



SRFSI
Impact Stories
2020

Creating Farmers' Haven

Climate change is occurring at much higher rate than many anticipated. More people are being affected by severe weather. And it is the smallholder farmers bearing the wrath of climate change topped up by the pressure of debt.

Amidst such catastrophe, SRFSI farmers are enjoying increased productivity and increased profitability with high resource saving. Thanks to Conservation Agriculture based Sustainable Intensification.



*Happy SRFSI Farmers
The way to be satisfied is never to look back*

With the beginning of SRFSI project, the focus has been to improve the productivity, profitability and sustainability of smallholder agriculture in the Eastern Gangetic Plains of Bangladesh, India and Nepal. SRFSI has successfully demonstrated that by adopting CASI practices, farmers are able to dramatically increase their farm productivity and profitability and save resources like of labor, water, energy, and production cost.

With the help of implementing, SRFSI project implemented by CIMMYT, has successfully reached out to thousands of farmers who adopted CASI practices for different crops, amplified the use of CASI technology and enhanced their livelihood.

Three Times Till to Nil

Born in a farmers' family and raised learning farming techniques, Upendra Mehta, a 35-year-old young farmer in Nepal believed that he knew everything about farming after devoting 25 years of his life learning all the tricks. But profits were never enough to feed and care for his family of 11 members no matter how hard he worked. He had begun to feel "trapped" as a farmer.

With less investment and stable production, Zero Tillage technology is like a dream come true for farmers like him. It was the same for Upendra Mehta too. Only having traditional knowledge of farming, farmers were skeptical about Zero Tillage technology at first. But after first trial when wheat started to grow and the harvest turned out to be better than conventional 3 times ploughing- the-field method, there was no turning back.

With the support of his family, Upendra Mehta expressed his desire to continue using zero tillage technology. Though he is not financially stable to buy his own tractor yet, he intends to take the Zero Till machine on lease whenever needed.

Upendra Mehta is one of tens of thousands of farmers who not only benefitted economically from the CIMMYT led SRFSI project but who also feel liberated and have learned to be hopeful and positive about a better tomorrow.

Since smallholder farmers are strongly dependent on agriculture for food security and livelihoods and at the same time, also at risk climatically resulting in low productivity with substantial yield gap, SRFSI project aims to reach out to smallholder farmers in 6 districts of the EGP of Bangladesh, India and Nepal to understand their circumstances in relation to CASI, work with them to develop more productive and sustainable techniques, help establish an environment to support them at policy level and thus bring strong benefits to their livelihood.



Upendra Mehta satisfied with Zero-Till Technology

Rebuilding as a Female Farmer

Babita Mehta, a housewife from Nepal, was forced to quit her teaching career after she got married at the age of 20. The family she got married into required her to get involved in agriculture. With very limited knowledge on farming practices and limited aid, Babita lost all her hopes for better future. But with timely support from SRFSI project, Babita gained knowledge about the use of zero tillage farming which revived her confidence and interest in farming. Now, whenever her husband is out of village, she oversees all the agricultural activities.

Babita's husband owns and operates a tractor and was trained on the use of the Zero Till Machine. He used the machine not only on his own farm to sow wheat but also provided service to around 200-250 farmers. Babita and her husband was immediately convinced that it is the future of farming.



Babita Mehta, a zero-tillage female farmer

“Traditionally we had to take turns to sow seeds and then add fertilizers manually. And if could not find laborers on time, the whole planting period would get delayed. But with this zero-tillage machine, we can do all things together- sowing and adding fertilizer in such a short time and not worry about laborers” - Babita Mehta (Sunsari, Nepal)

Now the couple have started saving to be able to buy their own zero till machine in the near future. Babita believes that the machine will help them earn more because there will be the optimal use of their tractor and since her husband knows how to operate the machine, it will be an additional benefit.

With knowledge and experience, the couple has understood the benefit of zero-tillage machine. They believe using the machine, the same production can be achieved with less expenses.

Facilitation from SRFSI in the widespread adoption of zero-tillage machine for sustainable, resilient and more profitable farming combined with the Mehta couple's hard work and service are already improving lives of smallholder farmers in Sunsari, Nepal.

Courage to Change: SRFSI Helping Communities Identify Their Potential



Moon Bibi with her son

In West Bengal India, Moon Bibi and other women from her community formed the Mukta Self Help Group. Previously, Moon Bibi worked most of her life as a farm laborer. But with SRFSI project and assistance from its local partner- Satmile Satish Club (SSCOP), the Mukta Self Help Group was introduced to a new business opportunity of producing rice seedlings which are used in mechanical rice transplanters. This rice seedling cultivation has helped female farmers contribute to their income which has further helped them in improved health, better education and enhanced livelihoods.

In Rangpur Bangladesh, Kalpana (a landless farmer) leases farmland every year and works endlessly as a farm laborer to get excess yield for additional income. Aware of the risk that taking loans with high interest can be difficult to repay, landless farmers like Kalpana have no other options. But with the SRFSI project and its local partner- Rangpur Dinajpur Rural Services Bangladesh (RDRS Bangladesh), Kalpana was introduced to CASI practices and technologies. Kalpana decided to use zero till machine to sow maize in her leased land. With this decision, the benefits followed which saved her labor cost and time along with an increase in profit.



Kalpana conversing with other women of her community

SRFSI project, funded by ACIAR and implemented in partnership with CIMMYT aims to support smallholder farmers, especially women in improving their productivity, profitability and sustainability in agriculture through CASI practices and technologies.

Sharing Secrets of Success

Being far from the city, Sitai block in West Bengal, India has minimum modernization of agricultural techniques but is rich in proactive female farmers who dare to take up new economic opportunities in agriculture. Forming Grambikas Farmers Producer Company Ltd, the all-women FPC members aim to increase their crop yields while promoting sustainability. With guidance from SRFSI partner Satish Satmile Club, the group has been introduced to a variety of improved agricultural practices, like Zero Tillage and Rice Transplanting along with Paddy Seedling factory production which has been a big success.

But the thing that resonates the most is sharing the success stories of Mukta Self Help Group and Moon Bibi with the FPC team. The secret behind their success was all that was needed to boost up the confidence in this all-women FPC. The women entrepreneurs have now undertaken the CASI technology in 30 acres of land and started a new agricultural journey.



SSCOP team helping female farmers in Sitai in seedling factory

SRFSI has helped these women farmers adopt improved agriculture practices that will help increase their production which will further encourage them to implement mechanical transplanted rice technology. As an impact, once they start a rice seedling enterprise and offer their mechanically transplanted rice services to other farmers, it will inevitably become a profitable agri-enterprise for the women FPC and thus lead to sustained impacts of Conservation Agriculture.

Since 2014, the CIMMYT led SRFSI project has been collaborating with Satmile Satish Club and others to reach out to more than 70,000 farmers directly and indirectly in West Bengal and therefore, to scale CASI beyond the lifespan of the project.

Improving Farming, Improving Lives

Atul Chandra Roy, a farmer from Bangladesh, has evolved from being a conventional cultivator to a progressive influencer in his community. A turning point for Atul and his wife, Sandhya, was to get involved in the SRFSI project as a zero-tillage implementer.

Farming is not as profitable as it is a noble occupation, believes Atul Chandra. Having only six mouths of food for his family was a big everyday challenge for Atul until last year when he decided to use zero tillage on his farm. Despite constant cautioning of total failure, Atul decided to venture into the uncertainty of new technology of Zero-Till. But his audacity was well paid when he earned extra Tk 25,000 BDT using zero till machine for the first time.

Being the first farmer to demonstrate Zero Till farming in his village, Atul now advocates the use of the machine.

The extra income have been crucial for Atul and his wife, as they are now able to spend it on their children's education. Atul now prefers Zero-Tillage because it saves a lot of expenses and additional work providing him enough time for other priorities too. His future plan is to buy a ZT machine and start a business by renting it out

The support provided by SRFSI project implemented by CIMMYT is helping farmers to produce more at lower cost. Atul's experience has changed local perception that crops will not grow without tilling land and to some extent his own belief that farming is not profitable occupation. Now they see farming without tillage is full of possibilities and opportunities to make profitable farming livelihoods.



Atul Chandra, a progressive farmer from Bangladesh

Leading to Success

Halima Bibi and her husband from India were following the crowd growing paddy on her 4 acres land. But life was still a struggle for the couple with two children, trying to make ends meet.

Life took a turn for Halima and her family when she observed SRFSI field activities and realized the potential of no-till maize cultivation. She boldly decided to switch from growing paddy to maize and put all her effort to it. She also hired a Zero-Till multi-crop planter to plant maize on her land, and there has been no looking back.

In 2017-18 crop season, Halima Bibi produced 168 quintals of maize through zero-till cultivation from her 10 bigha land with her investment of INR 20,000 per acre which led to net profit of INR 150,000 in total.

A quick lesson-learned, right and timely decisions and a lot of zeal led Halima Bibi to win West Bengal's most progressive farmers award, which is given to the best performer for raising country's food grain production.



Halima Bibi, winner of Krishi Karman Award 2017-2018 (progressive farmers' award) from India

The intervention by CIMMYT led SRFSI project has led farmers to harvest more at low cost but reaping maximum benefits and profits from their farm. This project has left a deep impact on farmers like Halima Bibi leading them to a new road towards self-sufficiency and sustainability.

In appreciation, taking to Twitter, the Chief Minister of West Bengal- Mamata Banerjee said: "I am happy to share that West Bengal has been selected once again for Krishi Karman Award by Govt. of India for the year 2017-18, primarily for maize production."

Cleaner Environment

There is an age-old history of jute cultivation as a cash crop, and it is the second most important vegetable fiber after cotton in India. But many farmers wondered how jute could be produced without tillage which would result in major weed problems. They continued with conventional method which also included crop residue burning that continues to generate various environmental problems across India.

The Happy Seeder has been used to plant jute for the first time in India. Satish Satmile Club (SSCOP), UBKV and West Bengal DoA, all partners of SRFSI Project, initiated the use of Zero Tillage Seed drill under CASI (Conservation Agriculture based Sustainable Intensification) in Jute around 2016 in West Bengal.

After four years of continuous effort and successful demonstrations, this partnership has successfully helped farmers adopt Happy Seeder planting in Jute cultivation. Creating history, the method of line sowing through the Happy Seeder seed drill left a lasting impact on jute farmers, convincing them to use this technology.

This technology has been used this season for the first time in jute, which is also happening for the first time in India. Adopted by a good number of farmers in West Bengal, Happy Seeder technology is bringing satisfaction to the jute farmers, along with positive environmental impacts.



SSCOP field technicians demonstrating the use of Happy Seeder in Jute

