



INFRASTRUCTURE FOR CLIMATE RESILIENT GROWTH (ICRG)
October 2020- March 2024

Strengthening Community Led Climate Resilient Livelihoods

Change Stories from the Ground

Introduction:

The Infrastructure for Climate Resilient Growth (ICRG) Programme is a technical assistance (TA) programme, being delivered in collaboration with the Ministry of Rural Development [MoRD], Government of India [GoI], and supported by the UK government's Foreign, Commonwealth, and Development Office (FCDO). The programme focuses on enhancing the resilience of vulnerable communities to climate change impacts. Amid the 2020 COVID-19 crisis, ICRG adapted its plans to assist vulnerable households, including women, socially excluded communities, and distressed migrant workers across Bihar, Jharkhand, and Madhya Pradesh. Partnering with government and community, PHIA Foundation addressed health and economic challenges induced by the pandemic, facilitating the delivery of social protection schemes for rapid access to essential resources such as food, cash, and employment opportunities. Post-July 2021, ICRG shifted its focus to climate mitigation goals and resilience building among vulnerable communities, leveraging India's Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA) to enhance ecosystem services, particularly for agriculture, fishery, and forest-based livelihood activities.

Amid the 2020 COVID-19 crisis, ICRG adapted its plans to assist vulnerable households, including women, socially excluded communities, and distressed migrant workers across Bihar, Jharkhand, and Madhya Pradesh. Partnering with government and community, PHIA Foundation addressed health and economic challenges induced by the pandemic, facilitating the delivery of social protection schemes for rapid access to essential resources such as food, cash, and employment opportunities. Post-July 2021, ICRG shifted its focus to climate mitigation goals and resilience building among vulnerable communities, leveraging India's Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA) to enhance ecosystem services, particularly for agriculture, fishery, and forest-based livelihood activities.

This document captures glimpses of livelihood promotion initiatives facilitated in the intervention.

Contents

1: Enabling climate resilience and enhanced income through mango plant plantation	1
2: Income Enhancement through Mushroom Cultivation	2
3: Pond Renovation to Livelihood Empowerment	4
4: Turning Livestock into Lifelines	5
5: Championing Climate-Smart Agriculture for a Greener Future	6
6: Building capacities for revival of crop diversity	7
7: Surviving Widowhood -Defying Odds And Rebuilding Life	8
8: Blossoming Resilience: The Journey of Balthi Village Towards Sustainable Livelihoods	9
9: Pond – A lifeline for agriculture	12
10: Upskilling on artisans on bamboo-based handicrafts	14

1 Enabling climate resilience and enhanced income through mango plant plantation

Goir village, nestled within the dense forests of Sode gram panchayat in the Rania block of Khunti district, Jharkhand, grapples with a perennial water crisis due to its upland location. Isolated by rugged terrain and poor connectivity, the village rarely receives outside attention.

Recognizing the urgent need for climate-resilient solutions, the ICRG team conducted extensive community engagement activities, shedding light on the pressing challenges faced by vulnerable communities. Through participatory exercises and discussions, water scarcity and soil erosion emerged as critical issues affecting every villager.

In response, the ICRG team initiated a comprehensive plan to address these challenges. Identifying suitable community sites, they proposed plantation drives to curb soil erosion, provide livelihood opportunities, and bolster income for vulnerable families. The community advocated for plantation efforts on fallow and degraded lands to mitigate soil erosion and manage water flow.

Plans were formulated with the facilitation of the ICRG team and presented by the community to the Gram Sabha for approval. As a result of this planning process, mango plantation on 6.5 acres of land, valued at INR 21.20 lakhs, two wells measuring 12' by 35' with a total cost of INR 6.48 lakhs, and a pond measuring 80' by 80' amounting to INR 3.50 lakhs, were proposed and sanctioned for the village under the MGNREGA.



"This has enhanced the village's green cover but also contribute to soil conservation and water management, ensuring sustainable agriculture. As saplings mature into income-generating trees, villagers foresee long-term economic benefits. Now, we have started seeing MGNREGA as an opportunity to create the assets which aid in their livelihoods and also in restoration of their village habitat which the village elders often talk about." Farmers, Goir village

2 Income Enhancement through Mushroom Cultivation

Food security has become a global challenge due to climate-induced disasters, such as erratic rainfall and rising temperatures. In India, where women often manage rural households, meeting increased food demand with limited land poses a significant challenge. Widespread malnutrition among vulnerable populations persists. Mushroom cultivation offers a solution, providing employment and income opportunities, especially for marginalized communities. Oyster mushroom cultivation, with its simple and low-cost technology, is accessible even to landless farmers. It has emerged as a boon for poor families, offering a rich source of nutrients and the bioconversion of cellulose waste into edible biomass.

In the remote village of Basariya Kala in Palamu district, Mamta Devi, a resilient woman farmer belonging to the Chero tribal group, embarked on a journey of empowerment through mushroom cultivation. Supported by the ICRG program, Mamta's story highlights the transformative impact of training and access to resources on rural livelihoods. Initially, Mamta faced the daunting challenge of providing for her family amidst climate-induced hardships and limited opportunities. However, with the guidance of the district horticulture department, Mamta received training in oyster mushroom cultivation, a venture she embraced with hope and determination.



Armed with 30 bags of mushroom spores and newfound knowledge, Mamta set out to cultivate mushrooms in her small mud house. The journey wasn't easy, but Mamta's perseverance paid off. Within months, her efforts bore fruit as she harvested impressive yields of oyster mushrooms.

The impact of Mamta's success rippled through her community. Inspired by her example, other women eagerly joined the initiative, motivated by the promise of economic independence and stability.

Through collaborative efforts among the ICRG team, local authorities, and community leaders, awareness about mushroom cultivation spread across Chainpur block. This initiative not only empowered women but also enhanced food and income security within their families. Alongside Mamta, 45 additional women received training and kits, which included all necessary raw materials such as mushroom spores, husk, bavistin, rubber, and plastic bags. Over the following 4-5 months, all 7 women achieved yields of approximately 150-200 kg each, selling their mushrooms for approximately 40 thousand rupees each.



3 Pond Renovation to Livelihood Empowerment

Sakra block, situated 30 km west of Muzaffarpur district headquarters, grapples with challenges typical of agrarian communities: small landholdings, inadequate irrigation, and climate change vulnerabilities. PHIA stepped in to address these issues through water conservation-centric asset planning, focusing on livelihood convergence.

Efforts were made by ICRG team to link 45 households with various livelihood and social protection schemes. The team organized training programs on organic farming and livestock management, collaborating with the Agriculture Department for technical knowledge. The team facilitated the creation of 25 new job cards, provided training to 15 people on goat rearing, and linked 48 individuals with social protection schemes. 12 CBO members engaged in vegetable farming, and 11 families initiated fish farming. They also promoted millets through street plays and facilitated the participation of farmers in agricultural events to learn advanced techniques.

The immediate impact of the renovated community pond was felt by 30 households covering over 10 acres of land, providing essential irrigation facilities for Rabi crops. It supported 20 households in achieving double cropping. Additionally, contributed to groundwater recharge, benefiting seven bore wells.

Horticulture and timber plantation initiatives were undertaken, further enhancing the environmental impact. Devi, who transitioned from traditional rice and wheat cultivation to high-profit banana and vegetable farming, resulting in a significant increase in her family's income.

Parmila Devi, a ward member, showcased proactive efforts in initiating fish farming and developing a youth exercise center near the site under MGNREGA, highlighting the broader community engagement facilitated by the intervention.



4 Turning Livestock into Lifelines

Urvashi Devi resides in Churiya village, Dumki Gram Panchayat, Tethatitangar block, Simdega district, Jharkhand, where her husband, Saban Manjhi, works as a marginal farmer. Seeking to enhance their household income, Urvashi approached the ICRG team for assistance during a livelihood strengthening awareness session.

Upon consultation, the team recommended that Urvashi apply for assistance for cattle rearing through the Animal Husbandry department. They provided detailed information about the scheme and informed her about the "Sarkar Apke Dwar Programme" organized by the government administration in every panchayat of the block.

On November 12, 2022, Urvashi attended the program at the panchayat with facilitation support from the team, where she applied for the scheme and submitted the necessary documents. Her application was accepted and sanctioned, resulting in her receiving a Sahiwal variety cow with a 90 percent subsidy on February 25, 2023.

The cow yields 10 liters of milk per day, which Urvashi sells at Rs. 50 per liter, generating approximately Rs. 500 in income daily. On average, she earns Rs. 10,000-12,000 per month, even after setting aside

a portion of the milk for her family's consumption. Through ongoing discussions, follow-ups, and facilitation, the ICRG team has significantly contributed to Urvashi Devi and her family's increased income.



5 Championing Climate-Smart Agriculture for a Greener Future

Anil Bhuiya, son of Jay Mangal Bhuiya and belonging to the Scheduled Caste, has received primary education. He practices agriculture and also works as casual labor in Algdih village, Panchayat Basriyakala. Despite having only one acre of agricultural land to feed his five family members, Anil and his family members are actively involved in agricultural activities to reduce crop production costs.

Upon participating in livelihood enhancement meetings conducted by the ICRG team in Algdih village, Anil became acquainted with organic farming principles. Encouraged by the benefits of organic farming, including improved soil health and environmentally friendly crop production, Anil committed himself to this approach and encouraged other farmers to do the same

Anil initiated basic preparations for organic farming by creating pits to collect bio-waste for composting, which he utilized on his agricultural land. He dedicated part of his land to organic potato and onion cultivation, eschewing chemical pesticides. His dedication and adherence to zero-budgeting principles, promoted by the government for reducing production costs and conserving natural resources, underscore his commitment to sustainable farming practices.

The efforts of Anil Bhuiya and many other small and marginal farmers like him are contributing to make climate sustainable and reduce the impact on environment, surface water conservation, ground water contamination, effect on soil fertility and impact through food production.



6 Building capacities for revival of crop diversity

Farming communities residing in the interior and remote villages of Rania block have traditionally engaged in sustainable agricultural practices. However, over the past few decades, increased market access and promotion by various agriculture departments and the government have led to a rising trend in the usage of inorganic fertilizers, hybrid seeds, and monocropping. Consequently, traditional practices such as organic farming, mixed farming methods, and climate-resilient traditional seeds have taken a backseat.

In the project, we aim to revive the sustainable production system to ensure sustainable livelihoods and enhance the community's capacity to mitigate climate-induced risks. The project team conducted a series of meetings in small groups to assess current cropping patterns, preferences for crop and seed varieties, application of manures, fertilizers, insecticides, pesticides, and harvest practices. Based on the findings, the team facilitated the community in understanding the growing impact of climate stress, recurrent cases of crop failure due to untimely rainfall, the growing reliance on markets for the production system, and associated risks.

Additionally, team facilitated the community in identifying climate-resistant traditional seed varieties and supported their reintroduction into production. Traditional seed varieties of millets, paddy, and vegetables were collected during this process. A two-day training session on the production and application of organic fertilizers, insecticides, and pesticides was provided to farmers of Banai and Dahu panchayats, enabling the community to understand vermicomposting, making matka khaad, fish tonic, Nadepp compost, and leaf composting.



7 SURVIVING WIDOWHOOD - DEFYING ODDS AND REBUILDING LIFE

Nilam Devi, a resident of Sadullapur village, Ward number 9, Chadanpatti panchayat, Sakra block of Muzaffarpur, Bihar, was widowed during the COVID pandemic. Married in 2011, she is survived by two children aged 11 and 9 years. Widows like Nilam face tremendous social apathy and family exclusion, with minimal government support, especially in Bihar, which has a significant number of widows as per the 2011 Census. Dealing with societal hostility and indignity, widows often find themselves socially outcast and restricted from participating in family events. Nilam's husband, Gariban Paswan, worked as a daily wage earner, earning Rs. 250 – 300 per day. To support his growing family, he migrated to Gujarat to seek better earning opportunities. However, he fell ill due to excessive alcohol consumption while working in a plastic bottle factory and returned home in September 2021. Unfortunately, he passed away due to liver failure as he lacked sufficient funds for expensive treatment and did not possess an Ayushman Card. Initially supported by her brother-in-laws, Nilam eventually had to work as a daily wage laborer to meet her family's needs, facing challenges due to inconsistent work and the responsibility of raising her children alone. Despite being a member of

a Self-Help Group (SHG), she was unaware of the benefits available to her. Her plight came to the attention of the PIP during a Community Based Organization (CBO) meeting, prompting members to request support from PIP to explore livelihood opportunities and reduce her vulnerabilities.

Recognizing the need for assistance, the PHIA team advocated Nilam's case with the community mobilizer of Jeevika, the nodal agency for implementing the SJY scheme introduced by the government in 2018. After several rounds of verification, Nilam was approved for a grant of Rs. 30,000 under the SJY scheme. With this support, she opened a grocery shop in her village, enabling her to earn Rs. 250 – 300 per day.



8 Blossoming Resilience: The Journey of Balthi Village Towards Sustainable Livelihoods

Madhubani district, in the I-climatic zone, often deals with severe floods from heavy monsoon rains. Agriculture is vital to the district's economy, especially for small farmers. Fishing also brings in significant income. Despite climate challenges, agriculture remains a key part of Bihar's economy. To tackle these issues, the ICRG program in Madhubani combines rural development with climate-responsive strategies, aiming to boost resilience in vulnerable communities.

Under the ICRG programme, the team-initiated interventions in Balthi village. They conducted meetings and orientations with the community, PRI, and SHG members, focusing on agro-climatic conditions, climate change impacts, cropping practices, and socio-economic factors. A Participatory Rural Appraisal (PRA) was conducted to identify challenges and potential solutions, revealing the significant impact of frequent monsoon floods on livelihoods and crop production. Lack of access to government schemes and innovative farming methods heightened vulnerability to climate risks, leading to increased migration during adverse conditions.

In 2022, a comprehensive plan was developed to enhance community resilience and sustain livelihoods

in Balthi village. Mata Samuh, a community-based organization (CBO), was established with a focus on empowering vulnerable households, particularly those belonging to the Schedule Caste (SC) category. Through regular meetings and interactions, the community became familiar with government-supported social protection schemes and integrated farming practices. Training sessions were initiated to promote diversified cropping methods, aiming to improve crop productivity and economic empowerment.



As part of the intervention, a model Farmer's Field School (FFS) was established by the CBO members to showcase innovative livelihood models and disseminate scientific practices among farming communities. Notably, a progressive farmer and CBO member, Sri Bhusan Paswan, initiated integrated fish and poultry farming with support from the PHIA team and Krishi Vigyan Kendra. Training and 500 fingerlings were provided to kickstart fisheries, while a poultry unit with 105 Sonali chicks was established on the pond's bunds to maximize income. The Krishi Vigyan Kendra team commended the CBO's efforts. Proper pond renovation and cultivation of creepers on bunds were carried out, with 50 papaya plants and various cucurbitaceous crops planted around the pond. Additionally, Makhana cultivation in two water bodies was undertaken with support from PHIA and SAKHI, a non-profit organization in Bihar. This integrated approach, coupled with proper pond renovation and crop cultivation, significantly enhances the community's structural sustainability and economic resilience against climate change impacts.



In Balthi village, a Farmer's Club of 30 members champions organic farming, supported by PHIA and KVK scientists. Their active involvement in Gram Panchayat Developmental Planning has led to 23 households gaining cattle sheds, 7 acquiring vermicompost units, and 8 initiating plantation projects under MGNREGA. Vulnerable villagers accessed social protection schemes, with 34 e-shram cards and 7 old-age pension schemes facilitated, significantly enhancing socio-economic resilience amidst climate challenges.



Members and farming communities, revealing diversified income opportunities for sustainable livelihoods. Empowered with non-farm-based livelihoods and social protection schemes, vulnerable groups experience reduced migration and economic dependency during crises. Financial stability rises among farmers practicing multiple cropping, maximizing land productivity. Increased participation of women in decision-making bolsters family and farm management. Adoption of innovative crop-based water management and NRM structures enhances climate resilience, mitigating vulnerability.

The model ensures year-round income and sustainability, optimizing resource use and reducing input costs. Initial investment of INR 95,000, with CBO members contributing 10%, yields expected annual revenue of INR 2 - 2.5 lakhs, fostering financial sustainability and community prosperity. Serving as a resource center, the model disseminates integrated crop management practices, resource utilization knowledge, and agroecological diversification among small and marginal farmers, building resilience and sustainability in the face of climate change.



9 Pond – A lifeline for agriculture

Marshal Samad resides in Bendopani tola, located in Bambalkera Panchayat, within the Tethaitangar block of Simdega district. Marshal, belonging to the Munda community, lives with his wife, Mariam Samad, and their two sons. Agriculture and employment under MGNREGA serve as the primary sources of livelihood for Marshal's family. Additionally, Marshal cultivates vegetables on a small piece of land, which he sells at the local haat in Bambalkera.



During a household visit by ICRG team Bambalkera on September 8th, Marshal expressed his desire to optimize his land resources. Despite owning four acres of land, he faced limitations in farming due to its uneven nature. Marshal identified a piece of land suitable for a pond, envisioning it as a solution to irrigate his fields and provide water for village cattle. However, he lacked the means to construct the pond independently and sought assistance from the project team.



Latitude: 22.601068
Longitude: 84.629394
Elevation: 478.444100 m
Accuracy: 5.5 m
Time: 04/10/2022 14:27
Note: ICRG मंडल समूह का जल संकलन के लिए समूह

The team advised Marshal to attend a special Gram Sabha scheduled for October 2nd, 2023, and instructed him to bring necessary documents such as identification proofs and land records. At the Gram Sabha meeting, the ICRG team facilitated the registration of Marshal's application. Subsequently, the Rojgar Sewak, PIP, and Marshal visited the proposed site for verification, ensuring all documentation was in order. Following verification, the application was forwarded for technical and administrative approval.



Latitude: 22.600923
Longitude: 84.630777
Elevation: 478.444100 m
Accuracy: 4.5 m
Time: 04/10/2022 11:21
Note: ICRG मंडल समूह का जल संकलन के लिए समूह

On January 12th, 2023, Marshal received approval for the construction of a 90x90 pond on his land under the government scheme (*Reference: Bambalkera Bendopani Marshal Samad ke jamin me 90x90 ka Talab Nirman -2022-23*). Work commenced on Marshal's pond from January 15th, 2023, and is currently underway.



10 Upskilling on artisans on bamboo-based handicrafts

Bamboo-based products have long been crafted by artisans from specific vulnerable communities, serving as a vital source of livelihood. However, changing market dynamics and consumer preferences threaten their traditional craft. To tackle this, a 20-day upskilling training programme was conducted for 40 artisans in Bihar and Jharkhand under the programme, with a focus on women artisans. After the training, artisans learned to craft 16 types of bamboo products across various categories, equipped with knowledge on finishing and coloring techniques to enhance their income. Additionally, they received Bamboo Tool Kits and a Drill Machine, enabling them to produce higher-quality products at a faster pace. With support from various organizations, including the National Bamboo Mission and PHIA, artisans are now able to participate in exhibitions, access government schemes, and showcase their products at local events for wider publicity and increased income.



Muzaffarpur district in Bihar is renowned for lac bangle production, with a thriving market both locally and abroad. Originating from Rajasthan, the Manihar community migrated to Bihar, where lac bangle making has become a significant livelihood, particularly for women from vulnerable backgrounds. Under the SFURTI programme, Real Scholar Society has conducted 28-day training sessions for women across Sakra block's panchayats, aiming to enhance their skills in lac bangle production. With PHIA's assistance, 230 women from Scheduled Caste communities were identified and trained between December 2022 and March 2023. Equipped with this new skill, women are earning between Rs. 10,000 to 12,000 per month, providing them with a sustainable source of income and the flexibility to work from home.



About us

About Government of the UK, Foreign Commonwealth and Development Office

The Infrastructure for Climate Resilient Growth (ICRG) Programme is a technical assistance (TA) programme, being delivered in collaboration with the Ministry of Rural Development [MoRD], Government of India [GoI], and supported by the UK government's Foreign, Commonwealth, and Development Office (FCDO). The programme focuses on enhancing the resilience of vulnerable communities to climate change impacts.

Partnering Hope Into Action Foundation (PHIA)

PHIA is a Charitable Trust registered in India in 2005. PHIA has a vision for a society free from poverty, exclusion and discrimination where all people live with justice, peace and dignity. PHIA works for the eradication of poverty among the poor, vulnerable, and marginalised communities in India and empowers them to be in charge of their own development. It works on the themes of - Access to Essential Services, Reducing Inequality and Bridging Gender Gap, Ensuring Sustainable Livelihoods and Humanitarian Response and Mitigating Climate Change responding to the calling of the Sustainable development Goals (SDGs). Gender equality crosscuts all of PHIA's work. PHIA's interventions and programs are focused in the states of Bihar, Jharkhand, Madhya Pradesh, Uttar Pradesh, Delhi NCR and Leh District in Ladakh. It works on both short term and long-term development interventions and humanitarian responses.

Partnering Hope Into Action (PHIA) Foundation

Head Office

S,J House, D-25/D, South Extension Part II, New Delhi - 110049 (India)

State Offices

Ranchi

House No. 428/B,
Near Gate No.6,
Ashok Nagar,
Ranchi - 834002,
Jharkhand

Patna

First Floor,
C/O Miss Pratibha Singh,
317 B, Patliputra Colony,
Patna - 800013
Bihar

Bhopal

E 8/104 Basant kunj ,
Arera Colony
Bhopal - 462039
Madhya Pradesh

Leh

2nd Floor,
Ismail Complex
Opp. Mantsaykhang,
Near SNM Hospital,
Leh -194101,
UT Ladakh

✉ info@phia.org.in

📷 <https://www.instagram.com/foundationphia/>

🐦 https://twitter.com/i/flow/login?redirect_after_login=%2Fphiaindia

📘 <https://www.facebook.com/foundationphia/>