ANNUAL REPORT 2022

TARA

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

FCRA : Section 6 (1) (a) of the Foreign Contribution (Regulation) Act 1976 (FCRA Reg. No. 231650722)

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Chairman's Message

Few institutions in our country emerged entirely unscathed from the almost continuous lockdowns imposed to cope with the pandemic that has brought so much of the nation's activity to a grinding halt over the past three years. We at Development Alternatives Group did our best to maintain the momentum of our efforts to help communities and households, local institutions and businesses maintain their momentum, but the internal and external circumstances did not always make this easy. Even so, the past year was a time to test the staying power of entities working in the social sector.

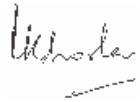
Although some 500 million people in India enjoy the amenities of an advanced, industrial nation, more than 900 million barely manage to exist, many of them close to the margins of survival. Even with such a large population remaining to be brought into the economy, the ecological footprint of the country is already hovering at around 1.8. In other words, the natural resources needed to support our national economy already require a geographical area 80% larger than our country. Alternatively, if we were to draw our resources entirely from within the country's boundaries, we are living off the full "interest" accruing to our resources and eating into this capital, each year leaving less and less behind for use by future generations and, indeed, many in our present one.

To achieve a sustainable future, India clearly has two priorities that must come above all others. The first is to ensure that all its citizens are able to satisfy their basic needs. The second is to bring the environmental resource base back to its full health and former productivity. To achieve these two primary goals requires action on two fronts. We must:

- create sustainable ***livelihoods*** on a very large scale, particularly for the poor and marginalized; and
- encourage sustainable ***lifestyles*** among all our people, particularly the rich and privileged.

Creation of livelihoods and jobs should, generally, be the job of the private sector. In India there are today more than 20 million people working for government and public agencies, while almost as many workers are employed in "organized" or "formal" industries. These 40 million are the jobs to which the largest part of attention – and therefore policy and decision making -- are devoted. Yet, both these numbers are dwarfed by the numbers of workers employed in the SME and "informal" sector in urban areas – some 110 million and in agriculture – some 240 million. And these, in turn, are dwarfed by the numbers of those basically out of work for much if not all of the year, which is the rest of the labour force – some 250 to 300 million. These "informal" and "underemployed", together numbering half a billion, seem to be largely invisible to those who make policies.

Promoting social outcomes such as a more equitable and socially just economy and a healthier environment is usually the job of NGOs and other civil society organisations. Delivering goods and services and taking them to scale is usually best done by the forces of competition released in the private sector. To do both, we need a new sector: the social enterprise, which can deliver public and social goods with full speed and scale. During the recent, disrupted era, Development Alternatives Group has continued to build such an institution which we hope will serve as a model for others. As this Report shows, we were able, despite the hurdles, to continue building the enterprise and livelihood models that the next generations will need to follow to take advantage of all that today's knowledge and aspirations make possible.



Dr Ashok Khosla
Chairman

The Year at a Glance

Development Alternatives Group continues to prioritise sectors of the economy in which green and inclusive businesses have the potential to create significant social and environmental impact. So far, through our work across various geographies, we have touched 20 million lives.

Development Alternatives Group - Impact

Year 2021-2022

Empowered Communities

14,541 households accessed basic needs services such as WASH, clean energy, housing, and literacy

5,928 people empowered on local governance

Clean and Green Environment

1,941 farmers trained on water management, sustainable agriculture, and climate change adaptation planning

265 million liters of water conserved

0.97 million tonnes of top soil saved

Income Generation Opportunities

2,416 enterprises setup and supported, creating **8,400** jobs

2,851 people trained with employability and vocational skills

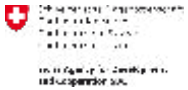
₹695 million income through skill enhancement

Generating **₹490** million revenue

Livelihoods of **21,130+** artisans, crafts persons, and farmers supported

Partners and Collaborators




Technology

Create and customise eco-solutions (as products and integrated solution packages) for delivery to community groups, micro, small, and medium enterprises, industries, governments, and international organisations in India and around the world.

The TARA technology incubation team expanded its portfolio and range of services, building on the foundation of innovative solutions developed over time. TARA has nurtured new technology incubation partnerships with various institution partners and increased engagement with large companies in the years 2021-22, focusing on technology, knowledge, skill transfer, and creating support services in the area of eco-friendly building materials and construction technology.

In the years 2021-22, TARA successfully expanded its outreach to support small and medium-sized businesses in the Global South, particularly Sub-Saharan Africa, in adopting cleaner technologies. While entrepreneurship was the primary focus, the strategy was to reduce Green House Gas (GHG) emissions and improve resource efficiency.

Water quality research, validation, and implementation, as well as waste plastic to value-added products and novel technologies such as Geographic Information System (GIS) Mapping, were improved. TARA's labs, workshops, design studios, and pilot production facilities in Delhi and Datia, Madhya Pradesh helped to support this work.

Key Initiatives

Triangular Co-operation

EcoKiln Dissemination in Malawi:

With the goal to contribute to Malawi's low carbon growth through energy efficient and cleaner building material production systems, TARA in association with GIZ Malawi has launched the EcoKiln initiative in Malawi.

EcoKiln in Malawi

With active support from the Governmnet of Malawi, new and existing EcoKiln initiatives in Malawi have taken off. Currently, two plants are under construction with 100% investment by entrepreneurs and seven more are yet to start. TARA with support from GIZ is providing technical support and building service provider capacities.

The initiative is also expected to create more than 20,000 sustainable 'green jobs', thereby alleviating poverty. Additionally, this clean technology will save 8,50,000 tonnes of fuelwood and reduce 15,00,000 tonnes of CO_2 emissions annually.

Launch of Low Carbon Cement technology in Malawi

The Lc^3 technology was launched in Malawi by Dr. Saulos Klaus Chilima, Vice President, Republic of Malawi. This technology has the potential to boost local and greener production of cement, and accelerate Malawi's independence from imports.

The successful implementation of the project would imply that Malawi will become the first country where this innovative cement production will be piloted in collaboration with all the cement producers within the context of the Public Private Partnership for the Promotion of Environmentally Friendly Building Material Sector in Malawi (PEFCoM). The newly launched project will be funded by the German Federal Ministry for Economic Cooperation and Development (BMZ) and implemented by GIZ in association with TARA.

The project promises to make Malawi a world leader in environmentally friendly cement production.

Products

ColiPAT

As the microbial contamination of drinking water is a major concern in developing countries, a sensitive and low cost field testing kit: ColiPat has been developed for identification of total coliforms and E.Coli. The kit detects coliform down to the level of 2 coliforms/100 ml within 10 hours, and at higher concentrations, gives the results in 4 hours. TARA is pioneering the pilot scale production of the ColiPAT along with private companies with an objective of turning it into a revenue model.

GIZ Innovation Award: Biomass Briquetting Machine

Every year, thousands of tonnes of agricultural waste, such as pigeon pea residues, soybean residues, rice husks, maize stalks, and groundnut shells are burned in Sub-Saharan Africa's agricultural fields, because transporting them to potential end-users is not worthwhile due to the waste's low energy density and high transportation costs. In commercial terms, the Mobile Briquetting System provides a sustainable, viable, safe, and replicable solution for providing environment friendly energy. In the GIZ innovation fund, the machine has been awarded with the first prize.

Mobile briquetting machine

Process

Supporting sustainability in traditional business

TARA proposed semi-mechanised systems to improve the production process of clay items. It successfully installed and demonstrated at pilot scale one de-airing pug mill, wood-fired static kiln, and oil-fired shuttle kiln at Pal Para Terracotta Cluster, Asharikandi village, Assam in March, 2021. Ten people from the local artisan group in Omkareshwar were trained. It was found that the overall efficiency of the production system increased by almost two times with the improved quality of the products. The quality has improved due to mechanised firing, the income and health condition of workers has become better, and overall drudgery has been reduced.

Review Paper on Arsenic contamination

Focusing on the contamination of Arsenic in ground water and its removal technologies, a review paper has been presented at PDEU, Gandhinagar, Gujarat for the 1st International Conference on Advances in Water Treatment and Management. This has come out to be an enhancement for the Action Research vertical

ColiPAT Testing Kit

Highlights

- Product Development: TARA successfully developed and customised new products and solutions, built innovative structures, and developed new processes to optimise and commercialise innovative green building materials and innovative water purification solutions in accordance with it's innovation and incubation mandate. Also, TARA intends to provide support for enterprise development in the area of clean technologies for housing and construction to companies and enterprises through accelerated product development and customisation of solutions for clients, and scaling up the technologies for water testing.
- South-South Cooperation: With increasing affluence and rise in technologies, the concentration of development activities is in countries that are spread across the Global South. TARA has been at the forefront of South-South Cooperation for the past three decades and has been providing development solutions in India and across the globe. The demand for infrastructural needs in the world is expected to double by 2050. Almost 80% of this demand is projected from the under-developed and developing nations which largely constitute the Global South. African nations are not far behind and are taking the lead in the dissemination of building material technologies. TARA has an experience of over 28 years in promoting the Vertical Shaft Brick Kiln (VSBK) technology and has been GIZ's longstanding partner in the introduction of the VSBK in South Africa and Malawi. It is also the India Project Lead for the technology transfer introducing Low Carbon Cement initiatives across Egypt, Malawi, Senegal, Zimbabwe, Uganda, Rwanda, and now Cameroon.

Way Forward

TARA has maintained its focus over the years on bringing technology to the doorstep of individuals, SMEs, and businesses. It has successfully established relationships with academics and businesses in order to source, validate, and adopt technologies that will help it achieve its mission of creating large-scale livelihoods. TARA's Product and Technology Development Domain will maintain and accelerate the following activities.

- Expand South-South Cooperation to new geographies in Sub-Saharan Africa, the Middle East, and Asia by building on the technology transfer work done in Malawi.
- Build partnerships and networks, especially with startups and new companies, for acquisition and incubation of new technologies.
- Technical support to the State Governments to achieve carbon neutrality in the construction sector and to promote resource-efficient building materials in the state
- Continuous monitoring and testing will be used to improve the performance of incubated technologies.
- Collaborate with academic and research institutions to design, develop, and validate new and innovative low-carbon and resource-efficient technologies, thereby introducing circularity into the local economy.
- Form alliances and networks in order to build customised water treatment solutions for rural areas.

Entrepreneurship

Technology driven and innovation based approaches to enterprise development for social change – empowering women, enabling youth, and unleashing entrepreneurship

TARA focuses on promotion of micro and small enterprises through strengthening the stakeholder ecosystem and empowering individuals. Our range of services include product and technology validation, business modelling, as well as, linkages for market access. In response to emerging needs of entrepreneurs, TARA has structured its work in the following thrust areas:

Green and Inclusive Entrepreneurship: Development and expansion of micro and small enterprises through information and capacity building, aggregation and market development and provision of enterprise support services – technology packaging and procurement, credit access support and market linkages.

Market Validation: Business model innovation for ensuring doorstep provision of basic need products and green solutions through validation of alternative delivery mechanisms and creation of market ecosystem.

Amplification: Delivery of enterprise support services at scale, through platforms and strategic partnerships.

Key Initiatives

Making Solar Energy Transition for Rural MSMEs Viable and Profitable

Microbusinesses in Bhadohi, Uttar Pradesh connected with solar energy leading to transition to cost effective access to reliable and high quality energy

TARA, in collaboration with Smart Power India (SPI), is creating an enabling ecosystem for rural solar energy transition by partnering with various actors such as technology providers, financial institutions, service providers, and relevant government agencies. By leveraging digital technology, it is aggregating rooftop solar demand from rural MSMEs, and unlocking economies of scale for incentivising technology providers, financial institutions, and system installers to operate in rural areas. The initiative has successfully introduced an innovative financing model for easing the energy transition journey of rural MSMEs. Under the model, besides providing highly competitive low-cost finance, the equated monthly instalment for servicing the loan is lower than the monthly cost savings realised by using electricity from rooftop solar instead of a diesel generator. Besides mitigating carbon emissions, the reduced cost of enterprise operation is helping entrepreneurs expand and grow their businesses thereby creating

A Successful Energy Transition by A Rural Micro Enterprise

Mr. Suryanarayan Bind from Mishrainpur, Bhadohi district owns an integrated Flour Mill-cum-Oil Extraction enterprise. He used to power his business by using a diesel generator. However, the escalating diesel expenses and cost of operation and maintenance negatively impacted the competitiveness and profitability of his enterprise.

Under the Rural Rooftop Solar Initiative by TARA, supported by Smart Power India, Mr. Bind was made aware of the benefits of using solar energy, and a business case for energy transition was established. By providing a one-stop solution at his doorstep, a 16 kWp rooftop solar power plant was installed his enterprise at a cost of INR 7.12 Lakh, with financing support from Progcap. Using solar energy, the micro enterprise is estimated to cut down its energy cost by upto 70% while mitigating on an average 2.00 tons of carbon emissions, every month. Mr. Bind has been able to pass on a part of the energy cost savings to his customers by reducing the processing cost, much to the delight of his customers.

vibrant local green economies. During the pilot phase, over 1100 micro-entrepreneurs from various districts of Eastern Uttar Pradesh and Bundelkhand have been covered for a successful energy transition.

Taisei Soil System (TSS) – Pilot Phase

Taisei Soil System (TSS), a decentralized, zero-discharge, waste-water treatment technology developed and manufactured by Taisei Kogyou Co. Ltd., Japan, was successfully verified by TARA at Varanasi and Muzaffarnagar cities in India. The TSS technology treats wastewater without any requirement of electricity or chemicals. Entirely below the ground, no surface land area is required.

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. Hence, the two TSS plants are preventing 12,000 liters of wastewater everyday 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, TARA also incubated the TSS technology in Delhi, having a treatment capacity of 1000 liters per day. The incubated system is using components and materials that are locally available in India. This demonstration plant has provided a cost-effective substitute to components that were being imported from Japan in previous sites. The performance of the technology has been certified on BOD, COD, Total Suspended Solids, Fecal Coliform, pH, and Conductivity under different operating and climatic conditions from recognised NABL accredited labs in the state of Uttar Pradesh.

Taisei Soil System technology for treatment of wastewater incubated in Delhi using local materials

Akash Sahu from Niwadi installing his solar panels for his oil expellers, which saves him INR 3500 monthly by reducing his dependency on fossil fuels

Highlights

- A compendium of enterprise and technology developed and validated on the ground led to 85 enterprises being set up creating over 190 jobs.
- Partnered with Rang De (a peer-to-peer lending platform) in the area of inclusive entrepreneurship and finance and offered a micro-credit product to 850 entrepreneurs with an average credit size of INR 35000 over a 12-month duration. Leveraged 'udyaME' - a digital platform with 5634+ registered existing and aspiring entrepreneurs providing end-to-end enterprise support services.
- Aggregated demand and initiated work on solar energy transition services for rural micro-enterprises dependent on expensive and highly polluting diesel generators. Over 1200 micro-entrepreneurs from 7 districts of Eastern Uttar Pradesh and Bundelkhand regions have registered on the digital platform (Rooftop Solar Application) for one-stop energy transition services including finance.
- As a technical consultant to the SFURTI program, TARA built a national footprint with 29 clusters in different trades across 12 states of India.
- A conceptual framework on "Local Green Enterprises" developed with an aim to facilitate innovative financing and support to enterprises delivering bottom-line impacts and informing policy decisions to encourage inclusive and equitable growth of local economies through such framework.
- As part of the "India – Australia Industry and Research Collaboration for Reducing Plastic Waste" Initiative coordinated by the Commonwealth Scientific and Industrial Research Organisation (CSIRO), TARA along with other partners working on a three-year research collaboration to catalyse innovation in plastic supply chains for greater circularity. During the year 2021-22, TARA co-authored the report "Circular Business Models for Plastics in India" which reviews the literature regarding circular business model (CBM) definitions and typologies and establishes a CBM typology that is applicable to plastics and the Indian context.
- Positioned and worked with global experts in the green and inclusive entrepreneurship space for the exchange of learning, knowledge and experiences on good practices.
- Local Green Enterprises: Identifying the definitive attributes of Local Green Enterprises and establishing a Sustainability Assessment Framework for their objective assessment. For example, a pilot study presenting results from the application of the framework to enterprise clusters supported by the Indian Micro Enterprises Development Foundation (IMEDF) under the Scheme of the Fund for Regeneration of Traditional Industries (SFURTI).

Way Forward

"Moving forward into the post-pandemic (COVID-19) phase, TARA will continue with the spirit of innovation, and development of alternate delivery mechanisms, for greener and more inclusive local economies. Strategically, in order for action at scale, TARA will be packaging knowledge products and good practices and transferring them to partners and other like-minded organisations working in the area of high-impact entrepreneurship. Through partnerships, TARA will expand its portfolio of green technologies, and co-create innovative financial products for the adoption of entrepreneurship solutions at scale, in the areas of clean energy, waste management, digital economy, and agro-based enterprise models. TARA will capitalize on the platforms it supports for greater outreach, positioning and policy influence, and continue providing technical support to the Indian Micro Enterprises Development Foundation (IMEDF) in delivering efficient services to clusters and micro-entrepreneurs." – 2020-21

Capacity Building

Flagship programmes include improving rural water resource management, integrated waste management and awareness generation and capacity building on employability

TARA builds capacities of individuals and groups through direct interventions as well as through the establishment of enabling ecosystems in rural and peri-urban geographies. Our recent initiatives include providing information on employment, solutions for rural problems, and plastic waste management.

Integrated Waste Management: Mismanagement of plastic waste, its leakage in the environment and lack of alternatives for packaging has threatened economies, ecosystems, and human health. Current measures lack the rigor to meet this challenge.

Rural Immersion Programme: The 'Rural Immersions Programme' is conceptualised to give an exposure as part of the induction of NABARD officers.

Capacity Building of Underprivileged Youth: Our initiatives like Skills to Livelihood programme allow us to improve the knowledge of people and develop employability skills especially in rural and peri urban geographies.

Key Initiatives

Integrated Waste Management

Plastic waste sorting on conveyor belt in first SLRM centre, Agra

The Integrated Waste Management project i.e., the Nirmal Agra Project is being implemented in the city with an aim to set up new waste collection infrastructure, augment existing waste collection infrastructure, improve data capture and reporting, establish and upgrade existing waste sorting infrastructure, and undertake behavioural change programmes – to address the issue of leakage of plastic waste into the environment.

This project is being undertaken by Technology and Action for Rural Advancement (TARA) with funding support from the Alliance to End Plastic Waste Inc. In order to facilitate the plastic waste management work on ground, a Memorandum of Understanding has been signed between TARA and Agra Municipal Corporation (AMC) and GoMassive Incubators Pvt. Ltd. as the Primary Service Provider.

This project is focused on investment, innovation and infrastructure to help improve plastic waste collection, transportation, segregation, and processing. The waste sector provides livelihood opportunities as well and this project will work towards integrating informal sector workers and improving their socio-economic

The project-***Nirmal Agra***, is being undertaken by TARA with grant funding from the Alliance to End Plastic Waste Inc.

This Integrated Waste Management Project is being implemented in Agra, to set up new waste collection infrastructure, improve data capture and reporting, set up new and upgrade existing waste sorting infrastructure, and undertake behavioural change programmes. Under this project, an MoU has been signed between Technology for Action and Rural Advancement (TARA) and Agra Nagar Nigam (ANN) on 14 December, 2021 for a period of 24 months. The purpose of this MoU is to facilitate cooperation and strengthen collaboration between TARA and ANN, for improving plastic waste management in the city of Agra, through Nirmal Agra Project as Plastic Waste Management (PWM) rules. TARA on mutual agreement with ANN, will be authorised to design, finance, construct, operate, and maintain the Project infrastructure and facilities in accordance with the provisions mentioned in the MoU.

indicators. Behavioral change programmes are an important component of the project to address the issue of leakage of plastic waste into the environment.

Rural Immersion Programme

The idea behind the Rural Immersion Programme is to increase the exposure of the participants to village situations in India and to challenge participants to ask themselves how they could utilise their skills and knowledge in the service of the poor, and contribute to reducing poverty.

Potential and actual impacts of immersions are personal, institutional, and policy-related, affecting commitment, insights, practices, and policy. A successful immersion can lead to personal change through experiential learning, both emotional, in how things are felt; and intellectual, in how they are framed; to institutional change, as regard to what participants do later in their service; and with decision-makers, to make changes in policy grounded in the realism of the experience. The programme is expected to result in the un-learning of linear thinking by drawing the interlinkages in development framework that will facilitate higher order decision making relevant to the context.

Climate Change Communications and Outreach at the Grassroots through Community Radio

TARA is implementing an action research project under their existing Shubh Kal campaign in Bundelkhand. The project aims to strengthen community knowledge and voices on climate change impacts and adaptation by increasing their input into local research and action at the grassroots. The project will enable communities to share their experiences in coping with and adapting to climate change. The emphasis would be given on strengthening the capacity of community radio reporters to advocate on climate change issues at the community level and beyond.

The e-platform model will create a new space where : a range of stakeholders can learn about climate change adaptation practices, its impacts, and advocate responses which address local community needs. In this initiative, TARA will do the action research and develop capacity building modules and programmes with a purpose to upscale, enhance and strengthen the knowledge of community stakeholders and radio reporters.

Immersion training

Narrowcasting happening in Niwari district

Highlights

- TARA signs an MoU with Agra Nagar Nigam with support from the Alliance to End Plastic Waste and GoMassive to fight plastic waste in Agra
- First of its kind Solid-Liquid Resource Management (SLRM) Centre launch in Agra city to capture plastic waste
- 26 tonnes of plastic waste diverted and 15 tonnes recycled, by setting-up of the first SLRM in the city and rolling out a fleet of suction vehicles, tippers, and fabricated compactors
- Conducted Induction Programme for NABARD and other Government officials every year
- 100 to 150 Officials (Government and Private) attended this Rural Immersion Programme
- In the last one year, Bridge2Naukri facilitated pre placement assistance to 364 individuals and post placement assistance to 245 individuals
- 5 community radio stations' (CRs) capacity built on climate change communications
- 15 radio programmes of 20 minutes duration developed, three each by the five radio partner. All ten radio programmes shared across for broadcast by the five stations.
- Series of 25 local and national print and online media articles published by the support of media members on the virtual network

Way Forward

The focus in the upcoming years will be promoting and facilitating R- behaviours (recycle, reuse, reduce, rethink, remanufacture and recover) by focussing on skills, attitudes, and infrastructural development in the space of plastic waste management. In terms of Agra, the upcoming of new MRF centres and processing units will ensure setting-up of new waste collection infrastructure, augment existing waste collection infrastructure, improve data capture and reporting, establish, and upgrade existing waste sorting infrastructure, and undertake behavioural change programmes – to address the issue of leakage of plastic waste into the environment. Through investment, innovation, and infrastructure to help improve plastic waste collection, transportation, segregation, and processing, TARA aims to increase plastic waste capture in Agra from 50 per cent to nearly 90 percent within two years.

The other focus is around positioning TARA as a ***Resource Organisation*** for capacity building and skill development. This will be done through various initiatives such as organising Rural Immersion Programmes, capacity building workshops for various educational institutions, like-minded organisations, technical agencies, and governmental agencies.

Influence

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

TARA's Policy and Planning domain builds knowledge and advocates for Climate Change Resilience and Biodiversity Conservation, Resource Efficiency and Circular Economy, and Inclusive Entrepreneurship and Livelihood Security. TARA has structured it's work in the following thrust areas in response to the emerging triple planetary crises of climate, resources, and livelihoods:

- **Climate Change Resilience:** To provide technical support on climate change adaptation in regenerating agriculture and water conservation sectors and provide SDG- CC interlinking support to state and national governments
- **Sustainable Consumption and Production:** To bring evidence based policy change towards reduction in virgin resources using principles of resource efficiency and circularity
- **Inclusive Development:** To shape policy shifts towards decentralised green and inclusive economies through partnership building, dialogues, and supporting MSMEs

Key Initiatives

TARA initiated a study to assess the post-COVID policies of the Government of India for certain priority sectors to understand the extent of the incorporation of natural capital elements. The report prepared, as the outcome document of this initiative, is part of a global study on nature-based recovery that includes Brazil, France, India, and Uganda. It has been undertaken in partnership with the Green Economy Coalition (GEC) and the International Institute for Environment and Development (IIED), and forms part of the Economics For Nature project.

Policy brief- Green Economic Recovery of India: Scopes and Opportunities for Selected Key Sectors

To unlock the green economy agenda for India, the key drivers to achieve green recovery were identified through a participatory approach. Policy reforms and capacity building were taken as prime drivers based on which policy dialogues were conducted on Bihar's Green Budget and Community Radio programmes disseminating information to tackle climate change issues to the locals. Through the project efforts, note on "A pathway to attain Green Recovery in India: Bihar Green Budget" case study is part of the report prepared by Green Economy Coalition "Setting a structural agenda for a green economic recovery from COVID-19". The report was presented during the Stockholm 50+ conference organised in June 2022.

The following pre-feasibility study in Assam was conducted using a three stage action research based approach using research tools such as documentation, field research, GIS-mapping, and stakeholder consultations. A detailed socio-ecological profile relevant to the sector was prepared for Assam by conducting geological studies and soil studies and secondary research on various socio-economic parameters. In addition, an overview of the trends and practices in the brick production sector is also presented by analysing the production and consumption patterns, environmental impact, social conditions and economics, regulatory frameworks, and appropriate policy convergence. Based on calculations and projections for GHG emissions and other pollutants, detailed recommendations were provided for shifting to more efficient brick production technologies and alternative material and technology options to reduce negative socio-environmental impacts.

For enhancing circularity and resource efficiency in the built environment, efforts were focused towards sustainable buildings and construction and plastic waste management. A pre-feasibility study on green brick production was conducted for Assam (case study presented below) focusing on the current brick production practices and trends across three demand centres in Assam - Guwahati, Silchar, and Dibrugarh and the prevailing challenges in adoption of green technologies across different stages of the construction sector value chain in the state were assessed. A holistic systems approach was selected as a framework for this analysis. The recommendations derived from the on-ground analysis aim to serve as a guide for the different stakeholders involved in the construction and brick manufacturing sector of Assam.

A large-scale study was initiated to co-develop a road map for India's transition to a circular economy in the plastics sector as part of a collaboration between Australia and India to foster research and industry partnerships between the two countries. This began with a conversation between the Prime Ministers of both countries at the first bilateral India-Australia virtual leaders' summit in June, 2020. It has brought together premier research and technology organisations and think-tanks from the two countries. The programme is coordinated by CSIRO, an Australian government scientific research organisation, and collaborates with the University of Technology Sydney, the University of New South Wales in Australia, TARA, TERI, and CSIR-NEERI in India. This collaboration prepares the foundation for a circular economy transition 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 and to demonstrate innovation on the ground in a series of demonstration projects.

Waste Collection Centre in Kerala

Members of Haritha Karma Sena collecting waste from a beach in Cochin

Highlights

TARA actively engages in dialogues, consultations and workshops with stakeholders at the local, sub-national, national, and international levels in association with relevant government departments, think tanks, CSOs and global research institutions. TARA creates awareness and advocates on pertinent issues to help the country on its journey to a green and inclusive recovery.

In the year 2021-22, we engaged with representatives of various CSOs and state government officials of Bihar to discuss the roadmap for achieving the Net Zero 2040 action plan. In addition, a study was conducted on COVID Recovery Budget, Annual National Budget, and Bihar's State & Green Budget to understand the budgetary allocation towards positive natural capital in Bihar.

As part of positioning and influence, TARA organised multiple webinars in 2021-22 with various stakeholders and experts at the local, national, and international level. Participants for these sessions represent the business community, government, media, students, academicians, development practitioners, and the civil society.

A high-level roundtable discussion was conducted to share early findings of the ongoing scientific study that aimed to support India's national commitment to reduce plastic waste and co-develop a road map for India's transition to a circular economy in the plastics sector. Participants at the high-level roundtable included representatives from relevant government departments, industry, and policy think tanks active in this sector. Under the project, a Twitter Chat on 'Zero Waste' was conducted in collaboration with Commonwealth Scientific and Industrial Research Organisation to engage stakeholders and online audiences, spread awareness, and understand consumer behaviour.

Way Forward

Our work to address the mammoth challenges around resources, climate, and livelihoods has led to collaborations with stakeholders at all levels ranging from local civic bodies, officials from relevant ministries, members of the community on ground, industries and businesses, to global research organisations. The rich knowledge and evidence generated through our existing work, along with the growing global discourse around green economies and 'building back better' after the COVID pandemic, will be important drivers for advancing TARA's work on these issues.

Adopting a systemic approach that can led to transformative action, TARA seeks to address the barriers to mainstreaming of these approaches with respect to policy frameworks and regulations, technical considerations, market systems and finance flows. TARA will aim to create visibility and high-value networks to build a programme around current strength areas including sectors such as sustainable housing and green building materials, plastic waste management, local green entrepreneurship, and nature-based solutions (NbS), with the larger objective of facilitating the transition to green and inclusive economies.

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.

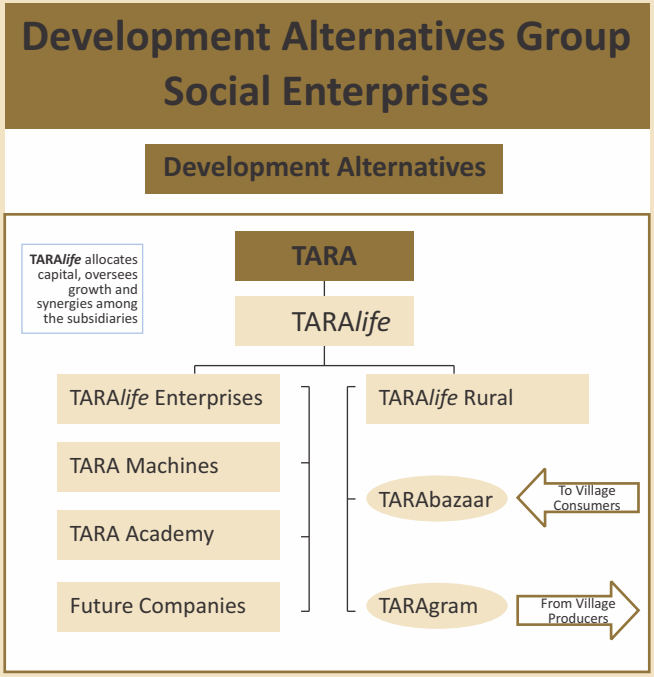
Incubatee Business Units

TARAurja

As an incubatee business unit, 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 UP 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., of 'producers' as well as 'consumers'. Our approach focuses on social inclusion, local growth, and basic needs fulfilment to 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



TARAurja solar power plant in Parsa, District Saran, Bihar

- 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 "in to 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

TARAurja powered Enterprises...
Energy and Empowerment for All

In close collaboration with Smart Power India, Taraurja operated mini-grids in 20 locations and undertook energy and revenue management services at 32 additional locations for the HCL Foundation and 2 locations for Dalmia Bharat Foundations, under the Smart Power for Rural Development (SPRD) programme. TARAurja cumulatively serviced 3400+ households with a cumulative revenue of ₹167 Lakhs during FY2021-22. 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 ₹559 per month. TARA, through its approach of community engagement and load acquisition through microenterprise development has ensured energy utilisation up to 70.30% out of the total 414+ 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.

Highlights of the Year:

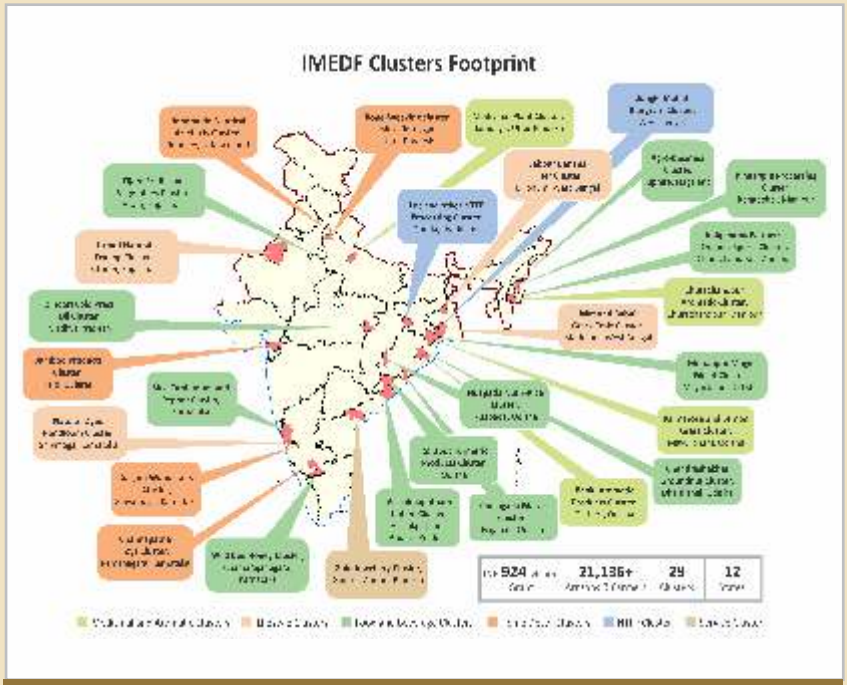
- An increase of 5.36 % in revenue from sale of energy on y-o-y basis.
- An increase of 7.2% in revenue collections on y-o-y basis.
- A new site of 31.2 KWp at Laxmanpur Bazaar, UP is commissioned.
- Capacity expansion of Garkha plant by 15 KWp to 45 Kwp.

Indian Micro Enterprises Development Foundation (IMEDF)

TARA has enhanced its commitment in the area of 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 the area of green and inclusive economic 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, SFURTI.

Cluster Development Initiatives - In the financial year 2021-22, 6 more clusters were added to the IMEDF Portfolio, taking the tally to 29 clusters across 12 states, reaching out to over 21,136+ artisans, crafts persons, and farmers, more than 8,775+ of whom were women. As on 31 March, 2022, the IMEDF footprint extended to 12 states with a SFURTI grant of ₹9,244.35 Lakhs and investments by our partners to the tune of ₹650 Lakhs in these clusters. During the FY2021-22, 19 clusters became functional and entered the production stage. High-end and environmentally friendly technologies in clusters like medicinal and agro-based have been used to get optimum outputs. Green renewable energy sources like solar energy panels, water recycling, and wastewater treatment technologies are encouraged at the clusters. IMEDF is assisting Grant Thornton Bharat in the field of Sustainable Livelihoods Initiatives in 24 districts across 6 states under a project with HDFC Bank Limited (CSR).



IMEDF initiatives with clusters

The United Nations Department of Economic and Social Affairs has listed the IMEDF Cluster Development Programme as SDGs Good Practices under SDGs 9 and 10. Two case studies were submitted under Sitaram Rao Livelihoods India

Women lac collectors at the Lac & Other NTFP Cluster, Jharkhand

udyaME entrepreneur at his tailoring enterprise

Competition 2021, and both were shortlisted as the top 10 case studies. The case study on Lemongrass Cluster in Churachandpur, Manipur was the second runner-up.

Enterprises Support Services (ESS) - IMEDF is partnering with Rang De for low-cost credit through the udyaME channel. IMEDF delivers loan products for micro-entrepreneurs with support from social investors ranging from ₹20,000 to ₹1,00,000. In FY2021-22, IMEDF strengthened its ESS through a strategic partnership with Rang De. A total of 319 entrepreneurs have been able to start or grow their businesses with the help of loan products. The total amount of loans disbursed is ₹1,06,50,000. IMEDF is also working with Rang De to customise the loan products according to the needs of entrepreneurs.

In one such intervention, three women-run e-rickshaws have been supported in Mirzapur, Uttar Pradesh, enabling IMEDF to cater to larger and innovative enterprises. IMEDF has also partnered with DocGenie to enable entrepreneurship through healthcare services. udyaME kiosks are the nodal point for delivering healthcare services in remote rural areas. IMEDF has served 38 customers with telemedicine services. A total of 5,406 users have been registered on the udyaME digital platform, which includes a mobile app and a website. Besides text messages, digital services are also being promoted through social media platforms such as Facebook and WhatsApp, cumulatively engaging over 500 customers monthly. 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 Programmes - IMEDF finalised a partnership with AICTE in FY2021-22 to start a training programme on cluster development for the benefit of students and faculty of technical institutions such as engineering colleges, management colleges, and polytechnics. During FY2021-22, four courses have been completed in Odisha, North Eastern states, Rajasthan, and Bihar, cumulatively adding ₹14 Lakhs to IMEDF non-project revenue. These are 12-day courses held online, including a two-day visit to the nearest cluster. A significant outcome of this course is an increased hands-on exposure to industrial technologies and the idea generation of new clusters in the geographies of course participants. The course also aims to engage participating institutes as technical agencies. Three institutes have expressed interest in SFURTI clusters, and nine potential clusters have been identified in the four geographies. There is a plan to augment this vertical through the knowledge products being developed and generate additional revenues.

TARA - LC^3 Technology Resource Center

LC^3 Technology Resource Centre (LC^3TRC) was established to act as an interface between industry and academia for a swift introduction of the new developments in LC^3 to the industry. The LC^3TRC is a provider of green solutions to cement and concrete manufacturers as well as medium, and large-scale enterprises in the construction sector based on all scientific knowledge derived from LC^3 studies.

Cement industry is the third-largest industrial energy consumer, comprising 7% of the global industrial energy use. Cement production involves 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 up the demand for cement and concrete. LC^3TRC has positioned itself to directly intervene in India, Africa, the Middle East, and the Southeast Asia, which are set to increase their domestic cement production capacity to fulfil their infrastructure development needs.

Interested cement companies contract with the TRC 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}TRC 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.

Carrying out a clay feasibility study for a cement company in Gujarat

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.

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

Members

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

Zeenat Niazi

Chief Knowledge Officer, DA & Senior Vice President, DA Group

Zeenat Niazi, Sr Vice President, and Chief Knowledge Officer of Development Alternatives Group provides oversight to the policy studies and development action initiatives at the Development Alternatives Group. Her work addresses resilience building in human settlements through Sustainable Consumption and Production (SCP) strategies, especially green and inclusive circular economy models.

She has been a founding member and Co-Chair of the Board of the Climate Action Network South Asia, member of the Multi-Stakeholder Advisory Committee (MAC) of the Sustainable Buildings and Construction Programme of UN's One Planet Network, Member of the C&D Waste Sub-Committee of the NITI Aayog on Construction and Demolition Waste Management in Urban Areas, Strategic Steering Committee member of UNEP PAGE Programme in India, the Steering Committee member of the Green Economy Coalition (GEC) in India, and is a member of the Task Force on Green and Inclusive Circular Economy for Angul District in the State of Odisha, India. She also contributes to the Global Green Growth Platform.

Date of Enrollment: 2017 | Membership 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: 2017 | 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: 2018 | 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 utilized, 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: 2021 | Membership ceased: Till date

Shrashtant Patara

Chief Executive Officer, Development Alternatives & IMEDF
Executive Vice President, Development Alternatives Group

Shrashtant Patara is an architect by training. He has been with Development Alternatives Group since 1988, providing research expertise, management capability, and strategic direction to teams working in the areas of Entrepreneurship Support Systems, Habitat, Renewable Energy, and Waste-to-Wealth initiatives. His current work is focussed on systems change, social innovation, and entrepreneurship, resulting in the co-creation of multistakeholder-based service delivery models that promote sustainability through local economic development, regeneration of the environment, and greater social equity. Mr Patara is a Fellow of The Rockefeller Foundation's Global Programme on Social Innovation and has completed a programme on Leadership for Systems Change conducted by Harvard Kennedy School in conjunction with the Schwab Foundation. He has been instrumental in the establishment of several social businesses within the DA Group and currently leads the team that is incubating "TARAurja", a renewable energy based micro-utility business and the Indian Micro Enterprises Development Foundation.

Date of Enrollment: 2008 | Membership ceased: 2021

AUDITORS' REPORT

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

1. 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 2022 and the Income and Expenditure Account, for the year then ended, and a summary of the significant accounting policies and other explanatory information.

2. 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 2022 and its financial performance for the year ended on that date.

Basis of Opinion

3. 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

4. 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.

5. 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

6. 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.

7. 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.

8. 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

9. We did not audit the financial statements of the branch (Orchha), whose financial statements reflect total assets of Rs. 18,80,207 as at 31 March 2022 and net assets of Rs. (11,52,568) as at 31st March 2022 and total revenues of Rs. 1,08,77,495 for the year then ended on that date, as considered in the financial statements. These financial statements have been audited by M/s. SKA & Associates whose audit report have been furnished to us by the management, and our audit opinion on the financial statements of the Society for the year then ended to the extent they relate to the financial statements not audited by us as stated in this paragraph is based solely on the audit report of M/s. SKA & Associates. Our opinion is not modified in respect of the above matter with respect to our reliance on the financial statements audited by M/s SKA & Associates.

10.

a) As per section 17(1) of Foreign Contribution (Regulation) Act 2010 (as amended), a new account with SBI has been opened w.e.f 29th June 2021 for the Receipt under FCRA and now the existing Axis Bank account will be used exclusively for Utilization of fund.

b) As per section 17(1) of FCRA 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 2021-22 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.

11. During the year ended 31st March 2022, 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.

12. There is a Current Liability w.r.t Staff Welfare Fund of Rs. 23,16,025 as at 31st March 2022 which includes employee's & employer's contribution of Rs. 47,867 each for the current year 2021-22. This should have been transferred to the designated fund maintained with a separate Trust. However, as informed to us, no payments have been made for the same due to liquidity crunch.

13. The registration under the Foreign Contribution (Regulation) Act, 2010/Foreign Contribution (Regulation) Rules 2011, for carrying out activities of social nature with registration number 231650202 dated 5 August 2016 for the period from 1 November 2016 to 31st October 2021, the society applied for renewal and the same is pending with Ministry of Home Affairs (MHA) for approval. The extension has been provided multiple times till 30th September 2022 and the same is further extended till 31st March 2023.

14. 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. In the absence of the requisite information, we have relied upon the allocation made by the management.

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

(Bhuvnesh Maheshwari)
Partner
M. No. 088155

UDIN: 22088155AXNSVK7392

Date: 29-09-2022
Place: New Delhi

Society for Technology and Action for Rural Advancement
Balance Sheet as at 31 March 2022
(All amounts in ₹, unless otherwise stated)

	Schedule	As at 31 March 2022 ₹	As at 31 March 2021 ₹
Sources of funds			
Funds			
General fund	1	(2,27,62,613)	(2,79,33,600)
Non-current liabilities			
Long-term borrowings	2	2,65,00,000	2,65,00,000
Long-term provisions	3	12,48,682	12,97,405
Current Liabilities and provisions			
Unspent grants, net	4	1,27,26,512	63,44,442
Other current liabilities	5	3,12,12,301	3,44,59,244
Short-term provisions	6	3,74,277	7,63,118
		4,92,99,159	**4,14,30,609**
Applications of funds			
Non-current assets			
Property, plant and equipment			
Tangible assets	7	71,21,768	67,81,544
Non-current investments	8	45,45,725	45,45,725
Deferred tax assets (Net)	9	1,10,20,904	1,17,40,047
Long term loans and advances	10	24,77,030	6,23,699
Current assets, loans and advances			
Trade receivable	11	88,85,601	50,28,027
Cash and cash equivalents	12	71,95,347	50,52,829
Short-term loans and advances	13	56,44,044	72,37,023
Other current assets	14	24,08,740	4,21,715
		4,92,99,159	**4,14,30,609**
Summary of significant accounting policies and notes to the financial statements	22		

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 : 29-09-2022

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

Ashok Khosla	Maj Gen Rahul Bhardwaj, VSM (Retd)	Vinod Nair
Chairman	Chief Operations Officer	Gen.Manager Finance

Society for Technology and Action for Rural Advancement
Income and Expenditure Account for the year ended 31 March 2022
(All amounts in ₹, unless otherwise stated)

	Schedule	Year ended 31 March 2022 ₹	Year ended 31 March 2021 ₹
Income			
Grant income	4	5,98,57,133	5,42,09,462
Sales of goods	15	53,26,294	26,25,742
Technical and other receipts	16	3,68,37,809	3,39,39,341
Other income	17	43,71,749	5,63,496
		10,63,92,985	**9,13,38,041**
Expenditure			
Purchase of finished goods		52,66,950	22,79,620
Personnel expenses	18	2,52,09,611	2,37,25,912
Finance costs	19	16,21,219	19,41,090
Depreciation	7	14,21,740	11,29,513
Grant expenses	4	3,09,62,951	2,90,93,961
General and administrative expenses	20	3,54,92,628	2,89,06,586
		9,99,75,099	**8,70,76,682**
(Deficit)/Surplus before tax and prior period item		**64,17,886**	**42,61,359**
Less: Prior period expenses	21	(1,23,501)	(12,18,313)
		62,94,385	**30,43,046**
Less: Tax expense			
Tax-Earlier years		(53,285)	(22,30,140)
Current year tax		(3,50,970)	(9,91,660)
Deferred tax benefit		(7,19,143)	(29,93,554)
(Deficit)/Surplus for the year transferred to general fund		**51,70,987**	**(31,72,308)**
Summary of significant accounting policies and notes to the financial statements	22		

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 : 29-09-2022

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

Ashok Khosla	Maj Gen Rahul Bhardwaj, VSM (Retd)	Vinod Nair
Chairman	Chief Operations Officer	Gen.Manager Finance

The Development Alternatives Group

Development Alternatives (DA)
www.devalt.org

Technology and Action for Rural Advancement (TARA)
www.tara.in

Indian Micro Enterprises Development Foundation (IMEDF)
www.imedf.in

TARAlife Sustainability Solutions Pvt. Ltd.
www.taralife.in

TARA Machines and Tech Services Pvt. Ltd. (TMTS)
www.taramachines.com

TARAhaat Information and Marketing Services Ltd.
www.tarahaat.com

TARA Livelihood Academy Pvt. Ltd.

TARA

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