim of improving the plastic waste management in the city of Agra, through this project. To achieve this aim, a collaboration between TARA and Agra Nagar Nigam (ANN) has been done. ANN is an administrative supporter and guide in the project. The main objectives of this project are reducing the plastic waste leakage in the Yamuna River, increasing the proportion of plastic waste recycling in the city, setting up infrastructure for waste identification, collection, and sorting, and initiating behavioural change to create awareness around plastic waste.

TARA has ensured to set up five functional Material Recovery Facilities in the city which are duly operated by the Municipality. Waste is collected and segregated at the facility it self. We have achieved the targets by diverting the city's plastic waste of 9 KTA through co-processing and 1 KTA plastic waste through recycling.

SDGs Business Model Verification Survey with the Private Sector for Training of Casting Engineers in India:

In the year 2023-24, TARA in collaboration with Kimura Foundry and other project partners have established a high precision Casting Training Academy within Karnataka German Multi Skill Development Centre (KGMSDC), Bengaluru. A course titled "Basics of 3D Modelling and Quality Management of Cast Iron Castings" has been approved and certified by National Council for Vocational Education and Training (NCVET). This certified course, for casting engineers and technicians in India will be implemented at the Center of Excellence in Bengaluru set up as part of

"Our experience with TARA's village attachment programme has been very unique and insightful. Model of experiential learning coupled with interactive sessions with experts have been remarkable."

- Sh. Mithun Barua, Deputy Registrar, IIPA, New Delhi
Indian Institute of Public Administration

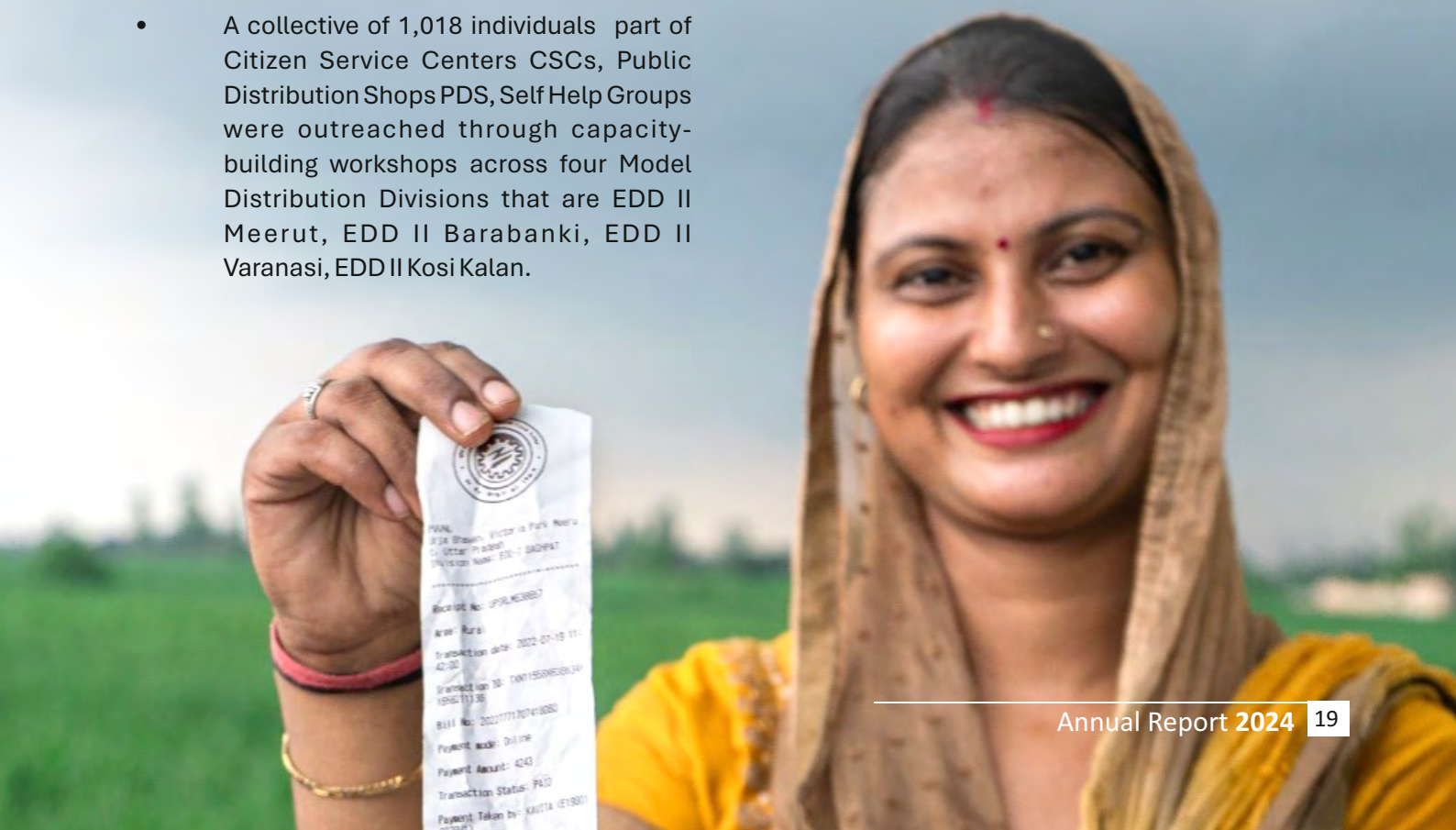
of the project and is planned to be replicated across India in future. The government certification to the above course provides credibility, recognition and bankability making it easier for trainees to pursue jobs and entrepreneurial opportunities.
With TARA as the India coordinator for this multi-partner project funded by Japan International Cooperation Agency (JICA), we envision to support development of foundry and casting sector in India with leading technology and know-how from Japan, while contributing to the Indio-Japan Comprehensive Partnership, Skill India Mission, and Make In India.

HIGHLIGHTS

- 1000 tonnes of plastic waste efficiently diverted from landfill.
- Supported Agra Nagar Nigam with infrastructural support in developing 5 decentralised MRF stations in Agra, 3 of them started operationalising too.
- MECCE Case Study: The MECCE case study on “Community Radio Station: Sustainable Farming through Broadcasting” and its accompanying video are now featured on the MECCE website under the India hub.
- A collective of 1,018 individuals part of Citizen Service Centers CSCs, Public Distribution Shops PDS, Self Help Groups were outreached through capacity-building workshops across four Model Distribution Divisions that are EDD II Meerut, EDD II Barabanki, EDD II Varanasi, EDD II Kosi Kalan.

WAY FORWARD

- Designing decentralised effective waste management solutions for smaller cities in India.
- TARA will continue to offer customised packages tailored to the needs of various groups. These include a diverse range of stakeholders, from students to corporates, entry-level government officials to seasoned administrators, and social development practitioners to thematic experts seeking upskilling opportunities.
- In our journey towards a Viksit Bharat, TARA looks forward to initiating Climator ‘24, a program aimed at nurturing sustainability champions. In the coming year, TARA will empower young leaders to tackle climate and developmental challenges through a series of live webinars and residential immersion programmes, leveraging our four decades of experience.



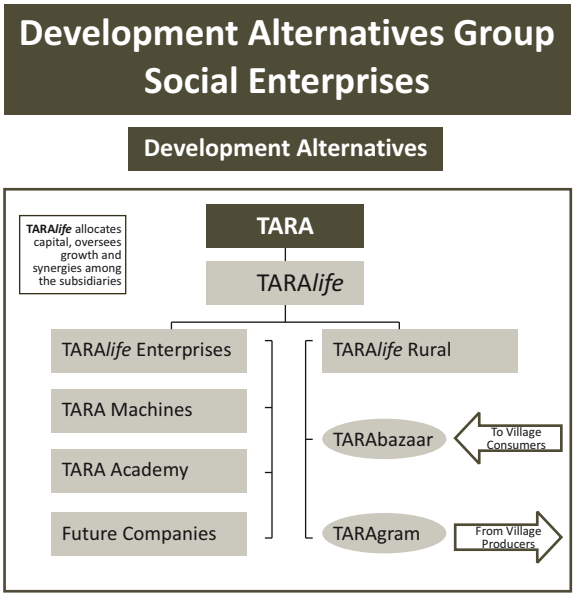
TARA Speaks

Dr. Debojyoti Basuroy
Program Officer (Technology)

"TARA has been at the forefront of climate mitigation efforts in the Global South, driving transformative change across governments and industries. At TARA, we believe that sustainable innovations are not self-sustaining unless they are profitable or have the capacity to generate revenue. I feel fortunate to lead innovative programmatic interventions such as LC^3 low-carbon cement and alternate fuels, where our team has empowered stakeholders to implement actionable solutions on the ground. This year, in particular, as a catalyst for adopting alternate technologies in the cement sector, we achieved a groundbreaking milestone with the establishment of BIS standards for LC^3, setting a new benchmark for sustainable practices in construction and climate action."

Business Affiliates

Technology and Action for Rural Advancement (TARA) continues to act as the 'incubation engine' of the Development Alternatives Group. The mandate of TARA, which was set up in 1985, is to test, adapt, and productionise the innovations of its sister concern not for-profit Development Alternatives, and make them ready for dissemination, primarily through market channels. Over the years, it has incubated several business units and as a promoter, hived off new special purpose vehicles in an attempt to take sustainable development solutions to scale.



Incubatee Business Units

TARAurja

As an incubatee business unit, our special purpose vehicle, TARAurja, has pioneered the successful establishment and operation of 'micro grids' to deliver decentralised solar energy to village households and businesses in a commercially viable manner. It has grown to become a leader among micro grid operators in India, with cutting edge automated customer interface and power management systems providing solar powered electricity to village communities in Uttar Pradesh and Bihar.

TARA's model of using energy as an accelerator for the economic growth model is unique as it recognises the dual role of people in villages i.e. that of "producers" as well as "consumers". Our approach focuses on social inclusion, local growth and basic needs fulfilment, which will ensure:

Business viability of mini-grid operations by engaging with the community for building up demand with different stakeholders and use of technology for leak-proof energy and revenue management.

Greater incomes, creation of new jobs, new enterprises run by women/youth through co-creation of enterprise packages for existing and new entrepreneurs.

Use of electricity to put money "into people's pocket", cash that can be used to pay for not just lighting but improved nutrition, entertainment, healthcare, and other needs.

Customer delight by allowing customisation of product offerings via application and platforms to build reliability.

In close collaboration with Smart Power India, TARAurja operated mini- grids in 20 locations under the Smart Power for Rural Development (SPRD) Programme.

Lithium ion Battery Energy Storage System & Grid-lock, Shivpura U.P

TARAurja powered Enterprises... Energy and Empowerment for All

TARAurja cumulatively serviced 1500+ households with a cumulative revenue of INR 107 lakhs during FY 2023-24.

A significant portion of this revenue was generated by catering to the local enterprises with reliable energy for running businesses and ensuring customer delight, which is indicated by the Average Revenue per User (ARPU) of INR 581 per

month. TARA, through its approach of community engagement and load acquisition through microenterprise development has ensured energy utilisation up to 67% out of the total 321+ MWh green energy generated during the year.

The reliable solar energy provided by TARAurja has substantially enhanced the average energy consumption of rural consumers, a key indicator of social and economic development. The average consumption has gone up from 18.47 units per month to 20.73 units per month, an increase of 12%.

Highlights of the Year:

- Decrease of 7.13 % in revenue from sale of energy on y-o-y basis.
- An increase of 1.05 % in revenue collections on y-o-y basis.
- Uninstallation of 30 Kw Bansdih from Bihar
- Become a RESCO (Renewable Energy Supply Company) partner in HSBC-RE project and installed 60 KW solar at Mihinpurwa, Bahraich, UP

Indian Micro Enterprises Development Foundation (IMEDF)

TARA has enhanced its commitment to livelihood security and enterprise development through investment in the Indian Micro Enterprises Development Foundation (IMEDF), a special purpose vehicle set up by the Development Alternatives Group to accelerate impact in green and inclusive economic development.

Cluster Development

Capitalising upon innovation undertaken in the area of entrepreneurship and sustainable livelihood models for marginalised classes, IMEDF has positioned itself as a major catalyst in the cluster development arena, acting as a Nodal Agency of the Ministry of MSME under SFURTI.

In the financial year 2023-24, the IMEDF portfolio has a total of 30 clusters across 12 states, reaching out to over 22,000+ artisans, crafts persons, and farmers, more than 9,000+ of who were women. As on 31st March 2024, the IMEDF footprint has extended to 12 States with a SFURTI grant of INR 959.00 million and investments by our partners to the tune of INR 650 Lakhs in these clusters. During the FY 2023-24, 25 clusters have become functional and entered the production stage. High-end and environmentally friendly technologies in clusters which are medicinal and agro-based have been used to get optimum outputs. Green renewable energy sources like solar energy panels, water recycling, and waste-water treatment technologies are encouraged at the clusters.

IMEDF has been appointed as a Technical Support Agency for 22 Rural Industrial Parks (RIPAs) in 03 districts of Chhattisgarh, namely Bilaspur, Raigarh and Jashpur. Under the project, IMEDF will provide technical support to various manufacturing units such as organic paint unit, etc.

IMEDF conducted the Sustainability Assessment of six of its clusters pan-India. The team visited the clusters to collect data and make a framework.

Two clusters - bamboo products and nautical artifacts clusters participated in the DA 40 years celebration event held on 9th June 2023. Rope weaving cluster conducted a workshop on menstrual hygiene in July 2023 and participated in Kala Ghoda Art festival in Mumbai. BR Hills Honey cluster conducted a workshop on Forest Rights Act.

Micro Enterprise Development

IMEDF has signed a contract with Rang De for low-cost credit services through the udyaME channel. IMEDF delivers loan products for micro-entrepreneurs with support from social investors ranging from INR 20,000 to INR 1,00,000. In FY 23-24, IMEDF strengthened its ESS support through a strategic partnership with RangDe. A total of 1829 entrepreneurs have been able to start or grow their businesses with the help of loan products. The total amount of loans disbursed is INR 759 lakhs (inclusive of amount raised by social investors on udyaME Rural Business Fund, social investing platform). IMEDF is also working with RangDe to customise the loan products according to the need of entrepreneurs.

IMEDF partner during the TARAgram Yatra

SAF team at Barauliya cluster, U.P.

6000+ users have been registered on the udyaME digital platform, which includes the mobile app and website. Besides text messages, digital services are also being promoted through social media platforms like Facebook and WhatsApp, cumulatively engaging over 500 customers monthly. To ensure a 'one-stop solution' for all entrepreneurial needs, the udyaME platform needs to onboard partners with strong competence in technology, finance, marketing, and capacity building. IMEDF is working to have a strategic partnership with Transform Rural India and smaller NGOs across Uttar Pradesh to scale its operation through udyaME kiosks.

Capacity Building

IMEDF conducted a three-day workshop on Enterprise Development for four organisations, namely, PRADAN, PRAN, Manjari Foundation, and Chaitanya Foundation from April 17-19, 2023 in Madhya Pradesh.

IMEDF also organised a two-day workshop on Social Innovation and Inclusive Entrepreneurship for implementation partners of SBI Foundation such as BAIF at Mirzapur, Uttar Pradesh in February 23-24, 2024. The session was attended by 37 participants from 24 organisations.

IMEDF delivered a three-hour session on Social Innovation and Inclusive Entrepreneurship on 1st March, 2024 at NILERD, New Delhi. Participants from 14 South Asian countries attended the workshop.

TARA Applied Research Centre (TARC)

TARA Applied Research Centre has been established as a premier business centre to provide solutions in advancing low-carbon and resource-efficient solutions, transforming innovations into industrial technologies. We take immense pride in our role as pioneers in promoting environmentally conscious solutions within the cement and concrete manufacturing industry. Our primary focus is on the transformational technology, Limestone Calcined Clay Cement (LC^3), which holds the key to a greener and more efficient future for the building material industry.

Cement industry is the third-largest industrial energy consumer, comprising 7% of the global industrial energy use. Cement production involves the decomposition of limestone (calcium carbonate), which represents about two-thirds of the total CO_2 emissions.

As a low-carbon technology, LC^3 is one of the leading solutions to address issues born out of the rising global population and urbanisation patterns coupled with infrastructure development needs that drive the demand for cement and concrete.

TARC has positioned itself to directly intervene in India, Africa, the Middle East, and Southeast Asia, which are set to increase their domestic cement production capacity to meet infrastructure development needs.

Exploratory drilling for suitable clays in LC^3 Applications at Kalutara, Southern Sri Lanka

Our Mission

At TARA Applied Research Centre, we aim to facilitate the seamless integration of Limestone Calcined Clay Cement into the operations of cement and concrete manufacturers worldwide. We are committed to revolutionising the

construction industry by promoting LC^3 as a viable alternative to conventional cement, reducing carbon emissions, conserving natural resources, and fostering sustainable development.

Expertise and Innovation

Our dedicated team of geologists, engineers, and experts bring together a wealth of knowledge and experience in materials science, cement chemistry, and sustainable construction. We thrive on innovation and collaboration, working hand in hand with cement and concrete manufacturers to adapt and implement LC^3 technology into their existing processes. By leveraging our collective expertise, we aim to elevate construction standards while minimising the industry's ecological footprint.

Services We Offer

TARA Applied Research Centre offers a comprehensive range of services tailored to meet the specific needs of cement and concrete manufacturers seeking to adopt Limestone Calcined Clay Cement:

Technology Transfer: Our core offering involves smoothly and efficiently transferring LC^3 technology to your production facilities. From feasibility assessments to process integration, we guide the industry at every transition step.

Research and Development: Our state-of-the-art research facilities enable us to refine LC^3 technology continuously. We conduct in-depth research to optimise production parameters, enhance material properties, and explore new applications.

Consultancy Services: We provide expert consultancy on LC^3 technology adoption, process optimisation, and environmental impact assessment. Our guidance assists you in making informed decisions aligned with sustainability goals.

Interested cement companies contract with the TARC and pay for the direct cost of the raw material examination and formulation of potential raw material mixes. External financing is sought for continent-wide dissemination activities. In this lab-to-industry transformation, LC^3 TARC provides the cement manufacturers and companies with a relook at their cement plants for decarbonising the entire cement manufacturing process.

The business unit is growing steadily and continues to develop clientele and explore more low-carbon avenues for Indian companies like MP Birla Cements, Ultratech Cements, and JK Cements and International Companies like SCC Thailand.

TARAbazaar: Delivery IN to the village

Despite growing aspirations, increasing purchasing power, and vast unmet needs, the village consumer is still largely underserved today. Remote, ill-connected markets are hard to service and most business models that rely on limited revenue streams cannot generate adequate revenues to cover operational costs. TARAbazaar will deliver a wide range of ‘quality of life’ products and services to village customers, thus reducing customer acquisition and distribution costs.

These products include a variety of basic needs fulfilment products for water purification, lighting and energy, preventive healthcare, and clean cooking fuel. The average purchasing power per capita across the target geographies is ₹3,000 (approximately $50) for non-food products. The products represent a mix of daily, weekly, or monthly consumables, as well as one-off purchases.

TARAgram: Pick up OUT from the village

TARAgram increases local incomes through marketing of value-added products made in local village production centres using efficient technologies - many of them supplied by TARA Companies - to process local or recycled materials. TARAgram will establish production centres across Uttar Pradesh, Madhya Pradesh and Bihar, to make handmade paper, fabric and textiles out of recycled waste material, products from these paper and textiles, processed foods and traditional medicines, domestic products, and other revenue-generating activities.

Through this, TARAgram will continue to provide livelihood security for village communities, creating employment and home-based income generation opportunities for women organised in producer groups as well as productivity enhancement, quality assurance, value addition, and aggregation services.

Sufficient revenue/value is always built into the value chain for each stakeholder of the supply chain, making the total delivery system financially sustainable. By fulfilling basic needs and promoting livelihood security, it will build an unmatched brand equity.

TARA Machines

TARA Machines and Tech Services Pvt. Ltd. ('TARA Machines') develops and markets innovative green building and waste-to-wealth solutions for micro, small, and medium enterprises. The USP of TARA Machines is the capacity to deliver total business solutions to green building material entrepreneurs and recycling enterprises, with strong focus on technical support, material and product testing, training, and regular servicing. TARA Machines expects to establish numerous enterprises producing building materials in the next five years.

Fly ash bricks machine being operated to produce energy-efficient bricks substituting clay bricks

TARAhaat

TARAhaat is the leading provider of literacy and numeracy skills for adults, particularly women, in rural India. The primary product of TARAhaat is TARA Akshar+. TARA Akshar+ is an ICT-based programme that imparts functional literacy in Hindi and basic arithmetic in just 56 days. After this, Gyan Chaupali is established as a post-literacy programme for six months, which strives to strengthen and build upon what the learners have already learned, and provide access to effective information.

TARAlife

TARAlife is a division of TARAlife Sustainability Solutions, a social enterprise promoted by the Development Alternatives (DA) Group. The DA Group has consistently focused on developing innovative products to address rural needs. TARAlife's product portfolio includes water testing kits and water filters under the brand name “Jal TARA,” as well as soil and air testing kits under the “TARA” brand.

All TARAlife products, including water testing kits, soil testing kits, arsenic testing kits, bacterial contamination testing vials, and Jal TARA filters, are validated by NABL-accredited laboratories. This demonstrates the enterprise's unwavering commitment to quality and reliability.

TARAlife is recognised for excellence in products and services related to soil and water management. Backed by a team with extensive expertise in the field, TARAlife offers flexible, end-to-end solutions that help individuals and organisations achieve their goals by providing high-quality, affordable products and services.

Customer satisfaction and quality assurance are at the core of our mission.

- Water Testing Kits: Identify issues in your water source with our portable and easy-to-use kits. We also provide tailored solutions to address identified problems.
- Soil Testing Kits: Accurately assess soil impurities with our customisable kits, capable of conducting over 50 tests. Designed to enable preventive actions, these kits help mitigate the impact of harmful elements.
- Educational and Monitoring Tools: Our cost-effective, portable water quality testing products empower educational institutions, public authorities, nonprofit organisations, and individuals to actively monitor and protect freshwater resources from pollution.

TARAlife remains dedicated to delivering high-performance solutions that contribute to sustainable development and environmental stewardship.

TARA in Media

TARA And Promac Engineering Partner To Promote LC^3 Cement Production, March 2024

TARA and Promac boost LC^3 commercial programme with MoU, March, 2024

Nepal Cement Manufacturers Association signs memorandum of understanding for limestone calcined clay cement technology in January 2024.

TARA and Swiss government sign LC^3 agreement in Nepal, August, 2023

Sustainable Cement? IITs & Global, June, 2023

A green cement with a promise to keep, June, 2023

Board of DIRECTORS

Dr Ashok Khosla

Chairman, Development Alternatives

For nearly five decades, Dr Ashok Khosla has been a pioneer in finding paths to attain development which can reach everyone and be sustained by the Earth's resources. He has been Co-Chair of the United Nation's International Resource Panel, President of the International Union for Conservation of Nature (IUCN), and President of the Club of Rome. He has also been a member of the Government of India's National Security Advisory Board and Scientific Advisory Council to the Cabinet. For his contributions, he has been awarded the Order of the British Empire by the Government of UK, the UN Sasakawa Environment Prize, and the Zayed International Environment Prize, among many others.

Date of Enrollment: 1985 | Membership ceased: Till date

Rakesh Khanna

TARA, Advisor

Mr Rakesh Khanna is a member of Development Alternatives Group and oversees building partnerships, networks, and is an active member of the strategic team of the Group. He has been instrumental in setting up a network of franchised TARAkendras (Rural ICT Centres) and developing content, products, and services customised to local needs and establishing strategic partnerships. Besides being involved with various business development programmes in the past, he has been on the Environment Committee Panel of the Confederation of Indian Industries (CII). Mr Khanna completed his B.Tech in Electrical Engineering from IIT Delhi in 1971. With more than 40 years of experience to his credit, he's contributed 25 years in the corporate sector before deciding to lend his visionary instinct towards rural development.

Date of Enrollment: 2007 | Membership ceased: Till date

B. Narayanaswamy

Consultant, Ipsos Research Pvt. Ltd.

Mr Narayanswamy has over 30 years' experience in Ownership, Executive, Senior Management, and Consultancy in Market Research and Advertising. As the founder of Indica Research, Mr Narayanswamy has spent time at IMRB, Mode and Contract Advertising. For Indus Union, he is a guide and a bouncing board, having played a key role in providing strategic depth to the Agency's work. He is a university rank holder in Bachelor of Engineering (Hons.) in Electronics and Communication, Madras University (1978), and an MBA from the Faculty of Management Studies – University of Delhi (1980).

Date of Enrollment: 2012 | Membership ceased: Till date

Achla Savyasaachi

MFIN, Head-State Initiatives

Ms. Savyasaachi is currently working as the Vice President in Sa-Dhan, the National Association of Community Development Finance Institutions. Her work involves analysing different approaches for financial inclusion, facilitating dialogue between different stakeholders, policy makers, and service providers; leading several policy-oriented research; working to establish client friendly practices and systems in the microfinance sector; coordinating and participating in processes to evolve an appropriate regulatory legislation for Micro Finance Institutions. She has worked extensively in promoting people-based institutions. Ms. Savyasaachi is an Associate Member of the Institute of Company Secretaries of India. She holds an LLB from CCS University and a Post Graduate Diploma in Human Rights from Indian Institute of Human Rights (United Nations World Programme for Human Rights Education)

Date of Enrollment: 2012 | Membership ceased: Till date

Amitava Basu

Consultant

He has worked in Asia and Africa for around 45 years in the field of accounting, finance, and institutional strengthening for the infrastructure sector and non-government organisations with the objective of facilitating institutional and financial reforms and poverty alleviation. He specialises in Financial Management, Public Sector Reforms, and Capacity Building. He has worked as the Executive Director of PricewaterhouseCoopers from 1997-2003 and was the President of Intercontinental Consultants & Technocrats Pvt. Ltd. from 2003-2016. He has taught courses on financial management at different business schools and conducted training programmes for working executives in XLRI from 1987-1996.

Date of Enrollment: 2012 | Membership ceased: Till date

S. S. Venkateswaran

TARA

Mr Shankar Venkateswaran has about 35 years of experience of working in the corporate and social development sectors. He started his career in mainstream management consulting before going on to set up Partners in Change, a pioneering non-profit specialising in corporate sustainability and CSR. He has also set up the India office of the American India Foundation and served as its Executive Director, India and Director of the think-tank and consultancy firm, SustainAbility, before joining PwC as Director, Sustainability. In 2017, he retired as Chief of Tata Sustainability Group. Shankar has held board and advisory positions with several non-profits and academic institutions in India and overseas.

Date of Enrollment: 2012 | Membership ceased: Till date

Zeenat Niazi

Independent Consultant, Chief Advisor, Circular Economy and Climate Resilience Programs, Development Alternatives, India

Zeenat Niazi provides oversight to the policy studies and development action initiatives across the Circular Economy and Climate Resilience verticals at the Development Alternatives Group. Her responsibilities include support to program and partnership development, and the design, methodological support and review of transdisciplinary research. Her work addresses interrelated climate resilience, sustainable consumption and production challenges, and concerns of equity with a special focus on rapidly transforming human settlements and societies of the global south.

She is a member of the Steering Committee of the Green Economy Coalition (GEC), a global civil society platform, a member of the Strategic Steering Committee of the UNEP PAGE Programme in India, and a member of the Steering group of the Future Earth Urban Knowledge Action Network (Urban-KAN). She is a part of the Task Force on Green and Inclusive Circular Economy for Angul District in Orissa, India, Chair of the Working Group on Rural Housing, and member of CED 51- Committee on Housing and Planning of the Bureau of Indian Standards (BIS).

Date of Enrollment: 2017 | embership ceased: Till date

K. Vijaya Lakshmi

Chief Advisor, Development Alternatives

Dr K. Vijaya Lakshmi is the Chief Advisor of Development Alternatives. Her focus and achievements are in water quality testing, along with the development and application of innovative technologies that address particularly the problems of women. Dr Vijaya Lakshmi realised that 90 per cent of water borne diseases are due to coli form bacteria that largely affects women and children in rural areas and urban slums. She took upon herself the challenge of demystifying the science of water quality monitoring and developed filter and testing kits that can be taken to villages in India.

She has expertise in Environmental Management Systems (EMS) planning, design, and facilitation of implementation; EIA & EMP studies; corporate responsibility - policies and procedures; corporate sustainability - measurement and verification; state of environment studies and regional assessments in the framework of pressure- state-impact and – response strategies.

Date of Enrollment: 2012 | Membership ceased: Till date

Maj. Gen. Rahul Bhardwaj, VSM (Retd)

Chief Operating Officer, TARA & Associate Vice President, DA Group

Maj. Gen. Rahul Bhardwaj, VSM (Retd) has an experience of 38 years of proven leadership and organisational skills involving resource and man-management is a varied and highly competitive military environment. The job content included planning, coordination, allocation of resources, and motivation of teams and successful execution of plans. Such challenging jobs resulted in the exhibition of a logical and analytical mind combined with both written and verbal communication skills.

He utilised, acquired, and imbibed knowledge to innovate strategies leading to improved efficiency and reduction of costs. Maj Gen Bhardwaj has worked as part of a team at various points in his career by contributing positively towards the generation of ideas and following them up energetically to fruition.

Date of Enrollment: 2017 | Membership ceased: Till date

K G Somani & Co LLP
CHARTERED ACCOUNTANTS

www.kgsomani.com
office@kgsomani.com
LLP Identification No. AAX-5330

Independent Auditor's Report

To the Members of Society for Technology and Action for Rural Advancement

Opinion

We have audited the accompanying financial statements of Society for Technology and Action for Rural Advancement (the Society'), which comprise the Balance Sheet as at 31 March 2024 and the Income and Expenditure Account, for the year then ended, and a summary of the significant accounting policies and other explanatory information.

In our opinion and to the best of our information and according to the explanations given to us, the aforesaid financial statements give a true and fair view in conformity with the accounting principles generally accepted in India, including the Accounting Standards issued by the Institute of Chartered Accountants of India (ICAI'), to the extent considered relevant by the management of the financial position of the Society as at 31 March 2024 and its financial performance for the year ended on that date.

Basis of Opinion

We conducted our audit in accordance with the Standards on Auditing (SAs) issued by the ICAI. Our responsibilities under those standards are further described in the Auditor's Responsibilities for the Audit of the Financial Statements section of our report. We are independent of the Society in accordance with the Code of Ethics issued by ICAI and we have fulfilled our ethical responsibilities in accordance with the Code of Ethics. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Responsibilities of Management for the Financial Statements

The Management is responsible for preparation of these financial statements that give a true and fair view of the state of affairs, results of operations of the Society in accordance with the accounting principles generally accepted in India, including the Accounting Standards issued by the ICAI to the extent considered relevant by the management. This responsibility includes maintenance of adequate accounting records for safeguarding the assets of the Society and for preventing and detecting fraud and other irregularities; selection and application of appropriate accounting policies; making judgements and estimates that are reasonable and prudent; and the design, implementation and maintenance of adequate internal control, that were operating effectively for ensuring the accuracy and completeness of accounting records, relevant to the preparation and presentation of the financial statements that give a true and fair view and are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, the management is responsible for assessing the Society's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless the management either intends to liquidate the Society or to cease operations, or has no realistic alternative but to do so.

Auditor's Responsibilities for the Audit of the Financial Statements

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance but is not a guarantee that an audit conducted in accordance with Standard on Auditing will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these financial statements.

K G Somani & Co LLP * Chartered Accountants * New Delhi

Regd. Office: 3/15, ASAF ALI ROAD, NEW DELHI-110002
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Converted from K G Somani & Co (Partnership firm) w.e.f. 24th June 2021

As part of an audit in accordance with SAs, we exercise professional judgment and maintain professional skepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.

- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on whether the Society has in place an adequate internal financial controls system over financial reporting and the operating effectiveness of such controls.

- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by the management.

- Conclude on the appropriateness of management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Society's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Society to cease to continue as a going concern.

- Evaluate the overall presentation, structure and content of the financial statements, including the disclosures, and whether the financial statements represent the underlying transactions and events in a manner that achieves fair presentation.

We communicate with the those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

Other Matter

i. In respect of the branch (Orchha), whose returns are included for the year ended on that date, the verification has been made through proper returns, adequate for the purpose of our audit, received from the branch not visited by us. As informed to us, the operations and cost incurred at Orchha is significantly low and managed centrally from Headquarters.

ii. As per section 17(1) of Foreign Contribution (Regulations) Act, 2010 (as amended), the amount of foreign contribution must be utilized through one or more FCRA Account opened for such purpose. However, as informed to us, the society during the financial year 2023-24 transferred funds from FCRA utilization account to one of its non- FCRA/local bank accounts in order to discharge the liability on account of TDS and Provident Fund appearing in the books of FCRA. Further, informed to us, presently the society is not having online banking & fund transfer facility in FCRA utilization account. The management is in the process of applying for the same.

iii. During the year ended 31st March 2024, TDS u/s 195 has been deducted from the payments made to Non-Residents and also deposited to the respective authority. However, TDS return under Form 27Q has not been filed.

iv. The closing liability of Rs.41,61,931 towards staff welfare fund has been treated as long term borrowing for a period of sixty months as per agreement dated 31st march 2024 which includes opening balance of Rs.29,94,140, loan repayment by employees towards loan taken from staff welfare fund of Rs.7,39,362, employees and employers contribution of Rs.1,25,276 each and interest on loan (net of TDS) of Rs.1,77,877.

v. As informed to us, the expenses incurred in respect of common resources used by the Society for Technology and Action for Rural Advancement & Society for Development Alternatives (Related party) like manpower, assets, etc. have been allocated on the basis of the assessment made by the management taking into consideration of estimated budgets and basis of the income/grants received. In the absence of the requisite information, we have relied upon the allocation made by the management.

vi. In the absence of separate banks accounts for most of the projects, we are unable to comment whether the grant receipts have been utilized for the same projects for which the said grants have been received. As informed to us, the separate bank account have been opened wherever required as per the donor's agreement.

vii. Project-wise utilization of funds have been verified based on the records maintained by the society at its registered office. Further, we have not visited to project locations to verify their physical progress.

Our opinion is not modified in respect of the above-stated matters.

For **K G Somani & Co LLP**
Chartered Accountants
FRN: 006591N/N500377

(Bhuvnesh Maheshwari)
Partner
M. No. 088155
UDIN: 24088155BKBGUS3459
Date: 29-09-2024
Place: New Delhi

Society for Technology and Action for Rural Advancement
Balance Sheet as at 31 March 2024
(All amounts in ₹, unless otherwise stated)

	Schedule	As at 31 March 2024 ₹	As at 31 March 2023 ₹
Sources of funds			
Funds			
General fund	1	(27,562,167)	(26,774,608)
Non-current liabilities			
Long-term borrowings	2	30,661,931	30,985,465
Long-term provisions	3	1,244,355	1,469,756
Current Liabilities and provisions			
Unspent grants, net	4	19,037,238	40,845,724
Short Term borrowings	5	1,566,526	-
Other current liabilities	6	29,915,754	31,352,387
Short-term provisions	7	23,383	377,955
		54,897,080	**78,256,679**
Applications of funds			
Non-current assets			
Property, plant and equipment			
Tangible assets	8	5,586,487	6,106,211
Non-current investments	9	4,545,725	4,545,725
Deferred tax assets (Net)	10	11,134,295	11,393,337
Long term loans and advances	11	869,422	1,276,805
Current assets, loans and advances			
Trade receivable	12	17,470,026	5,820,480
Cash and cash equivalents	13	14,850,253	40,152,661
Short-term loans and advances	14	5,102,752	6,962,076
Other current assets	15	1,338,120	999,384
		54,897,080	**78,256,679**
Summary of significant accounting policies and notes to the financial statements	24		

The schedules referred to above form an integral part of the financial statements.

As per report of even date

For K G Somani & Co LLP
Chartered Accountants
FRN:006591N / N500377

Bhuvnesh Maheshwari
Partner
M.No.088155

Ashok Khosla
Chairman

Maj Gen Rahul Bhardwaj, VSM (Retd)
Chief Operations Officer

Vinod Nair
Gen.Manager Finance

Place : New Delhi
Date : 29-09-2024

For and on behalf of the Society for Technology and Action for Rural Advancement

Society for Technology and Action for Rural Advancement
Income and Expenditure Account for the year ended 31 March 2024
(All amounts in ₹, unless otherwise stated)

	Schedule	Year ended 31 March 2024 ₹	Year ended 31 March 2023 ₹
Income			
Grant income	4	87,370,937	108,652,549
Sales of goods	16	3,687,160	2,652,526
Technical and other receipts	17	34,090,488	21,524,287
Other income	18	2,706,803	3,443,669
		127,855,388	**136,273,031**
Expenditure			
Purchase of finished goods		3,687,160	2,652,526
Personnel expenses	19	28,025,374	30,318,938
Finance costs	20	1,939,782	1,769,858
Depreciation	8	1,001,289	1,123,749
Grant expenses	4	52,165,601	66,258,494
General and administrative expenses	21	40,262,985	35,348,395
		127,082,191	**137,471,960**
(Deficit)/Surplus before tax and prior period item		**773,197**	**(1,198,929)**
Less: Prior period adjustments	22	(1,583,633)	(2,099,982)
Less: Exceptional Items	23	350,000	
		(460,436)	**(3,298,911)**
Less: Tax expense			
Tax-Earlier years		17,683	(811,597)
Current year tax		(75,764)	(273,920)
Deferred tax benefit		(259,042)	372,433
(Deficit)/Surplus for the year transferred to general fund		**(777,559)**	**(4,011,995)**
Summary of significant accounting policies and notes to the financial statements	24		

The schedules referred to above form an integral part of the financial statements

As per report of even date
For K G Somani & Co LLP
Chartered Accountants
FRN:006591N / N500377

Bhuvnesh Maheshwari
Partner
M.No.088155

Place : New Delhi
Date : **29-09-2024**

For and on behalf of the Society for Technology and Action for Rural Advancement

Ashok Khosla
Chairman

Maj Gen Rahul Bhardwaj, VSM (Retd)
Chief Operations Officer

Vinod Nair
Gen.Manager Finance

PARTNERS


Ministry of Environment, Forest and Climate Change
Government of India

INDIAN INSTITUTE OF TECHNOLOGY MADRAS


Department of Science and Technology
Ministry of Science and Technology
Government of India


PANI
WATER
पानी

नगर निगम वाराणसी

diesis
network

Limestone
Calcined
Clay
Cement
LC3

Philips
Foundation

giz
Deutsche Gesellschaft
für Internationale
Zusammenarbeit (GIZ) GmbH

CIDEM

NECAR

EPFL
ÉCOLE POLYTECHNIQUE
FÉDÉRALE DE LAUSANNE

Schweizerische Eidgenossenschaft
Confédération suisse
Confederazione Svizzera
Confederaziun svizra
Swiss Agency for Development and Cooperation SDC

Insee
Mesurer pour comprendre

UNDP

UTS
Institute for
Sustainable
Futures

OECD
BETTER POLICIES FOR BETTER LIVES

JICA

CSIRO

ALLIANCE TO
END PLASTIC WASTE

Pradan

UNIVERSITY OF
SASKATCHEWAN

eunomia

LAFARGE
Building better cities

teri
The Energy and Resources Institute

NEERI

THE WORLD BANK


E-SQUARE

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