

# *ShubhKal*

...building resilience for a brighter tomorrow



# Development Alternatives

*Delivering eco-solutions for people and the planet*

**Development Alternatives (DA)** is a premier social enterprise with a global presence in the fields of green economic development, social empowerment and environmental management. It is credited with numerous innovations in clean technology and delivery systems that help create sustainable livelihoods in the developing world.

DA **focuses** on **empowering communities** through *strengthening people's institutions and facilitating their access to basic needs*; **enabling economic opportunities** through *skill development for green jobs and enterprise creation*; and **promoting low carbon pathways for development** through *natural resource management models and clean technology solutions*.

## *ShubhKal ...building resilience for a brighter tomorrow*

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***Dedicated to the memory of our inspiration***

Air Vice Marshal Surendra Sahni







# AVM S. Sahni: a tribute

**W**hen AVM Sahni retired after a distinguished and highly decorated service of 30 years in the Indian Air Force, his dream was to return to his place of birth, Jhansi, in the Bundelkhand region of Central India – an area proverbially known for the abject poverty of its people and the dire fragility of its natural ecosystem.

He quickly recognised that any attempt to transform the economy and ecology of Bundelkhand would require vast knowledge and an institutional support system, which he decided to 'commandeer' by offering to join the Development Alternatives (DA) Group. In his second career of almost 30 years, as the Vice President and Senior Advisor of DA, AVM Sahni proceeded to bring his enormous insight, initiative and intense energy to set up a massive programme for restoring and rebuilding the social and natural processes in the districts around Jhansi – Lalitpur, Tikamgarh, Datia, Orchha and others – resulting in major and measurable improvement in the lives and livelihoods of the people and in the productivity of their land, water and biological resources.

This booklet is a tribute to the work of AVM Sahni and the cohorts of young colleagues he brought on board – many successive DA squadrons, trained and nurtured by him and his very dedicated senior colleagues in DA into a potent force for community transformation, environmental regeneration and economic sustainability.

The Development Alternatives Family hopes that our work in Bundelkhand can serve as a model for the kind of holistic, systemic interventions that can, at remarkably modest cost, make even the poorest regions of India, and indeed the world, gain for themselves a more prosperous and sustainable future.



**Ashok Khosla**  
Chairman  
Development Alternatives

# Development Alternatives' efforts to restore the glory of Bundelkhand

**W**e seldom reflect on the role water plays in our lives and consider it as the nature's bounty available for exploitation at will. Only when it becomes scarce or is simply not available do we appreciate its true value. Like in many other parts of India, people of Bundelkhand have known water scarcity in the past and continue to engage in a battle for water security.

I consider myself uniquely privileged to have benefitted by the selfless and exemplary leadership of late AVM Surendra Sahni in how to address grassroots level issues by applying grassroots level solutions. The foundational work of DA in helping with water conservation in Bundelkhand under AVM Sahni's leadership has inspired a whole generation of field workers.

In many ways what we have initiated under the Bundelkhand Initiative for Agriculture and Livelihoods (BIWAL), wherein a large number of Civil Society Organizations have informally come together with state governments of MP and UP for community driven restoration of the water bodies constructed by Chandela and Bundela kings, is a logical progression of DA's work.



**R. Parasuram IAS (Rtd.)**  
Director General,  
AIGGPA, Bhopal



## Voices from the ground

*“Even today, representatives from Development Alternatives sit with us every week, to discuss our problems and find collective solutions. They have enabled 970 of us women, from 92 SHGs across 18 different villages, to work together as the Swashakti Mahila Mandal to serve the cows as one would serve God.”*

**Parvati Devi**, Village Gundrai, District Raisen, Madhya Pradesh

“आज भी डेवलेपमेंट ऑल्टरनेटिव्स के प्रतिनिधि हमारे साथ हर हफ्ते बैठते हैं, और हमारी समस्याएं सुनते हैं और मिलजुल कर बात करके हल ढूँढने में मदद करते हैं। उन्होंने 18 गाँवों में, 92 स्वयं सहायता समूहों की 970 महिलाओं को साथ मिलाकर स्वशक्ति महिला मंडल का गठन करने में सहयोग दिया है, जिससे कि हम गाँवों की उसी तरह सेवा कर सकें जैसे कोई ईश्वर की सेवा करता है।”

**पार्वती देवी**, गाँव गुंडराई, जिला रायसेन, मध्य प्रदेश

*“We cannot believe water is now reaching our doorsteps. We have worried about water all our lives, and have spent four hours walking to get water every single day. Even then, what we got was insufficient. When Development Alternatives started working for water security, people never believed in them and even mocked their efforts. But today, everyone gets water equally. And we are truly grateful to them.”*

**Rinki Ahirwar**, Village Madore, District Niwari Madhya Pradesh

“हम यकीन ही नहीं कर पाते हैं कि पानी अब हमारे घरों तक पहुँचने लगा है। हम पूरी जिंदगी पानी के लिए परेशान होते रहे हैं और हर दिन पानी लाने के लिए घंटों तक चले हैं। उस पर भी हम जो पानी की व्यवस्था कर पाते थे वह हमारी आवश्यकता के अनुसार पर्याप्त नहीं थी। जब डेवलेपमेंट ऑल्टरनेटिव्स ने पानी की उपलब्धता सुनिश्चित करने पर काम करना शुरू किया, तब लोगों ने उन पर कभी भरोसा नहीं किया व उनकी कोशिशों का मजाक भी उड़ाया। पर आज सच्चाई ये है कि हर किसी को बराबर पानी मिल रहा है और हम सच्चे मन से उन्हें इस प्रयास के लिए धन्यवाद देते हैं।”

**रिंकी अहीरवार**, गाँव मडोर, जिला निवाड़ी, मध्य प्रदेश















# Roadmap





1990



2000





## *The Bundelkhand Journey... towards a ShubhKal*

The land gets its name from the 14<sup>th</sup> century Bundela Kings – the upholders of the region's rich cultural heritage and tradition of well-managed natural systems, who ruled the legendary realms of teak and bamboo, of fertile soils and perennial rivers and streams. But what survived by the mid-20<sup>th</sup> century was a ravished and degraded landscape; its waters dried up, and its forests destroyed. The expanse of scorched, barren lands was inhabited by millions living in poverty with unfulfilled hope and aspirations. This drought-prone and semi-arid area with low agricultural productivity saw seasonal migrations to cities for jobs, shuttered doors left behind.

Then, starting around 1985, came a new era with the arrival of civil society organisations such as Development Alternatives, bringing in waves of ideas for fundamental change: Regenerative Development, Sustainable Livelihoods, Empowered Women, Land and Water Management Systems, Eco-Habitats, Sustainable Farming and many others, describing interventions that could transform local lives and communities.

And since then, the incomes in Bundelkhand are rising, and work opportunities growing. Households have access to safe water and electricity for the first time, and communities are coming together to reverse the downward spiral in their economic and ecological resources. The impetus, driven in large part by Development Alternatives, its TARAgam campuses and its network of partners, is enabling local people to gain confidence and, more so, hope for a 'brighter tomorrow'.







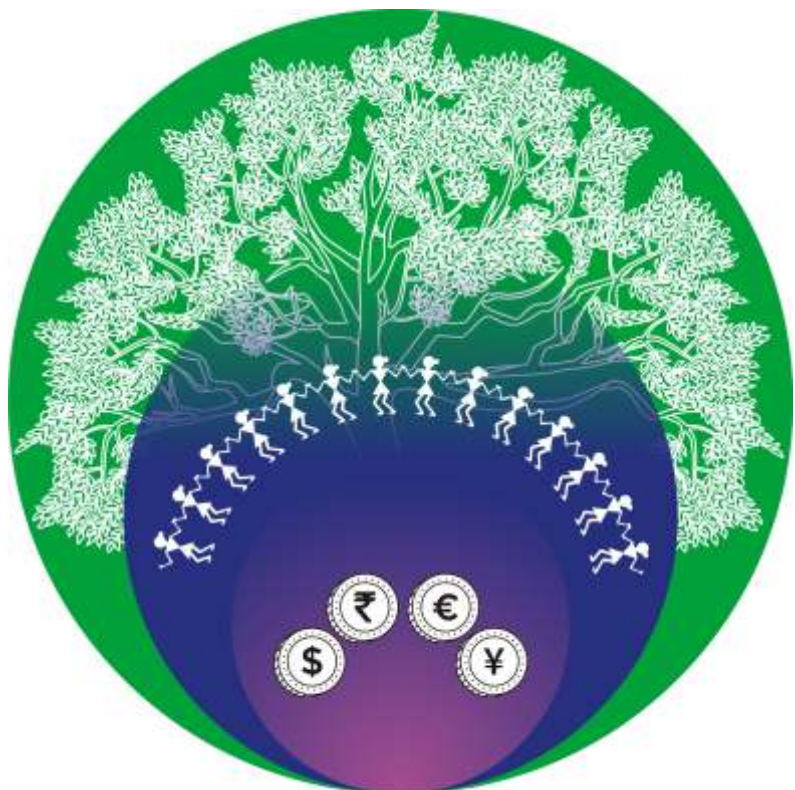


# The Approach

**D**evelopment Alternatives has been working in its *karmabhoomi*, Bundelkhand, for over three decades. Innovation, testing and refining alternative methods and models of development that rely largely on local, bottom-up, community centric planning, and implementation most suited to the people and resources of the region, has been the core strategy of the interventions. Combining this with holistic, systemic approaches that cut across disciplinary and sectoral boundaries, local communities have been supported to kick-start their economies and regenerate their ecosystems.

Using the principles of Universality, System Integrity, Efficiency, Sufficiency and Harmony, our work has been guided by the mantra – People, the Planet and Prosperity. This means enabling and empowering the people and strengthening institutions and partnerships, using clean technology for regeneration and management of natural resources, and ensuring prosperity through green and sustainable livelihoods, and small enterprises.

Working with local governments and supported by financing from various national and international sources, these initiatives aimed at bringing cutting-edge science, technology and management methods to raise the capacity and confidence of people, particularly women, to articulate their problems and devise solutions for themselves. Information has become widely available, and knowledge is recognised as a powerful tool. Communities are being assisted to access their entitlements and basic services, generate livelihoods and non-farm income opportunities, and take leadership in designing their own futures.







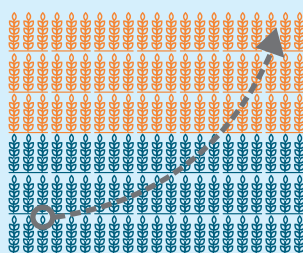
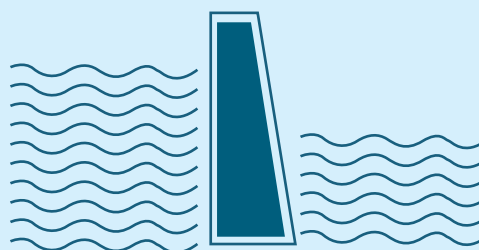


# Water Harvesting

The fragility of Bundelkhand's semi-arid, drought-prone ecology (and therefore, economy) is compounded by receding water tables and changing climate. To overcome this, water conservation structures such as check-dams, tanks and ponds, gabions and gully plugs, originally used by farmers in Bundela kingdoms 600 years ago, have been researched and re-established. These are carefully designed following a ridge to valley comprehensive watershed management approach to slow down water flows in the rainy season to recharge aquifers following the slopes of the land, ensuring proper drainage and irrigation of farm lands. In the programmes of Development Alternatives, these were developed with active participation of local communities, combining the best of traditional knowledge with scientific planning tools such as satellite imagery for mapping topography and land use, and hydrological science for mapping aquifers. There are few technologies in the world that can compete with these water harvesting structures in terms of return on investments or generating social, environmental and economic value.

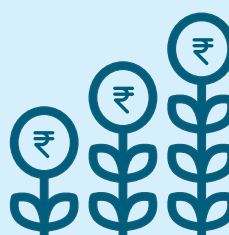
## Through direct action on water harvesting...

**293** check dams established (1989 – 2019),  
creating a potential of **850+** million  
litres of water that can be harvested in a year –  
the number increasing every year



**60** villages experience an average  
rise of 0.48 metres in the water  
table of wells (2008-2019)

One-time investment of  
INR **12,000** has shown to enhance the  
income of each small farmer (one-hectare  
ownership) by INR **30,000** every year



**2** hours saved by women  
everyday as water is readily available,  
improving their quality of lives –  
physically, economically and socially

...and many times more through our partners



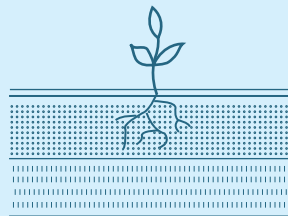




# Soil and Land Management

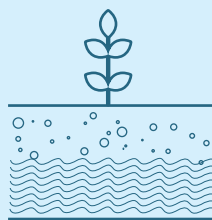
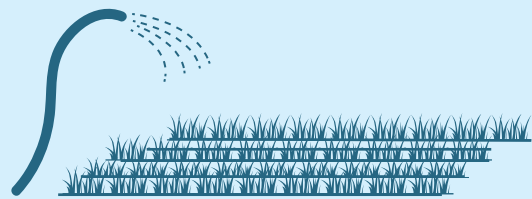
In addition to the quality of seeds and the reliability of solar radiation, crop productivity depends on a proper balance among soil fertility, water availability and, of course, good field praxis. In a region like Bundelkhand, the increasingly concentrated pattern of rainfall, coupled with the undulating land and narrow ravines, results in considerable erosion of topsoil, washing away the product of nature's efforts over millennia, each time it rains. If allowed to proceed unchecked, these lands can quickly turn into barren wastelands. Creating soil conservation structures such as contour trenches, gabions, gully plugs and farm bunds slows down the flow of water across large tracts, curbing its erosive potential and checking run-off. Not only does valuable topsoil get retained within farm boundaries, soil moisture levels also increase, leading to improved soil health and productivity and lowered costs on irrigation.

Through direct action on land and soil...



**7.2** million tonnes of top soil over **40,000** hectares of land protected, a **70%** reduction in loss from runoff and erosion (1989-2019)

**12,000** farmers engaged, **50%** single crop land converted to double crop land, increasing crop production and farm income by **30%** in just 2 years of intervention



**20%** water holding capacity of soil enhanced, and **10%** soil organic carbon improved, through our watershed and good agricultural practices (1989-2019)

Water holding capacity of soil improved by **42%** within just 4 years of watershed interventions, thereby reducing need and costs for irrigation



...and many times more through our partners





# Natural Regeneration of Forests

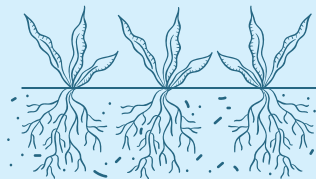
Bundelkhand had once been home to dense forests, but indiscriminate deforestation converted large parts into barren wastelands. Yet, in pockets where land and water conservation has been taken up, the potential to reverse the damage has been confirmed. In one such early experiment, on a barren hillock in Datia, contour trenches were dug along the slopes to arrest water and topsoil runoff. Within two monsoons, long dormant root stocks of indigenous plants like *dhak*, *ber* and *kardhai*, which were almost extinct locally, put out new shoots. This cost efficient approach of simply capturing rainwater improved moisture levels and revived dense vegetation. With this, native species of birds and animals also returned. What had been a wasteland now generated grasses and fodder that helped sustain livestock, and improved local biodiversity, bringing co-benefits of ecological services such as pollination security, aquifer recharge and carbon sequestration.

## Through direct action on barren lands...



**128** hectares of wasteland in Datia upgraded with cultivation, regenerating **66,000** indigenous plants from root stock (1987-1995)

**295** acres of land cultivated with subabool for fuel generation in biomass and solar based energy generation (2012-19)



Biomass regeneration potential of farm lands enhanced through **3,115** agroforestry models across **60** villages (2012-19)

**6,237** tonnes of carbon sequestered per hectare of land per year



...and many times more through our partners





## ***Aapo bija – bhuta jagata: The Dhikoli Story***

Village Dhikoli in Bundelkhand was regularly ravaged by droughts, and the farmers were living a hand to mouth existence. In despair, about 40 per cent of the people were forced to migrate in search of work for several months every year. Then in 2011, they heard about farmers' successful agricultural seasons in the nearby villages because of check dams constructed with the help of Development Alternatives. Dhikoli, too, sought out DA for deriving these benefits. And then there was no looking back.

A watershed management plan was jointly designed and implemented, largely through *Shramdaan* (voluntary labour), where the community contributed substantially by digging the earth, carrying large rocks, and even small amounts of money in some cases. The fortunes changed immediately and dramatically. And the communities demonstrated a new respect for water as the source of their lives – “Aapo bija – bhuta jagata”, as they call it in the Vedic language. To ensure Dhikoli remains water secure, water budgeting exercises were undertaken, and the





village collectively agreed to adopt water efficient practices and avoid water intensive crops. But it did not stop there. A low-cost technology for natural treatment and recycling of domestic wastewater was introduced. A watershed committee maintains the infrastructure and monitors consumption. An assured supply for both major farming seasons, and sometimes even a third one, is now guaranteed.

Dhikoli, today, is a climate resilient water positive village, and is recognised as a model of integrated water resource management and what is possible when people are determined to work together to bring about change.

***INR 2 million invested, leading to 20% enhancement in production and 15% increase in incomes of farmers (INR 11,000 additional annual income per family).***







# Sustainable Farming

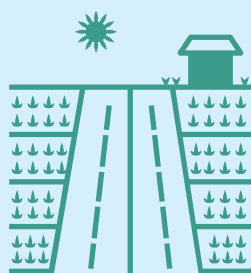
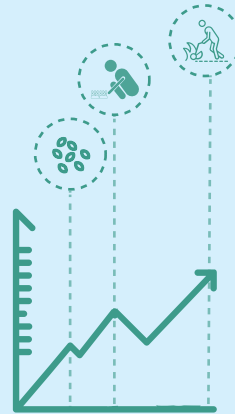
Bundelkhand, a topography vulnerable to soil erosion and frequent droughts, has suffered from the wasteful and damaging practice of flood irrigation. Marginal farmers have increasingly taken to short term measures to improve soil quality. The indiscriminate use of chemical fertilisers, toxic pesticides and depletion of ground water reserves, intensified by energy guzzling mechanisation, has stripped the land of its self-rejuvenating properties. Introduction of sustainable farming technologies has demonstrated the ability to reverse this damage. Drought resistant seeds, crops suitable for local soil, and micro and drip irrigation systems help overcome the need for excess water. Guided by scientific principles, the targeted application of organic inputs as per local contexts results in efficiency in production. Farm models that adopt mixed approaches such as agro-forestry and agro-horticulture (*wadi*), and techniques such as inter-cropping and multi-tiered cropping, enhance climate resilience of crops. Such crop diversification also results in improved health, and a regular flow of income, thus influencing wider adoption by farmers.

## Through improved agri practices...



**11,000** farmers across **80** villages adopted sustainable agriculture and integrated watershed management (2007-2019)

Leading to **50%** enhanced incomes for those adopting *wadi* models, **40%** using integrated farming practices, and **20%** using improved variety of seeds



**1,000**, hectares of land cultivated across Pahuj and Shivpuri (2012-2019)





## ***The Story of Yasoda***

In the year 2014, Yasoda Devi was burdened with her responsibilities. Just 28 years old, she was unable to feed her family with her meagre farm in Village Gidhiya in Uttar Pradesh. She had almost given up. And then, everything changed for her. She joined Development Alternatives' training course on intercropping systems, and also received high quality seeds for cultivation – climate-resilient crops, vegetables, pulses, tree species such as *sagaun*, and fruits such as mango, lemon and guava – on her one acre land. By the next growing season, improved nitrogen levels and enhanced soil moisture resulted in a 20% increase in productivity, with reduced input costs.

Soon after, she set up a rainwater harvesting system in her field, which assures water for irrigation and ensures that the productivity will be sustained for years to come. Today, she earns a seasonal income of INR 30,000 by selling vegetables and about INR 45,000 with fruits, a whopping 30 per cent increase from





before the intervention, just within two years. Yasoda became a shareholder of the Vindhyavasini Farmers' Producer Company in 2016. Having invested a mere INR 1,000 as share capital, today, she earns a monthly dividend of INR 1,200. With the collective's support, she now sells vermi-compost to other farmers in the nearby villages, and earns, on an average, INR 24,000 annually. These diverse sources of income have not only secured the future for Yasoda's family, but she has also noticed an improvement in her children's health and nutrition with the fresh and green varieties of lentils and vegetables from her field.

***INR 45,000 invested in the wadi farm, leading to an annual income of INR 10,000 in the first year, increasing to INR 50,000 in the fifth year.***



# कामी कम्पोस्ट उत्पादन इकाई

गुन्दरई, ओरछा, जिला- टीकमगढ  
गोपालन एवं पशु सम्बन्धन बोर्ड भोपाल (म.प्र.)





# Farmers' Producer Organisations

Farmers have been rendered vulnerable in multiple ways. While climate change has put crop production at risk, the market, with middlemen at play, has dealt them hard and unfair bargains. Small and marginal farmers are the worst affected, owing to an inability to invest in upgrading production methods and link to profitable extended markets that demand both quality and volumes. Coming together as collectives such as Farmers' Producer Organisations (FPOs) provides the farmers with benefits of economies of scale and enables them to negotiate with clout with the market and service providers. As shareholders in the FPO, they also receive dividends from profits. Capacities of FPO members have been built on business operations, institutional mechanisms and collective decision-making, along with exposure to and training in improved farm practices. The FPOs are now able to link their members to services for optimising production and processing, and securing better prices.

## By encouraging farmers' collectives...



**3,000** farmers aggregated in procurement, processing, value addition and marketing through 7 FPOs (2016-19)

INR **15.2** lakhs share capital invested, leading to a turnover of INR **137** lakhs, with INR **11.1** lakhs dividends generated



Sustainable practices adopted -- sustainable farming, renewable energy, soil conservation, supply of water filters, and shift to resilient and high-quality agri-inputs

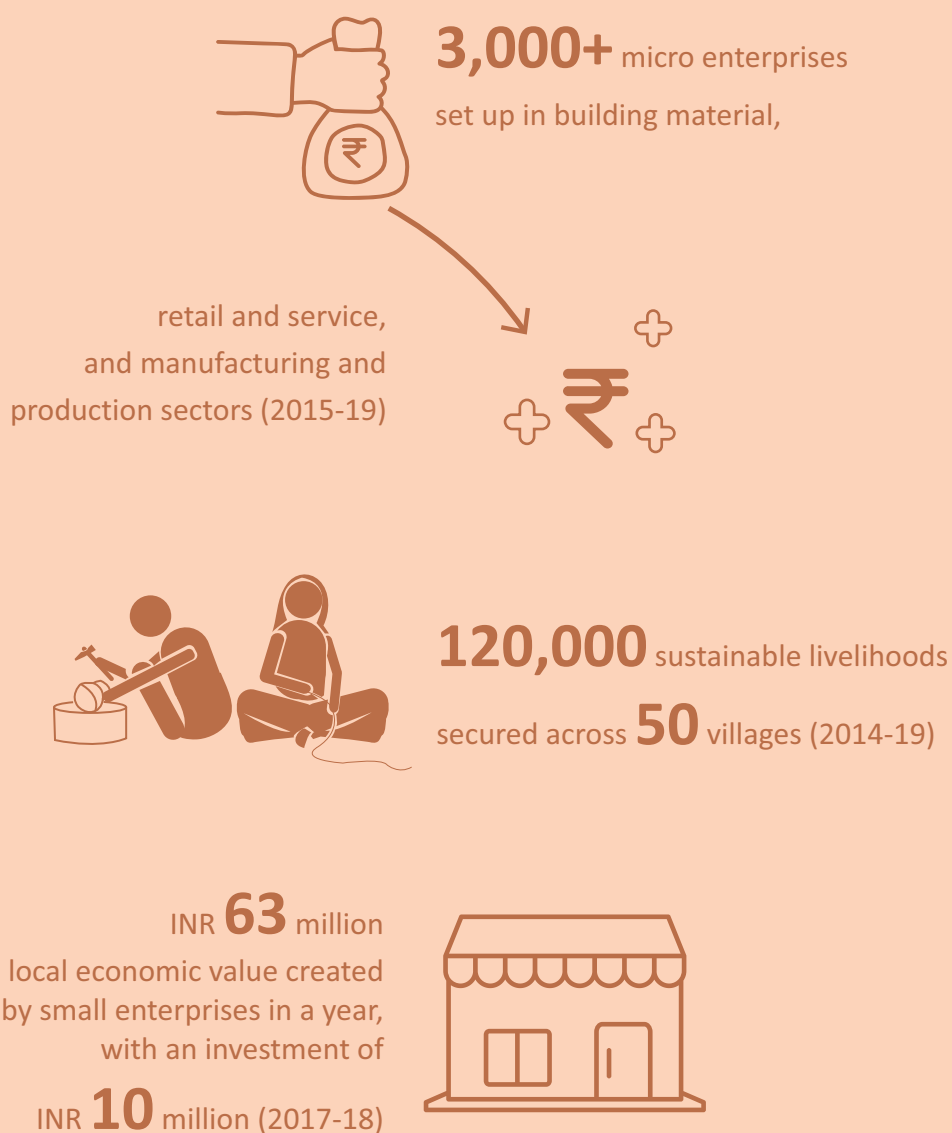




# Skills and Enterprises for Livelihood Security

Traditional farm-based livelihoods are increasingly fraught with uncertainty and risk. It, therefore, becomes imperative to invest in diversifying income generating opportunities for economic resilience. Building skills for employment and off-farm self-employment is a solution for the region's sustainable development. The potential of driving growth through small and micro enterprises – fly ash bricks, e-kiosks, motor winding, poultry, vermi-composting – is immense. Creating such off-farm and farm-linked livelihood opportunities entails enabling the community to access technology, finance, markets and skills. Besides promoting sustainable economic growth within local communities, enterprises additionally serve to supply basic services to rural communities that remain disconnected from mainstream markets. With the need for a multi-faceted and innovative approach to creating systemic solutions that foster entrepreneurship, not only have enterprises been created in substantial numbers, but these have also enabled the creation of dignified jobs – the ones that cater to the needs and demands of the communities.

Through direct action, over the last 3 decades...





## ***The Rebirth: a Gaushala Story in Village Gundrai***

The year is 2004. More than 400 women of the Sankalp Swashakti Mahila Mandal are trying to find a solution for stray cattle ravaging the fields and whatever little is grown on them. A severe drought has taken its toll and farmers cannot afford to feed non-milch cows, letting them loose. The solution by consensus is to set up a community *Gaushala* (cow shelter).

Around 20 acres of barren land, upon request to the district authorities, is allotted to the federation. But it is encroached upon by powerful farmers. A siege by the 400 for over a month leads to a reluctant step back by the encroachers. The women now make the land ready for the cattle shed. Registered as the *Ramraja Gaushala*, it receives a small support for fodder from the *Gaushala Aayog*. This, however, is not adequate. Discussions between Development Alternatives and the women's federation yields a plan for generating value from the barren land and the 20 non-milch cows.

Dung from the cows provides fuel for a bio-gas engine that generates electricity. The potential of processing local farm produce is realised. And ground-nut sorters, oil-mills and spice grinders are set up, with the 40 women in-charge providing services to farmers around. A milk chilling plant is set up too, while slurry from the bio-gas plant and the farm waste is directed to produce and sell vermi-compost. Today, with a 108 stray non-milch cows, the *Ramraja Gaushala* of the women's group is a local business hub that saves carbon, generates profits and builds economic resilience.

***Investment of INR 3 million (INR 1.8 through the federation and FPOs, and INR 1.2 in green energy, fodder cultivation and manure production), leading to a turnover of INR 16.5 million, as of 2019.***









शायकी बहनो  
2 घन्टे दो  
पढना सीखो

Support Alternatives



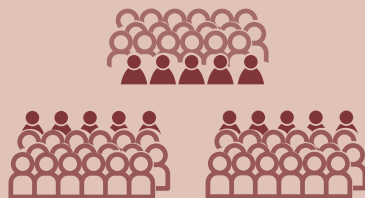


# Institutions for *Swaraj*

Empowered communities that participate in planning and implementing inclusive solutions affecting their lives and livelihoods, and make decisions within mutually agreed frameworks of governance of natural resources and societal relationships, are fundamental to *Swaraj* or self-rule, which is the cornerstone of sustainability.

In Bundelkhand, robust community and governance institutions, such as watershed committees, water users' societies, women's Self-Help Groups (SHGs), artisans' cooperatives, *bal panchayats*, *gram sabhas* and *gram panchayats*, are leading the way. They are planning water management systems, contributing *shramdaan* for infrastructure creation, leading campaigns for health and sanitation, promoting savings, enabling credit services and advocating for access to legal rights. In association with Development Alternatives, the institutions use local intelligence and resources to design and implement technically, ecologically and economically appropriate solutions for water and energy supply, housing and infrastructure construction. This engagement not only ensures ownership in what communities choose to do, but also enables them to unleash their aspirations.

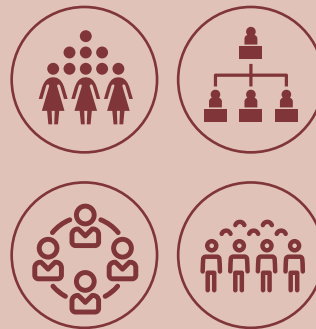
## Empowerment of women and collectives has led to...



Capacity enhancement of communities through local institutions and *panchayats*

across **650+** villages (2004-2019)

Creation of **3,388** SHGs, **5** federations,  
**35** watershed committees, **96** *wadi* groups,  
**9** water users' societies



Sharing of lessons with **50** civil society organisations, through the knowledge platform, Bundelkhand Knowledge Platform - *Gyan Manch* (2010-19)







# Basic Needs Services through Green Infrastructure

Ensuring that rural communities access high quality infrastructure and services for fulfilling the basic needs of shelter, water, sanitation and energy calls for decentralised approaches. Green and clean technology based solutions delivered through local community and enterprise routes have been demonstrated in the Bundelkhand region. One such social enterprise is the *TARA Karigar Mandal* – an artisans' cooperative that provides affordable housing and infrastructure construction services using low carbon and resource friendly material and techniques. Self-sustaining community owned and community operated models for the delivery of safe drinking water and lighting solutions powered by renewable energy are now functional across many villages in the region. The construction of eco-toilets, and creation of awareness on the importance of using these facilities has transformed lives, particularly for girls. And access to electricity and water saves time, while also creating opportunities for productive activities enabling decent livelihoods and dignified lives.

Through direct action, over the last 3 decades...



**16** community based models ensure first-time ever household water supply, benefiting **21,000** people in 7 years (2012-19)

**12,500** people access clean and green energy, eco-friendly housing and sanitation facilities across (2000-18)



**350** artisans associated into TARA Karigar Mandals for eco-friendly habitat training and services (1996 - 2017)

Green technologies introduced -- solar pumps and pico grids for water supply and home lighting; MCR, pre-fabrication and rat-trap bond for energy-efficient construction







# Women Leading Change

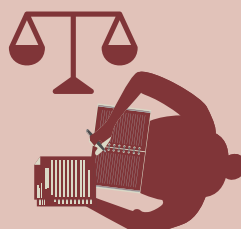
The women of Bundelkhand, who once remained at the fringes of the community, are now leading change. Their journey from practicing *purdah* to asserting their voice has been possible through programmes that made them aware of their rights and entitlements. Development Alternatives has mobilised women to transform the patriarchal landscape through the power of collectives. Today, women landowners, entrepreneurs, farmers and artisans are at the forefront of robust local initiatives such as *gaushalas*, livelihood academies, paper-recycling units and literacy programmes. Self-help groups have been monumental in promoting women as decision makers in rural development and land and water management. Some of the women have even become *Sarpanches* and paralegal workers. Young girls are also being trained as youth leaders and advocates for ushering in a new dawn for the region. Sensitisation at three levels – the woman, her family and her community – has helped address the long held internalised constraints, building a socially inclusive environment.

## Their lives transformed...



**2,850** women led income generating activities and enterprises (2014-19)

**36,000** women set up  
**3,400** local associations (2004-19)



**7,500+** women made functionally literate (2007-2019)

**328** women trained as paralegal workers (2010-12)





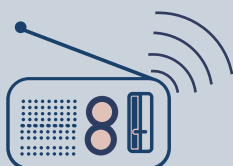




# Behaviour Change

For communities to participate in translating their aspirations for a better tomorrow into action, they must believe in the solutions and in the promise of transformation. Such social and behaviour change requires a communication strategy that not only informs and empowers, but also demonstrates what can be achieved. Communication is effective when it speaks the language of the people, reflects their local cultural context, and delivers desired services and needs. It must build a shared understanding essential for securing a resilient and prosperous future for all – the people and the nature. Radio Bundelkhand, our community radio run by local young reporters, is inspiring people and institutions to engage in dialogue, both off-line and on-air, catalysing change in behaviours and campaigning for sustainable land and water management, forest rejuvenation, livelihood creation and social solidarity. Capacity building has led to the emergence of change agents who are passionate about finding new directions for their communities.

## Towards a better future...



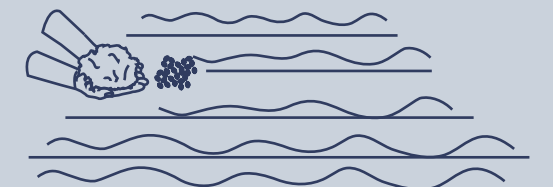
**200,000** people  
informed in **150** villages  
through community radio (2008-19)

**400,000** community members  
grow aware of climate change  
adaptation in a year (2012)



Women, children and farmers  
from **100** villages become  
change agents (2012)

**2,000** farmers across **400** villages  
switch to climate resilient  
agricultural practices (2012)











## ***Mamta Bundela - an inspiration***

About a decade ago, the village of Punawli Kalan, Jhansi in Bundelkhand was battling with long and frequent periods without water. Its population of 2,900 depended only on 22 hand pumps, most of which had become dysfunctional. The water in open wells was unsafe for consumption, comprising high levels of iron and mineral salts. Women and girls had to walk long distances each day, in the scorching heat, to fetch water. This not only harmed their health, but also forced the younger ones to drop out of schools.

Mamta Bundela – the President of Sahyogini Mahila Mandal, a federation comprising 2,500 women Self-Help Group (SHG) members decided to take charge of addressing the community's water woes. She mobilised an 11-member committee to own and operate a renewable energy based model for drinking water supply at households. Collecting an installation fee of INR 500 per connection, the committee got a water tank and solar pump installed. Through 113 secure connections, water now reaches every doorstep. The committee is also responsible for decision making, monthly collection of service fee, and periodic water quality testing and purification.

Inspired by Mamta Bundela, the women of Punawli Kalan have emerged as local agents of change. Realising the need for better sanitation, water conservation and household waste management, they are now mobilising the local government to install toilets and wastewater treatment facilities. Today, many of them are seen as confident speakers at *Gram Sabhas*, and active participants in local governance and planning processes.

***INR 500,000 invested by several sources, benefits 500 families who collect INR 25,000 monthly revenue for managing the water enterprise.***









## *Humara Gaon*

To experience community led systemic change, one must go to Pipra – a village where one can see sustainable development in action, for the people and by the people, and in harmony with nature. What is striking about Pipra's people is their collective vision for social, economic and ecological well-being – a vision, in which every family in the community has its basic needs fulfilled, has sustainable livelihoods, and where the land, water and forests are cared for as common resources.

It all started in 2014, when the community in Pipra decided to take ownership of their future. They designed a micro-plan for their development, with short and long-term priorities, encompassing infrastructure and services, land management and water security, potential economic opportunities and institutional design and capacities to manage. They formed collectives of women, farmers and children, who engaged actively with the *Gram Panchayat*, and adopted many water efficient and drought resilient farming methods. Livelihood opportunities were promoted, and a community system for drinking water supply was established for the entire village. With basic needs met and livelihoods secured, the people of Pipra are now actualising their potential, as they reaffirm their belief in a culture of shared benefit.

The *Humara Gaon* model for integrated village development, as exemplified by Pipra, shows that it is possible to launch village economies onto a trajectory of sustainable socio-economic development by systemically addressing people's aspirations for a resilient tomorrow. Leveraging the potential of technology based solutions and social collaboration, even difficult and vulnerable geographies such as Bundelkhand can transform.

***INR 4 million invested, benefitting 2700 individuals. Household incomes increased by 40% through diversified livelihood opportunities, 80% have drinking water supply at their doorsteps, 100% women are literate, and the village is now 100% open-defecation free in just 3 years.***







## *The Opportunity*

In bridging the development deficit in Bundelkhand, the challenges are immense, but the opportunities too, are abundant. This book is an ode to the indomitable spirit of the people of Bundelkhand. The vignettes in it offer but a glimmer of the transformations that are possible. Many civil society organisations, besides public and private actors, have been pioneering innovative models and approaches in their own areas of expertise and influence, across the region. We, too, have acquired extensive understanding of the land and the people in Bundelkhand, and have gained their trust, working together in daunting circumstances with few resources. And, we have developed an array of eco-solutions and systems to address the issues. But, the sheer scale and complexity of the challenge in Bundelkhand demands that the ideas, energies and efforts of all actors are in synergy to realise a shared vision of a resilient future for Bundelkhand. The time for action is now, and if we all come together, *ShubhKal* – a better tomorrow – will be ours.





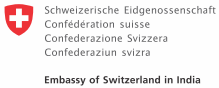




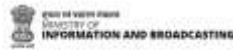




36 years of our work in Bundelkhand would not have been possible without the support of various national and international agencies...



Embassy of Switzerland in India



Empowered lives. Resilient nations.











## **Development Alternatives**

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