

Annual Report 2016



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ORGANISATION AT A GLANCE

Society Registration

Society Act XXI of 1860

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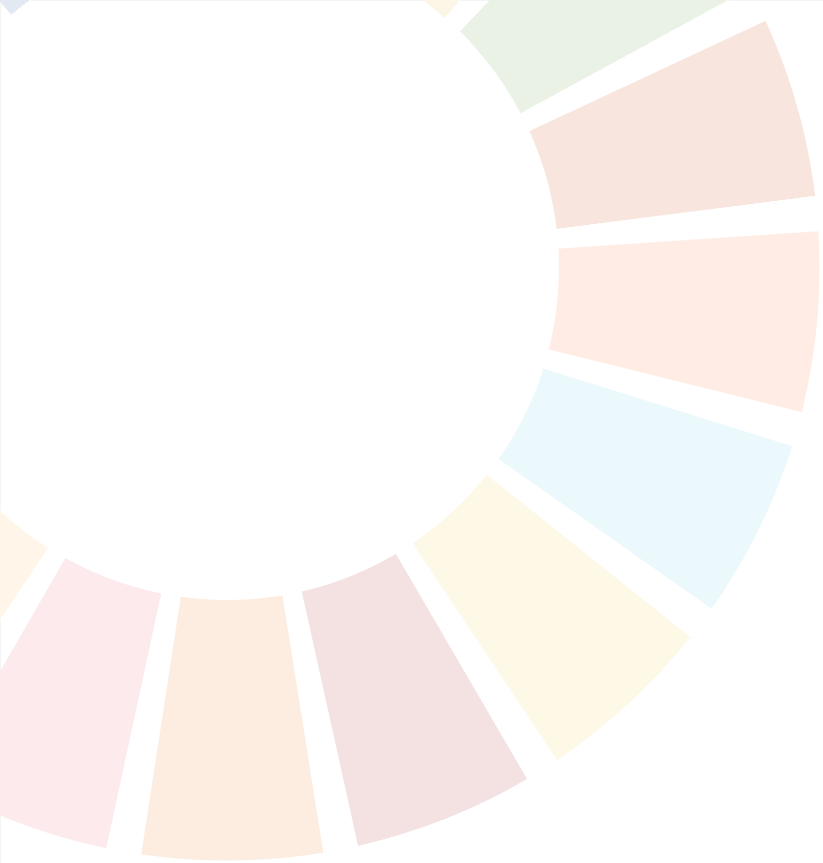
- FCRA** : Section 6 (1) (a) of the Foreign Contribution (Regulation) Act 1976 (FCRA Reg. No. 231650202)
- Vision** : To create a world where every citizen can live a healthy and secure and a fulfilling life
- Mission** : To create models that generate sustainable livelihoods in large numbers
- Approach** : Innovation, incubation, implementation and influence to create large scale impact
- Design & Layout** : Jay Vikash Singh and Pritam Poddar
- Photograph** : Development Alternatives

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Chairman's Message



The work of Development Alternatives covers an unusually wide range of topics. This is not for a want of organizational focus, but rather in recognition that the complexity of sustainable development solutions requires broad-based understanding of issues that cut across traditional disciplines and conventional sectors. Few organizations, other than some exceptional universities, have under one roof access to broader or deeper knowledge sources in the field of environmentally sound and socially equitable development than ours.

More uniquely, the influence we strive to create at the level of national policy, no less than the impact on the ground, requires unusual strengths in innovation, implementation and interaction with a wide variety of networks.

To capture all these in a few pages for the Annual Report is obviously not an easy task. Indeed, in the case of the Development Alternatives Group, our Annual Report can only present a glimpse into the wide range of activities carried out by us and our partner organizations; a truer picture can only emerge from the complementary information presented in the Annual Reports of the other entities of the Group, e.g., TARA and its subsidiary companies and from the monthly Newsletter, which we have proudly published for more than a quarter century without interruption.

Of course, since the printed word is no longer what it used to be, much of the work and achievement of the DA Group is increasingly accessible from our dozen websites, blogs and social media pages. In coming years, this no doubt will ever more be the case; so we are now looking for ways to ensure that those who want to know more about our work can find it.

This year's Annual Report covers, the results of some of the projects and programmes undertaken by Development Alternatives over the past year in the hope of giving an

impression-istic picture of how poverty and resource degradation can be tackled effectively and in a manner that can easily and be affordably replicated, thus making a national contribution to Agenda 2030 and the Sustainable Development Goals.


Dr. Ashok Khosla
Chairman

Awards and Achievements



Smart Green Social Change Award 2015 – Development Alternatives received the "Smart Green Social Change Award" in the field of smart housing project by SAINT-GOBAIN and The Economic Times SMART GREEN on 2nd December 2015 in New Delhi. The Saint-Gobain and Economic Times Smart Green Summit and Award is part of Saint-Gobain's 'Shaping the future' initiative in partnership with the Economic Times. The awards were presented to those who have offered sustainable, innovative development solutions that embrace modern day environmental concerns. By recognising leaders that have innovated and consistently raised the bar while still being eco-friendly, these awards aim to inspire others to embark on a journey of sustainable innovation to help society at large.

“*In service to the environment, and the betterment of the lives of others”, UNEP recognised Dr Ashok Khosla as a leader of science and policy by bestowing the Life Time Achievement Award. - UNEP*



800 million
liters of water conserved

900,000 indirectly
linked to institutional
mechanisms

4,25,000 people
directly access basic needs

0.4 Million
KWh of green electricity

0.7 million tons
CO₂ saved

USD 21 million
income through
skill enhancement

USD 167 million
transacted

0.8 Million tons
waste utilized

12.4

million people empowered
(Since 1983)

Partners and Collaborators



DFID Department for International Development



FORDFOUNDATION

giz Umsätze Dienstleistung für Internationale Zusammenarbeit (GIZ) GmbH

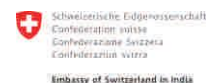


HEINRICH BÖLL STIFTUNG



solaqua

START NETWORK



Fullerton India

IKEAFOUNDATION



TOSHIBA
Leading Innovation >>>



bmtac



ICRISAT
Science with a human face



Wuppertal Institut





Overview

The Global Sustainable Development Agenda 2030 with its accompanying SDG framework and the historic Climate Change Agreements COP 21 at Paris in 2015 have laid the stage for the development policy and action at global, national, sub-national and local levels for the next 15 years. India, a signatory and active contributor to these processes has initiated its own national processes to align development policy and action with the global commitments.

The year 2015-2016, was marked as a third consecutive year of extreme drought in large parts of India. Central India and Bundelkhand was particularly severely impacted. This brought into focus the need for building resilience with respect to natural resources and livelihoods.

A second challenge brought into sharp focus is the need for greener, inclusive and fair economic development in order to address multi-dimensional poverty in both rural and urban areas. Economic growth needs to be guided by resource and energy efficiency considerations and prosperity.

In addition, a large restive, under-employed and inadequately skilled young population in both rural and urban areas is both a challenge, and an opportunity for India's next economic leap. Skills, entrepreneurship and jobs in the unorganised manufacturing and services sector are a critical national priority.

Corporate Approach

Over the year 2015-2016, the Development Alternatives Group has re-affirmed its relevance and defined a clear focus in its work to respond to national and global challenges and opportunities.

DA's work has, as always, been guided by its approach of **system integrity** across sectors and natural resource flows that impact our target communities and the eco-systems they are dependent on. New technology development is steered by the need for energy and resource efficiency and prospects of new materials from by-products, industrial and agricultural processes. **The design and demonstration of** enterprise models and institutional structures keep the **harmony** and balance of natural systems with human needs at their centre. Our work across the poorest regions of rural India has focussed on empowering women through literacy, information, skills and economic opportunities. A growing area of work in urban areas has addressed the concerns of housing, sanitation and waste management.

The year laid emphasis on innovation in support services for enterprise development and promotion at scale. Integration with national programmes for micro-enterprise and skills development as well as community based models for local enterprise services for farmers and women collectives were taken-up.

Key Focus Areas

The DA Group invested in strengthening key knowledge, community, business and policy partnerships. We



have worked with think tanks across the globe, academia and civil society networks in India and South Asia. This endeavor has brought to the fore evidence from practice for policy development at global and national fora and integrated planning and implementation at sub-national and local levels.

Global Imperatives

As a member of the Independent Research Forum (IRF), Development Alternatives supported governments and civil society towards their endeavor in designing the SDG framework. Collaborative research conducted in the year towards understanding the Global Goals brought in a fresh thinking with respect to linking climate action and SDGs.

Development Alternatives formally joined the Sustainable Building and Construction (SBC) initiative of the 10 Year Framework Program (10YFP) of UNEP. As a formal member of the Multi-Stakeholder Advisory Committee, DA has been providing inputs into the development of the Programme. In addition, DA contributed to the development of indicators for Sustainable Production and Consumption to UNEP.

In most part of 2015, DA continued as the Co-Chair of the Governing Board of CANSA and of the National Steering Committee of CANSA in India. The organisation fulfilled this responsibility through leading national and regional research and consultation process for advocacy for regionally and nationally relevant climate negotiations. Through this process, submissions were made to

the Government of India as well as to the global negotiators at COP 21. Reports and media engagement that brought the concerns of the region and India at the fore front. The process also contributed into building capacities of civil society members on climate action and advocacy.

National Policy

Over the course of the year, the Development Alternatives Group has continued to bring forward the concerns of resource scarcity and industrial and domestic by-products to the attention of policy makers. With emphasis on the rapidly growing housing and construction sectors, the DA group has worked across the value chain from mapping and analysis of material resources under stress, availability and potential of new resource streams from industrial waste streams, recovery and reuse of construction debris, efficiency in construction practices and application of resource efficient construction systems in social housing. As a core member of the Indo-German Expert Group and the newly formed Indian National Resource Panel, chaired by the Joint Secretary MOEF and Chairperson Central Pollution Control Board, Development Alternatives has developed policy briefs to bring these concerns to the forefront.

India's need for decent jobs in large numbers requires investments in local enterprise development. The enterprise development programme of the Development Alternatives Group has identified three levels of enterprises, the nano scale initiatives that generate increased incomes at household level and are supported and serviced through micro-finance by community federations; micro-level individual and group enterprises in the manufacturing and services arena powered with green energy and financed through local banking institutions and public schemes, and finally the small scale entrepreneurs that are mainly in manufacturing arena and require technical and credit servicing through the TARA enterprise support platform. The year under review saw both the development of the enterprise support engine within the DA group as well as a large number of enterprises of all three types. Development Alternatives was selected as one of the nodal agencies under the Government's SFURTI programme to provide technical, marketing and credit linkages for new enterprise development.

Development Alternatives' interventions in Bundelkhand over the years has demonstrated improved livelihood and resource resilience. Local management of water resources coupled with sustainable agriculture practices and diversification of economic activities enabled farmers to continue to maintain farm and other incomes even as the region around them saw distress in the shape of migration, livestock deaths and unproductive farms.

Development Alternatives has partnered with the Indian Institutes of Technology in Delhi, Mumbai and Chennai and key industrial partners to provide alternative solutions to resource and energy intensive cement production. The LC³ (Limestone Calcined Clay Cement) as it is called, provides multiple benefits of



reduction in virgin limestone based clinker and energy needed for high quality cement production. Commercial production trials were initiated to validate the viability of this new breakthrough technology and material.

State Level Action

The outcome of the three year initiative and the Task Force on alternative brick promotion in Bihar has seen the number of small scale brick entrepreneurs increase from 20 to 200. Continuous advocacy and technical support to the Ministry of Rural Development, Government of India has seen the inclusion of a few identified sustainable construction technologies such as the Compressed Stabilised Earth Blocks (CSEB), Fly-Ash bricks, rat-trap construction techniques, Reinforced Cement Concrete (RCC) Planks and joists, Micro Concrete Roofing (MCR) tiles and ferro-cement roofs included in the SORs for public buildings under MGNREGS. This paves a way for large scale application of energy and resource efficient, and job creating construction technologies in rural housing.

The DA Group provided technical support to the Madhya Pradesh State for operationalizing their State Knowledge Center for Climate Change. In addition, the State of Environment reporting and orientation of line departments for increasing convergence towards policy and programme actions were conducted for implementing the State Action Plan for Climate Change. At the local level, community based participatory processes for natural resources and vulnerability assessments

coupled with budget and need analysis led to the integration of climate adaptation actions into the annual Gram Sabha development plans. Four such plans were approved by the District Planning Committees in Tikamgarh and Datia. The Datia district government announced the model for development of Gram Sabha plans to be taken up by all villages in the district. Gram Sabha guidelines and training models for climate adaptive development planning are now being made available for replication.

The DA group continues its work to develop and promote clean energy solutions for small entrepreneurs and farmers. This area of our work addresses the need for greener and environmentally benign methods for local economic growth, especially in rural areas. Eighteen solar energy plants of varying capacities in some of the poorest regions of Uttar Pradesh and Bihar are creating new economic opportunities for small entrepreneurs to expand their businesses or initiate new ones. The year saw 332 farmers and small rural businesses grow; achieving a turnover of Rs 71,28,000, while utilizing 3,24,000 kwh of clean energy in the process.

Three villages in Tikamgarh district demonstrated integration of the three pillars of sustainability with conservation and efficient use of local land and water resources, access of safe water supply sanitation and energy services to all village families, local enterprise and job creation. The project has also demonstrated effective convergence of community initiative, public funds and donor support in building institutional capacities, infrastructure and local livelihood support systems.

2015-2016 was the year for making a commitment for change; and youth is where change begins. Development Alternatives partnered with Voluntary Service Overseas and launched a youth link initiative under the CLEAN India Programme. Young people articulated their understanding and commitment to actions for implementing the 2030 Global Sustainable Development Agenda through dialogues and seminars organized by the CLEAN India programme.

Recognition

We will remember the year for touching lives of 3.65 million people and giving them a future that is sustainable, green and climate resilient. A large contribution to change at the scale has been by our existing and new institutional and civil society partnerships. Their support on ground and as implementing agencies has been crucial in understanding local requirements.

These efforts and partnerships were recognized by UNEP through the Lifetime Award for Science and Policy to Dr. Ashok Khosla, Chairman. The award quoted his contribution to *“leading Development Alternatives to tackle the challenge of bringing commercially viable, environment friendly technologies into real world situation.”*



Managing land and water systems promoting sustainable agriculture

Conservation of land and water resources is integral to ensuring food security, especially in an agrarian country like India. In 2015-16, Development Alternatives continued to bring under its fold more hectares and litres to fulfil its mandate of creating sustainable livelihoods. Our work continued to benefit from partnerships with National Bank for Agriculture and Rural Development (NABARD), Technology Information, Forecasting and Assessment Council (TIFAC), International Crop Research Institute for the Semi-Arid Tropics (ICRISAT), “la Caixa” Banking Foundation and The Coca-Cola Foundation.

Highlight

Bundelkhand experienced its third year of drought in 2015, with serious impacts on the lives and livelihoods of its communities. However, despite the region reeling under drought conditions, the 50 villages in the DA managed NABARD sponsored watershed programme area stood out as oases of climate resilience. The management of water and land resources, specially the construction of check dams and other water harvesting structures enabled farmers to maintain farm productivity despite an erratic and delayed monsoon. These watershed management interventions successfully recharged ground water for both *kharif* and *Rabi* seasons and helped boost farmer incomes.





Focus

A series of new initiatives in 2015 contributed to sustainable land and water management in Bundelkhand. An area of 4,540 hectares of land and water was covered under watershed action in 42 villages of Tikamgarh, Shivpuri, Datia and Jhansi districts. Key interventions resulted in development of 25,540 running meters of field bunds, construction of 19 check-dams, 52 gabion structures and two farm ponds.

The structures were developed using scientific mapping and planning tools and in participation with local communities. Thirty six watershed committees were formed in addition, to promoting livelihood development through alternate income generation activities. These structures have brought the cumulative water harvesting potential to approximately 135 million litres each year, which is about 30% of the rainfall received in the area.

The cumulative area under direct action by the end of the year reached up to 31,500 hectares to cover 14,000 farmers, in 250 villages of 11 administrative blocks. About 40 civil society partners across 13 districts of Bundelkhand have benefitted from knowledge sharing and capacity building events conducted by the DA Group. With Development Alternatives represented at various platforms for knowledge exchange, such as the Steering Committee for flagship programmes of NABARD, lessons from our initiatives are informing the implementation of mainstream development programmes.

Another new initiative by Development Alternatives was to incubate Farmers' Producer Organisations (FPO) in Bundelkhand with support from NABARD. Four FPOs totaling 600 members were formed, enabling them to get better prices for the inputs they purchase and for the produce they sell (technically referred to as "improving their backward and forward market linkages"). The project also organizes training courses, knowledge-sharing visits and other capacity building programmes to improve their farming and business skills. The initiatives benefitted over 6,000 farmers who substantially improved the efficiency of their resource use and diversified their sources of income. Despite persisting drought conditions, around 85% of the farmers increased their crop production by 5%-15%.

Solar irrigation and *wadi* development has led to an estimated sequestering of at least 21 tonnes of CO₂ in this year. The land and water management initiatives spread across an area of 10,566 hectares have resulted in conservation of some 135 million litres of water and saved 3,785 tonnes of top-soil.

In the coming year, Development Alternatives aims to work with communities in Bundelkhand in setting up local institutions to promote and facilitate widespread adoption of climate resilient and sustainable agriculture practices across the region, and making these the "new normal". The next step in helping the Bundelkhand farmer become more profitable and viable is to strengthen the FPOs' ability to demonstrate innovative and better technologies and to deliver key agri-services, including market linkages, in a business-like manner.



Kailash Sahariya of Koti village in Uttar Pradesh is a change-maker. He has motivated other farmers to establish wadis (farm orchard) on their farms. From his own wadi, he earns an additional income of Rs. 15,000 and the agro-forestry models ensure farm returns even under adverse climatic conditions.



Empowering women, fostering inclusive development

Empowering women with education and skills for employment is central to the development of a nation. These enlightened minds support current societal development, and act as champions for future generations. With women as key stakeholders in livelihood development, our programme over the years has grown from basic literacy, skill building, collective action for economic resilience, participation and leadership in local governance and local natural resource management. Our initiatives in the past year were supported by IKEA, United Nations Children's Fund (UNICEF), Read India and NABARD to achieve gender equality and empower all women and girls.

Highlight

The TARA Akshar+ programme continues to impart literacy across the states of UP, MP and Rajasthan with imminent plans for expansion into Chattisgarh and Jharkhand. Development Alternatives works with illiterate women to make them functionally literate in 56 days. With support from leading organizations, the programme has, till date, enabled 1,90,000 women with basic literacy skills in more than 800 villages of eight Northern Indian states. In the last one year, 8,200 women graduated and were equipped with various employability skills. Of these, more than 1500 women became financially independent and are now contributing towards family incomes.





Focus

During 2015-2016, Development Alternatives enabled strengthening and scaling up its outreach in both, literacy and livelihood capacities of rural communities. It added 57,513 literate women to its numbers taking the total to 1, 90,000+ in three years. To retain and provide continued learning Development Alternatives introduced the concept of *Gyan Chaupalis* that enable women to practice and enhance their newly acquired literacy skills. In the year, 148 new women Self Help Groups (SHGs) were formed and linked to banks for acquiring credit. An amount of Rs 4.4 million has been leveraged as monthly savings and Cash Credit Limit (CCL) from women SHGs to start Income Generating Activities and small enterprises at grassroots levels. The SHGs also created awareness on WASH and local governance.

This year, 13,000 women have been linked to four existing women federations (*Sakhi Saheli, Sangini, SSMM and Sahyogini*) along with the formation of a new women's federation in Datia, Madhya Pradesh. These federations have reached out to 6,400 households with basic needs products like water filters and quality products like certified seeds.

The regular sensitization and meetings by the groups have increased women participation in local governance by 15% and resulted in the financial inclusion of 5,000 women through savings linkage. There has been a 20% increase in local participation in community governance and development processes across 15 *panchayats*. A major highlight has been the impact of women federation of Jhansi, *Sahyogini Mahila Mandal (SMM)* that took the lead role in these campaigns by promoting awareness on WASH behaviour change and the importance of *gram sabha* participation by the community through enacting street plays (*nukkad natak*) and dialogue sessions.



"I had lost the village Pradhan elections to another candidate who was educated. However, I took the setback as a challenge and learnt to read and write through the TARA Akshar + programme. I contested for the elections again and emerged as a winner. Now, I want to learn about government welfare schemes and develop my village,"

*- Ahalya Devi of Mohanpur
of Mirzapur district (Uttar Pradesh)*



Access to and availability of safe water and sanitation for all

Safe water and sanitation for all is amongst the most critical of India's needs today. It is one of the key priority areas under the national and global development agendas. Sustainable management of water resources and provisions of safe drinking water to rural and urban communities along with strengthening sanitation facilities and hygiene education, has been a key focus area for the Development Alternatives Group. With water harvesting systems in place, in the arid landscape of Bundelkhand, the efforts were directed towards drinking water pipelines, reviving pumping infrastructure based on solar renewables and rolling out scientifically robust, practical and affordable technology solutions for water testing and purification. The urban teams worked to promote safe water and hygiene in schools and slums of the National Capital Region. Our efforts were supported by “la Caixa” Banking Foundation, Coca Cola Foundation, Bodyshop Foundation, National Institute of Hydrology, Department of Science and Technology (DST), Solaqua Foundation, Charities Aid Foundation(CAR), AON, Commonwealth Foundation, ICRISAT and the Swachh Bharat Mission.

Highlight

Access to clean drinking water in the urban slums was one of the focus areas for Development Alternatives this year. Five *Jal Samities* were formed in the NCR as part of the ‘Household Water Treatment and Safe Storage (HWTS) Intervention in Urban Low Income Communities’ initiative. These *samities* have been entrusted with promoting HWTS practices in their areas hold meetings and events to generate awareness and conduct training in schools, *aanganwadis* and youth clubs. These are beginning to play an important role in advocating for safe water access communities and local government functionaries.





Focus

Soil and water management initiatives were carried out across five villages from Tikamgarh district, three from Shivpuri, 23 from Datia and three from Jhansi, identified as the basis of micro-watershed delineation. Thirty six watershed management committees have been formed for the planning, design, maintenance and management of water harvesting structures. These structures have enabled the harvesting of 135 million litres of rainfall water and reduction in 3785 tonnes of top soil erosion.

Initiatives were coupled with improved access to over 2,500 households' by restoring pipeline to drinking water supply systems and reviving hand pumps and bore wells in 23 villages. Awareness on improved practices for water consumption and water use under WASH campaigns was promoted in 25 villages across five clusters. Key highlights have been the communities' contribution of INR 0.2 million for a regular supply of improved drinking water service.

DA has developed a set of water purification technology packages under a programme supported by the Department of Science and Technology targeting the low income household population. All these technologies have been thoroughly tested in the laboratory.

The initiatives have resulted in two affordable water purification technologies and two water quality monitoring solutions, resulting in over 140,000 people accessing water and sanitation facilities.

A major highlight this year has been the implementation of a community led model to address

water access need in the three villages of Pipra, Govindnagar and Chandraban in the Bundelkhand region. The model creates a community-owned and community-operated (COCO) drinking water supply, powered by solar energy. The monthly charge collected in each of the three villages accumulates to a fund that is large enough to cover the annual maintenance and repair expenditures. Therefore, once the initial infrastructure is in place, the community can independently undertake operations without external support.

This year DA constructed 846 toilets at the household level across all the clusters of operation in Bundelkhand. Approximately, 16000+ household have been reached out for WASH awareness through school and community programmes. In Gurgaon our team engaged with the staff and students of three schools to facilitate the adoption of good WASH practices. Approximately, 2000 children were educated on the importance of safe drinking water and sanitation, enabling them to reach out to communities and demonstrate water conservation and purification techniques. A total of 110 WASH ambassadors were created to regularly monitor the sanitation facilities constructed by Charity Aid Foundation who further mobilised students to adopt good WASH habits--increasing the sense of ownership in the community towards these facilities. Drainage lines of 1406 running meters benefitting 630 households have been constructed under various community development projects.

For the next three years DA's goal is to provide 100% access to safe drinking water in 15 villages; 100% sanitation in five villages and 50% in 12 villages.



The people of Govind Nagar today take pride in their solar energy based drinking water infrastructure. The village boasts of 54 connections of about 1,000 metres of distribution lines that caters to the village's water demands.



Energy access driving low carbon economies

Access to clean and reliable energy for domestic and livelihood need is recognised as a game changer in our fight against poverty. With over 300 million Indians that lack access to adequate domestic energy services, approximately 84 million households (45% of rural India) are severely constrained in their potential to earn a decent livelihood due to the absence of electricity. Development Alternatives' initiatives in enabling the access of millions of rural poor to clean and reliable energy sources focus on domestic and productive energy applications in the Indian states of Uttar Pradesh and Bihar. Our work on home lighting, powering water supply, and clean cooking fuel are complemented by energy services for economic activities both in farm and non-farm sectors. Our initiatives to ensure access to affordable, reliable, and clean energy for all have been supported by the Coca Cola Foundation, Bodyshop Foundation, NTT Data and Oxfam India. We are building on the success and foundations of the Smart Power for Environmentally Sound Economic Development (SPEED) led by our sister organisation TARA and supported by the Rockefeller Foundation.

Highlight

Thirty-two new entrepreneurs could start production and 269 small entrepreneurs got a boost thanks to affordable and reliable solar based electricity to power their businesses in Uttar Pradesh and Bihar, In the year 2015-16 in addition, 1000 families and two schools now have electricity for lighting and cooling their homes and powering their mobile phones and computers. This has been achieved as part of the Smart Power for Rural Development (SPRD) initiative- which since 2011 is providing energy access to entrepreneurs across 60 sites in the state of Uttar Pradesh.





Focus

This year Development Alternatives has continued to focus on developing service delivery models for clean cooking, domestic and livelihood energy and irrigation services through community based solar off-grid solutions. Decentralised business models for energy services were tested in Uttar Pradesh, Madhya Pradesh and Bihar. Load management and demand acquisition for viability of operations were complemented with mobile based tariff collection and service connections.

The incubation of domestic electricity models has been done across three villages of Jhansi, Uttar Pradesh (amongst the most affected) in Bundelkhand where 20 solar based pico-grids were installed for local communities. Over 492 households and two schools were benefitted directly as a result of these interventions.

Across 60 sites, through 19 solar power plants of capacities 30 kilowatt, 729 mega-watt per hour of electricity lit up 9,850 lives, serviced 32 new enterprises and ramped-up 269 businesses, and benefitting 40 farmers.

The coming year will see incubation of cooking gas services from bio-gas systems and an expansion of off-grid solutions for rural areas.

At the national level, Development Alternatives undertook the task to sensitize stakeholders (corporate, government and citizenry) to promote the use of renewable energy. A number of panel

discussions among experts and policy makers in this regard were organised. One of these was a round table conference during the organisation's annual events TARAGram Yatra. The objective was to collectively understand the feasibility of decentralised low-carbon production systems as drivers for inclusive, low-carbon economic growth. The discussion highlighted the need for a strong assessment framework that includes parameters representing triple bottom line benefits, and the undeniable proof that such models should be replicated and scaled. It also brought to the fore, the connection between renewable energy and skill building— where skills and capacities came up both as an important input into the system and an important consequence of the system.



"I am really glad that I got this opportunity to work with the DA Group and TARA. I always wanted to do something innovative with my generator business. Now, I would be able to curb theft issues, save on the diesel expenditure and because of the proposed financial model, I would be able to use the solar technology at an affordable price."

*- Manoj Kumar Sah
Renewable Energy Operator*



Supporting SMEs - sustainable and inclusive economic development

Micro, Small and Medium Enterprises (MSMEs) are critical for India as inequitable and jobless growth continues to remain a major concern for the national economy. Development Alternatives' mission of creating sustainable livelihoods in large numbers is fully aligned with this key national priority. A core area of our work is directed towards developing relevant skills and building capacities of new and existing entrepreneurs to run profitable and sustainable businesses and generate value in the local economy. Our work prioritises' key economic sectors such as building materials production and construction services, agriculture and allied industry, paper and crafts from wastes, individual and group enterprises that provide safe drinking water, habitat and energy services to rural communities and individual led service based small enterprises in peri-urban areas.

Highlight

Women's federations in Bundelkhand are graduating as **enterprise support service providers**. Their role of servicing credit need of micro enterprises is noteworthy. In collaboration with the "la Caixa" Foundation Bank, a revolving fund was setup in three villages of Madhya Pradesh to provide small loans to local entrepreneurs. Operated by women, these facilities have helped 10 entrepreneurs to start their own businesses like poultry, grocery stores, e-kiosks, and information centres. A small credit of INR 2,00,000 initiated these services.





Focus

In the financial year 2015-16, DA facilitated the development of 116 new enterprises and the initiation of 800 small income generation activities. As a result, 500 new jobs were created and INR 6 million was invested in decentralised local economic development across villages in UP, MP and Bihar. The portfolio of enterprises included green building materials, poultry farms, and farm aggregation centres, rural retail and services. There was an expansion of rural retail and services portfolio in light of new opportunities emerging from the fields of water purification services, computer training centres, information centres, photocopy and printing services. The income generation and entrepreneurial activities have included tailoring centres, vermi-compost units, and horticulture based farm income diversification models among others.

One of the major highlights in this year has been the formation and incubation of four Farmer Producer Organisations (FPOs) for agro-based cluster development in Bundelkhand. With support from the National Bank for Rural and Agriculture Development, these FPOs have an outreach to 100 members each in the first year and aims to strengthen value chains for dairy, fruits, vegetables, spices and agri-inputs in the local economy. In an initiative to revive traditional industry, one weaving resource centre was established in Datia, Madhya Pradesh. This centre has helped revive a weaver's

cluster with women weavers using improved looms (TARAlooms) engaged in developing fabric from recycled pet bottle yarns blended with natural yarns. Products made from the fabric are being sold as lifestyle products in the market. In recognition of cluster and enterprise development initiatives of Development Alternatives, TARA – the social enterprise arm of Development Alternatives has been empanelled as a Technical Agency (TA) under the revamped scheme of Fund for Regeneration of Traditional Industries of the Ministry of Micro, Small and Medium Enterprises. TARA will now provide support to two clusters as an empanelled Technical Agency.

In an initiative to scale up support to enterprises through service orientation, Development Alternatives Group has launched a special purpose engine to provide technical, financial, market and knowledge services to entrepreneurs in this year. A strategic focus will be placed on building the product portfolio and service orientation for supporting entrepreneurs through the special purpose vehicle in the coming year. In addition to this, Development Alternatives will continue to strengthen its cluster development initiatives for agriculture and weavers in Bundelkhand. Augmented support will be provided to new enterprises in areas where DA's projects are in action.



“With an initial investment of Rs.50, 000 I planned to build two poultry farms, to rear 1,000 chickens. Today, both the poultry farms are operational. With these farms I expect to earn a profit of Rs.15, 000 every month.”

*- Jitendra Singh Parmar (24)
an entrepreneur.*



Constructing sustainable human habitats connecting policy with practice

With over a quarter of the country's population homeless or living in squalor, housing is a top priority for citizens and the government alike. The planet, on the other hand, has to contend with repercussions of the resource and energy intensive construction techniques likely to be used for meeting this massive deficit. Thirty years of Development Alternatives' innovation in the area of human settlements has proven that sustainable housing is possible as evidenced in the roll out of resource efficient affordable housing models, policy recommendations and technological innovations that have improved the lives in rural India. Development Alternatives is now working to make urban spaces sustainable and "Swachh". This year, the organisation focussed on research and support to state governments in implementing and formulating their housing policy. It conducted three separate and independent research initiatives with support from Ministry of Urban Development, Ministry of Rural Development, United Nations Development Programme (UNDP), Asia Pacific Network (APN), Heinrich Böll Foundation (HBF) and National Capital Territory.

Highlight

Development Alternatives has been mandated by UNDP, under support from the Ministry of Rural Development for formulating appropriate and affordable solutions for rural housing in Uttar Pradesh. Under the project, the existing scenario of rural construction prevalent in Uttar Pradesh was studied and analysed. The state of Uttar Pradesh was demarcated into housing zones based on four factors: climatic conditions, exposure to natural hazards, availability of local materials and prevalent socio-cultural practices. Indicative housing designs and a technology menu matrix has been developed for each identified housing zone.





Focus

Development Alternatives' habitat programme focussed on sustainable affordable housing and citizens' action that would contribute to making cities and villages liveable and resilient to climate change.

At the neighbourhood level, DA successfully innovated and piloted a decentralized waste management system, in Delhi. The Green Gold project, in collaboration with the Government of National Capital Territory, sensitised 1,500 residents on the issue of waste management. The success of fifty residents who setup home composting systems was upgraded into a larger programme. The programme has been scaled up across 300 families in three neighborhoods and is being studied for solutions at the city level.

A Rural Housing Design Compendium was developed for the state of Uttar Pradesh through a detailed state-wide study of materials, technologies, skills and housing typologies. Supported by UNDP and the Ministry of Rural Development, this compendium is a tool to enable the State to address housing needs of its 10 million families that still live in temporary or *katchha* shelters.

On behalf of the Ministry of Urban Development, inputs to State Governments of Andhra Pradesh, Telangana, West Bengal, Assam and Sikkim on affordable urban housing polices contributed to the development of the Draft Urban Affordable Housing and Habitat policies for these states. Our work further contributed to the template for states to develop their Affordable Housing Policies.

At the national level, Development Alternatives worked with the Wuppertal Institute, Germany to promote the concept of decoupling virgin resource

use in the construction sector. The research funded by GIZ resulted in three policy briefs, aimed at creating awareness among decision makers to promote resource and energy efficiency in the Indian construction sector. The policy briefs linked existing policy with research and institutional frameworks to strategise for reducing material resource footprints of the rapidly growing urban areas. By studying the drivers and barriers, the research focussed on providing concrete recommendations at national, state and local level for the Indian construction and building sector.

With support from the Heinrich Boell Foundation, research in the affordable urban housing and consultations with key stakeholders have built an understanding of material resource conflicts and scarcity that are threatening the growth of this sector.

At the South Asia level Development Alternatives collaborated with Pakistan and CFN Nepal under the CANSA umbrella to conduct a study on the policy drivers and barriers for scaling up low carbon construction technologies. The study revealed that the construction sector as a whole in India, Nepal and Pakistan is disaggregated with complex interlinks among both the public and private stakeholders. While low carbon materials and technologies exist, their adoption and mainstreaming regions for capacity building and awareness generation of all stakeholders.

This year, Development Alternatives joined the international Multi-Stakeholder Advisory Committee of the Sustainable Building and Construction programme under the 10 year Framework (10YFP) of UNEP. This programme will guide national governments, private sector and academia in promoting sustainable practices in housing and building sectors.



“I would like to express my gratitude to Development Alternatives for initiating this pilot with our Resident Welfare Association and for promoting green practices by kitchen waste recycling. I am also motivating other residents of our society to start gardening and reusing waste as a productive resource.”

*-Mrs. Rekha Wadhva Resident of E-Block,
Saraswati Vihar, Pitampura, Delhi.*



Resource efficiencies - promoting sustainable production and consumption

Decoupling non-renewable and virgin material use from resource intensive economic sectors such as construction is a national imperative. Development Alternatives has been a pioneer in this field. Since the past three decades our innovation in technology solutions, application and delivery models, large scale capacity building of stakeholders and evidence based studies for policy development have yielded results in public and private sector uptake of sustainable production and consumption practices in the construction sector. Continued advocacy with state governments and successful demonstration of resource efficient and low carbon brick technologies have found the State Governments of Bihar and the Republic of Malawi to promote the use of fly-ash and eco-kiln technologies. Current initiatives focus on research and viability studies for new industrial waste based resource streams in the construction sector, especially in the fast growing urban housing arena. Our initiatives over the last year supported by Shakti Sustainable Energy Foundation (SSEF), Swiss Development Corporation (SDC), Ecole Polytechnique federale Laussane (EPFL), IIT- Delhi, Mumbai, and Madras, Heinrich Boell foundation, Department for International Development, Deutsche Gesellschaft fur Zusammenarbeit (GIZ), and NABARD.

Highlight

After a successful pilot of the Limestone Calcined Clay Cement (LC³) last year, DA is now exploring availability of china clay mine over-burden and easily accessible residue materials. The focus is on detailed analysis of the clay resources in Gujarat and Rajasthan. A detailed GIS based database is being developed for establishing the feasibility of viable LC³ blends in these states. This project is very important from the perspective of construction growth in northern and western India, since the Delhi-Mumbai corridor is likely to see a massive growth in infrastructure in the near future. Cement companies have expressed substantial interest in these new development.





Focus

This year witnessed fruition of a number of initiatives concerning sustainable consumption and production. Development Alternatives supported the Bihar government in the promotion of Fly-Ash technology and 25 enterprises producing and supplying fly ash brick were set up in the state. This was a breakthrough from the minuscule that were set up over the last five years. DA and Shakti Sustainable Energy Foundation (SSEF) have been working with Government of Bihar to accelerate the adoption of cleaner brick production technologies like fly ash and the Vertical Shaft Brick Kiln, both initiatives will contribute to resource efficient growth.

Successful pilot trials of the Low Carbon Calcined Clay cement (LC³) in the year 2014-2015, were followed by partnerships for commercial scale production trials as well as production of intermediary product LC². Development Alternatives is now developing a detailed GIS based database on primary data of clay mine locations and clay quality for LC³ blend viability in Gujarat and Rajasthan. LC³ is a low carbon and low resource intensive cement with strengths comparable to that of conventional commercial-portland cements produced in India.

National studies on resource efficiency in construction sector have opened the arena of Construction and Demolition waste and marble dust; both available in very large quantities and having the potential of replacing virgin materials like stone, soil

and sand. Our research has provided a strong analysis of material flows in construction sector and tracked certain critical minerals and materials under stress. A market scan of construction and demolition waste in 10 Indian cities estimated the quantum of construction and demolition waste in the near future and presented its current status of management and reuse in India. The results revealed that India generated about 716 million tons of construction and demolition waste in 2015 and is projected to be more than double by 2030. This is clearly a material resource that must be brought into productive use.

Demand studies on construction material have identified the social and affordable housing sectors as the key areas of intervention. Our current work is building evidence from case studies and inputs from consultations to develop a policy case for resource efficiency and technology deployment.

This year also witnessed the successful technology transfer of clean brick production to Malawi in Africa as part of the South-South Technology Transfer. The Development Alternatives Group supported the successful demonstration of an Eco-Brick plant in Malawi which showcased the environmental benefits and also the green job creation potential of the technology through employment of 40 women amongst 100 employees – creating a better gender balance in the construction sector of the country. The efforts resulted in the utilization of 1,60,682 tonnes of waste and curbed 1,49,343 tonnes of carbon emissions in the year of operation.



Picture credit: Swiss Agency for Development and Cooperation (SDC)

"The LC³ cement is definitely a green cement. We have done the first pilot scale production of the cement in our grinding facility in Jhajjar. However before the cement reaches the market, it has to undergo rigorous quality testing as well it should be standardised by Bureau of Indian Standards".

- JK Lakshmi, Cements



Combating climate change strengthening knowledge systems, building capacities

Conserving natural resources and protecting the environment is a global concern. This is also a national challenge and requires policy, planning and programme strategies that integrate climate responsiveness in their design, implementation, monitoring and trading. The links from local to sub national and to national commitments towards a low carbon world need to be explicit in planning systems and budget. Development Alternatives works with DFID, the Madhya Pradesh state government, "la Caixa" Banking Foundation, The Coca Cola Foundation, Commonwealth Foundation and others to sensitise state planners, policy makers and the rural communities to enhance resilience and build capacities to integrate climate change adaptation in policies, programmes, action plans and implementation. These are being complemented with specially designed communication interventions, which build capacities of communities through radio journalists and bring communities, scientists and local governments together to discuss and co-design strategies to combat climate change impacts. In addition, Development Alternatives has been active in knowledge sharing and advocacy for effective climate action strategies at national, regional and global levels through the Climate Action Network South Asia (CANSA).

Highlight

Development Alternatives assisted the Madhya Pradesh government in mainstreaming climate change concerns in the planning and developmental policies / programmes of the state by building capacities of 400 government officials across line departments and the planning board. The organisation also defined a roadmap for the State Knowledge Management Centre on Climate Change (SKMCCC), the state agency, to integrate climate change adaptation and mitigation solutions in sectoral strategies. As a technical support unit DA developed Impact Assessment Papers for Forest, Agriculture, Water Resources and Urban sectors for the state of Madhya Pradesh.





Focus

In the year 2015-16, Development Alternatives piloted a methodology for effective water management by linking it with the concept of livelihood, climate change and hydrology. The methodology was developed for selected water scarce areas (on watershed basis), which will now be validated in different agro-ecological conditions. The research is expected to culminate into a modelling framework that integrates hydrology, climate change and socio-economic aspects to assist local stakeholders to take appropriate water management and sustainable agricultural measures relevant in their context.

Keeping in mind the crucial role policy implementers play, Development Alternatives assisted the State Knowledge Management Centre on Climate Change (SKMCCC) in mainstreaming climate change concerns in the planning and developmental policies/programmes of the state. DA defined a roadmap for the agency to integrate climate change adaptation and mitigation solutions in sectoral strategies. Through DA's role as a technical support unit, key academic research Impact Assessment Papers were developed for Forest, Agriculture, Water Resources and Urban sectors in MP, Vulnerability Assessment Reports for eight districts, an Organisational Plan for SKMCCC, and training modules on climate finance and PRIs.

These initiatives were further complemented with pilots on mainstreaming climate concern at the *panchayats* levels. Development Alternatives

intensively engaged with different community stakeholders, PRI's and government officials in 30 villages of Central India. The engagement resulted in setting of climate agendas in village meetings like *gram sabha* and *panchayats*, which further received motivation from the state issuing directives to make climate concerns a part of policy planning at all levels.

To further increase the scope of influence in the area of climate adaptive governance, the organisation strengthened capacities of personnel operating 29 community radios in Assam, Bihar, Chhattisgarh, Kerala, Maharashtra and Odisha. As a result climate change messages reached to approximately 3 million people with the help of 29 community radios. Twenty nine community journalists have better understanding on climate change communication.

In the next three years, Development Alternatives intends on redefining micro-planning at the village, state and national level to include climate adaptive planning practices. These practices will make rural masses aware about climate change and make them responsible towards planning in advance to prevent the negative effects of climate change. Above all, the local decision makers and stakeholders will learn the process of integrating climate change concerns into bottom-up development planning.



“After losing an entire year's yield to drought, I now understand the importance of adapting to climate change. Now, I talk about climate concerns to everyone and ask them to adopt and adapt to sustainable lifestyles. I have also started participating in radio programmes.”

- Prashant Kushwaha, a change agent and a resident of Datia, Madhya Pradesh.



India - Priority
Investing in
Sustainability



owering
unities
needs
ment

Partnerships to foster sustainability

Development Alternatives strengthened means of implementation and revitalized the global partnership for sustainable development by contributing in research, advocacy and action on finance, capacity building and technology sharing in India and South Asia. DA conducted scoping exercise on finance, data systems and indicators in India for achieving SDGs. DA, as a member of CANSA also advocated collaborative action and partnerships for resource mobilization in South Asia to address climate change. Additionally, DA contributed in capacity building of citizens especially youth on ideas and actions towards sustainable development.

Highlight

The Youth Citizen Service (YCS) leadership challenge created space for young leaders to develop an understanding of development issues and worked to address and find solutions to these challenges. The volunteers witnessed the rural life in India for six weeks — interacting with villagers and understanding their way of life. The experience enabled city youth to understand the issues of a developing nation especially in a climate change threatened environment. They worked to strengthen community run enterprises by developing value chain models, created market linkages, conducted quality assurance and increased efficiencies.





Focus

This year DA has been at the forefront in engaging with global and international research and policy organisations to help design the framework for Sustainable Development Agenda 2030. At the global level, as part of the Independent Research Forum, DA organised a series of informal retreats for senior government negotiators and UN officials to create a space for sharing diverse perspectives and find common ground on complex, potentially divisive issues.

Development Alternatives also worked on natural resources nexus concerns to provide inputs to UNEP's International Resources Panel from 2012 to 2015 during the formation of the Global SD Agenda 2030 and the SDG framework. At the regional level, Development Alternatives has been a founder Board member of Climate Action Network South Asia and performs the vital function of bringing the SDG and Climate Agendas together in advocating for South Asian perspectives for Sustainable Development. Post-2015 "Development Priorities" for the South Asian Region, a report prepared by DA, highlights the need to set the agenda for the region, focusing on the needs and strengths of respective countries.

At the national level, DA, in collaboration with Overseas Development Institute conducted a study on potential gains and contributions perceived by Indian stakeholders about SDGs. DA also conducted a financial assessment on achieving SDGs in India. This study was commissioned by Ministry of Environment, Forest and Climate change and was

supported by United Nations Development Programme. Another study was conducted on the nature, scope, and methodology and data availability of indicators of SDGs in India with support from Henrich Boell Foundation.

DA continued to hold trialogue 2047 with added fervor covering a wider range of issues. This year the discussions ranged from providing citizens with the basics like food security and housing to encouraging youth participation in the development dialogue and processes. A series of fifteen trialogue 2047 have been organised by till date.

trialogue 2047, are series of intellectual encounters that envision a century of India as a nation. trialogue 2047 aims to be a forum that can engage with a well-informed audience to identify new directions India must choose and the policies and measures it must adopt to accelerate a transition towards a sustainable tomorrow.

Previous trialogue 2047 discussions included topics such as Food Security, Resource Efficient Smart Cities, Principles of Policy Making, Climate Change in South Asia, Building a Sustainable Future and Transforming the Development Paradigm. Speakers such as Deepak Nayyar, Jairam Ramesh, Jayati Ghosh, Subir Gokarn, Ashish Kothari, Chhavi Rajawat, J M Mauskar and Rajesh Tandon amongst others have engaged in this forum.

The latter part of the year witnessed a partnership between DA and VSO International. Under this partnership 23 volunteers were taken to Bundelkhand to develop an understanding on the development issues and work to address or find solutions to these challenges.



The course of self-discovery

The entire stay in Bundelkhand was a riveting experience. I wish I could go back to those two months again to redo the things that I enjoyed, to undo the things that I could have done differently, and to relive each and every moment of the most amazing time of my life!

- Shivangi, a YCS volunteer



Events

Trainings

- Training on 'Decentralised rural electrification projects- Level1', 23-24 April 2015, Development Alternatives, New Delhi
- State level training workshop on 'Mainstreaming Climate Change in Sectoral Planning', 22-24 April 2015, Bhopal Madhya Pradesh
- National training on 'Integrating Conservation and Climate Adaptation in Rural Development', 25th April- 1st May 2015
- Training on 'Enabling a Digital India: Using the Power of Geographic Information System (GIS)', 10-11 September 2015, New Delhi
- Training workshop on 'GIS based Climate Change Information System (GIS-CCI), 1-15 January 2016, Bhopal
- Youth Citizen Services Leadership Challenge, 3 Nov 2015-11 Dec 2015, Mirzapur District, Uttar Pradesh

Workshops

- Stakeholders consultation on 'Urban Affordable Housing and Habitat Policy', 7-8 April 2015, Hyderabad
- dialogue2047: 'Food Security : the Big Question of Resources', 30 April 2015, Development Alternatives, New Delhi
- dialogue2047: 'Building Synergies Across Sectors: Housing for All in a Resource Constrained Landscape', 27 August 2015, Development Alternatives, New Delhi
- Roundtable conference on 'The Future of Resource Management in Urban India' 28 October 2015, New Delhi
- TARAgam Yatra 2015: 'India Post 2015-Investing in Sustainability', 7-10 October 2015
- dialogue2047: 'Youth and SDGs-What young minds want to see in India by 2030?', 10 September 2015, Development Alternatives, New Delhi
- Consultative Workshops on Resource Efficiency in the Construction Sector, 20 August 2015, Ahmedabad
- Consultative Workshops on Resource Efficiency in the Construction Sector, 7 September 2015, Chennai
- Consultative Workshops on Resource Efficiency in the Construction Sector, 23 September 2015, Kolkata
- Workshop on 'Mainstreaming Climate Change in District Planning', 29 October 2015, Datia, Madhya Pradesh
- dialogue2047: 'Community Based Models for Food Security', 27 November 2015, New Delhi
- National workshop on 'Bridging the Digital Divide: Technology Innovations for Community Radio', 19th November 2015, New Delhi
- National Consultation on 'Locating the SDGs Indicators in the Indian Context', 28 December 2015, New Delhi

Conference

- International Conference on 'Inequality in a Rising Asia: Environment, History and Society', 3-4 October 2015, New Delhi

TARAgam Yatra

TARAgam Yatra (TGY) is an annual event organised by the Development Alternatives (DA) Group designed to deliberate on issues of development and sustainability in policy and practice. Through this event DA brings together top-level practitioners and policy makers from across the world to create space for transformation. With a mix of dialogue and field visits, the Yatra provides a platform to address the complex challenges of sustainable development. It is designed to encourage new ideas and innovative solutions that

facilitate the exchange of knowledge, experience and perspectives between multi-stakeholders.

The Journey So Far

DA has successfully conducted six significant TARAgam Yatras from 2010 to 2015. The following presents a brief overview of the TGYs held before.

The first Yatra (2010) titled 'Towards Green Economies: Scalable Solutions for People and Our Planet' prioritised specific issues of transition towards renewable energy, sustainable construction, water management, water recycling and sustainable agriculture. It also communicated

Indian and South Asian perspectives to inform the Global discourse on Green Economy.

The second Yatra (2011) titled 'Resource Efficiency and Green Transformation: Driving Change in Asia', brought together practitioners and policy makers from across South Asia to explore good practice cases and develop action strategies for resource efficient and climate responsive economic models.

The third Yatra (2012) titled 'Sustainable Development in South Asia: Women Driving Change' focused on the role of women in leading the world towards sustainable livelihoods, green enterprises and the policies



required to develop capacities and skills of women across South Asia. The discussions focused on the role and potential of women led interventions that would nurture and revive our ecosystems, enhance security of food, water, energy and livelihood and construct self-reliant societies.

The fourth Yatra (2013) titled 'Safe Water for All and Always: Science - Policy – Markets' became a platform to familiarise policy makers and practitioners with emerging concepts and models for sustainable development. It emphasised on access to safe drinking water for all in South Asia.

The fifth Yatra (2014) titled 'India Post – 2015: A Country in Transition' explored the transitions that India is making and needs to make in its economic strategies, social processes and environment management systems to achieve human wellbeing on a healthy planet.

The sixth Yatra (2015) titled 'India Post – 2015: Investing in Sustainability' identified three themes to address - growth of local economies through energy access, food and livelihood security and urbanisation in a resource stressed nation. The discussion focused on the kind of investments required for the movement towards sustainability, how to maximize the impact of these investments, and the role of public and private stakeholders.

TARAgam Yatra 2015 - India Post 2015: Investing in Sustainability

India's Status Quo with respect to the SDGs is critical because of the choices that India makes to achieve economic, social and environmental well-being. It will in turn have implications on the world economy and planetary well-being. Over the last two decades, India had a consistent average GDP (constant prices) of around six per cent and this economic growth has allowed India to reduce the proportion of the population living in extreme poverty from an approximately 65 per cent in the 1950s to 22 per cent today. Credited with the creation of 100 billionaires in the last 25 years, the overall assessment of India's social, economic and environmental conditions is not healthy.

TARAgam Yatra (TGY) 2015 became a constructive exercise to evaluate the gap in achieving the 17 development goals of India. It helped to realize the need to reset universalised SDG goals in the national context regionally where the right to prioritise indicators is with the institutions of local governance. This would help to include and enhance equity and social justice into the fabric of SDG implementation. The following presents the emerging perspectives in the three different themes of TGY 2015.

Publications



Tracking the Global Goals in India (2016)



Achieving the Sustainable Development Goals in India: A Study of Financial Requirements and Gaps (2015)



Post 2015 South Asia Development Agenda (2015)



International Exposure Visit COP-21 (2015)



Sustainable Development Goals and Post 2015 Development Agenda: A Study Of India's Potential Gains And Contributions (2015)



Building Resilience in Agriculture for Food Security (2015)



Low Emission Development Opportunities for MP (2015)



5-Year Perspective Plan 2016-2021 (SKMCCC)



Impacts of Climate Change on Urban Sector in MP (2015)



Impacts of Climate Change on Water Resources in MP (2015)



Climate Proofing Agriculture in Rain-fed Areas



Policy Coherence of the Sustainable Development Goals : A Natural Resource Perspective (2015)

Visit: www.devalt.org/Publication_ViewAll.aspx

Policy Briefs

- Bhamra, A., Hajra, M. and Niazi, Z., 2015. Building resilience in agriculture for food security. New Delhi: Development Alternatives, 46p.
- Nagrath, K., Reen, R. and Niazi, Z., 2015. Achieving resources synergies for a rapidly urbanizing India: a production of housing. New Delhi: Development Alternatives, 35p.
- Development Alternatives, 2015. Policy and regulatory implications of decentralised renewable energy (DRE) in Rural India. New Delhi: Development Alternatives, 9p.
- Bhamra, A., 2015. Resilience framework for measuring development. New Delhi: Development Alternatives, 4p.
- Niazi, Z. and Bhamra, A., 2015. Decoupling growth from resource generation. New Delhi: Development Alternatives, 11p.

Reports

- Development Alternatives, 2015. Technical aspects of DRE mini grids. New Delhi: Development Alternatives, 9p.
- Goyal, A., 2015. The Business case for DRE Mini Grids achieving the sustainable development goals in India: a study of financial requirements and gaps, New Delhi: Development Alternatives, 15p.

Perspective Paper

- Niazi, Z. et al. , 2015. Sustainable Development Goals and Post 2015 Development Agenda: a study of India's potential gains and contributions. New Delhi: Development Alternatives, 42p.

Other Publications

- Development Alternatives, 2015. Wadi enabling small farmers to secure their livelihoods. New Delhi: Development Alternatives, 32p.

Manuals

- Development Alternatives, 2015. Vertical Shaft Brick Kiln: construction manual: a practical guide on how to construct a Vertical Shaft Brick Kiln. New Delhi: Development Alternatives, 52p.
- Development Alternatives, 2015. Vertical Shaft Brick Kiln: design manual: a practical guide on how to design a Vertical Shaft Brick Kiln. New Delhi: Development Alternatives, 28p.
- Development Alternatives, 2015. Green Brick Making Manual. New Delhi: Development Alternatives, 46p.

Board of Directors



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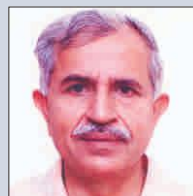
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Jawaharlal Nehru University

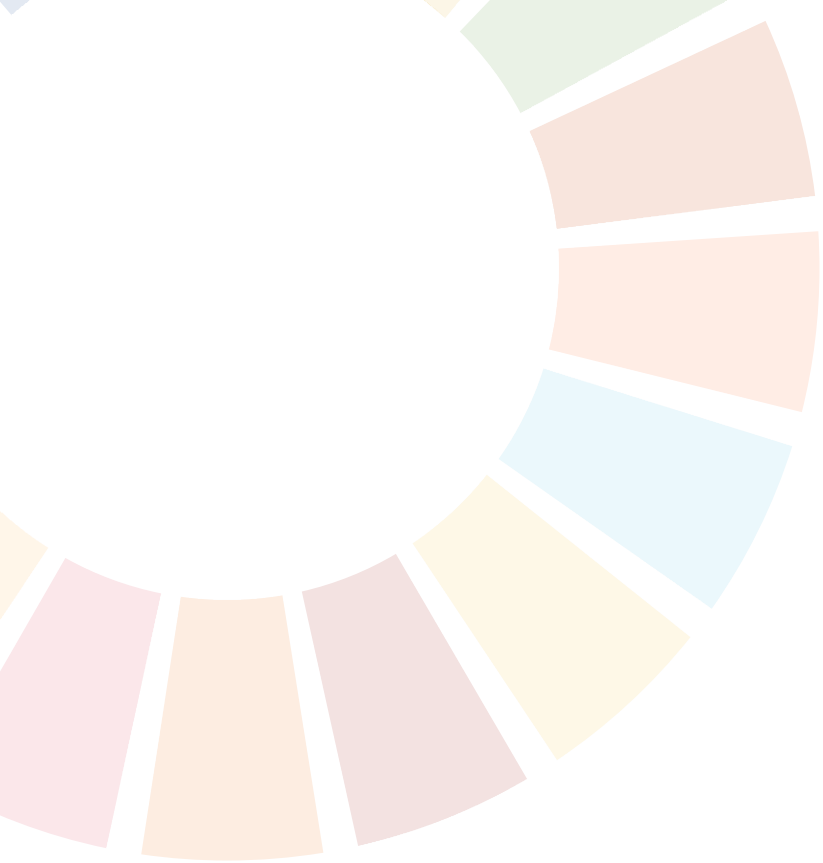


Dr. Arun Kumar
President
Development Alternatives



Mr. George C. Varughese
President
Development Alternatives





Compliance

Auditors' Report

Society for Development Alternatives Balance Sheet as at 31 March 2016

	Schedule	As at 31 March 2016 ₹	As at 31 March 2015 ₹
Sources of funds			
Capital			
Capital and other funds	1	3,79,08,263	3,61,76,978
Liabilities and provisions			
Unspent grants	2	7,50,65,674	22,57,68,256
Current liabilities	3	62,20,778	1,01,57,653
Provisions	4	20,22,262	22,72,773
		<u>12,12,16,977</u>	<u>27,43,75,660</u>
Applications of funds			
Fixed assets	5	2,33,03,262	2,26,92,582
Current assets, loans and advances			
Cash and bank balances	6	7,97,36,344	23,05,77,722
Loans and advances	7	1,75,08,941	1,64,47,447
Other current assets	8	6,68,430	46,57,909
		<u>9,79,13,715</u>	<u>25,16,83,078</u>
		<u>12,12,16,977</u>	<u>27,43,75,660</u>
Significant accounting policies and notes to the financial statements	13		

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

This is the Balance sheet referred to in our report issued in Form No. 10B of the Income Tax Rules, 1962 of even date.

Walker Chandiook & Associates

For Walker Chandiook & Associates
Chartered Accountants

For and on behalf of the Society for Development Alternatives

Nitin Toshniwal
per Nitin Toshniwal
Partner



George C. Varughese
George C. Varughese
President

Vinod Nair
Vinod Nair
DGM Finance

Place : New Delhi
Date : 8. August. 2016

Society for Development Alternatives
Income and Expenditure Account for the year ended 31 March 2016

	Schedule	Year ended 31 March 2016 ₹	Year ended 31 March 2015 ₹
Income			
Grant income	2	35,12,38,525	31,71,45,887
Other income	9	1,10,16,628	1,35,21,695
		<u>36,22,55,153</u>	<u>33,06,67,582</u>
Expenditure			
Grant expenditure	2	28,92,30,162	26,31,70,546
Personnel cost	10	5,51,06,350	4,59,92,993
General and administrative expenses	11	1,29,31,101	94,15,433
Depreciation and amortization	5	24,60,683	23,59,535
Finance costs	12	7,95,572	13,729
		<u>36,05,23,868</u>	<u>32,09,52,236</u>
Surplus for the year transferred to capital and other funds		17,31,285	97,15,346

Significant accounting policies and notes to the financial statements 13

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

This is the Income and Expenditure Account referred to in our report issued in Form No. 10B of the Income Tax Rules, 1962 of even date.

Walker Chandio & Associates
For Walker Chandio & Associates
Chartered Accountants

For and on behalf of the Society for Development Alternatives

Nitin Toshniwal
per Nitin Toshniwal
Partner



Place : New Delhi

Date : 8. August. 2016

George C. Varughese
George C. Varughese
President

Vinod Nair
Vinod Nair
DGM Finance

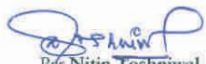
FORM No. 10B

[See rule 17B]

Audit report under section 12A (b) of the Income-tax Act, 1961 in the case of charitable or religious trusts or institutions

1. We have examined the Balance Sheet of **Society for Development Alternatives** (the "Society") as at 31 March 2016 and the Income and Expenditure Account for the year ended on that date (collectively referred to as the "financial statements") which is in agreement with the books of account maintained by the said Society.
2. We have obtained all the information and explanations, which to the best of our knowledge and belief were necessary for the purpose of our audit. In our opinion, proper books of account have been kept by the Society so far as appears from our examination of the books.
3. We did not audit the financial statements of branch (Orchha), included in the financial statements, whose financial statements reflect total assets of ₹ 1,17,89,644 as at 31 March 2016 and total revenues of ₹ 1,70,34,958 for the year then ended. These financial statements have been audited by 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 SKA & Associates. Our opinion is not qualified in respect of this matter.
4. In our opinion and to the best of our information and according to the explanations given to us, and based on the consideration of the report of the other auditor on the financial statements of the branches, the aforesaid financial statements read together with the notes thereon, give a true and fair view, in the case of-
5. Our audit of financial statements was conducted in accordance with the Standards on Auditing issued by the Institute of Chartered Accountants of India. Those Standards require that we comply with ethical requirements and plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.
6. The prescribed particulars are annexed hereto.

Walker Chandiook & Associates
For Walker Chandiook & Associates
Chartered Accountants
Firm Registration No.: 001329N


Per Nitin Toshniwal
Partner
Membership No. 507568



Place: New Delhi
Date: 8. August .2016

Credibility Alliance

Identity

Society for Development Alternatives is registered as a not - for - profit society under Society Act. XXI of 1860 (Registration number 12964).

Society for Development Alternatives is registered under Section 6 (1) (a) of the Foreign Contribution (Regulation) Act, 1976 (FCRA Reg. No. 231650202)

Visitors are welcome to the addresses given on the “contact us” link on our website: www.devalt.org

Name & Address of main bankers:

Syndicate Bank, R K Puram, Sector - V
New Delhi - 110 022

Name & Address of auditors:

M/S Walker Chandiook & Co.
L-41, Connaught Circus
New Delhi - 110 001, India

Governance

None of the Board members is related to each other.

The Development Alternatives Board members met twice in the FY 2015-16 on 24th October 2015 and 19th March 2016.

Minutes of Board meetings are documented and circulated.

Accountability and Transparency

No sitting fees or any other form of compensation have been paid since inception of the Society for Development Alternatives, to any Board Members.

Regular staff	Male	Female	Total
<2500	0	0	0
<7000	0	0	0
<15000	7	1	8
<30000	11	0	11
<50000	7	18	25
>50000	12	9	21
Grand Total	37	28	65

Staff Details (as on March 31, 2016)

Gender	Regular staff	Senior Advisors	Consultants	Project Appointees
Male	129	6	113	33
Female	44	0	2	4

Distribution of Staff (as on March 31, 2016)







Business Affiliates

Society For Technology And Action For Rural Advancement (TARA)

The **Society for Technology and Action for Rural Advancement (TARA)** is the incubation engine of the **Development Alternatives Group**, set up in 1985 at New Delhi. Its vision is the creation of sustainable livelihoods on a large scale, in pursuit of which, TARA develops and promotes “scalable solutions for people and our planet”.

As an “**incubation engine**”, TARA's mandate is defined around impact in the areas of Employability, Entrepreneurship, Clean Technology, Basic Needs, Natural Resource Management and Institutional Strengthening. In 2015-16, a mix of projects and revenue based activities delivered a range of replicable enterprise based business models, community development packages and capacity building solutions in five sectors - **Renewable Energy, WASH (Water, Sanitation and Hygiene), Affordable Housing, Waste Recycling and Livelihood Security**.

During the year, TARA's work was across the following **business domains**:

- **Sustainable Business Solutions** – Green Products & Services; Aggregation Services; Market Development Services; Tech & Enterprise Packaging Services
- **Community Development Solutions** – Infrastructure Development Services; Livelihood Support Services; Resource Management Services
- **Capacity Building Solutions** – Training Services; Organizational & Institutional Dev. Services; Sustainability Advisory Services

With a **focus on scale and replication**, TARA created a niche in the market by showing the path for the Market to replicate, through some of its flagship projects like **Smart Power for Rural Development (SPRD) – Load Development** with The Rockefeller foundation, and **Skills to Livelihoods** for Hindustan Unilever Limited (HUL) & Fullerton.

TARA Micro-utilities Pvt. Ltd.

TARA Micro-utilities Pvt. Ltd. (TMPL) is an Operational Business Unit, incubated within the Society for Technology and Action for Rural Advancement (TARA). Access to energy for the rural market has been at the forefront for TARA and DA, and thus TARAurja was formally operationalized in 2013 to cater to the needs of various groups of customers in rural areas.

TARAurja has set up mini-grids in twenty two villages across two states – UP and Bihar. At an aggregate level, TARAurja sites have installed capacity to sell an average of 14,000 to 16,000 units per month to its rapidly growing customer base of 1,600 village households, shops, micro-enterprises and farmers. Reliable utility grade

electricity also supplied to institutional loads like schools, banks and hospitals. The business aspires to scale up to over 300 locations over the next three years.

TARAJurja has invested in and developed electronic load controlling and monitoring hardware. These devices allow TARAJurja to offer customized solutions to its consumers in addition to giving TARAJurja the ability to remotely disconnect consumers if they fail to pay for their electricity on time.

TARAJurja possesses a unique understanding of rural demand for energy solutions. It has, with support from its parent organization TARA (Technology & Action for Rural Advancement, a not for profit social enterprise) acquired expertise in community engagement, load acquisition and micro-enterprise development. These capabilities strengthen TARAJurja as a business and also deliver valuable economic, social and environmental outcomes.

TARALife Sustainability Solutions

TARALife Sustainability Solutions Pvt. Ltd. is an ISO 9001:2008 certified company engaged in promotion, manufacture, market & trade of cutting-edge Quality of Life products for the BOP(Base of Pyramid) households. Company initiated business with launch of Aqua+ a highly affordable, reliable and easy to use water purification solution, in the rural regions of eastern U.P and MP. The plans are to make it extensively available in the North and Center India through a robust network of Channel partners, sub-dealers, retailers & network of micro franchisees by the end of next financial year. This year we created a network of 15 channel partners across 10 districts of U.P & M.P. Over 3,00,000 people were made aware about safe drinking water and provided Aqua+ water purification solution to more than 22,000 households.

Besides, we are also one of the prominent manufacturer & suppliers of a wide range of high quality environmental testing instruments as well. The product range offered by us includes multipara meter Water Testing Kits, TARA Aqua check Vials, Soil Testing Kits and Air Monitoring Kits. These products are known for their user-friendliness, optimum performance, low maintenance and longer service life.

Soon a bouquet of other product will be included in the portfolio to provide access to basic needs “Quality of Life” predicts to BoP.

The Development Alternatives Group

Development Alternatives (DA)
www.devalt.org



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



TARA Nirman Kendra (TNK)



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



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



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



Decentralised Energy Systems India Pvt. Ltd. (DESI Power)
www.desipower.com



TARA Micro Utilities Pvt. Ltd.



TARA Enterprises Pvt. Ltd.





Development Alternatives

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