



'laCaixa' Banking Foundation



Development Alternatives



# **BUILDING SUSTAINABLE COMMUNITIES**

*A Partnership Initiative of "laCaixa" Banking Foundation and Development Alternatives*

December 2016

#### DISCLAIMER

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*While there are probably no simple interventions, ‘silver bullets’, that could enable the rural communities to break out of asystemic traps of poverty and deprivation, it is possible to devise relatively simple packages of processes and practices that promote triple bottom wellbeing, for a small initial investment, that can set the village economy onto a new trajectory of socio-economic development that can sustain itself into the future.*

*A triple bottom line approach that upholds the pillars of sustainability – economic, social and environmental well-being – targets issues related to the environment, economy and society systemically, as a whole, helping communities realise the benefits of development more effectively and speedily. A focus on any one of these aspects in isolation usually cannot lead to the holistic transformations necessary to make them self-propelling for the future. It guides communities to prioritise actions based on their own needs and goals and helps them create new lifestyle choices and production systems, and opportunities for exercising them. More important, it helps them meet multiple needs and cope with changing circumstances such as those imposed by changes in the economy, climate – or even aspirations.*

**Ashok Khosla**

Chairman, Development Alternatives

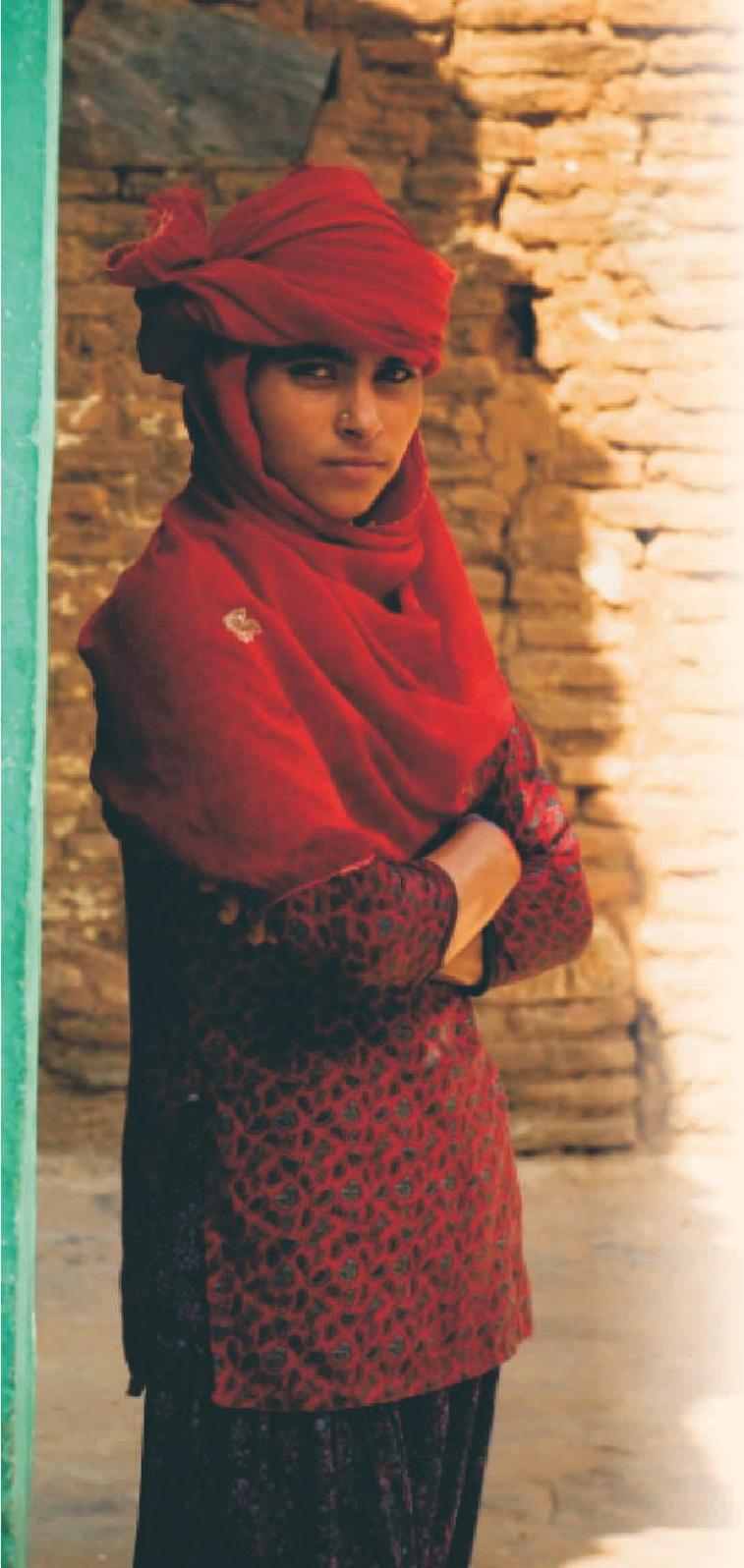
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## CONTEXT

Situated in the heart of the Indian hinterland, the Bundelkhand region is characterised by poverty, ecological dilapidation and social deprivation. Around 70-80 per cent of the population in this drought prone and climate sensitive region depends on agriculture that is marked by obsolete practices. 75 per cent of this agriculture is rain-fed and thus susceptible to climate change impacts. Land degradation and increasing water scarcity over the years has led to declining agricultural productivity, increased drudgery and seasonal migration in search of work. The lack of non-farm opportunities has perpetuated dependence on this unproductive sector.

The access to basic needs amenities and infrastructure is very poor. Women travel more than 2 kms everyday to fetch water and only an average of 33 per cent households have access to sanitation facilities. Health and education centres are more than 15-20 kms away and transport connectivity to these areas is poor. Moreover, social exclusion, gender inequality and low levels of awareness and education have continued to hinder development processes, contributing to a vicious cycle of poverty and marginalisation characterised by livelihood insecurity, poverty and debt. The state of the economy, often leads to migration of farmers and women to cities in search of labour opportunities for survival.





## THE INITIATIVE

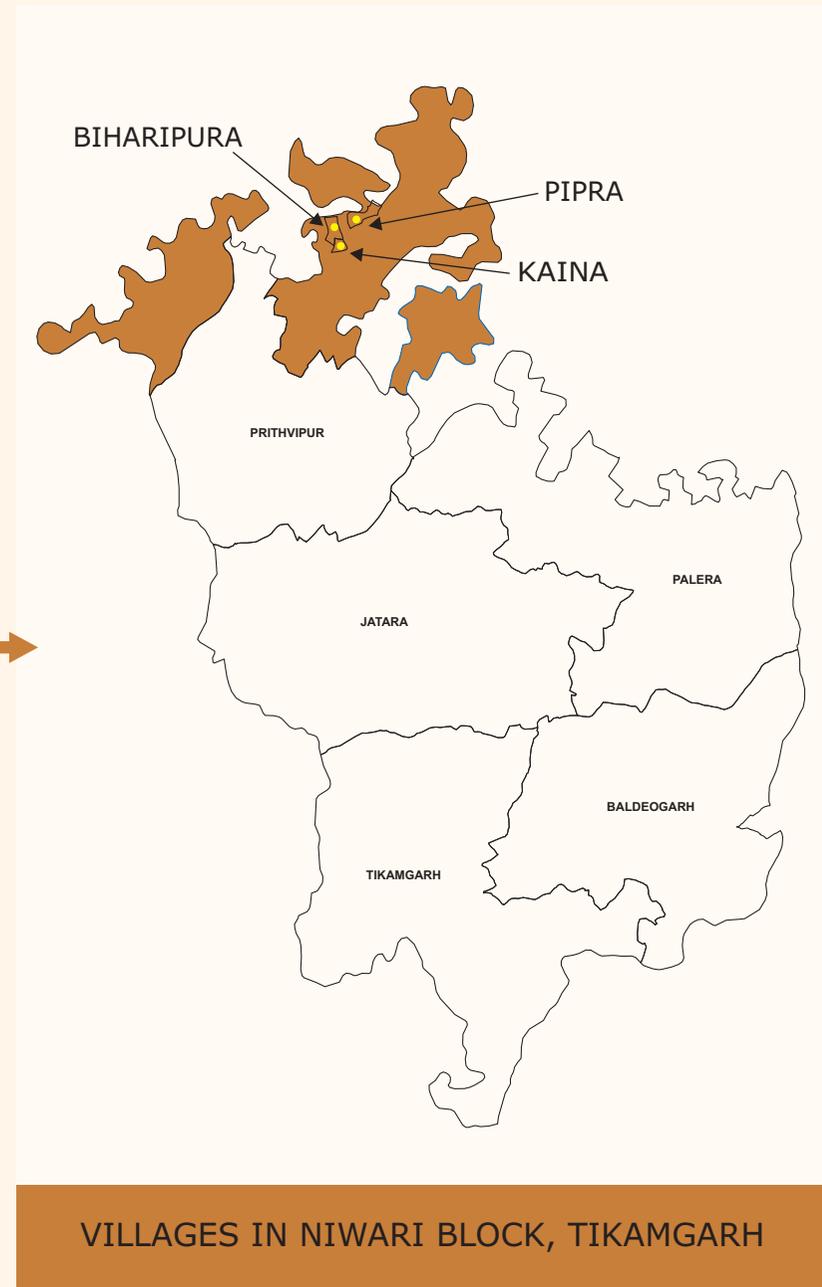
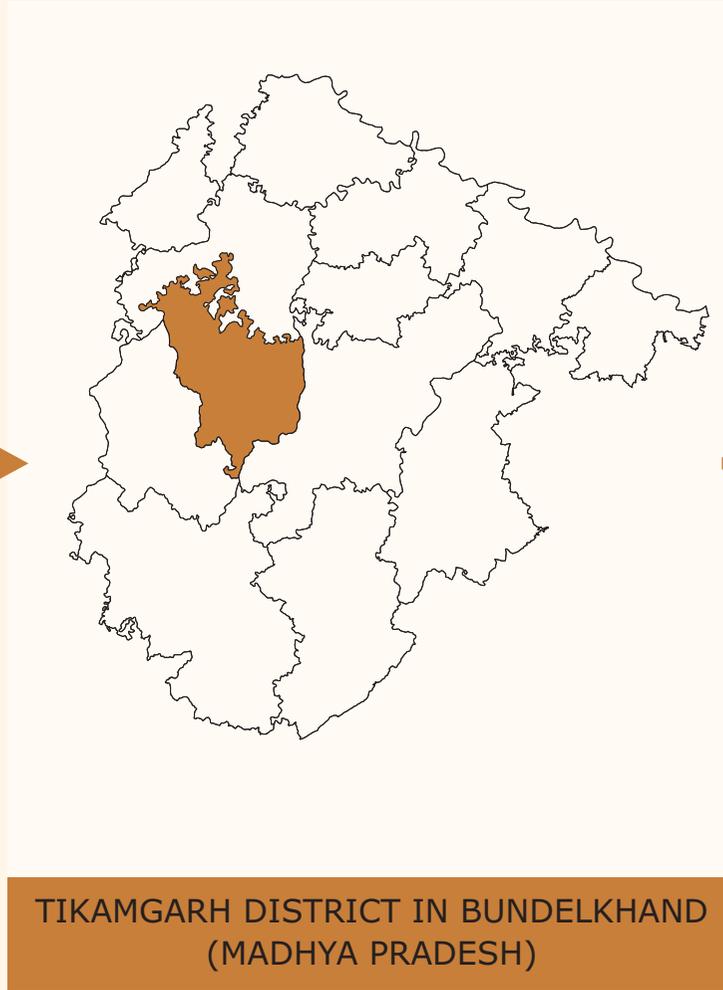
The 'Integrated Village Socio-Economic Development in Central India' project was initiated as a joint initiative between Development Alternatives and “laCaixa” Banking Foundation to enable the development of progressive and sustainable villages of tomorrow that embody the three pillars of sustainable development - economic, social and environmental wellbeing in Bundelkhand. With this aim, project has three definite objectives as below:-

- **Promoting Environment Wellbeing** through optimising the productive potential of the local natural resource base
- **Stimulating Economic Development** by fostering the creation of diverse livelihoods that invigorate the local economy
- **Enabling Social Wellbeing** by facilitating access to basic needs and promoting a culture of shared benefit in the community

This project envisioned transforming the lives of 600 vulnerable households from three village communities of Tikamgarh District of Bundelkhand. Based on the principles of people’s participation and equity to achieve sustainable impact and replication, the project introduced holistic interventions for the establishment of infrastructure and institutions that enable social and economic prosperity for all in harmony with nature.

# PROJECT VILLAGES

The three project villages are Biharipura, Kaina and Pipra, located in Niwari Block of Tikamgarh District in the State of Madhya Pradesh.





# BASELINE 2014

## BIHARIPURA

Number of families: 318

People below poverty line: 38%



## KAINA

Number of families: 280

People below poverty line: 49%



## PIPRA

Number of families: 453

People below poverty line: 43%

These villages are predominantly agrarian with around 90 per cent of total population depending on agriculture and allied activities for their livelihoods. About half the people are below the poverty line that is they live on incomes less than USD 1.25 per day. The average household incomes is about INR 30,000 per year. On the aspect of social development, the overall literacy levels are abysmal at 52 per cent. The total sanitation cover is at 18 per cent and only 20 per cent of households have secure access to safe drinking water. There are no community based systems to manage natural resources.



90% people directly depend on natural resources for their livelihoods, a link not adequately recognised by conventional development models. Investing in natural capital, the oft unacknowledged wealth of a community, lays the foundation for sustainable growth of a community – growth that is in harmony with nature and promises a clean and healthy environment for current and future generations.

# PROMOTING ENVIRONMENT WELLBEING

Promoting Environment Wellbeing

## LAND AND WATER MANAGEMENT

To improve state of natural resources in the three villages, infrastructure for water conservation and reduction of soil erosion have been established. Construction of 27 gabions and one check dam and renovation of one check dam has been undertaken. 2200 running meters of farm bunding has been done on 60 farms. 300 farmers have benefitted as a result of the improved availability of water for agriculture. Farmers clubs and village institutions have been strengthened to maintain of the infrastructure. This has led to ground water recharge about 1.5 metres.



## CLIMATE RESILIENT FARMING

To help reduce the vulnerability of the farming community to the adversities of climate change, more than 300 farmers have been trained to adopt sustainable and resource efficient farming practices. 210 farmers adopted improved techniques and technologies for improved farming that has led 20 per cent increase in farm returns. These farmers have been supported to undertake demonstration of improved farming techniques and technologies. A farmer club constituting 15-20 members have been formed in each village as a platform for peer learning. They are trained as change agents to access farm information and are responsible for promoting resource efficient farming among their peers.

## COMMUNITY LED ENVIRONMENT MANAGEMENT

To ensure that communities take action for responsible environmental management, Bal Panchayats (Children's Clubs) have been in every village to act as environmental watchdogs and provide stewardship for action. These Bal Panchayats work with farmer groups and village development committees to promote environment management. As a result of this, villages have adopted waste management systems, regular water quality testing, and hand wash drives in schools. 150 farmers have undertaken soil health analysis and issues of environmental concerns have been mainstreamed in village development and governance plans.



# IMPACT

27 gabion structures, 2 Check Dams and 2,200 meters of farm bunding

4,07,997 cubic meters water conserved

48,443 tonnes of soil run-off reduced

Improved agriculture infrastructure for 300 farmers

210 farmers adopt resource efficient farming practices

Average increase in farm returns by 20%

Increase in water efficiency by 30%

Bal Panchayats (Children Clubs) take environment stewardship in 3 villages

2 villages adopt improved waste disposal systems

3 villages mainstream environment issues

150 farmers adopted soil test and analysis system





## “I wish to set up my own agri-business now”

Bhajanlal Kushwaha, aged 45, lives with his wife and children on a farm situated at periphery of Kaina village. One of the progressive farmers in the village, Bhajanlal has not been able to realise the maximum potential of farm production owing to adverse climatic conditions in the recent years. Soil erosion and poor water availability in the past has repeatedly led to decline in agricultural productivity leading him to take only one crop a year making the financial condition of his family vulnerable.

The project intervention has transformed this situation. Bhajanlal benefitted a great deal from the construction of gabion structures adjacent to his farmland supported under the project. The gabion structures has helped harvest rainwater and increased the water level in his well by 30 centimeters. This allowed him to take one vegetable crop in the summer helping increase his returns by over 10 per cent than what he expected. Moreover, the gabions structure also reduced the soil run off helping support an extra crop. Kushwaha was able to harvest high value vegetable crops like chillies, lady fingers, brinjal owing to the intervention.

He tells us with a gleam in his eyes, “I am delighted with the impact of the gabion structure. This has enhanced my sense of security towards agriculture as it promises increased soil and water availability in the years to come. I hope the benefit is better in the coming years when there is abundant rain so that I can start new forms of agribusiness.”

This extra income allowed him to invest in setting up of a vermi-compost based organic manure production unit. Bhajanlal is trained to use organic manure on his farms and is promoting its use among his peers. Bhajanlal is convinced he can boost the potential of his farmland in the future and is now making an investment to create farm bunds for improving his farm infrastructure – a positive behaviour change that promises a better future for the communities.





## "These farm bunds have helped the farming community greatly"

One of the major highlights of the soil and conservation works under the project has been the development of farm bunds on 60 fields with 50 per cent contribution from the farmers. On realising the positive results on local ecosystem and agriculture by check dams and gabion structures developed in Year 1, the farmers expressed interest in infrastructure and land treatment on their own farms that would reduce water and soil erosion.

The possibilities were discussed in meetings of the farmer clubs and village development committees. The project team suggested the development of farm bunds with 50 per cent contribution from the farmers. These structures would not only ensure the retention moisture on farm fields even after monsoon and but also prevent running water in the water channels from damaging their crop. A total of 60 farmers invested INR 64,000 in the development of farm bunds on their fields to positively affect 30 acres of land. This is an achievement as it demonstrates that farmers value the need to invest in the restoration and management of natural capital. All 60 farmers now report atleast 10-20 per cent benefit in agri returns from reduced erosion on their fields.

Kashiram Kushwaha from Pipra village village says: "Since my farm is next to the water drain line, often post the monsoon, I would not be able to take an extra crop because the running water in the drain used to wash over my crop leading to loss in investments. This year, owing to the farm bunds, the running water did not damage my crop and I was able to take an extra vegetable crop in the summer season helping me earn an extra income of INR 15,000. He further added, "These bunds have not only helped me but all the farmers whose lands our next to the drain. We extend our gratitude to DA and the funding partner la Caixa Foundation for guiding us through our woes."





A secure source of income allows the poor to exit the trap of poverty and meet their basic needs, the threshold beyond which they progress to meet higher level growth needs to reverse the downward spiral of deprivation. Creating an ecosystem for economic development entails building skills and enabling the community to access technology, finance and markets.

# STIMULATING ECONOMIC DEVELOPMENT

Stimulating Economic Development

## FINANCIAL INCLUSION OF WOMEN

To promote financial and social empowerment of women, 11 women self help groups that were dormant in the area have been revived under the project. These platforms are promoted to orient the women on various aspects of social, financial, economic and political development. These women groups are encouraged to pool together their financial resources in a savings account which is inter-loaned for productive or private use. All these groups meet monthly to pool their savings and discuss issues of personal and local development. There is a 28 per cent increase in savings of these groups.

For financial empowerment, 7 groups have been linked to local micro finance institutions for access to credit. 26 women have deployed credit for business expansion and agriculture development.





## RESULTS

**11** women groups revived

**95** farmers adopt models for income diversification on farm to realise

**15-20%** increase in incomes

**1** community institution developed to provide credit for microenterprises

**12** enterprises developed

**10** new jobs created

**30%** increase in income of 15 families

**90%** increase in turnover of village enterprises

**1** farmer producer company of **50** women formed

Stimulating Economic Development

## FARM INCOME DIVERSIFICATION

To boost farm incomes, diversified farming models and business opportunities such as vermi-composting, fodder and vegetable cultivation are being promoted among the communities. Under the initiative, 95 farmers have successfully adopted sustainable vegetable farming models that has resulted in improved incomes of 15-20 per cent. A farmers' producer organisation has been formed with 50 women farmers for the production, aggregation and marketing of seeds and vegetables.



## ENTERPRISE DEVELOPMENT

A livelihood and market assessment was carried out at the start of the project to identify enterprises that will foster the local economy. Through technical and financial support to budding and existing entrepreneurs the team supported the development of three existing enterprises and establishment of nine enterprises in the villages. These include a cluster of five poultry units, one information center, two convenience stores, two accessory stores, one pottery unit, and one animal feed centre. Six of these enterprises are run and operated by women.





## "Feeding cows well for increasing incomes..."

One of the successful initiatives for income enhancement under the project has been the model promoted for production of drought resistant green fodder on farms. In an initiative to boost incomes on farm, 60 farmers were supported to undertake the production of green fodder with the support of Indian Grassland and Fodder Research Institute to help farmers have year-long supply of fodder for livestock. This fodder is grown on wasteland, on land between crops and sides of the field. The production of this fodder has increased the yield of milk by one litre per day. This has resulted 20 per cent increase in production and extra income of INR 1,200 per month . The total value of milk sold from these villages has increased from INR 1,60,000 per month to INR 2,10,000.

Ram Kumari Arihrwar from Pipra village shares her story, "After the training with DA and IGFRI, I accessed the fodder seeds, this led to feeding my cows well". These led to an increase in production on milk from our livestock and helping us make an income of INR 40-50 per day. "This made us happy as we are making returns with very little investment. This has fuelled our savings which we are using to make investments on our farm and refurbish our home."





## "I dream to own the biggest business of fish and poultry in Niwari"

Vijay Ram from Pipra Village is a small scale farmer from Pipra village who had been taking one crop of farming owing to poor rains in the village for the last three years. On learning about the credit facility of the project by seeing the successes of other entrepreneurs, he approached the team and the women group to access credit for starting a business with two revenue lines – fishery and poultry. He invested INR 90,000 of his own and accessed INR 20,000 from the credit facility. Through the financial and technical support on fish farming and poultry, he started these businesses. The waste from the poultry farm is fed to the fish in the pond which reduces his cost of operations. He has completed 4 cycles of business and is making a profit of INR 4,000 on realising 20 per cent. This has created an additional income line for him and his family, increasing his incomes by more than 50 per cent. Vijay Ram says, "I thank you for supporting us in this business. My son helps me in the business after school and I am now investing in a bigger business. We dream of creating the biggest business for fishery and poultry based on this model in Niwari area"

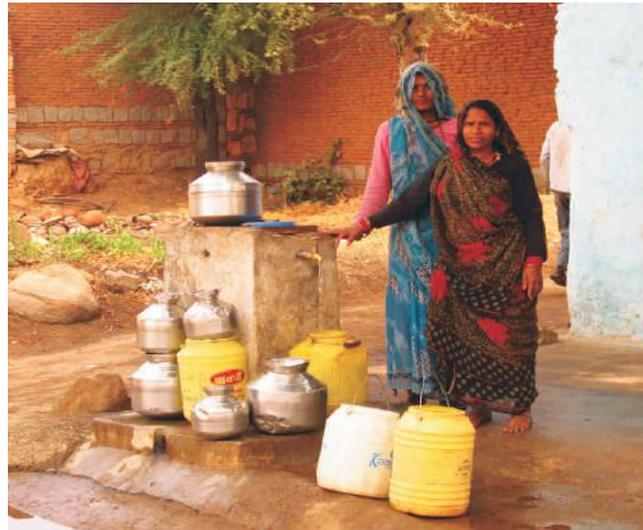


Investing in people and community based systems helps them realise their potential in a manner that leads to holistic development of society based on a culture of shared benefit and collective action. It enables people to emerge as leaders to steer their own development based on their aspirations.



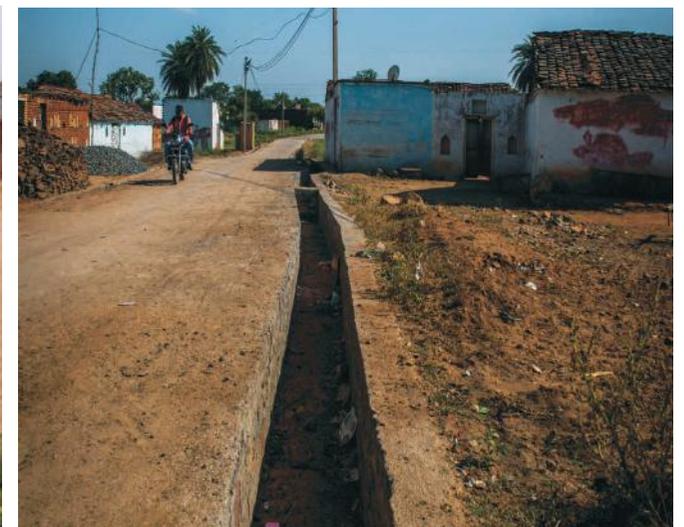
**ENABLING SOCIAL WELLBEING**

## IMPROVED COMMUNITY SERVICES



Water supply services have been set up and restored in two villages to service 525 families. Water quality testing has been conducted in all three villages to test the quality of water and take necessary steps to make it safe in partnership with the village development committee.

Defunct drainage systems have been renovated and reconstructed for over 1,000 metres across the three villages in collaboration with the community. Systems for regular cleaning and maintenance of drainage lines have been adopted by the local government. School toilets, that lay defunct and unused over two years, have been refurbished for use by 500 children in two schools.





## RESULTS

525 families with secure water supply

Drainage infrastructure and management systems developed in 3 villages

3 school toilets refurbished

192 women made functionally literate

200 toilets constructed

3 Village Development Committees set up. 20% Increase in participation of youth and women in local governance processes.

150 families access clean energy and water purification schools

Enabling Social Wellbeing

## BASIC HOUSEHOLD AMENITIES

192 women have been made literate under Development Alternatives' TARA Akshar+ women literacy programme which has helped improve learning environment in homes. 150 women attended Gyan Choupalis (community learning centres). Three health campaigns have been conducted for increased awareness on health and hygiene. In partnership with the local government, 200 household toilets have been constructed. Using the Community led Total Sanitation model, 200 families have been linked to government for construction of toilets. More than 150 families are connected to water purification and clean cooking solutions.



## CREATING AGENTS OF CHANGE

Village Development Committees and women groups have been formed and nurtured as agents to drive and take on the role of leaders to influence their peers for transformative change. These groups meet on monthly basis and are regularly sensitised on the need for undertaking integrated village development. Decentralised micro-planing undertaken with local government to build social pressure among communities and government for local development action in all three villages. Integrated village development by building pressure on communities and local governments. Decentralised micro-planing has been undertaken with local government governments in all three villages.



समूह/समुदाय की बहनों  
हर दिन 2 घंटे दो  
56 दिनों में पढ़ना सीखो



★ Development Alternatives



## “Saving with the group is helpful in difficult times”

Bholenath Women Group was established in 2008 in Pipra and had become dormant over the years. Now functional under the project, members conduct regular monthly meetings and are socially empowering one another through its activities. Members have benefitted from the literacy programme and are also playing an active role in local development. The group spearheaded the refurbishment of the local drinking water system and has pressurised the local government to set up toilets for the improvement of sanitation in the villages. The members are proactively participating in helping the project reach out to other women in the villages. Some stories from the group are shared.

Bhagunti Devi Kushwaha was skeptical of joining women groups as she felt that it would not impact her life. However, when the group was revived and trained again under the initiative, there was a change in her belief. Now, an active member Bhaguni Devi tells us “My husband and I are farmers. We earn a living from agriculture and last year proved to be difficult because of poor rains and we suffered a loss. I was unable to pay my son’s school fee.” Her son studies in grade eight. After much thought, she decided to seek the group’s help through inter-lending and borrowed Rs. 2,000 to pay her son’s school fee. She returned with interest a sum of Rs. 3000 to the group. “The group’s inter-lending saved my son from dropping out of school. Keeping some money as savings with the group will only help me in the difficult times in the future,” says a changed Bhagunti.

Gayatri Kushwaha, aged 35, is an active member of the group and is also beneficiary of the literacy programme. She has three daughters and one son, her husband is an auto driver in Niwari. She explains, “The group loan has helped me invest in setting up vermi-composting unit at home. I will use it as manure in my own field and the rest I will sell to other farmers in the village. If it is profitable I shall also sell the manure at Niwari Market.”

कृपया स्वाना स्वाने से पहले  
हाथ अवश्य धोयें ।



Obra Social 'la Caixa'



स्वच्छता  
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## "Building a better future"

One of the major problems faced by the communities in the village of Biharipura is the lack of drinking water and functional sanitation systems in the schools. The children often left school to fetch water from outside and use the toilets as they were not operational. They urinated in the open as the toilets were not operational.

Looking at the efforts made by the village development committee and Development Alternatives under the la Caixa project, the school principal raised the issue in the village development meeting. The village committee and the other members of the community agreed that this was an urgent issue and it was also affecting performance of the children in school. The school principals offered to make available the little school budget for the quarter to restore these systems. It was agreed that the remaining costs could be covered under the project. The schools made in-kind contribution by making available the pipeline infrastructure and construction materials. The school, with the approval of the local Government, made a contribution of INR 10,000 to the refurbishment of the school. Drinking water system, hand washing pits, and functional toilets were developed in these schools. These were supported with drives for WASH awareness and action by the project team and Bal Panchayats.

With the restored infrastructure, the children do not have to go back home during the breaks and can use the toilets and drinking water facilities at school. The principal says, "This is first time our village has come together to solve issues important for the children and school. We thank your project for coming here and creating the necessary environment. We hope that this will boost performance and attendance, specially for the girls, in the school for a better future of the country. Importantly, they are also promoting an environment of cleanliness and sanitation in their homes."







रही अ.

संस्कृत

दो न मान को ही दाल न  
सिद्ध संज्ञा  
संज्ञा वाला प्रत्यय और  
प्रायः लाम्नी कर्तु  
राटी के स्थान ही को दाल  
और तर यह सब को ही दाल  
परन्तु के द्वारा किना दाल  
और राटी संज्ञा



## LOOKING FORWARD

The project demonstrates the potential of development that is aligned with the knowledge, vision and aspirations of the local communities to create rational environmental management systems, promote diversified and dynamic local economies and foster social harmony.

Marginalised rural communities across large parts of India and the rest of the world continue to be isolated from the mainstream economy and suffer from numerous deprivations. They deserve help in making the transition to become vibrant and self-sustaining economies and societies of the 21st century.

## About Development Alternatives

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Development Alternatives (DA), a not-for-profit action research and development organisation, innovates and disseminates sustainable solutions aimed at reducing poverty and regenerating natural ecosystems and services. Established in 1982, its ecosolutions deliver basic needs products through the small, local enterprises that generate green jobs and sustainable incomes. Based on its innovative environment-friendly technologies and market principles, these enterprises help build local economies and communities while maintaining a minimum ecological footprint.

## About 'laCaixa" Banking Foundation

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The 'laCaixa" Banking Foundation promotes diverse social, economic, cultural and ecological initiatives to foster sustainable development. Its fundamental purpose is to improve the lives of people and its projects cover a wide variety of activities, including the creation of meaningful work opportunities, youth development and poverty removal, social inclusion, environment, culture and science.



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