

# TABLE OF CONTENTS

CHAPTER ONE	
OPENING DOORS	04
Women Farmers: From Voicelessness to	
Decision-making	
CHAPTER TWO	
THE BIG PICTURE: THE CRP WAY	08
Building New Pathways for Employment of Rural	
Women	
CHAPTER THREE	
THE CRP MODEL:	26
A Blueprint for Replication	
CHAPTER FOUR	
<b>HEALING LAND, LIVES AND LIVELIHOODS:</b>	36
The Impact of the CRP Model	
ANNEXTURES	46

#### **ABBREVIATIONS**

**CRP** – Community Resource Person

FAO - Food and Agricultural Organization

FLFPR - Female Labor Force Participation Rate

FRC - Farmer Resource Centre

**GP** – Gram Panchayat

**HUF** - Hindustan Unilever Foundation

**HR** - Human Resource

**KG** – Kilogram

KAK - Krishi Aajeevika Kendra

**LFPR** – Labor Force Participation Rate

MKS - Mahila Kisan Sangathan

MNREGS - Mahatma Gandhi National Rural Employment Guarantee Scheme

**NCW** – National Commission of Women

NHFS - National Health Family Survey

NSSO - National Sample Survey Office

PANI - People's Action for National Integration

PLFS - Periodic Labor Force Study

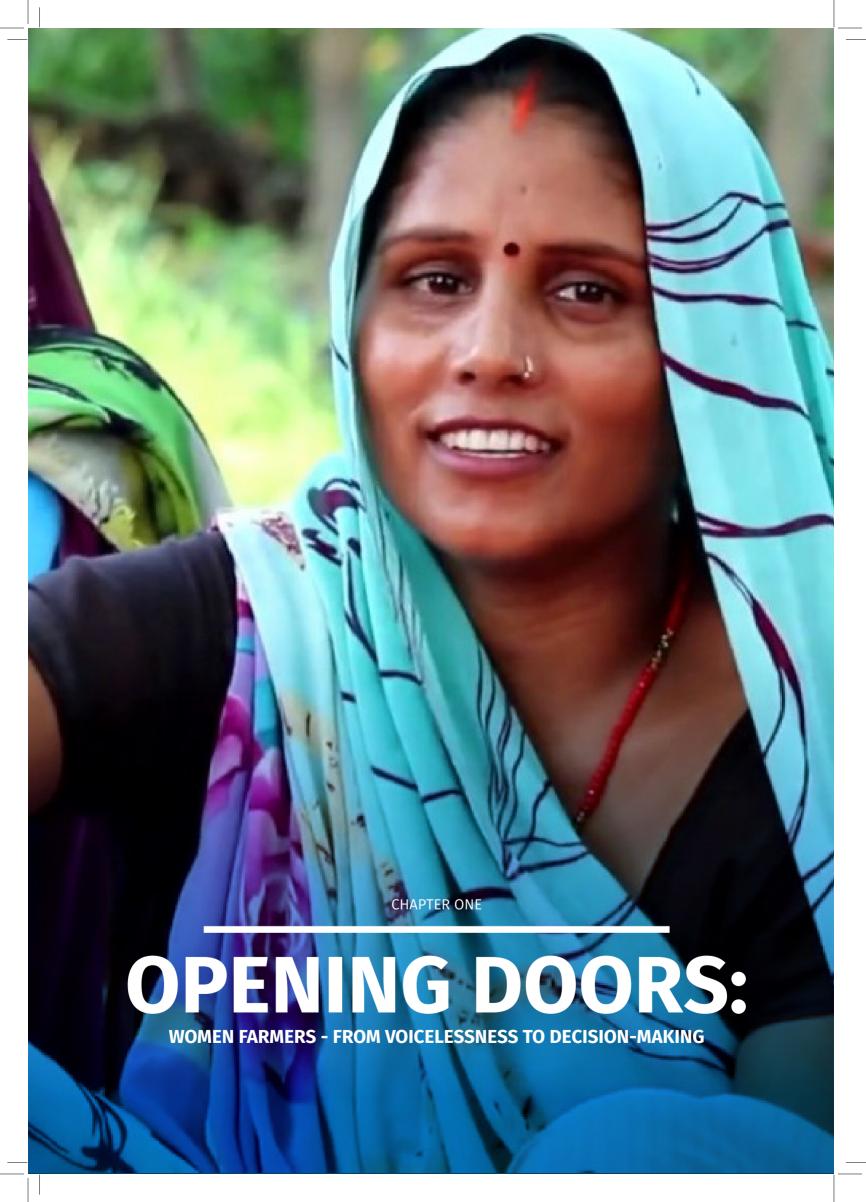
PRI - Panchayati Raj Institution

**SRI** – System of Rice Intensification

**UP -** Uttar Pradesh

This report has been researched, written and edited by





# "If you teach a man to farm, his family will eat. If you teach a woman to farm, the community will eat."

Anonymous

#### **WOMEN IN CHARGE**

Dayawati Varma (32) overcame abuse, abandonment and poverty to emerge as a farmer-innovator in Nayagarh, a village in the Balrampur district of Uttar Pradesh. Today, she is bringing innovation, technology and science into the lives of other women farmers of her village, and moving entire communities on the path of ecological, economic and social progress.

"When I began my work with women farmers, most families in our village had lost hope in agriculture," Dayawati remembers. "The men were migrating to cities in large numbers in search of jobs, leaving us women to deal with our lands and dependents."

In 2018, Dayawati's own life had come to a grinding halt. After years of perpetrating domestic abuse, her husband had abandoned her to marry another woman. As a single mother of a six-year old son, Dayawati had no resources, food or money to go from one day to the next. Her post-graduate degree in Urdu had been useless in opening doors to a job or income in the conservative village of Nayagarh.

This was when Dayawati was invited by PANI (People's Action for National Integration), a leading civil society organization in Eastern UP, to become a village Community Resource Person (CRP).

CRPs are young rural women, in the age range of 18-45 years, who provide technical advisory services related to water and agriculture to small acre farmers from marginalized communities.

"I had no prior experience in farming, but I also had nothing to lose," Dayawati says. The trust and faith of the PANI team in her ability moved Dayawati to put her life on a new trajectory. She became an agri-extension worker and a farmer-entrepreneur, committed to serving her people.

#### A land of struggle

Nayagarh is a cluster of small and marginal farmers, who own 2.2 acres of land on an average. They struggle with climate change, scarce water, the lack of farm information, and limited access to agri-inputs. These challenges have kept them in a cycle of multi-dimensional poverty.

As a CRP, Dayawati worked non-stop to reverse this trend. She equipped 341 women farmers to adopt innovative farming practices, deploy bio-farming methods, expand their range of agricultural produce, access climate-resilient inputs, reduce the cost of agriculture, and in the process, increase their household incomes by 30-40%.

#### **Celebrating the innovations and the innovator**

"In the beginning, I was very afraid of whether my work would be taken seriously by the men farmers and the local Panchayat leaders," Dayawati recalls. But as agricultural yields started to increase in the women's farms, the Panchayat sat up to take notice of both, the innovations and the innovator in their village.

"We noticed that for two years, the instructions of our CRP were followed mostly by the women farmers," Santosh Yadav, the Panchayat representative of Nayanagar recalls. "But as household incomes started to rise, the male farmers joined in too," he concludes. Dayawati soon became a reliable and sought-after agricultural advisor for the entire Panchayat.

#### **Building learning circles**

To break the isolation and drudgery of the women farmers, Dayawati went one step forward. She organized them in 17 clusters of Mahila Kisan Sangathan (MKS). These are village platforms where women build collective voice, agency and participation as farmers, stakeholders and decision-makers of their village.

What kept Dayawati going? "It was important for me that faith in agriculture be restored among my people," she answers. But to rebuild trust in agriculture, Dayawati had to gain the trust of the village.

#### **Building trust-based relationships**

Guided by PANI, Dayawati embraced the following good practices:

• First, she practiced what she taught to her peers.

Dayawati converted her own small land holding into a demonstration site of farming innovations, sending out a clear signal that she had skin in the game. If an agricultural technique or input prescribed by her did not work for the other women farmers, Dayawati would stand to lose too.

She ran machines such as the cono-feeder and super-seeder in her farm, and took videos to demonstrate the intricacies of the farming innovations that she had introduced. Soon her farm became a learning lab and site for STEM in agriculture for the farmers of Nayagarh.

- Second, she linked her partner women farmers with Farmer Resource Centers (FRCs) agricultural input supply units set up by PANI. The FRCs made high quality, climate-resilient seeds and other agricultural inputs accessible and affordable, despite the geographical remoteness of Nayagarh.
- Third, Dayawati invested her own capital, to the tune of Rs.150, 000/- to set up a poly house. Her nurtures a thriving nursery, from where she supplies high-quality saplings to women farmers before every cropping season. The saplings have saved the farmers crucial time before the sowing season. CRPs from other villages visit it as a learning exercise.

#### **Breaking gender stereotypes**

By building multiple revenue streams for herself, each linked to the prosperity of the farmer community of her village, Dayawati today stands tall as a role model in Nayagarh. She is economically independent, her son is going to school and is healthy, and her annual income is upwards of INR 100,000.

From a once-voiceless woman, Dayawati today wears the identity of an agri-entrepreneur. She has inspired the other women of her family to step out of homes and take charge of their land. Her young niece is a Panchayat Sahayika.

Dayawati's story is one of purpose, autonomy and progress. It illustrates that more than livelihoods and increase in incomes, agriculture and entrepreneurship can be vehicles of empowerment for rural women.

Dayawati is one of the 300 Community Resource Persons (CRPs) launched by PANI in partnership with Hindustan Unilever Foundation (HUF), across 300 villages in the district of Balrampur in Uttar Pradesh (UP).

As village-based water and agriculture advisors, the CRPs are revitalizing the economy, ecology and gender relations in their villages.

#### **CRPS: A FIELD FORCE OF FRONTLINE RURAL PROFESSIONALS**

CRP's are trained, 'ground-up' women experts in agriculture, water management and social protection. They belong to, and have a stake in, the transformation of their villages.

Hailing from Dalit, OBC and other backward caste families with resource constraints, CRPs serve as local water and agricultural development officers, providing technical support to women farmers, and opening up innovations in agriculture, soil health and water conservation for entire villages. In many ways, they are the ASHA equivalent for water and agriculture in their villages.

Over 4 years, the CRPs have served 62, 700 women farmers, leading to 30-40% increase in family incomes, savings of 58.05 billion liters of water and a 4-8% addition to the village GDP.

Further, the CRPs have aggregated their women farmers in Mahila Kisan Sangathans (MKS) across six blocks of Balrampur. These **sangathans** are village-level platforms where **women farmers learn** and collaborate to make agriculture gender-inclusive, and gender-responsive in their villages.

"The CRPs are driven to modernize agriculture, conserve water and catalyze good governance for common resources such as forests in their villages," Reshma Anand, CEO, HUF says. "If we can build this workforce of CRPs across rural India, it could have catalytic impact."

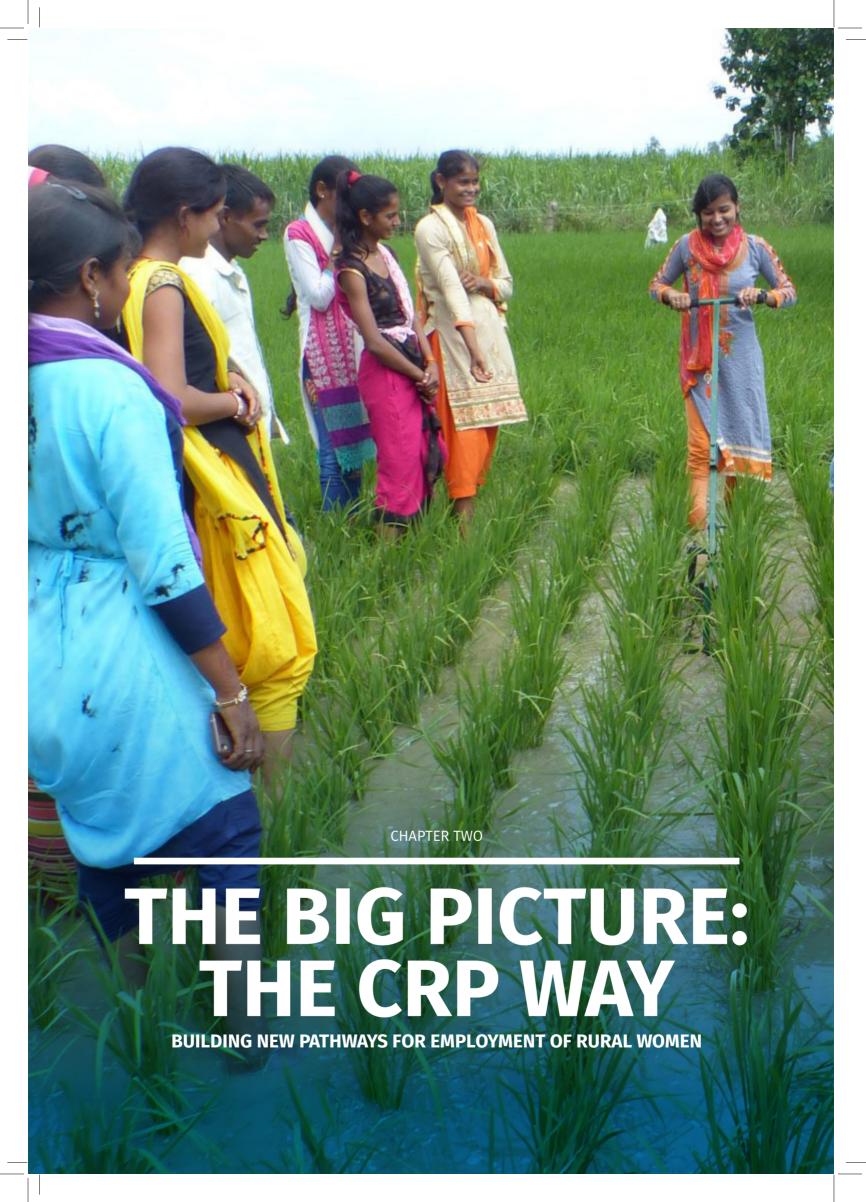
What motivates rural young women to step into new roles of CRPs or water and agricultural development officers?

What energizes them to transform the land and lives of the marginal women farmers of their villagers?

What has enabled the CRPs to create a groundswell of innovation and impact in a resource-poor region of India?

Can the CRP model be a new employment model for rural women in agriculture?

This document seeks to answer these question, and more. It details the blueprint of the CRP model, along with the shared values, strategy, structure, systems, skills, staff and style of leadership that have together shaped this approach of inclusive agricultural growth. It also conveys the energy and essence of the CRPs through their voices and stories.



# "If the women of a region transform, they transform the family and finally the larger society."

Deo Datt Singh, Director of Operations, PANI

Inspired by the principles of Gandhi, Jay Prakash Narayan and Vinoba Bhave, PANI is a prominent non-profit organization of Uttar Pradesh. For over 33 years, it has enabled more than 150,000 individuals from marginalized and ultra-poor communities to improve their livelihoods, health outcomes, rights, citizenship, agency and dignity.

PANI's approach to sustainable development stands on two pillars:

- Building gender equity across communities, identities and regions.
- Moving rural communities from the margins, to the center of decision-making, such that they can determine the pathways of their own development.

Jiski ladai, uss hi ki aguvai (For your fight, you lead from the front) has been a guiding mantra and the compass of the organization. By putting communities in charge of their own development, PANI has unleashed people-led, ground up solutions that are decentralized, owned, designed and run by rural communities.

For Deo Datt Singh and his team, this decentralization, is the path to long-term development and democracy for rural India.

PANI's CRP model thus, is a synthesis of these three Ds: decentralization, development and democracy.

#### POTENTIAL, PROGRESS, PERSONHOOD

"Once I became independent, I also became fearless," Mansi Prajapati (21), a CRP in the village of Chainpur Banaria of the Tulsipur block says. At 18, Mansi was the youngest CRP to be inducted in 2019.

The sudden demise of her father had created financial and social pressures on Mansi to say yes to marriage. But the role of a CRP brought stability to her household, both in terms of income, and in enabling Mansi to realize her potential.

#### A choppy start

The beginning was choppy. Mansi was unsure of the best way to start her work. Because she was young, few in the village gave her time or attention. But true to the ways of the youth, Mansi chose a high risk pathway to launch her journey as a CRP.

The Machan technique (a technique of sowing one vegetable on the ground, and the other on a loft or machan) had many detractors in her village. Undeterred, Mansi planted bottle gourd and onion, followed by bitter gourd and spinach on her demonstration plot over two seasons. The risk paid off. The technique proved to be successful, leading to wide-spread acknowledgement of Mansi, as a young, role model CRP.

In two years, Mansi had trained 250 farmers and collectivized them into 12 units of MKS. She facilitated the farmers to grow high value vegetables on their small plots; practice inter-cropping with sugarcane and; sowing paddy through the SRI methods. Mansi introduced the cono-weeder, zero-tiller and super-seeder machines to the farmers. **Learning to drive a tractor was a personal breakthrough for her.** 

But mobility and safety remained a challenge. "My family always worried about my safety. They thought I was too young for this job, and feared my being harmed or assaulted. I would be often scared to travel too," Mansi recalls. Her uncle would accompany her to local markets and mandis, which are very masculine spaces, designed to keep women out.

But overtime, with the support systems of PANI's safety apps and security protocols, Mansi started to confidently navigate public transport and work-related travels outside her village.

#### **Progressing, strategically**

Mansi had to deploy several strategies to gain the confidence of the adult community of farmers and PRI officials. She screened videos of the successes of other CRPs, and of the impact of the farming techniques that she was promoting. "Most men didn't believe me when I explained the innovations to them. But they got convinced when they saw them on the screen."

"I went all out to let the stakeholders know that I was not alone. Everywhere I went, I emphasized that I had the backing of PANI, and the support of several agricultural scientists and experts," Mansi reveals. By adding PANI's identity to her own, she expanded purpose and partners for her work.

#### **Building personhood**

Today, Mansi's annual income ranges from Rs.50,000-70,000, including the stipend that she receives as a CRP, and the incentives that she is paid from the profits of the women farmers she serves. Once in a kharif season, she earned 21,000, which had made her ecstatic.

Being financially independent, her stature has grown in her family as well as her village. "I can no longer let anyone take decisions about my own life," she says.

Serving as a CRP has enabled 300 once-voiceless women like Mansi, to build their leadership in multiple ways:

- The role gives them a voice and identity.
- They become earning members of their families, increasing their annual household incomes by 30-50%
- The rigorous training in agricultural technique, data, rural development management and use of machinery and technology, builds their knowledge capital.
- By creating platforms of women farmers, the CRPs build their own social capital and recognition.

Most importantly, CRPs re-frame the relationship that the farmers of their villages have with agriculture- from a relationship of abandonment and lack of knowledge, to one of innovation and growth. This pivots CRPS into leadership roles in their village, positioning them as 'crop doctors' and go-to farm advisors.

At a time when India's female workforce participation is among lowest in the world (less than 16.1%1), the CRPs of PANI are demonstrating a new trend. They are holding up a model of agricultural growth, that is driven by young women frontline professionals (or CRPs), who in turn, empower women farmers to take charge of their land.

Could the CRP model be a pathway to greater workforce participation of women in rural India?

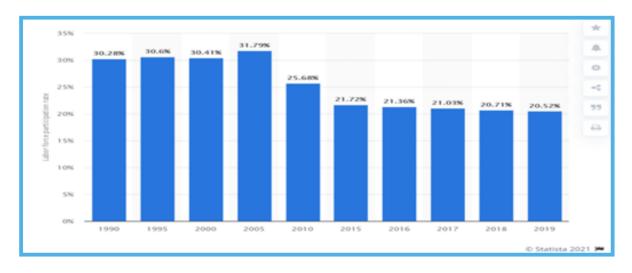
#### THE BARRIERS TO EMPLOYMENT AND LIVELIHOODS FOR RURAL WOMEN

India is home to 17% of the world's women population.

In 2019, the female labor force participation rate (FLFPR) of India was among the lowest in the world (20.52%). Post the devastating impact of the COVID 19 on India's economy and the widening job crises, the FLFPR of India dropped further to a historic low of 16.1% during the July-September 2020 quarter, the poorest among the major economies.

Today, only Yemen, Iraq, Jordan, Syria, Algeria, Iran, and the West Bank and Gaza have lower female labor force participation (FLFPR) rate than India<sup>2</sup>.

This trend is neither new nor sudden. It has been building up from 2017, as the chart below depicts:



#### Consider the statistics:

- From 2012 to 2018, 65 million men and 63 million women were added in the Indian working age population (15-64 years). The Labor Force Participation Rate (LFPR) for men remained stagnant, while the LFPR for women observed a downward trend. This depicted that the job market, while absorbing the growing number of male workers, did not do so for female workers<sup>3</sup>.
- According to the Periodic Labor force Survey (PLFS) data for 2017-18, India had lost 25 million rural women workers from the workforce since 2011-12. The fall in FLRP amongst women from Scheduled Castes and Scheduled Tribes communities was lower still by 10% points<sup>4</sup>.
- COVID-19 plunged women's engagement in the Indian workforce to an even lower and more complex spot. According to the Centre for Monitoring Indian Economy (CMIE), in 2021, less than 9 % of women in the working age (15-64) were employed, compared to 67% of all men in the working age.

#### **Mind the Gap**

A range of factors have contributed to excluding women, especially rural women in climate-affected geographies, from engaging and staying in India's formal and informal labor force.

These factors include:

- The gender wage gap;
- Restrictive cultural norms regarding women's work;
- Challenges related to mobility and safety;
- · Limited access to technology and;
- Absence of safety policies and flexible work offerings.
- Unpaid Care Work; Gender Wage Gap: Cultural norms place the primary responsibility of unpaid domestic work on women, limiting their participation in the labor market. These norms have also placed significant barriers on female mobility.

According to Oxfam's 2020 India inequality report — On Women's backs — women and girls put in 3.26 billion hours of unpaid care work every day in India, equivalent to contributing INR 19 lakh crore a year to the Indian economy. The Organization for Economic Co-operation and Development data from 2019 confirms that women in India spend up to 352 minutes per day on domestic work. This was 577% more than men of the household, who typically spend an average of 52 minutes on household chores each day.

- Automation in rural economies: More than 73.2% of rural Indian women are informally engaged in agriculture. Over time, with increased use of seed drillers, harvesters, threshers and husking equipment, women (who mostly performed these roles) have started to get displaced from rural farm work. As this trend continues, nearly 12 million Indian women could lose their jobs by 2030 owing to automation, according to a McKinsey Global Institute report<sup>5</sup>.
- Miniscule land ownership and property titles: Of the 73.2% of rural women workers that are engaged in agriculture, but they are not recognized because they do not have land titles. It is estimated that only 12.8% of rural women own land holdings. In UP, 6.5% women have legal rights to land, compared to 87.6% men who have direct ownership of land.

Research has long established that women who own land have better economic and social security. Ownership of land acts as a bargaining tool for women. It also facilitates women's access to institutional credit. With no land to their name, women's economic interests are further subverted by families.

- Lack of absence of credit and decision-making: According to a recent study by Oxfam, women farmers contribute 60-70% of total crop production in India, but only 2% of them have access to credit and agriculture. In UP, 4% women have access to institutional credit. While women are the chief source of labor during sowing and harvesting seasons, they have no rights over selecting crop variety, procuring fertilizer, fixing rates or borrowing loans even in their own fields.
- Limited education, leading to occupational segregation: According to the National Family Health Survey (NHFS-5) only 34% of India's rural women, receive 10 or more years of school, compared to 56% of urban women (and to 62% of urban men)<sup>6</sup>. This has severe implications downstream, with the low enrollment rates of rural female students in higher or tertiary education. Further, data from the National Sample Survey Office (NSSO) reveals that in 2018-19, only 2% of working-age women across rural and urban India received formal vocational training, of which 47% did not join the labor force.
- Violence and Lack of Safety: Domestic violence and the lack of safety in public spaces are sharp deterrents to women joining and continuing in the paid workforce.

According to the NFHS-5, nearly 1 in 3 Indian women in the age 18-49 have suffered some form of spousal abuse; around 6% have suffered sexual violence. The survey also reveals that women in rural areas are more likely (34%) than women in urban areas (27%) to experience one or more forms of spousal violence<sup>7</sup>

According to the 4th National Family and Health Survey (NFHS), sexual violence against women was higher in rural communities (6.4%) than in urban areas (4.7%). This further restricted their mobility.



The women of Balrampur, where PANI works, struggle with these macro challenges in their daily lives. In addition, they are also impacted by the combination of poverty, climate change and gender violence that is specific to, and has severely distressed the district.

#### **Balrampur: A site of multi-dimensional poverty**

Balrampur is a remote, aspirational district, located on the banks of the river Rapti in Uttar Pradesh. It is the third poorest district in Uttar Pradesh, after Shravasti and Bahraich.

Ranked 4t in Niti Ayog's Multidimensional Poverty Index. 69.45% of the population of Balrampur experience multiple disadvantages<sup>8</sup> that limit their human potential and prevent them from living with dignity.

- Poverty and climate change: 90% of the district farmers are small plot holders, with average landholding size of 1.64 acres. They rely purely on groundwater for irrigation. 80% of the agricultural outputs of this region are water-intensive crops such as wheat, paddy and sugarcane. High intensity rainfall and erratic floods lead to routine, large-scale annual crop loss. The district is characterised by erratic rainfall, significant groundwater extraction (over 90% net sown area).
- Malnutrition: Malnutrition is a corollary to poverty, climate-change and lack of food security. 41 per cent of children in Balrampur are stunted, 37.2 per cent are underweight and 24.9 per cent are "wasted".
- Money order economy: While there is no official government data, research organizations on the ground estimate that 70% of the population of Balrampur migrates out in search of livelihoods9. A significant impetus for this migration is the low MNREGA wage rates in UP, and the delay in payments.
  - According to the MGNREGA portal, 1.10 lakh workers are registered under MGNREGA in Balrampur district. Out of these only 30,000 labourers are engaged under scheme. The remaining 80,000 workers have either migrated out or have adopted self-employment<sup>10</sup>.
  - The daily wage rate of MNREGA is fixed at Rs 201 per day for an individual in Uttar Pradesh. This is lower than the minimum daily wage for a MGNREGA worker in Karnataka (Rs 441 per day), Haryana (Rs 377), Punjab (Rs 369) and even Bihar (Rs. 292).
  - To compound this crisis, payments are delayed by more than 15 days, adding to the desperation of families.

For these reasons, most workers of Balrampur prefer to work in construction sites in cities under private companies. As a result, the district survives on 'money-order economy'.

- Gender violence: In 2020-21, the National Commission of Women (NCW) received the highest number of complaints of crimes against women. More than 50% of these complaints were registered from UP, making it the state with the highest incidents of violence against women<sup>11</sup>. The highest numbers of NCW complaints related to the right to live with dignity and domestic violence were recorded in UP<sup>12</sup>. Data reveals that over four years, crime against women in UP has gone up by 66.7%, over four years, and cases of rape against Scheduled Castes women has increased by 20.67%<sup>13</sup>.
- Influx of migrant during the first waves of COVID-19: At the start of the COVID-19 lockdown, Balrampur saw unprecedented waves of reverse migration. Close to 100,000 migrant workers returned in the first week of the Lockdown<sup>14</sup>. Their re-entry upset entire family systems, as the share of space, food and other resources got impacted. Markets were shut and the harvested crops could not be taken to mandis for sale. Without harvest income, access to basic food rations became a challenge. Villages had little to survive on or provide for the sudden bulge in their population.

The district is still reeling under the long-term impact of this reverse migration.

Caught in the intersections of poverty, gender, migration and violence, women are perhaps the hardest hit in the district of Balrampur.



#### THE BARRIERS TO EMPLOYMENT AND LIVELIHOODS FOR RURAL WOMEN

### "The little grassroots people can change this world."

Wangari Mathai, Nobel Laureate

PANI has equipped its young grassroots women leaders, or CRPs, to tackle the canvas of challenges detailed above, especially the declining female labour force participation rate, increasing agricultural distress and, the rising joblessness in their region.

"Women are the first to adopt innovations and solve problems in situations of distress," Deo Datt Singh says. "So while we train and empower young girls to transform water and agricultural practices as CRPs, we also organize and collectivize the older female farmers to become a force and sustain these practices in their villages."

Thus, on one hand, the CRP model has enabled 300 women to step into new job roles as frontline village professionals. On the other, it has aggregated more than 60,000 small plot women cultivators of Balrampur who have enhanced agricultural production in their vilages through agroecological farming solutions.

#### CRPs - who, what, how

CRPs are young rural women, in the age range of 18-45 years, who provide technical expertise and other services to small acre farmers in water and agricultural development. They typically belong to farming families and would have a high school or graduation degree.

A CRP provides the following suits of services to the farmers of her village:

- Advisory services on new agricultural practices that can reduce input costs, reduce pest incidence, lead to judicious water use, improve soil health and increase farm yields.
- Affordable access to farm implements, appropriate inputs, quality seeds and gender-neutral agricultural machinery from reliable sources.
- Aggregation of women farmers into platforms of learning, co-creation, knowledge sharing and agency. Here women pool in their innovations, and bring a gender lens to agriculture.

These water and agriculture officers market their services through village meetings, audio-video shows, and on-farm demonstrations.

For 80% of CRPs, this job role in their stepping stone into the workforce. They earn a monthly stipend and incentives, through a carefully-defined incentive structure that is linked to the income growth and agricultural produce of their village.

"In the beginning, being a CRP was just a job for me," Sunita Kumari, the CRP of Rampur Arna village says. "But very soon, I realised that this was not an ordinary job. Through my work, we were creating magic in our fields. We were changing agriculture and changing my village as well".

#### In what ways do CRPs bring scientific temper and change among farmers of last-mile villages?

The CRPs of PANI have introduced agro-ecology across 300 villages.

#### Agriculture and ecology, in rhythm

Agro ecology is an integrated approach that simultaneously applies ecological and social concepts and principles to the design and management of food and agricultural systems. It seeks to optimize the interactions between plants, animals, humans and the environment while taking into consideration the social aspects that need to be addressed for a sustainable and fair food system<sup>15</sup>.

According to Deo Datt Singh, "Because women are intimately linked to the food security of their own families and are the worst sufferers of climate change and feminization of labor, they are intuitively more open to engage with innovations for climate resilient agriculture."

But women farmers are also pragmatic. It was critical therefore for CRPs to quickly and practically demonstrate that agro-ecology could lead to increase in farm yields and incomes.

#### **Innovation Snapshots**

Some of the principles of agro-ecology that CRPs follow include the following:

- Diversification to ensure food security, nutrition and improved income sources for small plot farmers.
- Efficient use of resources.
- · Conservation, protection and enhancement of natural resources.
- Protection and improvement of rural livelihoods, equity, and social well-being, especially in the face of climate change and market volatility.
- Co-creation and sharing of knowledge, where farmer communities combine scientific know-how with indigenous and traditional knowledge.
- Promotion of responsive and effective governance mechanisms<sup>16</sup>. We present snapshots of the innovations in water and agricultural practices that the CRPs are heralding across six blocks of Balrampur, based on these principles.

#### Intercropping and dual cropping

Balrampur has traditionally grown water-intensive crops such as wheat, paddy and sugarcane.

The CRPs fought entrenched belief systems to steer their farmers from mono-cropping to dual and inter-cropping systems. This led villagers to diversify their produce, by interspersing new crops (vegetables and pulses) with their traditional crops.

Machan was a small but barrier-breaking technique that CRPs brought into their villages. 'Machan' cultivation (or 'multi-tier' system) involves the simultaneous cultivation of multiple crops on the same land to fully utilize vertical growing spaces. The combination of the crops has to be scientifically decided. The system has the potential to scale up the productivity of small farms<sup>17</sup>.

After much resistance, the farmers of Balrampur took to the technique of growing vegetables at two levels –one on the ground, and the other on a loft or machan. The simultaneous cultivation of different gourds and ridges, as well as potatoes, across different levels, in a small plot, added to farmers' food and income security.

Sudhir Kumar, a farmer from Sudarshan Jot says, "Our CRP introduced inter-cropping and encouraged us to sow two crops simultaneously. We were circumspect about this technique because it was so new for us. We feared that we would risk losing not one but many crops, at one time, if the technique did not work. But she kept her patience and demonstrated how it is possible to sow two crops on the same field. Now we all practice inter-cropping and harvest a bounty of multiple crops,"

In the scheme of crop diversification, the introduction of new produce, such as onions, has led farmers to increase their harvest incomes by almost 30%.

#### • From random plantation to sowing seed in rows

The CRPs broke the traditional practice of Chhitua Vidhi or random sowing of seeds. They demonstrated to farmers that rather than sowing more seeds, crop plantation needs to be judicious and ordered. With the use of simple machinery, seeds could be sown in rows, maintaining line and distance between them.

By introducing machines such as cono-weeder, super-seeder, zero-tiller, the CRPs have enabled small plot farmers to:

- Reduce their seed requirement by half, per acre.
- Save water by using it more judiciously, and reduce the cost of irrigation.
- Cut down on labor time both for sowing and irrigation –and decrease the drudgery and exhaustion.
- Move from labor-intensive and manual farming practices to adopting user-friendly technologies.

This technique has worked well, especially with SRI plantation of rice, arhar and wheat, demonstrating how resources could be used efficiently

#### Sugarcane mulching – Turning waste to wealth

Facilitated by the CRPs, the farmers of Balrampur have steered away from the traditional practice of burning the remnants of the sugarcane produce, which can cause lasting damage to the quality of the top soil. They now deploy the process of mulching, or leaving the crop remnants as is, with adequate sprinkling of water. Over time, the crop remains turn into natural fertilizer, even as the moisture content of the soil increases. CRPs are reporting the adoption of this technique for the cultivation of garlic too.



#### • Healing land and water bodies – Soil testing, organic plant nutrients

CRPs are enabling their farmer communities to build new habits of soil testing, using organic fertilizers (Nimastra and Jivamrit) and mineral based crop nutrients.

Bhagya Devi of Hasaupur village recalls that when she did the soil testing on her land, just ahead of the sowing season, she realized that her farm urgently needed additional nutrients. If not for this timely intervention and insistence of her CRP, Bhagya Devi could have experienced significant crop loss and further damage to the soil health.

Farmers like her are also becoming more alert to the ground water levels of their village, which CRPs record and share with the Gram Panchayat. This is a new way for the village to engage with their land, water bodies and natural commons.

#### • Bringing irrigation solutions to the last mile

Though Balrampur has yet to experience water shortage, the water table of the region is dropping sharply, to the extent of 80 cm per annum<sup>18</sup>.

"The general perception of the small and marginal farmers is that this is my land; the water underneath is my water and I can use it the way I like," Deo Datt Singh explains. "Small farmers, in the face of scarcity of other resources, and lack of information, tend to exploit their water to maximize their yield. So, we worked with CRPs to amplify the message that water is a community resource and should be used judiciously and responsibly. This was one of our starting principles."

By ensuring the availability and affordability of sprinklers and drip irrigation methods, through government subsidies, CRPs have enabled savings of water, while reducing the cost of irrigation for their farmers.

#### **Structural solutions for structural barriers**

Poverty, gender and geographical remoteness are three barriers that obstruct the women farmers of Balrampur from accessing farm implements and inputs that are crucial for modernizing their agricultural practices.

PANI addressed these barriers by setting up the following market-based solutions, which in turn, opened up opportunities of entrepreneurship and agency for the CRPs.

• Farmer Resource Centres (FRC): FRCs are local centers that stock affordable and quality farm inputs for small plot holders. These include pesticide, seeds, nutrients, fertilizers. The CRPs serve as the bridge between farmers and FRCs. They ensure availability, access and affordability of the inputs, while monitoring the quality of the products.

There are 10 central FRCs catering to 300 Gram Panchayats. Without FRCs, the agri-innovations and advanced techniques of CRPs would come to naught.

• Krishi Aajeevika Kendra (KAK): These are auxiliary units which are run by the CRPs from their homes. They stock products from the FRCs in these units. In many ways, a KAK is a one-stop shop and the gateway through which farmers can access information, seeds, farm tools and machineries on a shared basis.

According to Radha Devi, a farmer from Maharajpur village, "Our CRP has enabled us to procure good quality seeds from the FRC. These seeds are marginally expensive (Rs. 20 more per kilogram) than what we procure from the open market. But we know that our CRP is accountable for every purchase. I can go to her with my grievances, if the seeds turn out to be bad. I can also buy seeds and pay her later or pay in installments. It's worth the investment."

Access to high quality paddy and onion seeds from the KAKs have enabled farmers of Balrampur to record 3-4 times higher farm yields.

At the peak of the COVID-19 Lockdown, the farmers of Balrampur faced a severe scarcity of seeds. The KAKs became the outlets through which the CRPs distributed 15 metric tons of hybrid paddy seeds to over 15000 famers. The thrust was to reach at least 1 kilogram of seed to each farmer to sow in their field, enough to ensure at least food security for themselves and their families.

There are 26 KAKs run by the CRPs. The FRCs and KAKs work in tandem to also ensure that women farmers are able to access rowing machines and irrigation tools in rotation, leading to shared community farming practices.

• Mahila Kisan Sangathan (MKS): MKS are village-level force-multiplying platforms of women farmers. This network grows exponentially, as CRPs engage and collectivize their groups of women farmers.

MKS become the sites where women farmers break their isolation and engage in:

- Knowledge exchange and learning on innovations in farming;
- Aggregation of purchase of farm inputs, from where they can negotiate better rates for their seeds, fertilizers etc;
- Dialogue and advocacy with PRI members;
- Response and resolution of episodes of domestic and other forms of gender-based violence;

Anju Devi, from Rampur Arna village says, "We have sat in baithaks and formed the MKS unit ourselves. Our MKS is called Lakshmi Sangathan. Because of the organization, we can now order goods in bulk, unitedly from the Sangathan by pooling in money together. We also dialogue and raise questions with the authorities together and support each other during a personal crisis."

The CRPs of Balrampur have set up 284 units of MKS across 6 blocks, consolidating over 60,000 active women farmers.

- Each CRP has under her 8-20 MKS units that she federates.
- While the average number of MKS that each CRP leads is 10, the highest number of MKS federated by a single CRP is 20 (in Baijpur Village, Balrampur Sadar Block).

By linking and setting up the FRC-KAK-MKS support nets over 300 villages, the CRPs of PANI have laid down the foundation for sustainable agri-based livelihoods in their communities.

#### **Impact for all**

According to Anantika Singh, Portfolio and Partnerships Lead, HUF, the CRPs have combined modern agricultural practices with community wisdom to design and drive village-level behavior change. This has created win-win scenarios for all:

- Over four years, the CRPs have contributed 4-8% to their village GDP, despite the harsh COVID-induced distress in their region.
  - The top performing CRPs have gone on to add 15-18% to the GDP of their villages.
- The women farmers served by CRPs, have registered a 30-40% increase in household incomes, emerging as key agricultural decision-makers in their families and villages.
- 62,700 women farmers, with the advice of 300 CRPs have saved 58.05 billion litres of water across six blocks.
- The CRPs, 80% of whom are first-time job holders, have stepped into the workforce, earning annual incomes of Rs. 50,000-70,000, and adding almost 50% to their family earning.

(Refer to the Chapter 4 for data on the impact and outcomes of these agri-innovations in farmer communities of Balrampur)

#### **VEIL OFF!**

"I used to cover my face with a long veil, and could not speak directly to the elders of my family. Now my veil is off. Senior farmers, who are my relatives, talk to me with respect and treat me as an equal. Other women have followed my example and stopped hiding behind long veils," Laxmi Devi (31), a CRP from Tulispur says.

Laxmi Devi is married with two children. Her husband works as a driver in Mumbai and mostly stays away. Fed up of financial distress and unsupportive in-laws, Laxmi sought the help of the ASHA worker to seek a job. This is how she landed the role of a CRP in 2019.

#### **Determination over derision**

Laxmi had to fight the taunts and jibes of her in-laws, relatives and neighbors as she stepped out of the threshold of domesticity to take on work in the masculine domains of science, technology, data and agriculture. She also had to fight her own demons – a deep lack of self-worth, self-confidence and the inability to communicate. But the field coordinators of PANI nudged her to take small steps every day, moving her to cross the bridge of diffidence and enter the world of teaching, experimenting, travelling, risk-taking and facilitating large MKS meetings.

#### **Expanding the circle of early adopters**

Laxmi's first job was to steer farmers away from the traditional practice of Chhitua vidhi or random planting of wheat seeds, which caused high wastage of seeds. She introduced rowing machines, a cost-saving technique that requires fewer seeds and reduced water usage. But only 13 women joined her in this new practice in the first season.

To demonstrate evidence, Laxmi cultivated wheat on her demonstration plot with the rowing machine. She successfully sowed one acre of land with 6-8 kgs of wheat seeds, over the 12-14 kgs that the traditional method demanded. She also planted rice saplings using the SRI methods. In the second season, the ranks of farmers following these practices swelled to 50.

Over three years, Laxmi has worked with 250 farmers and collectivized them into 113 units of MKS. She has trained them to increase the productivity of their land and reduce the cost of farming through simple techniques like soil testing, adding nutrients to the soil at the appropriate time, multi-cropping, sugarcane mulching, the adoption of farm machinery and techniques such as drip irrigation etc.

For Laxmi, the participation of women farmers in MKS meetings is the real game changer. In these meetings, they break their isolation and silence, take off the veil of domesticity and step into the mindset of a farmer, act against domestic violence, and in every way, become true developers of their villages.

#### On the path to entrepreneurship

Laxmi todays run the Krishi Aajeevika Kendra from her house. These are village-level farm input centers, promoted by PANI. She sells quality approved seeds, fertilizers, pesticides etc to her community of farmers. Her earnings have led her to build a concrete extension of her erstwhile kachcha house.

With the inflow of incomes and respect, the behavior of Laxmi's in-laws and relatives has changed drastically. Her mother-in-law now shares the responsibility of running the Krishi Aajeevika Kendra and takes care of Laxmi's child, when she is travelling.

"Once women remove their veils to speak in our meetings, they discard it forever," Laxmi says

#### A HISTORY OF INNOVATIONS

The CRP model was not built in a day.

It stands on the shoulders of thousands of rural women leaders who were mobilized by PANI in 2012 to work as barefoot agricultural experts. The aim was to create ripples of local knowledge and wisdom on agriculture from a gender lens. These women leaders, who were mostly middle-aged, also went on to spread village-wide movements of Right to Participation and Right to Livelihoods.

#### Building inter-generational bridges between women leaders

But overtime, PANI identified the following challenges:

- Due to deeply entrenched cultural norms, despite immersive leadership trainings from PANI, the women leaders who took the path of political leadership, tended to hand over decision-making to their husbands or male relatives.
- After years of action in the field, the older women leaders had started showing signs of physical and emotional exhaustion.
- As technology started to make inroads into rural terrain, these women leaders, openly called for support from younger and more- educated counterparts.

Once, at an annual function of PANI, an iconic role model grassroots woman leader, known for being the first woman to till her land with the family ox, rose to share her story of struggle and impact. "I have accomplished a lot, but I wish I had started when I was younger," she told the large audience. "Her story of courage had ended with a hope and call for engaging younger rural women," Deo Datt Singh, recalls.

Heeding her call for younger energy, in 2018, PANI launched a new iterated version of the models, with **young women CRPs at the helm**. These young women had higher levels of education (high school or graduation or a diploma), and access, ease and agility with, smartphones.

#### A new beginning

The CRP model was nested in the project named Sawera (or dawn).

In the beginning, the project took two routes:

- A traditional model of direct intervention where agricultural extension services were provided by team members of PANI across five villages;
- A CRP-led model of agricultural information and support services that was piloted across five villages, which were called the Satellite Cluster.

The CRPs were embedded in the ethos of their villages. They were always available for the farmers of their village. They harnessed their existing trust and relationships. They were intrinsically invested in improvements in their village.

Unsurprisingly, the Satellite Clusters performed better on all project indicators, and **the CRP model** was scaled up across the district.



#### A rough start

The beginning was not easy.

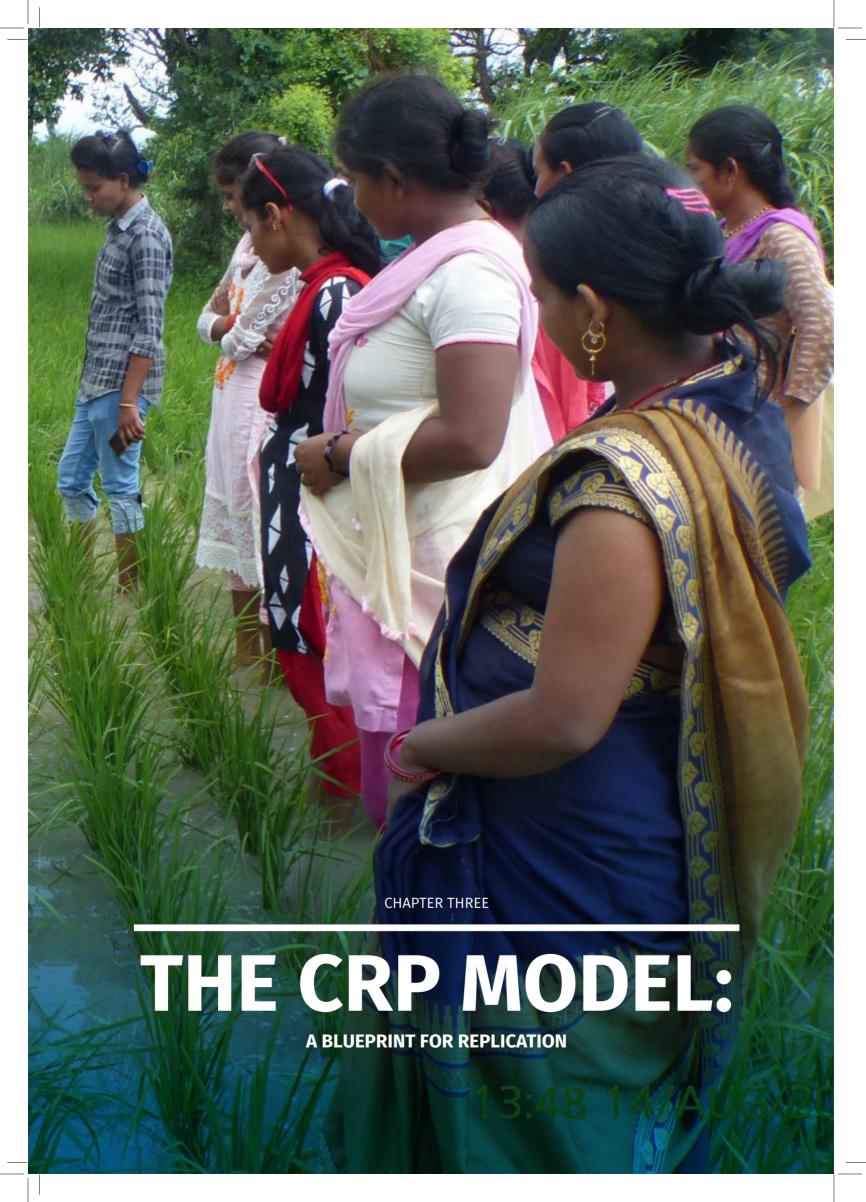
Anoop kumar, Manager, PANI recalls how the effort to involve young women in farm activities was seen with utter suspicion. 'Why not involve boys in this work', was the obvious retort in many places. But PANI defended its decision of empowering young women only for the role of CRPs. "Are they not your daughters, why discriminate with them?" was the response that PANI raised in the community. "It required a lot of patience and perseverance to convince the villagers that young women could lead and teach farming innovations," Anoop Kumar says.

Gradually, as younger women started to become allies and advisors for older women farmers, the CRP model began to emerge as a new employment pathway for young women from excluded rural communities.

#### **EMPOWERMENT HAS FOUR Es**

Over time, PANI has refined and catalyzed the CRP model through a 4E framework of empowerment:

- Energizing rural young women to step into the aspirational role of CRPs, or frontline water and agriculture professionals.
- Enabling the CRPs to create economic, ecological and equitable impact in their villages.
- Expanding networks (through KAKs and MKS) and career pathways for CRPs and their farmers to succeed.
- Establishing the CRP model as a sustainable model for rural employment.



## "Main apne gaon ki disha aur dasha badalna chahatee hoon."

"I do this work because I want to change the path and destiny of my village".

Sangita, CRP

Sangita speaks for all CRPs when she says that the role of a CRP is more than a job for her; it is linked to her aspiration for change at a national scale. This is the true intent and motivation of 300 women change agents who have been launched by PANI.

"Rural youth (such as the CRPs) are a valuable asset," says Reshma Anand, CEO of HUF. "Bringing them on as frontline cadres in the water and agriculture sectors can strengthen rural development across India."

The CRP model has travelled across 300 villages and demonstrated that it can move, adapt and grow roots in different contexts, building a groundswell of young rural women who transform the economy, ecology and employment patters of their village.

#### What have been the enablers for this local expansion?

PANI has created an enabling architecture and a collaborative local eco-system that holds up, sustains and creates replication opportunities for the CRP model.

In this chapter, we study the 7S<sup>19</sup>s of PANI's CRP model, where the Ss stand for:

- Shared Value: The ethos and belief system of the organization
- Strategy: The long-term direction and scope of the model
- Structure: The basic organization of the model, its departments, reporting lines, areas of expertise and accountabilities (and how they relate)
- Systems: Formal and informal processes that control everyday activity/program execution
- Staff: The model's people resources and how they are developed, trained and motivated
- Skills: The competencies that exist within the model
- Styles of Leadership: The leadership approach that drives the model

**SHARED VALUES** 

The Gandhian principle of Sarvodaya is the bedrock of the CRP model.

Sarvodaya refers to the upliftment of all, especially those that are marginalised, oppressed and forgotten. It has shaped PANI's unwavering respect and commitment to last-mile communities of India. This respect has in turn, built the ownership of families, villages and the PRI system in the CRP model.

Drawing from the principles of Sarvodaya, PANI has built the *culture of inclusion*, *equity*, *excellence*, *transparency and accountability* across all its teams and CRPs.

• Inclusion: PANI puts forgotten and missed-out communities first. The progress of small and marginalized farmers, especially those with multiple disadvantages is non-negotiable. Therefore no CRP can succeed till the last-mile, forgotten farmer household reports growth.

The CRPs themselves hail from ultra-poor and historically marginalized communities. Of the 300 CRPs:

- 56.4% are from OBC communities
- 7.6% are Scheduled Caste
- 1.4% are from Scheduled Tribes
- 7% hails from Upper caste communities.
- 6 CRPs are women with disabilities.

In most cases, PANI identifies women who are high on the vulnerability index and encourages them to become CRPs. Not surprisingly, several in the cadre are single mothers, widows, abandoned women or youth from difficult family circumstances.

- Equity: The CRP model has scaled on the capable shoulders of women who were once voiceless and, who are today organizing women farmers, the largest and most invisible workforce in India, to become visible and assertive. This is a reflection of PANI's deep commitment to gender equity.
- Excellence: To ensure lasting impact, the CRPs have to drive behavior change and retrench communities from unhelpful, traditional farming techniques. This is only possible through hard and fast-paced evidence of increase in agricultural production, savings of water and drop in drudgery and labor through the work of CRPs.

PANI has invested in scientific advice, technical expertise, digital fluency and safety measures for its last-mile champions, or the CRPs, because it believes that last-mile, grassroots communities deserve world class designs and solutions.

• Transparency and Accountability: Through detailed documentation and data analysis, the CRPs and the PANI team have become more responsive, reflexive and analytical of their own progress and gaps. There is openness to sharing data and stories with governmental or non-governmental entities. Internally, in the organization, the budgets and progress of the program are documented and accessible to all.

PANI has created a culture where any functionary, no matter how senior, can be asked questions and challenged; and all team members have the space to say they don't have all the answers. This has enhanced learnability across the ranks and file of CRPs.

These values have served as oxygen for the CRP model, enabling it to go deep and grow wide.

#### **STRATEGY**

#### Local problem-solving, local ownership

The CRP model demonstrates that the wicked challenges of rural India are best solved by leaders with lived experience.

The CRPs are not instrumentalized, or limited to, driving the project goals of PANI. They are positioned respectfully, and with dignity, as independent job holders, with the mission of transforming agriculture and social inequities in villages.

They do so by:

- Equipping individuals from ultra-poor communities with the knowledge and tools for revitalizing their agriculture and household incomes;
- · Orchestrating communities to unleash their own resources to solve for their own problems;
- Building bridges of participation with local governance.

#### Strategically, PANI has taken an eco-system approach to building out the CRP model:

- At the level of the individual, it launches young women innovators and micro-scientist (CRPs), who are from and by the village.
- At the level of a household, it creates change-making families, who sign up to partner with their own CRP.
- At the level of the village, it creates local leadership and learning platforms for women farmers (MKS).
- At the level of the local eco-system, it moves PRIs and other institutions of local governance, to recognize and celebrate the change-makers and change that emerges from within villages itself.

**Creating big change, within boundaries:** The CRP model plays to, and upturns the obstacles that impede women's workforce participation. Here are a few strategies that CRPs deploy to break barriers one step at a time:

- Due to the remoteness of their location and the lack of transport services, CRPs have restricted mobility outside of their village. So, their jobs have been designed to create big change within their village.
- While CRPs have multiple domestic responsibilities, their role enables them to create change in a flexible, part-time arrangement.
- While CRPs may not have dealt with external customers before, they have the social capital and trust of their own neighbors, which they harness to drive innovation in water management and agriculture.

**Creating change-making families:** It literally takes a *family* to raise a CRP.

With one eye on the sustainability of the model, and another on the vital support that a CRP needs from her family, PANI has transformed the *families of CRPs as a unit of changemaking*. Families become an extended team of the CRP, through the agricultural demonstration plots that the latter have to maintain.

In every way, the effectiveness of CRP's demonstration plot is a scorecard of her effectiveness. As parents, siblings and relatives join hands to ensure thriving yields from the demonstration plot, they become invested in the success of their own CRP.

Often, in the absence of a CRP, her family members step in with advice, solution and support, if a farmer customer comes knocking with a query or crisis.

The road to building family support is not always easy. For example, when neighbors dissuaded the parents of Basanti, a CRP in the village of Farenda, her family stood steadfastly by her side, risking isolation and a social boycott. Over time, as the benefits became visible, the neighbors and distant relatives acquiesced.

Hoards of parents accompany their CRPs to training sessions and have to be provided accommodation at the venue. They return as allies and champions of the CRP model, after witnessing, the design, culture and behavior of all in the workshops. "They know that we are a safe and reliable space for their girls/women of their house," explains Anup Kumar, of PANI.

**Creating career pathways of impact:** The CRP model opens doors to employment for rural young women in Balrampur and then sets them on career pathways in agriculture. These career roads are still evolving. Most are being paved by the CRPs themselves, as they take small but significant steps towards agro-based entrepreneurship, or getting absorbed into the staff roster of PANI as Field Coordinators (FCs), or taking on roles in the PRI system as Panchayat Sahayikas.

In the long-term, the strategic path for PANI is to build recognition, towards formalization of CRP role, such that India's rural women can get on the runway of rewarding career paths.

#### **STRUCTURE & STAFF**

#### The Architecture for cadence

The CRPs are held together in a well-defined architecture of management, communication and support from the district and block-level teams of PANI. This architecture enables the CRPs to build cadence in their daily routine.

#### **The Implementation Structure**

There is one CRP located in every Panchayat. Most work in the same village where they belong. At the start of each year, the CRPs and PANI team members mutually set annual impact targets, based on the land, population and numbers of household in each village.

The structure for facilitating a CRP towards reaching these targets is tightly-knit with well-codified roles and responsibilities of the following PANI team members:

- Field Coordinators (FC) of PANI The 'go-to-support', FCs assists the CRPs with logistics, communication and other management issues.
  - One FC manages 10 CRPs. FCs hold fortnightly meetings with their cluster of CRPS.
  - The chain of communication goes one rung up with 50 CRPs reporting to one Block Coordinator (5 FCs report to one Block Coordinator). Block-level meetings with CRPs are held every month.
  - The Block coordinators, in turn coordinate with one district level liaison officers
  - The district liaison officer is accountable to the state head and project director
- Team of thematic experts Thematic experts guide the CRPs on technical matters.
- FRC managers They ensure timely supply of agricultural goods and services for the farmer clients of CRPs, without which the work of CRPs would come to naught.

**SYSTEMS** 

PANI has developed intentional systems and processes to enable its team and the CRPs to:

- Think, act and respond to challenges systematically and cohesively;
- Grow their own capacities for driving behavior change;
- Effectively convene multiple stakeholders, communities and systems that intersect with each other;
- Maintain an inner awareness of the whole picture<sup>20</sup>.

The following systems are the mainstay of the CRP model:

- The CRP recruitment system
- The system of capacity building of CRPs
- Incentivizing CRP performance
- Well-being and grievance redressal for CRPs
- Safety protocols

We detail them below.

#### CRP RECRUITMENT PROCESS

The CRPs are identified, recruited and trained through a multi-stage process that is codified. Every step is documented with curriculum manuals and guidelines.

#### Outreach

The recruitment of the CRP involves an extensive outreach and communication drive through which PANI energizes village communities on the scope and potential impact of the role.

- The PANI team holds community meetings to introduce the idea of the CRP to various groups and stakeholders.
- They screen the "Prerana Video" that outlines the objective and perspective of the model. The video is screened in centrally located public spaces, such as temples, mosques or market places.
- ASHA workers, PRI members, and other local influencers are invited to spread the word in their catchments and cast the net wide for potential applicants.
- The FCs of PANI also conduct rounds of the village to identify potential applicants, focusing on their extent of vulnerability and need for a job.

#### Criteria

The criteria set for the CRPs are minimal. The ask is that they be educated at least till high school and should know how to ride a cycle or motorcycle. (However, in villages where the overall level of education is low, the CRPs with lower educational qualification have also been inducted.)

#### **Selection Process**

PANI takes much care to ensure that the selection process is managed as an experience of learning and discovery for the CRP candidates rather than as a contest.

The CRP selection process is a four-step drill, where the performance and response of each candidate is assessed with depth and respect, with a rubric of points allocated at each step.

- First long list: Typically, PANI receives 8-10 applications for the CRP role from a village. CVs are screened and 5 applications are shortlisted. The PANI team visits the prospective candidates and gauges the family context, willingness and support that she can expect from them. The candidates are given an initial questionnaire, where they are invited to provide basic information about their village (for example number of households, source of water, main problems in agriculture etc.).
- Written Test: At this selection stage, the ease of applicants is gauged vis-à-vis simple math, knowledge of government schemes, information and the candidates own understanding of the socio-economic aspects of their village.
- Group Discussion: The group discussion is curated to evaluate the candidates' problemsolving capabilities, communication and negotiation skills, creativity and reflexivity.
- Interview: The individual interviews are the point at which the PANI team members go into a deep conversation to understand the resilience, grit, intrinsic motivation and learnability of the candidates.
  - Post the interviews, two candidates are shortlisted from the five in the first long list.
- Community immersion: This final stage of selection comprises a set of seven field-action projects that the shortlisted candidates have to complete over seven days. The projects require them to engage with ASHA workers, speak with farmers, gather data and information and get small tasks accomplished. These activities give PANI insights on the candidates' capacities for planning, information gathering, stakeholder management, communication and taking people and communities along.

At the end of this process, one of the two candidates is identified as the village CRP, while the other is kept on the waiting list.

#### **Induction Process:**

The CRP fills out a "Sahmati Patra" or a consent letter, which outlines the details of the role and the honorarium. She also receives a kit with an identity card, a smartphone, diary, pen, scale, stamp pad, measuring tape etc. In some blocks CRPs are given a uniform, which highlights her unique identity and presence in the village.

#### TRAINING AND CAPACITY BUILDING OF THE CRP

As they gear up to become the water, social protection and agricultural development officers of their villages, CRPs build their knowledge capital and experience significant personal change during their capacity building sessions.

PANI has developed a blended learning model for the CRPs that combines training workshops, field work, refresher courses and a Virtual Training Institute (VTI). VTI enables CRPs to learn anytime, anywhere, at their pace. It is also a site for reference information and content for CRPs' daily work.

Capacity building for CRPs is anchored by the project manager, training teams and members of the HR unit of PANI. The table below depicts the curriculum flow that CRPs experience after their induction into the role:

Module	Content	Duration
Orientation and perspective building	<ul> <li>Purpose, goal and overview of the CRP role</li> <li>A contextual understanding of the role vis-à-vis agriculture, water and social protection</li> </ul>	2 Hours
ICT and VTI	Digital literacy     Building familiarity with digital tools and apps     Immersion into VTI	2 days
Social and behavioral change communication	Communication strategies for engaging with communities to promote positive behaviors	2 days
Water and Agricultural Development	Intensive training and field work on agricultural innovations, soil management, irrigation and water saving technique.  Managing demonstration plots and practicing agricultural techniques  Video dissemination of farming techniques  Familiarity and usage of farm technology and machines  Monitoring farmer adoption of agri-innovations  Data collection and collation in M Forms (the ERP – equivalent system)  Photo documentation  Marketing and sales	10 days
Formation of MKS	The why, what, when and how of collectivizing women farmers into MKS	4 days

#### **Building the Culture of Continuous Learning**

All CRPs are periodically assessed on their learning and growth curve. Based on their training needs, they are provided specific refresher courses and add-on training sessions. The practice of new CRPs shadowing their more experienced peers has opened up peer-mentorship channels in the program.

#### **Refresher Trainings**

At the start of every cropping season, CRPs participate in refresher trainings on new techniques. There is a team of agriculture experts and scientists that provide CRPs with the scaffolding they need for technical inputs and advice.

PANI has set up a technical advisory committee that consists of scientists and agricultural experts that designs and approves the content of the training, and that provide back-end support to the CRPs.

"We share extensively and build the understanding of village communities that the innovations promoted by the CRPs are not what they have thought up, or ideas based on whims," Anoop Kumar says. "We emphasize that there is a scientific foundation to all that the CRPs teach. We also highlight that the CRPs are backed by a very well organized group of thematic experts and scientists who create training materials and work behind the scenes to support the CRPs."

#### INCENTIVE STRUCTURE OF THE CRP

#### Incentives for Impact

In the beginning, all CRPs were paid a uniform honorarium. But as performance and outputs of the CRPs, began to vary, PANI introduced an incentive system, to motivate and recognize the high performers. This inculcated the spirit of intrapreneurship in the system.

All CRPs receive a basic honorarium of Rs. 3000 per month. In addition, the CRPs receive incentives and additional income on the following metrics:

- The per-acre crop output that they assist farmers in producing.
- Sale of seeds, fertilizers, pesticides, medicines and other inputs that the farmers purchase from the Farmer Resource Centers.
- Government schemes that they enable families to access, by filling out forms. The payment is made on the basis of each application that they file.
- The sale of saplings from the poly houses run by the CRPs

(Refer to the Index for the table on the incentives structure)

#### When income and impact intersect

CRPs earn within a range of Rs. 10,000-20,000 incentives at the end of either Rabi or Kharif season. The more active and productive CRPs earn an average of 13-14,000 of incentives twice every year. PANI ensures that the incentives are credited to the CRPs bi-annually before two major festivals Holi (in March) and Diwali (In October).

Pushpa Devi, a 20 year old CRP from Maharajganj village, recalls, "When the incentive of Rs. 21,000 was credited to my account, just before Diwali, it made the festival a landmark event for me. Never before has she earned so much money at one go."

Moving forward, PANI is developing strategies for broad-basing the incentive structure and revenue streams for CRPs, to enable them to increase their earnings, with increase in impact on every acre.

#### WELL-BEING AND GRIEVANCE REDRESSAL SYSTEM

#### Well Being First

Every day, CRPs navigate through an obstacle course of stifling social norms, gender stereotypes and agrarian distress. Their work can get hyper-exhausting. Well-being, resilience and the positive mental health of the CRPs are critical.

PANI has designed a thoughtful system for ensuring safe spaces for CRPs to share their stress, discomfort, conflict or just be vulnerable. These processes rest of the principles of communication, care and confidentiality.

- An app called Mujhse Kaho (Speak to Me) enables the CRPs to anonymously lodge complaints, grievances or predicaments that they may have faced. The app is supported by a Whatsapp group with the same name, which is moderated by a female member of the core team of PANI. Both the app and the group maintain privacy of complainants. The issues raised are addressed without any delay.
- When Nasreen Bano, a CRP of Ganeshpur village reported her inability to communicate effectively with the farmers, leading to an argument with them, she remembers the surge of support and advice that she received from other CRPs and the PANI team members, leading to the matter being collectively resolved. For her, and the other CRPs, the *Mujhse Kaho* group reliable platform for swift problem solving, where solutions are crowd sourced by the CRPs.

• In the monthly meetings at the block level, the CRPs are invited to write openly and freely to an imaginary figure called Sahuri, about their small wins, daily joys, acts of courage as well as the dilemmas or challenges that they may be wrestling with. This creates a loop of rich and positive feedback, on which the PANI leadership can evaluate the overall success or failure of the model, ideate of what and how to do things differently.

"Letters to Sahuri give us a completely different lens to understand how CRPs learn, what they want, what stops them and what moves them forward," says Sonia, a FC of PANI. "For example, from some of the letters we realized that too much hand-holding could perhaps impede the learning and growth of the CRP. We therefore let the CRPs make mistakes and learn from it."

For her, the Sahuri letters are a safe space for peer-learning and reflection.

#### SAFETY PROTOCOLS

Balrampur is located in Eastern UP, which records high incidents of crimes against women. The security of the CRPs is the foremost undertaking of PANI. PANI has built the following protocols which are practiced with full commitment by the team and CRPs;

- CRPs are encouraged to return to their homes by evening. In the event that they are caught up a work after dark, reliable and safe transport arrangements are made for them to return home.
- Every evening, the FC checks in telephonically to ensure that all CRPs have docked back to their homes safely.

These safety protocols have gone a long way in deepening the trust of families and CRPs in the Pani system of care.

"At the beginning, mobility was the biggest challenge for me as a CRP," says Nasreen Bano. "There is limited public transport in our area because we are located deep in the rural interiors. I used to ask my husband to accompany me everywhere I went.

"But as my network grew, my fears diminished. People started to recognize me as their CRP and give me lifts to short-distance destinations. The PANI team would keep a watch out for me. The MKS members accompanied me when I went to a new village. I have so many new friends now, whom I can trust like my own family, who could be my security."

PANI has also instituted a Committee against Sexual Harassment (CASH). The contact details of the CASH committee members are displayed in all offices to enable CRPs to lodge complaints or register discomfort with anybody in a safe and confidential way. The CRPs, FCs and Block coordinators are also oriented and trained regularly to build and strengthen their own gender lens.

#### **SKILLS AND STYLE OF LEADERSHIP**

#### Learning on the ground

The success of a CRP lies in her constant acquisition of new skills. Every year, she graduates from one skill level to the next:

- Basic Skill: A CRP acquires basic skills needed for her to do her job, through the training process, defined in the section above.
- Diagnostic Skill: By the second and third season, a CRP builds diagnostic skills where she can diagnose problems in agriculture without expert guidance, perform soil testing and solve local water related problems.
- Advanced Skill: After 3 seasons, a CRP reaches advanced level of skill set where she can prepare water budgets for the whole village, design annual crop cycles for farmers that go beyond the seasons, independent of support from PANI's technical advisory committee.

#### A leadership style of democratic facilitation

PANI's Gandhian ideology reflects in its **decentralized and democratized functioning of its leadership** that ensures accountability and regular evaluation for role holders across levels.

#### Facilitative leadership

The team of PANI is trained in facilitative leadership, rather than interventionist management approaches.

The state level leadership refrains from intervening in the district and block level activities, unless they are required to. They participate in matters that require negotiations with state level authorities. The district and block level coordinators are given freedom and power to run operations at their level. This enables ground-level leaders to develop and mature.

#### Openness to feedback

Continuous feedback and communication provides the foundation on which teams move between reflection and action. Team members nurture relationships of warmth, trust and respect with the CRPs. All CRPs are referred to as didi and male members of the organizations are called bhaiya. This fosters a sense of community across all role holders in the organization.

Care, patience and openness to feedback and critique thus, mark the organization-wide leadership attributes of PANI.

#### **CONCLUSION**

Building career pathways for young rural women in water and agriculture has required PANI to take a systems change view.

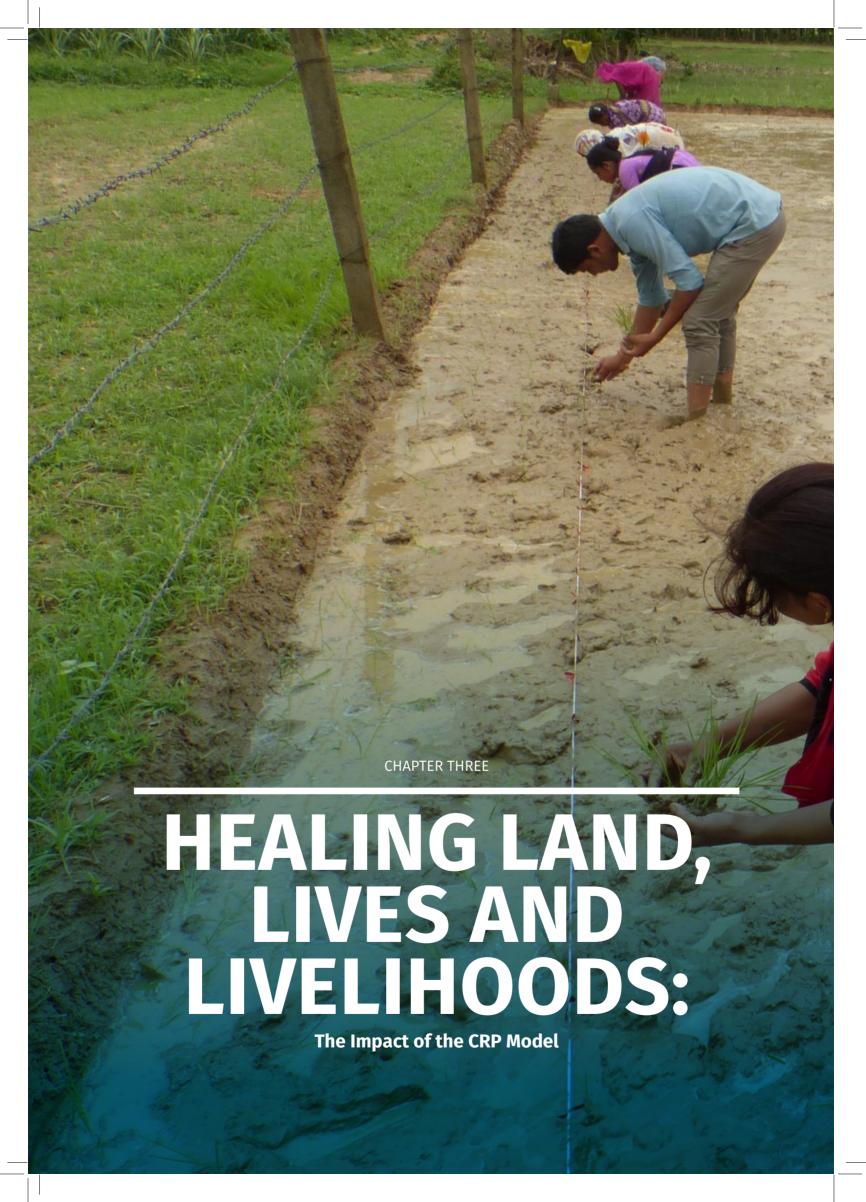
This has required PANI to:

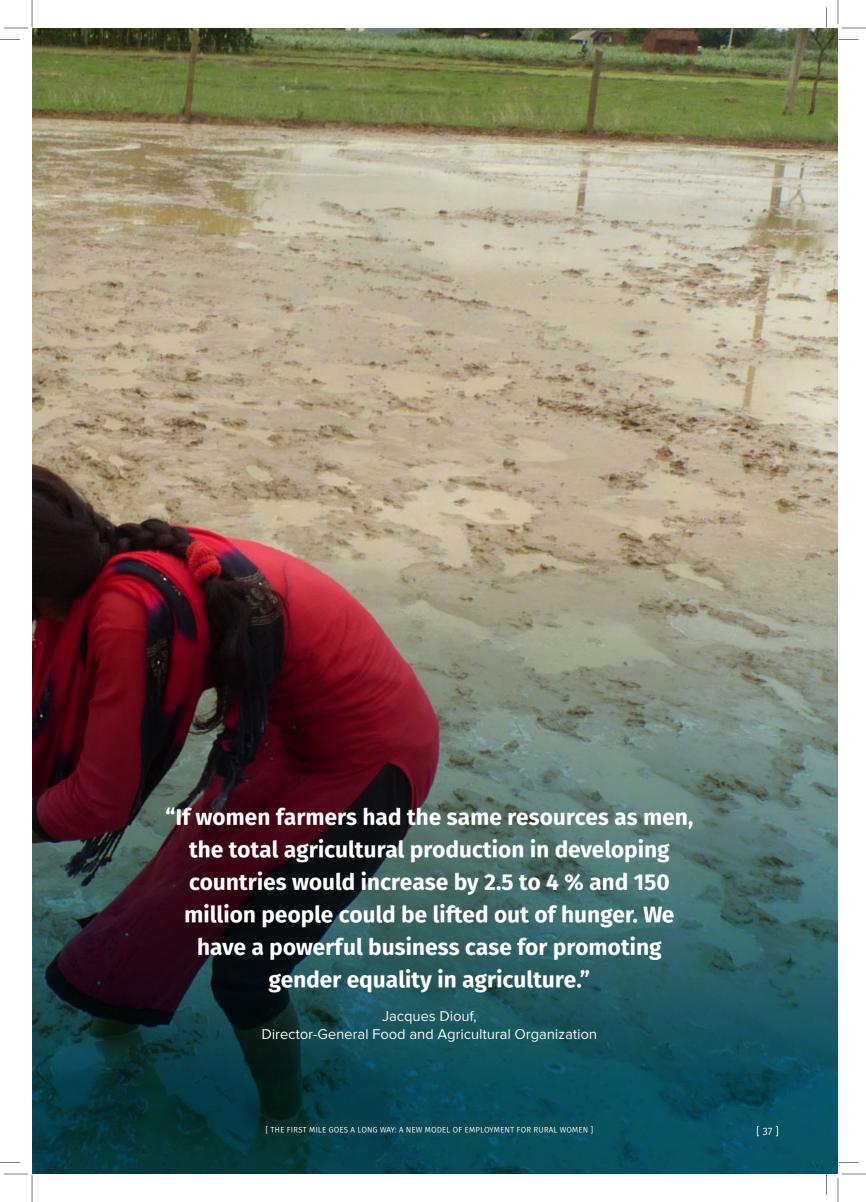
- Keep one eye on the macro picture and the other on micro, village dynamics;
- Leverage its deep understanding of community behavior, while considering the many stakeholders and factors that could affect outcomes;
- Partner with the community, especially rural women to define the problem and then, design and demonstrate the CRP innovation.

#### In every way, the young women of Balrampur have been pioneers and co-creators of the CRP model.

They have channeled their experience with traditional mindsets and real-world institutions to:

- Develop clarity and conviction despite incomplete information;
- Discover and choose interventions that have impact in their own community; and
- Define the opportunities for change for their own selves.





#### **A NEW RAY**

Nasreen Bano (32) is married with two children.

By March 2021, the stories of positive impact of PANI's CRPs had already reached Ganeshpur, the Gram Panchayat (GP) in which Nasreen's village is located. When PANI opened up the call for applications for the CRP role in her area, the news came as a ray of hope for Nasreen, at a particularly bleak stage in her life.

In 2016, Nasreen, held a job as government contractual teacher or Shiksha Prerak, promoting adult education in her village. She was not paid her stipends for over two years of her tenure and then, her contract was terminated in 2018. The opportunity of serving as a CRP lifted Nasreen from the humiliation and helplessness of being dismissed from work without her due pay. It also brought immense financial relief to her family.

#### **Navigating rough terrain**

Nasreen's village is in one of the remote corners of Balrampur district. Among the least-populated Panchayats in the district, Ganeshpur, with a population of 1696 individuals, lies on the Indo-Nepal borders with the mighty Himalayas visible at a distance.

Transportation is sparse and commuting across these rough and remote terrains is a serious safety hazard for both men and women. Nasreen struggled with internal and external challenges as she crisscrossed across different villages, which comprised her area of work. For Nasreen, travelling three kilometers from Ganeshpur to the furthest revenue village in her Panchayat, Imliya, felt as strenuous as travelling to a new city.

In the beginning, her husband accompanied her as she travelled from village to village. PANI too provided transportation when Nasreen had to go outside her GP for block meetings or trainings.

But her confidence started growing as her credibility and visibility increased in her Panchayat. As more people began recognizing her as the "CRP Didi" and also "bagwali Didi (garden sister), and as she started collectivizing more women farmers in MKS clusters, her fears started to dissipate. Soon, she began travelling solo to the villages.

"With the growing strength of MKS, I started growing my network of friends everywhere, who could accompany me for short distances and who looked out for my safety," Nasreen says. She gets overwhelmed when she speaks of how this recognition and support, even from strangers, is her biggest achievement as a CRP.

#### **Seeds of change**

In 2021, at the peak of the second COVID 19- lockdown, the farmers of Ganeshpur faced massive problems with access to seeds. They risked losing an entire firming season, if this shortage was to persist.

Nasreen stepped up, and ensured that two quintals of good quality seeds were made available in the GP through the closest FRC. This generated a higher demand for paddy seeds in the community for the next season. It also sowed the seeds of trust between farmer households and Nasreen.

With trust as a launchpad, she stated to work more intensively with the women farmers, who then adopted farming innovations and technologies in their small plots.

In just one year, a record time, Nasreen has federated 300 farmers and formed 10 units of the MKS, becoming one of the top performing CRPs.

Today, 200 farmers have opted for inter-cropping under her supervision. The sprinklers that she introduced for irrigation in her village at a subsidized rate have enabled the women farmers to conserve water, while saving on the labor and time equivalent of three person days.

While many CRPs struggle with the meticulousness of the documentation and data collection in the M-Form, Nasreen has emerged as a data and documentation champion. In the near future, Nasreen aims to open a Krishi Aajeevika Kendra and experience entrepreneurship.

Becoming a CRP has given Nasreen a new way to lift herself, and her Panchayat, out of the isolation and lack of access that women farmers struggle with, in remote interiors of her region.

Nasreen's story, as well as that of the other CRPs, confirms that there is indeed a good business case for putting women in charge of water and agricultural across rural India.

PANI's CRPs have enabled the women farmers to get access to the resources that they need, leading them to revitalize their village economy.

Over four years, the CRPs of PANI have created impact at four levels in their village: economy, ecology, employment and equity.

- Economy: CRPs have enhanced the crop output and incomes of households, while adding to the village GDP.
- Ecology: The introduction and practice of agro-ecological farming had led to increase in soil health and significant savings of water across 300 villages.
- Employment: Hundreds of women (CRPs) have entered the workforce despite joblessness in villages, making the CRP role aspirational.
- Equity: The CRPs have moved dismantled patriarchal mindsets and traditions by putting women at the center of village development.

Together, these four indicators have enhanced the collective agency and well-being of women farmers.

#### IMPACT ON ECONOMY: AGRICULTURE LINKED LIVELIHOOD<sup>21</sup>

#### Engaging women to revitalize local economy

In 2021, a year when the country witnessed negative growth due to COVID, the CRPs added 4.43% (on an average) to the GDP of the villages of Balrampur. This increase was attributable to the increase in agriculture-linked household incomes of the women farmers that the CRPs worked with.

The table below illustrates the percentage of addition to the village level GDP across six blocks of Balrampur by the CRPs:

Name of Block	Percentage of addition to village	
	GDP by block	
1. Balrampur Sadar	3.8%	
2. Gainsari	5.5%	
3. Rehera Bazar	5.4%	
4. Shridutt Gunj	2.4%	
5. Tulsipur	3.5%	
6. Utraula	5.3%	

In the three high performing blocks of Gainsari, Rehera Bazar and Utraula, the CRPs had engaged with higher numbers of women farmers. This demonstrated that the higher the numbers of women farmers that the CRPs work with, the higher the increase in incomes of the entire village.

In 13 villages in 3 blocks, the CRPs had added more that 10% to the village GDP. (Refer to the table below, with the names of the highest performing villages)

Name of Block	Name of Village	Increase in village GDP
Balrampur Sadar	Birahimpur	18.6%
Gainsari	Dulhin Deeh	10.17%
	Semri	11.5%
	Jhauva	10.23%
	Khakhra	10.16%
	Jamdhara	12.83%
Rehra Bazar	Ghoghra	16.03%
	Kurthuwa	10.33%
	Hasaupur	11.79%
	Vijaypur Grint	13.11%
Utraula	Tedw Aema	15.27%
	Sikramafi	11.88%
	Badalpur	10.24%
	Chankhuriya	

However, in 20 villages the CRPs could not contribute to the village level GDP due to a combination of the following factors:

- Fewer women farmers (less than 100) had been engaged by the CRPs in 13 of the 20 villages, because the projects had been initiated only recently in these Panchayats.
- In 2 villages, while the number of participating farmers was more than 100, the CRPs had discontinued their role.
- In 5 villages (less than 1% of the total sample) no household engaged with CRPs had recorded increase in incomes, despite their relatively higher numbers. But it is important to note that their incomes were not in the negative.

#### Increase in household incomes of farmers engaged with the CRPs

In 2020, the women farmers engaged with CRPs recorded a 36.4% increase in their incomes vis-àvis their village GDP.

The table below presents the average incremental income of the farmers engaged with the CRPs vis-à-vis village GDP in every block.

Name of Block	Total number of farmers Average incremental	
	engaged with the CRPs	income vis-à-vis Village GDP
Balrampur Sadar	6733	35.78%
Gainsari	10104	46.91%
Rehera Bazar	18609	31.11%
Shridutt Gunj	6677	32.69%
Tulsipur	5824	38.25%
Utraula	7086	34.68%

(Refer to the details of the increase in income of farmers in the annexure)

The increase in household incomes of farmers was a function of the following inter-linked factors:

- Output and quality of farm produce: In 2020, the 51,577 women farmers who were actively engaged with the CRPs recorded a total yield of 8.7 million quintals of grain and biomass across six blocks.
  - This entailed a production of 2586 quintals of grain and biomass production, on an average, in each village.
- Increase in production efficiency and reduction in cost of inputs due to gender-neutral machinery: On an average, in every village, the women farmers saved 1090 person days of their time, leading to reduction in drudgery and exhaustion, and increase in efficiency.

Women's access to, and use of machinery, was a key contributing factor here.

- The women farmers were trained in using machines such as the cono-weeder, super-seeder and zero-tiller. These machines are small in size and easy to handle by women, enabling women to save on time and reduce their dependency on male laborers for sowing and rowing of seeds. By using these rowing machines, the women were able to cover one acre of their land with 6-7 kgs of seeds, where earlier they would need to sow 10-12 kgs of seeds.
- · Similarly, access to sprinklers, saved the women the time and cost of three labor days.

Through their CRPs, the farmers accessed these machines from the FRC, and used them in rotation, leading to shared community farming practices.

The availability of high quality seeds though the FRCs and Krishi Aajeevika Kendra, including seeds of high-value crops such as onions, led to significant increase in farm produce and quality.

- In Hausapur village, farmers reported increase from 3 quintals of potato cultivated in 2018-19 to 9 quintals of potatoes harvested in 2019-20. They attributed the increase in production to the seeds procured from a FRC.
- Similarly farmers that cultivated wheat also registered increase in production, from 1 quintal in 1 acre of land to 4 quintals from in the next season, after purchasing seeds and fertilizers from a FRC.
- The introduction of onion, a high value commercial crop, along with the intercropping of other vegetables led farmers in Chainpur Banaria village to earn 30% more profit in 2021.

#### **IMPACT ON ECOLOGY**

#### Turning women into healers of land

PANI introduced agro-ecological and climate resilient agriculture to CRPs and 62,750 women farmers of Balrampur.

Agro-ecology is the application of ecological concepts and principals in farming. It converges biodiversity, ecological conservation and traditional knowledge, expanding the scope for women farmers to take the lead, unlike chemical-based farming where women are constrained for money, technical information and access to markets.

Conservation of Water: In 2021, the CRPs had worked with their farmer networks to save 5.8 billion QM of water across six block of Balrampur. This was an outcome of the following factors:

- The adoption of irrigation solutions such as drip irrigation kits and sprinklers have saved water and arrested the gradual depletion of ground water.
- The overall maintenance and periodic cleaning of water bodies, leading to the regeneration and preservation of water sources in the village.
- The deployment of solar pumps that has reduced the dependency of farmers on expensive and polluting technologies like diesel run pumps for irrigation, and improved the soil quality of the region.

More critically, CRPs have facilitated a new lens and mindset from which villages now approach their land and water. "Eastern UP and the Gangetic flat lands have not yet experienced a water crisis. This is the reason why we see most small and marginal farmers use water excessively and wastefully." Anoop Kumar explains. "Our CRPs have worked hard to help farmers understand that the depletion of water tables is growing across the country, and that they should take a long-term view and save water where and when it is still available."

Dinesh Yadav, a PRI member of Nayanagar village concurs, "Earlier people were not conscious about issues like depleting water level. But now the CRP conducts a ground water level testing of the village wells very month. This data has made us conscious about our water tables. Moreover, people have stopped throwing garbage etc. in the wells and other water bodies."

#### **IMPACT ON EMPLOYMENT**

#### **Creating a workforce that enables wealth and value-creation**

With CRPs creating a field-force of agricultural, economic and ecological change, PANI has demonstrated that setting up women rural frontline professionals in water, social protection and agricultural development, could be a sustainable channel to get more rural women to enter, and stay in the workforce.

The model has opened up a job for 300 women, 80 per cent of whom are working for the first time. Their earnings have brought considerable relief to the financial duress of their families.

The table below details the average annual incomes of CRPs across the blocks.

Block name	No of CRPs	No of villages   from stipend and		Range of annual income through entrepreneurship (In Rupees)	
Rehra Bazar	50	50	47878	20,000-30,000	
Utraulla	38	50	47500	15,000-20,000	
Sridattganj	50	50	50399	15,000-20,000	
Balrampur	50	50	45039	15,000-20,000	
Tulsipur	47	50	47124	15,000-20,000	
Gainsari	47	50	50068	15,000-20,000	

In addition, CRP has gained richly in building their knowledge and social capital and today stand tall are role models in their areas.

In less than 3 years, 85 CRPs (28.3% of the cadre) have transitioned out of the CRP roles to move to the next dot on their career maps. These include:

- 31 CRPs (10% of the cadre) who have set up village-level Krishi Aajeevika Kendra and polyhouse nurseries. By doing so, they have stepped into agro-entrepreneurship that takes forward equitable and agro-ecological farming in their villages.
- 50 CRPs (16% of the cadre) have been inducted into government jobs such as Panchayat Sahayika, armed forces, post office positions etc.
- 4 CRPs (a little over 1% of the cadre) have been absorbed into PANI's workforce as Field Coordinators (FCs).

**As local ecosystems, celebrate and incentivize their CRPs,** there are now clear demand signals in communities for services of CRPs. Across several villages, CRPs are being viewed with equal respect as ASHA workers. For younger village women, the role of CRPs is becoming aspirational. They are viewing it as a runway to fulfilling careers.

#### STRENGTHENING THE EQUITY INDEX

For long, it has been known that the women workforce is the route to resilience for rural India. Yet roles that have engaged them (such as SHG leadership) have been incremental, fragmented and temporary in nature.

What is becoming clearer is that India's villages need grassroots development professionals who emerge from the soil and solve the problems of rural India. For PANI and HUF, the CRPs are an illustration of this future.

For over 33 years, achieving gender equity has been the true north for PANI. "We have always known that PANI will exit its field areas of operations and the work and its impact will be carried forward by the community," Deo Datt Singh says. "Our vision is for CRPs across India to be the women frontline rural professionals who serve as the last-mile carriers of democracy and development."

"The job paradigm of rural India has to be intrinsically linked with what rural India does and that is agriculture," Reshma Anand says. "I wish one day there will be as much rush among rural youth, especially rural young women, to obtain the jobs of these agricultural ground officers, as we see today in the recruitment of police force."

### **FOOTNOTES**

- https://www.reuters.com/world/india/indias-female-labour-participation-rate-falls-161-pandemic-hits-jobs-2021-08-03/
- <sup>2</sup>https://thediplomat.com/2020/07/women-left-behind-indias-falling-female-labor-participation/
- ${}^{3}https://economic times.indiatimes.com/news/economy/indicators/no-place-for-women-what-drives-indias-ever-declining-female-labour-force/articleshow/83480203.cms$
- https://www.epw.in/journal/2020/20/review-womens-studies/crossroads-and-boundaries.html
- $^5 https://www.financial express.com/lifestyle/unseen-reasons-for-the-fall-in-womens-labour-force-participation-in-india/2204686/$
- https://timesofindia.indiatimes.com/blogs/voices/what-does-nhfs-5-tell-us-about-womens-empowerment-in-india/
- 7https://timesofindia.indiatimes.com/india/nearly-1-in-3-women-have-suffered-spousal-sexual-physical-violence-family-health-survey/articleshow/91491367.cms
- $^{\circ}$ https://theprint.in/india/3-of-indias-4-poorest-districts-are-money-order-economy-survival-means-going-away-from-up/844305/
- <sup>9</sup>https://theprint.in/india/3-of-indias-4-poorest-districts-are-money-order-economy-survival-means-going-away-from-up/844305/
- <sup>10</sup>https://www.newsclick.in/UP-reverse-migration-workers-failing-find-work-MGNREGA
- $^{\rm n} \underline{https://www.telegraphindia.com/india/nearly-31000-complaints-of-crimes-against-women-received-in-2021-over-half-from-up-ncw/cid/1845794}$
- ${\bf ^{12}} \underline{https://www.nationalheraldindia.com/national/nearly-31k-complaints-of-crimes-against-women-received-in-2021-over-half-from-up-\underline{ncw}$
- <sup>12</sup>https://scroll.in/article/975863/in-uttar-pradeshs-caste-battles-dalit-women-have-become-easy-targets
- ${\it "https://timesofindia.indiatimes.com/city/lucknow/1547-people-booked-for-not-following-home-quarantine-rules-in-ups-balrampur-district/articleshow/75809820.cms$
- <sup>15</sup>https://www.fao.org/3/i9037en/i9037en.pdf
- <sup>16</sup>https://www.agroecology-europe.org/our-approach/principles/
- <sup>17</sup>https://www.tatatrusts.org/our-stories/article/multi-crop-to-multi-income
- 18 https://futureofearth.online/future-proofing-the-one-dollar-farmer/
- <sup>19</sup>https://strategicmanagementinsight.com/tools/mckinsey-7s-model-framework/
- $^{20} https://catalyst2030.net/what-is-systems-change/\#:\sim:text=Systemic\%20change\%20is\%20generally\%20understood, local\%2C\%20national\%20or\%20global\%20level.$
- <sup>21</sup>The calculations for impact on village level GDP was done with the help of Primary data that PANI has collected from more than 230 villages. The secondary data for GDP calculation was sourced from <a href="https://statistic-stimes.com/economy/india/uttar-pradesh-economy.ph">https://statistic-stimes.com/economy/india/uttar-pradesh-economy.ph</a> A detailed explanation of the GDP calculation, data analysis and methodology is given in the Annexure.



# ANNEXURES

#### ANNEXURE: 1: CALCULATION OF VILLAGE LEVEL GDP AND IMPACT ON INCOMES OF CRP FARMERS

#### Methodology of GDP calculation:

The GDP of the villages covered under Project Swera was calculated with the following these steps: First the contributions (in crores) of rural to state economy of the following economic activities in 2020 were aggregated:

- 1. Agriculture, Forestry and Fishing
- 2. Mining and Quarrying
- 3. Manufacturing
- 4. Electricity, Gas ,Water Supply & Other Utility Services
- 5. Construction
- 6. Trade and Hotel & Restaurant
- 7. Transport, Storage & Communication
- 8. Financial Services
- 9. Real Estate, Ownership of Dwellings and Professional Services
- 10. Public Administration
- 11. Other Services

### (The data was sourced from: <a href="https://statisticstimes.com/economy/india/uttar-pradesh-economy.php">https://statisticstimes.com/economy/india/uttar-pradesh-economy.php</a>)

- Next, the Gross Domestic Value was added to deduce the State GDP of UP which and the rural contribution of economy was extrapolated from it.
- Based on the available figure of rural population of UP in 2020, we inferred the rural Per capita state GDP (at current prices) to be 40,869.81.
- Multiplied with the district adjustment factor of Balrampur (0.49) and the Per capita net product per capita Balrampur (2020-21) with the rural per capita state GDP **the rural GDP per capita of Balrampur was estimated to be 20,026**
- Multiplying that to the village population the Village level GDP was calculated.
- Now as per data provided by PANI, the aggregate of incremental income of farmers in per GP was seen. Calculating the percentage of total incremental income in the village vis-à-vis village level GDP, the following has been found:

#### Average percentage of incremental income vis-à-vis is Village GDP is 4.438%

After looking at the individual villages, we found:

### In 13 villages the incremental income was high, i.e. higher than 10% vis-à-vis Village level GDP. The names of the villages that had such high incomes are:

Name of Block	Name of Village	Total Percentage of incremental
		income vis-à-vis Village GDP
Balarampur Sadar	Birahimpur	18.6%
Gainsari	Dulhin Deeh	10.17%
	Semri	11.5%
	Jhauva	10.23%
	Khakhra	10.16%
	Jamdhara	12.83%
Rehra Bazar	Ghoghra	16. 03%
	Kurthuwa	10.33%
	Hasaupur	11.79%
	Vijaypur Grint	13.11%
Utraula	Tedw Aema	15.27%
	Sikramafi	11.88%
	Badalpur Chankhuriya	10.24%

In 20 villages the incremental income was recorded less than 1% vis-à-vis village level GDP (We are ignoring 3 villages Gangapur Lakhna (1), Imliya Bangushra (4) and Baram Januka (10) of Utraula, where the project is new and the numbers of federated farmers are very low).

Name of block	Name of village	Total Percentage of	Number of Swera
		incremental income vis-	Farmers
		à-vis Village GDP	
Tulsipur	Piprawaha	0.69%	113
Shriduttganj	Sanjwal Premnagar	0.19%	39
	Sahdeyaiya	0.81%	85
	Patiyala Grint	0.29%	48
	Mahuwa Ibrahim	0.44	15
	Kithura	0.92%	31
	Kapua Sherpur	0.16%	37
	Gaideeh	0.73%	49
	Bhabanpurwa	0.68%	66
	Rukhi Majhari	0.55%	36
	Mujehni	0.85%	160
	Mujehna	0.77%	106
	Agya Bujurg	0.65%	179
	Pipari Kolhui	0.92%	162
	Shivpur Mahant	0.72%	188
Gainsari	Gainsari	0.66%	146
	Sanjhwal	0.64%	25
Balarampur Sadar	Kalandar pur	0.20%	13
	Jevnar	0.53%	53
Rehera Bazar	No VILLAGE		

So with a few exceptions, one can see that the percentage of incremental income is relatively lower in villages where the number of federated farmers are less ( >100). In 2 of the villages, i.e. Mujhena and Agya Bujurg, the number of federated farmers are more than 100, but the project was stopped and re-started as late as 2022 and hence that can be attributed to low output.

After all these eliminations only 5 villages (Mujheni, Pipara Koluhi, Piparhawa, Gainsari and Shivpur Mahant) are showing low output, despite relatively high number of farmers federated. But even in these villages the growth curve is not in the negative and the income marginally increased for the farmers.

The incremental income of Swera Farmers: Zooming only on the Swera farmers and looking at their average income, and comparing that vis-à-vis per capita GDP of Balrampur, we can get the following:

#### The average increase was noted to be: 36.4%, which is quite high

The highest percentage of increment vis-à-vis per capita GDP were found in:

Block	Village	Increase in income vis-à-	Total number of Swera
		vis GDP	Farmers
Gainsari	Semri	89.21%	279
Gainsari	Ludhware	81.48%	74
Balrampur Sadar	Ferenda	80.11%	33
Balrampur Sadar	Birahimpur	75.10%	656
Tulsipur	Harhata	70.96%.	228

The lowest percentage of increment was recorded in: (We are ignoring 3 villages Gangapur Lakhna (1), Imliya Bangushra (4) and Baram Januka (10) of Utraula, where the project is new and the numbers of federated farmers are very low).

- 1) Sajhwal Premnagar in Sriduttganj, where the number of federated farmers are 39 recorded an increment of income of 11.88%
- 2) In Kapura Sherpur of Sriduttguni with 37 farmers the increment of income is 11.42%
- 3) In Trilokpur of Sriduttgauni with 61 farmers the increment in the GP is 14.81%
- 4) In Shivpur Mahant GP in Sriduttganj with 188 farmers the increment is recorded to be 14.71%
- 5) In Kalinjar Grint of Sriduttgunj with 70 farmers the increase is 16.83%.

So overall a high increment in income of farmers associated with Project Swera, was recorded after implementing the agrarian innovations through the CRPs.

#### ANNEXURE 2: FOCUSING ON THE IMPACT OF INNOVATIONS OF ONE BLOCK: REHERA BAZAR

The implementation of various innovations therefore led to increment in incomes, significant saving of water and saving of person days on field reducing drudgery of farmers. If one takes a more granular and focused view of one block, i.e. Rehera Bazar we will see the following achievements:

	Name of crop	Acres cultivated	Total yield in quintals	Incremental income in Rupees	Average incremental income in rupees	Water saving in QM	Incremental person days saving
1.	Arhar	492.78	3422.53	18900101	363463	2619657.48	22194
2.	Mustard	2.40	21.92	37543	722	NA	23
3.	Lentils	4.5	11.14	45980	884	7964	41
4.	Garlic mulching	101.53	989	5414832	104131	237701 QM	203
5.	Sugarcane	64.30	43.75	767653	15052	86601.41	842
6.	Onion (on bed)	10	222.89	4664052	88001	22638.80	255
7.	Machan	51.99	5012.12	4595738	88380	550520.9	520
8.	Sugarcane Mulching	4573	173746	58619690	1127302	7671491	33993
9.	Paddy SRI	686.80	16367.54	13432926	258326	2024140	13336

If one takes a focused view of Rehera Bazar Block in Balrampur in two seasons of 2019-20 and 2020-21, the success of the innovations of Project Swera are apparent. Rehera Bazar is the first block where Project Swera started and it remains as one of the highest yielding blocks till date. According to these own estimates based on rigorous data collected by PANI from the farmers, the Rehera Bazar block saw successful adaptation of innovations and increase in yield and incomes of the farmers. Each innovation led to considerable conservation of water as well. Most of the innovations recorded significant saving of person days as well.

#### **ANNEXURE 3: SAMPLE INTERVIEW WITH A CRP**

NAME	Laxmi Devi	
AGE	32	
Marital Status	Married	
Education	Graduate	
Village	Sudarshan Jot	
Duration of work	CRP since 25 September 2019	

#### **Objective of the Interviews**

By the end of the CRP field interviews the Start Up! team will be able to:

- Map the learning and leadership trajectory of CRPs, and distill their perspective of the roles/jobs that they hold.
- Identify the shifts they have perceived in their lives as rural frontline development professionals, vis-à-vis:
  - Personhood/ Personal leadership
  - Knowledge capital
  - · Social capital
  - Recognition capital
- Analyze the barriers and challenges on the path of CRPs
- Trace the impact that the CRPs think they have been able to create in their village
- Collate CRP's deas for their aspirations and future career pathways

#### **Facilitators' Speaking Points**

Thank you for taking time to speak with us. The purpose of this interview is four-fold:

- First, we are keen to hear your story of learning and leadership, in your own voice
- Second, we would like to understand how you perceive your 'job' or 'role' as a frontline development professionals; also what are the challenges and roadblocks on your path.
- Third, learn from you of the impact that you have been able to create in your village
- And finally, talk to you about your own dreams and aspirations for the future.

You have been the mainstay of this program and we would hope to understand the program from your lens. We will not take more than an hour and a half.

This will help us to articulate the model such that others across the country are able to learn from it and adopt it.

#### **The Beginning**

1. Please tell us about yourself and your family. We would like to get a detailed understanding of your personal journey and struggles

Probe points

- Family background and income
- The journey of acquiring education
- Struggles

I am married with two children. My husband works in Mumbai as a driver. I stay with my in-laws. I graduated with BA Pass course in 2013. Since then I have been staying at home. My husband's income is not stable. Sometimes he is out of work and unable to send money. I was facing financial crisis and was looking for some form of employment. I kept telling the ASHA did of our village, that let me know if any employment opportunity opens up anywhere. I was desperate for a job, when ASHA didi told me about the vacancy in PANI. I had applied but I was not sure whether I will be able to do the work. The work seemed to require a lot of public interaction. I used to wear a long veil, kept my face covered and hardly used to step out of my own house. I was wary of whether I will be able to do this work, but still I applied.

#### 2. What motivated you to apply for the role of the CRP?

Frankly, at the beginning financial distress was the only reason for me to apply for this job. The FC came to my village and said they will pay us Rs. 3000 per month along with incentives. I was OK with the salary and applied for the job.

#### 3. What was your family response when you decided to become CRP?

Probe for:

- Opposition in the family
- · How the CRP navigated it
- Kind of support and role of family now

My in-laws were not happy at all when I was selected for the post of the CRP. They thought this will affect my children and they will be neglected. They did not like the idea of me leaving my domestic chores and going to work out. But I was determined to do the job. So I started to rise really early and finish all my domestic chores like cooking, washing clothes etc in the morning itself. I finish as much as work before 10am and leave for my field.

#### 4. What are you most striking memories of the selection and training process?

Probe for:

- What did you discover about yourself- that surprised you?
- What did you enjoy the most?

I was very shy and not outspoken at all. I did not have much hope of getting selected, but to my surprise I was. I went to Balarampur town for the first time for my training. I met new people, other CRPs and the officials from PANI. We were oriented to the program and the objectives. It was all very new to me. That is what I enjoyed the most: learning new things.

### 5. What were some of the challenges that you faced during the selection and training process? How did you overcome these challenges?

I was intimidated with the use of technology that we were supposed to do. I saw the Pico projector and I was not sure whether I will be able to handle it. At the beginning I was very low on confidence. But my trainers explained everything patiently and repeatedly. Later on also the Field Coordinator explained the use of technology whenever I forgot or could not do it.

#### The Job Role

#### 1. What are your main responsibilities as a CRP?

I do baithak with my clusters individually every 15 days and explain innovation and adaptations to the farmers. I do field visit in the morning, collect data and update it in the M-form. We do larger meetings of all clusters every month. There I facilitate discussion where farmers describe their innovations to each other. I do video dissemination of innovations too. The unit of Mahila Kisan Sangathan here is called Jwala and there are around 200 mahila kisan who have joined us.

### 2. Can you describe one full day of your life since you have become a CRP? (morning to night) OR Can you share what a week of your professional life looks like?

I wake up at 4am, to do my household chores. I cook, wash clothes, prepare my children for school and leave for field at 10am. I do "griha-bhraman" or house to house survey and visit farmers in the field. At the evening time, if required or planned we do the baithak or meeting, where we discuss or do video dissemination. I come back home at sunset. I put all the updates of the day on M-form and also make plans for the next day. I used to make my plans in a diary but now I use the planner on my mobile.

#### 3. How do you learn and communicate with each other?

The main place for learning and communication are the meetings or the baithaks. I picked up my skill of public speaking in these baithaks. Now I can address even large gatherings. The baithaks are places where we discuss our innovations, the problems that the farmers are facing and possible solutions. We learn from each other. Meetings are the best place for collective learning.

### 4. What are some of the daily challenges/ irritants (external challenges) that come your way in this role? How do you address them?

Probe for external challenges:

- Stakeholder management
- · Safety/ security
- Social norms/ societal gaze taunts/comments

At the beginning not too many farmers paid any heed to me. Only 13 farmers agreed to adapt the innovations in the first season. No one believed in me and that filled me with despair. My family also did not like my job at the beginning and my mother-in-law used to taunt me. So those initial days were hard and I was also learning and growing.

# 5. In jobs that we find meaningful the most, there are some things that we love doing; and some things that challenge us a lot; that we find very hard. What aspects of your work as a CRP do you find the most challenging?

Probe for:

- Technical Knowledge and skill-related challenges
- Internal communication/ management related challenges
- Operations/logistics –related challenges

The filling of the M-form every day and updating all the details is a very challenging task. I am always worried that I will make mistake in it. It's a very tedious and boring task.

### 6. Please tell us a story of a critical problem or conflict that you had to face. How did you handle it?

Probe for:

- · An agriculture-related challenge
- · Backlash in the village
- Corruption in the governance system

At the beginning, not much farmers listened to me. Especially farmers were suspicious about multi-cropping. They felt they are making too much investment and at the end none of the crops will grow properly. Some people got angry with me back then. They were not ready to change the traditional cropping pattern or method. After seeing the results in the first season however, the number of people adopting new innovations jumped from 13 to 50 within one season. Now more than 150 farmers across the Panchayat are taking my advice.

7. Did you ever have a grievance against anyone while doing your work? How did you raise your grievance with PANI and how was it addressed? Have you ever used the Mujhse kaho app? Have you written to Sahuri? What response did you get?

No I did not have grievances against anybody ever. I have written to Sahuri about my innovations etc. when we had gone for Block meetings.

8. Are there any elements of your work that you think can be different/ can be done differently/ can be changed or dropped/ can be replaced with another approach?

I am very satisfied with the work I do and I don't want any change. Yes, I wish the M-form was a bit simpler and less complicated.

#### 9. How do you see your work as a CRP?

Ask for a probing question:

• Do you see it as a job, or a two year short program, or social work project? This is not just a mere job to me. I have gone through so much transformation myself and see the other women in the village also transforming. I have stopped covering my face with the long veil and now following my footsteps, many other women have also stopped covering their faces. We discuss crop related program in our meetings. The veil is redundant there. We go together and confront PRI members if we have to get some work done. In front of such collective power of women, PRI members bend. Such assertion of women was not seen earlier in these villages. So the society here is also changing.

#### The Impact

#### 1. As a CRP, what shifts have you noticed in your own selves - as women leaders?

Probe for:

- Personal leadership (Self-awareness, self-esteem, confidence, voice, fearlessness, dreams and aspirations for one's own self)
- Increase in social capital , relationships, networks (Ability to navigate, build new relationships)

I have changed into a different person. Earlier I could not speak to the elder male persons even of my own family. I could not look them in the eye and cover my face. Now everyone, including senior family members treat me like an equal. They talk to me with respect. I am so much more confident of myself now. I did not know I could organize women and address gatherings but now I do that twice a month. A lot of people know and recognize me across the five villages in my Panchayat. I am also financially stable. I have earned enough to build pakka (concrete) house. Since I started earning my stature within my immediate family also grew. My mother-in-law who used to taunt me for my work now co-operates fully. I have started a Krishi Aajeevika Kendra store in my house and my Mother-in-law runs it when I am out for my field visit. She also looks after my kids. I am not scared of meeting people or going to new places.

#### 2. What have been the biggest areas of learning?

Probe for:

- Technical knowledge
- Management abilities
- Team building capacities
- Communication and advocacy capabilities

I have learnt to use a lot of new technology. This was the first time I started to use a smart phone. I learnt to work on new apps like crop doctor or M-form, I learnt how to attend meetings on zoom (during the pandemic), I learnt how to make videos. Also I learnt to operate the Pico Projector for the first time and its maintenance and safekeeping. I have also learnt the use of the zero-tiller machine and super seeder machine on the field. I learnt to organize meetings, conduct meetings, learn and explain innovations.

#### 3. To what extent has the CRP job made you financially independent?

The CRP job, particularly incentives made me financially independent. I built my house and turned our kachcha house to pakka. My husband's income became irregular during the lockdown and it was my earnings that sustained our family during the lockdown period.

#### 4. Do you think your stature has changed in your family, village and since you have become a CRP?

- · If no, why?
- If yes, please explain/ share a story
- Do you still experience grievances/resistance in the community?

My stature has drastically changed in the village as well as in my family. I get so much respect from village elders. They treat me as an equal. Inside the family also my in-laws who were hostile at the beginning have become much more supportive and cooperative about my job. In the village I am called the CRP didi and people give as much respect as the ASHA or Anganwadi workers.

### 5. Your work is all about creating impact. What have been areas of change that you have been able to bring in your village?

- What are the agricultural innovations that you have introduced in your village?
- · What have been the shifts in the household income levels?
- · Have you noticed changes in gender relations in your village, because of your role?

The project has changed and increased agricultural production and helped women come out of their homes. I have introduced quite a few new innovations in agriculture. I convinced farmers to give up on chhitua vidhi or random plantation and start planting seeds in a row by using super seeder machines. Earlier they used 14kg seeds/bigha.

#### **The Future**

#### 1. Where do you see yourself five years from now?

Probe for

- Increase in incomes
- Career pathways as Pani FCs/ jobs in other non-profits
- Entrepreneurship
- Career farmers

I want to become a FC (Field Coordinator) and train other CRPs. I remember how crucial the training I received from my FC was. She was so patient and caring with me. I have learnt a lot from her and other training. Now I want to share my experiences with other CRPs. I have also started the Krishi Jeevika Kendra in my house, which my Mother-in-law runs along with me. I want to continue with it, as it provides quality goods to all the farmers in vicinity and financially helps me make profit. So I want to be a FC and run the Aajeevika Kendra at the same time.

#### 2. Where do you see your village five years from now?

Our village has changed a lot. Women now are outgoing and outspoken. The regular baithaks have ensured women come out and participate. We were isolated earlier. Everyone would do their own domestic chores and work on their own field. But with the MKS, we have known each other, discuss each other's problems and support each other. Men also take us more seriously. Earlier that was not the case.

### 3. What according to you if the future of the CRP role? Five years from now, how do you think CRPs will be seen?

Right now, the CRPs are dependent on FC, Block office etc. But we are also learning. Even if the FCs are not there the CRP can continue working with the help of the FRC. In the future if we are confused, we will still call our FC and ask for her suggestion. (laughs)

### 6. Will you encourage other girls to become CRPs? Will you encourage your own family members to become a CRP?

Yes this is a very important role. CRPs everywhere can make a huge difference to agriculture. Every village should have CRP, like they have ASHA and Anganwadi workers.

#### 7. What are your hopes and dreams for yourself in the long term?

I have become a financially independent and outspoken woman. I will continue to work like this. Whatever it is, I am not going to go back to the bounds of my home again. I will keep working.





## THE FIRST MILE GOES A LONG WAY:

A NEW MODEL OF EMPLOYMENT FOR RURAL WOMEN

Supported by:

