syngenta foundation India

ANNUAL report

2021-22

Message from

Executive Director, Syngenta Foundation India (SFI)

Dear Friends,

We are glad to present the Syngenta Foundation India (SFI) Annual Report 2021-22. The year was largely devoted to strengthening the partnerships and reaching out to farmers in new geographies through the Agri-Entrepreneur program. The year was another successful one, and the number of Agri-Entrepreneurs trained and certified is now more than 7,500. These AEs are serving a large number of smallholder farmers across India through their various products and services. As an organization which prides itself on partnership, this year, it has collaborated with new organizations and agencies apart from growing the relationship with the existing partners. Our valuable new partners are the BMGF, Samunnati, GIZ, and IFDC. With the support of these partners, SFI is able to facilitate the employability of the rural youth across the states of operation. The BMGF is supporting a study to assess the financial needs of smallholder farmers and design tailor-made products for them. The BMGF has also agreed to support onboarding 10,000 women AEs in Madhya Pradesh and Bihar over the next three years.. This project will be in partnership with JEEViKA and MPSRLM to leverage their wide presence in the districts and reach the women farmers. Our project with Corteva Agriscience enables rural youth to upgrade their farming and related skills and use the DSR technique to save the cost of cultivation in Uttar Pradesh. SFI also continues its work with EDF on climate-smart agriculture and is working on developing training modules for farmers to enhance their resilience and adaptability to climate induced agricultural stress. The onset of COVID-19 pandemic presented new and unique challenges for SFI in its operations. However, the team was quick to respond to this challenge and transitioned its training programme to online mode ensuring continuity in programme delivery. This has proved to be a major success for the organization as now it enables the programme to reach remote locations also. SFI is heartened and further inspired by the encouraging response from the AEs who show tremendous enthusiasm and tenacity to succeed in this new opportunity to enhance the income levels of themselves and their own farming community. We look forward to growing on a continuous basis in the coming years and engaging with a large number of smallholder farmers through our AE network. In this journey towards promoting rural entrepreneurship, partnerships are crucial to create sustainable impact in the agriculture sector. We remain thankful to all our partners for their continuous support.

Rajendra Jog
Executive Director
Syngenta Foundation India

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Executive Summary

Syngenta Foundation India (SFI) was established in October 2005 as an independent not-for-profit organization under Section 25 of the Companies Act. The mission of SFI is "to enable small and marginal farmers participate in agricultural development by facilitating access to improved seeds, inputs, and knowledge of suitable agronomic practices". This report presents a highlight of the operations across India, completed by SFI in between April 2021 to March 2022.

In its 16th year of operation, the team has constantly adapted the program approach factoring in learnings from the implementation experience and enhance the transfer of knowledge facilitating last-mile services to associated farmers. SFI has increased its reach to eighteen states and spread the network of Agri-Entrepreneurs (AE) across a vast geographical area. AEGF has also ramped up its operations in several project locations through new collaborations and promoted regenerative agriculture, solar powered irrigation, the commercialization

of biofortified crops, interventions such as DSR, and new agritech. This year, SFI has continued its work with partners such as Corteva, Environmental Defense Fund (EDF), GAIN, Harvest Plus, and The Nature Conservancy (TNC), Corteva Agriscience; and forged new alliances with Bill and Melinda Gates Foundation (BMGF), Axis Bank Foundation (ABF), International Fertilizer Development Center (IFDC), and GIZ.

During the operational year, there were a total of 7,530 trained AEs under the program who were supporting 714,000 associated farmers and helping them manage 1,147,624 acres of land. The progress made across these project locations, especially regarding training, demonstration plots, credit, and market linkages have made our endeavours to create an enabled AE, and ultimately enabled farmers extremely effective. A parallel growth in farm mechanization and digital awareness; and an increase in women entrepreneurs have been the highlight of this period.

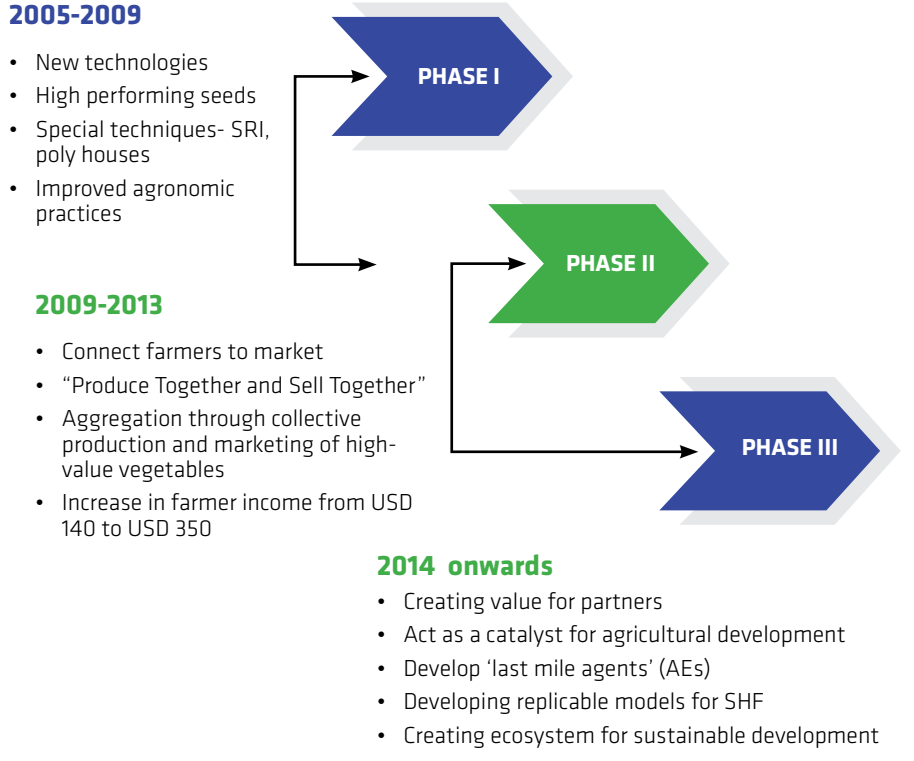
Introduction

Indian agriculture has progressed well in the last few decades. However, more than 80% of farmers are smallholders (126 million) and they still struggle to earn decent income. These farmers could benefit from many existing technologies and innovations but cannot get hold of them due to inadequate 'first mile access' – or from the suppliers' point of view, 'last mile delivery'. This challenge prevails across many sectors in rural areas, but agriculture displays a particularly persistent and damaging lack of access to new technologies, crop advisories, input services, etc. To address these issues, Syngenta Foundation India (SFI) was established in October 2005 as an independent not-for-profit organization under Section 25 of the Companies Act. The mission of the organization is "to enable small and marginal farmers participate in agricultural development by facilitating access to improved seeds, inputs, and knowledge of suitable agronomic practices". The focus is on educating small and marginal farmers about the latest developments in agriculture suited to their local needs, thereby improving their income.

Evolution of SFI

SFI, over the last 16 years has been implementing programmes for small and marginal farmers in India to enhance their technical know-how and income through the route of developing Agri-Entrepreneurs thereby providing employment opportunities to the rural youth. The growth of SFI and its impact on beneficiaries is a result of a well-thought-out journey map. The journey map is categorized in three distinct phases (Figure 1).

Figure 1: Three phases of evolution of SFI



- During the first phase, extension-driven agricultural projects in disadvantaged regions were the key focus areas. This was achieved by propagating new technologies, including high-performing seeds, improved agronomic practices and deploying special techniques. This had a positive impact on farmer earnings and helped SFI earn their trust.
- The second phase was built on the experiences of the first phase. Improved productivity was understood to be just one of the factors which impacts farmer income. One of the key factors to ensure increased farmer income is to connect farmers to markets. Phase II therefore focused on linkages to markets and technical advice to farmers. Under the guidance of SFI, producers' groups adopted processes that increased efficiency, such as tracking price changes by mobile phone. Increase in farmers' income was the major achievement and the indication of the scalability of these steps.
- Third phase started with the objective of replicating the successes of aggregation on a larger scale. At present, the focus is on strengthening the model with a climate focus for small and marginal farmers in the regions as well as creating an ecosystem for sustainable development which will flourish without SFI's support. Based on this approach Agri-Entrepreneurs (AEs) are being trained by SFI to provide agricultural and financial services to the farmers. The details of the model and its success so far are provided in the latter sections of the report.

AGRI-ENTREPRENEUR GROWTH FOUNDATION (AEGF)

The Agri-Entrepreneur Growth Foundation is a registered company under Section 25 of the Companies Act. It is a result of collaboration between Tata Trusts, Syngenta Foundation India (SFI) and IDH. It adopts a decentralized approach to the socio-economic development of the Indian agricultural sector by utilizing capacity building, training, and skill development programs for rural youths - in collaboration with national and international institutions.

The foundation aims to increase farmer incomes significantly, and to create sustainable livelihoods for young rural entrepreneurs. Its flagship AE Training Program selects and trains rural youths in need of employment who provide products and services to 150-200 smallholders each in two to three villages. The program selects such candidates to go through a 45-day hybrid training program (a combination of online and offline sessions) to create a network of holistic providers who can fulfil the requirements of 150-200 SHFs, or roughly a cluster of two to three villages or blocks. Their training is accredited by the National Institute of Rural Development and Panchayati Raj (NIRDPR) and National Institute of Marketing (NIAM).

The foundation is creating a network of capable Agri-Entrepreneurs (AE) across India to act as loci

for smallholder farmers in their localities and provide first mile access to and across the value chain – to increase farmer incomes. These well-equipped, well-informed Agri-Entrepreneurs are an effective force that work with local farmers to create advanced agricultural capabilities which help the latter progress their financial condition. The AE network replaces conventional and inadequate 'point solutions' with one holistic provider, and has successfully created wealth for millions of smallholder farmers who struggle to earn a decent living in rural India.

AE Dashboard

As part of the Agri-Entrepreneur (AE) Program, rural youths, young graduates, farmers who wish to improve their skill sets are taught agronomy by our faculty and guided through the training sessions. The graduates initiate and navigate their new enterprises with help from our teams. By the end of March 2022, our nationwide network of 5,431 active AEs was campaigning and conducting farmer's meetings to welcome more candidates to our family and stoke their entrepreneurial spirit. As mentioned before, our AEs oversaw and facilitated the agricultural needs of more than 714,000 farmers by the end of the year. The business models they popularized and made accessible as additional sources of income include seeds, pesticides, fertilizers, nurseries, farm equipment, dairy, poultry, goatery, collective marketing, and food processing. Our AEs are currently involved in 21 different kinds of archetypes extending products or services available to the farmers. During 2021-22, new archetypes such as gunny bags, apiculture, piggery, and mushroom cultivation were also popularized.

Table 1: Total number of AEs, associated farmers, and acreage

Locations	AEs	Farmers Served	Acreage
Andhra Pradesh & Telangana	214	25,009	63,757
Assam & West Bengal	230	28,061	55,397
Bihar	1,184	241,697	221,557
Jharkhand	194	19,510	9,504
Karnataka & Tamil Nadu	143	13,527	19,716
Maharashtra	2,206	239,354	536,925
Madhya Pradesh	221	26,170	56,602
Odisha	206	39,896	63,671
Punjab	233	16,658	44,057
Rajasthan	88	21,316	33,303
Uttar Pradesh	447	31,091	34,095
Others	65	11,711	9,040
TOTAL	**5,431**	**714,000**	**1,147,624**

Note: The numbers above do not include AEs in training and those being initiated into the program.

AE Transactions

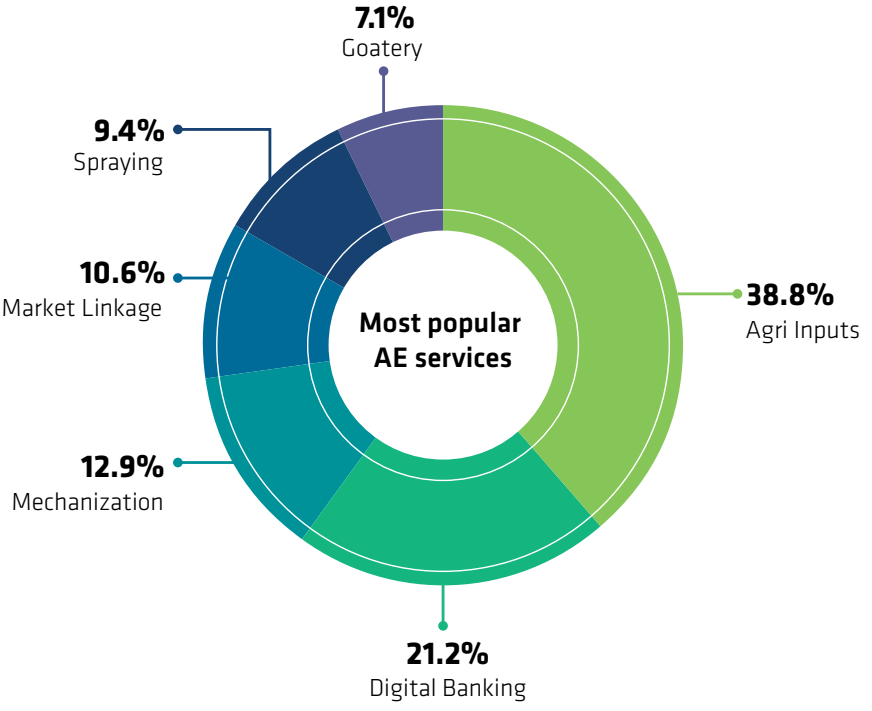
Table 2: Total transactions generated through services provided (across all project locations).

S. No	Service	Total Transactions (INR)
1	Agri-Inputs	1,431,827,999
2	Agri-Outputs	836,220,160
3	Digital Banking	1,415,264,109
4	Farm Mechanization	258,130,394
5	Nursery	74,590,804
6	Dairy	221,029,732
7	Poultry	93,300,998
8	Credit & Insurance	20,037,882
9	Others	375,017,730

Our AEs operate under a revenue-based and market-linked model, wherein the services provided allow them to earn a fair income through commissions or other modes.

The table given above provides information on the transactions conducted across all business archetypes. The graph to the right shows the six most popular services being provided by our AEs.

Figure 2: Most popular AE services



Project Highlights

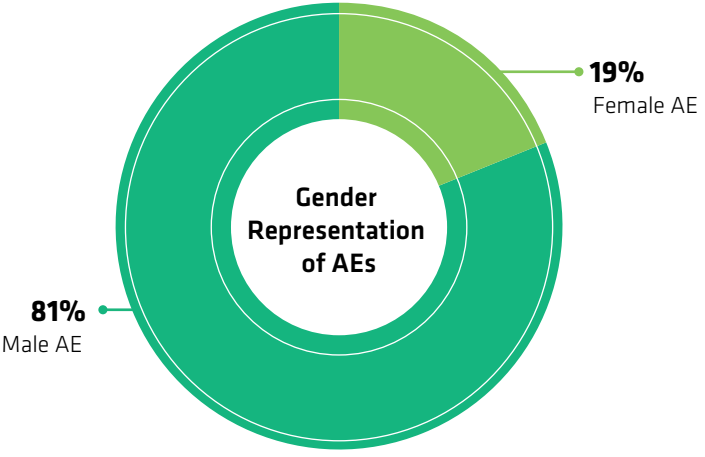
MAHARASHTRA

The first state that the foundation began its operations is Maharashtra and it has the highest number of projects. They are spread across 19 districts in association with partners such as the Environmental Defense Fund (EDF), Pragati Prathisthan, Sanskriti Samvardhan Mandal (SSM), Yuwa Mitra, Snehalaya, Gramin Samassya Mukti Trust (GSMT), Samunnati, UMED, IDH and Google.

A total of 3,255 AEs has been trained in the project location till March 2022 of which 2,206 AEs are actively providing support to 239,354 farmers covering a farmland acreage of 536,925 acres. Out of these, the total number of women AEs is currently 609. The AEs are providing better-quality inputs, diversified farming activities and well-established market linkages to the associated farmers. One of the primary focus of the team has been the iSafe program, under which farmers are educated on the safe use of pesticides. Pest and disease identification and the modes to tackle them were also promoted by the AEs through different apps. The project locations in Maharashtra have also seen

the widespread adoption of Israeli Tal-ya trays, a new innovation that reduces water consumption drastically. The section below highlights some of the milestones achieved by the project teams this year.

Figure 3: Gender representation of AEs



1. Nanded

The district saw 500 trainees join its ranks, with several short-term training (STT) sessions organized to help our AEs from 2019 and 2020 revise their agronomy training and learn new techniques or archetypes - such as mushroom cultivation, agri-input training, food processing, digital banking, vermicomposting etc.

The farmers associated with our AE network received digital literacy training (a collaborative effort with Google) and were provided crop protection and weed management training for five major crops in collaboration with partners Mahindra Summit, Adama, and Dhanuka Pesticide Pvt. Ltd. The training sessions included modules about the safe use of insecticides to reduce occupational exposure to hazardous agrochemicals, which were developed with the local agricultural department and gram panchayats.

5,742 associated farmers were also facilitated to become a part of the Pradhan Mantri Fasal Bima Yojana (PMFBY) insurance scheme. The AEs also spread awareness about government interventions such as E-Peek Pahani.

Our AEs and AEMs in Nanded organized 47 training sessions this year with 875 farmers on seed treatment; sowing methods; nursery management; pest and weed management; harvest and post-harvest technology; and market linkages. Over 600 farmers also installed Tal-ya mulching trays to get better productivity. Several AEs opened online input shops with aid from mobile commerce platform Agrostar, and set up twelve nurseries in the district to ensure farmers are not forced to procure low-quality saplings at inflated prices from nurseries hundreds of kilometres away. These nurseries are using double row paddy transplanting, and the 'ridge and furrow' method to grow saplings of popular crops, such as soybean. Our AEs have also successfully sown these seedlings in seventeen demonstration plots (with the help of our associated farmers) to show the farmers of Nanded the advantages of high-quality agri-inputs.

47 training sessions this year with **875** farmers on seed treatment

2. Ahmednagar

A total of 566 AEs graduated from the training batches this year, with 307 AEs active in the district. Several of them received loans of up to INR 200,000 with the help of our partners to set up their agri-input and animal husbandry businesses, while Krushi Abhyas, AEGF's online repository of agricultural knowledge, has helped AEs and farmers alike revise what they have learnt at the touch of a screen.

Hundreds of metric tonnes of iron-fortified bajra and soybean harvests were linked to various buyers; and market linkages for lemons, oranges, and vegetables are being developed. Our AEs are also working with their respective farmers to ensure proper practices are followed while cultivating iron-fortified bajra. Training for cultivating high-value or crops that the local farmers have never tried to cultivate before, was provided so that they have the knowledge to maximize the output from their trials, while resources such as the polyhouse nurseries set up by our AEs supplied them with high-quality planting material.

The Ahmednagar project team trained 13,734 farmers on modern cultivation practices and also visited affected onion fields to help farmers treat and cure their crops. The AEs and AEMs are also motivating them to complete their transactions online and procure Gramcover insurance. This has led to a surge in digital literacy and crop protection scheme adoption, with a novel radio discussion on the benefits of biofortified bajra and integrated pest management (IPM) being aired in the region throughout the year. Agri-input sales worth INR 81,501,865 were achieved, and agri-input linkages worth INR 401,110 were generated.

3. Nashik

A total of 412 AEs were trained this year of which 345 of them are currently active. A major highlight in Nashik has been the collaboration with Samunnati, and the market linkages to local wholesale traders facilitated by our AEs. They have also facilitated agri-input transactions amounting to INR 1,300,000, and the sale of insecticides worth INR 1,500,000 (under the mosquito eradication program) and sacking machines worth INR 575,000. Ten AEs received specialized training from the market linkages department and were designated MAEs (Market AEs) to collect vegetable or fruit produce and link it to e-commerce giants such as Agri10x, BigBasket, Reliance, Ninjacart etc. and the local markets. Over 1,604 MT of grapes, tomatoes, onions, cucumbers, maize etc. were sold under the MAE initiative.

A device that can obtain accurate information on climatic changes was fitted to the Yukti weather stations in the district to help farmers better monitor their crops. 600 farmers grew mangoes and grapes with Tal-ya trays for the first time and enjoyed higher yields. Two AEs from Nashik were also given Israeli nursery units for trials, who went on to produce 3,45,000 seedlings in two seasons with the polyhouse technology. 13 field demos were conducted to spread awareness about organic products, and 76 farmers' meetings were held to help 3,135 farmers learn about roper Pest Management (PPM) and Integrated Water Management (IWM). Credit worth INR 3,200,000 was provided to the AEs and farmers in the project location through the partners Bank of India and Avanti Finance.

4. Jalna

A team of 86 AEs organized farmer's meetings spreading awareness about the Package of Practices (PoP) for major crops such as cotton and wheat, held training sessions on irrigation methods; and conducted demonstration plot visits for 1,684 farmers. The AEMs in Jalna conducted 24 workshops on growing rabi crops, and high-value fruits like watermelon. 4,550 farmers were registered on the AE Digital Diary application.

AEs from Jalna provided agri-inputs worth INR 1,289,000 to local farmers, while 12 MAEs created market linkages for cotton (203 MT), wheat (15 MT), tur (3 MT) etc. They sold 309.6 MT of produce through collaborators APMC Jalna, Our Food Pvt Ltd., Ellora Seeds, and Panchaganga Seeds.

5. Palghar

The 507 AEs in our Palghar project held 140 farmer meetings this year, with more than 5,000 farmers participating. The Environmental Defense Fund (EDF) Baseline survey of 2,274 farmers across the district was completed, and 2,043 farmers received training on water, soil, and crop management under the collaboration. Fourteen nurseries were also set up by the project team, and loans amounting to INR 1,050,000 were sanctioned by Avanti Finance.

2,043 farmers
received training on water, soil, and crop management under the collaboratio

6. Vidarbha

The project team took the climate-smart initiatives developed by EDF to 3,561 farmers, and trained them on soil health, water management, crop agronomy, and integrated pest management (IPM). The Vidarbha team has also popularized soil testing amongst the local farmers and collected samples from 500 fields under the Agoro Carbon Credit Program. The safe use of pesticides was also taught (through on-ground technical support on pesticides and recommended dosages) under the iSafe program to 3,244 farmers, who have implemented them on 6,499 acres of farmland.

Under the Google Digital Literacy Awareness program, 9,822 farmers started using certified modes of money transfer, YouTube, and various agri-management apps. 3,618 farmers adopted online apps for agronomy, such as Plantix and AccuWeather, and a team of 39 AEs provided a total of 2,784 farmers with crop insurance, mostly through online modes. New crops were introduced in the rabi season, like moong, watermelons, soyabeans, and high-value vegetables. An E-Peek Pahani Awareness program was conducted with the local agricultural department to benefit 655 farmers.

INR 670,000 of loans were disbursed with the help of partners ESAF Bank, Avanti Finance and Rang De to our AEs, while 262 farmers obtained Gramcover Insurance. Digital banking transactions touched INR 31,541,154, while agri-input transactions amounted to a whopping INR 15,176,209.

Google

SFI collaborated with Google to provide a Digital Literacy Module along with corresponding use cases of agriculture. AEs were involved in taking this information to farmers through one-on-one trainings.

Laptops (wherever available) and mobile phones were used by AEs to 1) take farmers through the digital literacy information and 2) do demonstrations of the various topics that are being covered.

The key activities carried out under the Google-AEGF partnership this year were:

- A large-scale vermicomposting unit was installed in collaboration with 63 AEs.
- Several short-term training sessions, which targeted eight archetypes and enabled interested AEs to enter them.
- Ten loans were disbursed by our partner Avanti Finance, providing seed money for new ventures.
- The agri-input shop licenses of six AEs received approval from the ADO's office.
- Seedling sales by eight AEs resulted in transactions worth INR 1,186,712.
- Five AEs completed the installation of nurseries augmented with Israeli tech, such as Tal-ya trays, the adoption of which has increased gradually over the last year.

- A level-II digital literacy training program helped 214 AEs start using digital tools to track their progress. All the AEs who completed the program received certification.
- Awareness campaigns on pest and disease identification were carried out by using apps such as Bharat Kisaan, Plantix, Market Yard, AccuWeather, and E-Peek Pahani. 124 farmers also installed pheromone and sticky traps to combat the same.
- 54 AEs focused on providing crop insurance digitally, while 117 carried out demonstrations and workshops on pesticide usage and safety.

iSAFE

Pesticides are widely used in most areas of agricultural production as a cost-effective, labor-saving, and effective technique for managing pests. Despite their widespread usage and popularity, pesticides have caused severe concerns about the health risks associated with the residues on food and in drinking water for the general public, as well as the exposure of farmers when using these pesticides or working in the treated fields. Numerous accidental poisonings have been brought on by these actions, and even routine pesticide use can endanger farmers health over the long term and impact the ecosystem. Farmers in developing nations like India face significant exposure risks due to the use of hazardous substances that are prohibited or restricted in other nations, improper application methods, outdated or completely inappropriate spraying equipment, poor storage procedures, and reuse of old pesticide containers for food and water storage. Many farmers do not understand the risks associated with the use of pesticides, particularly the critical importance of proper application and the required measures. Even farmers who are aware of the negative consequences of pesticides occasionally struggle to incorporate this knowledge into their activities.

To address the issue, in association with Syngenta India Pvt. Ltd. (SIPL), Syngenta Foundation India has launched the iSAFE program in five blocks namely

Babhulgaon, Ralegaon, Kalamb, Kelapur, Ghatanji of Yavatmal district of Maharashtra to provide safe spraying services to the farmers to reduce occupational exposure to agrochemicals through certified spray persons.

The key activities carried out under the iSAFE-AEGF partnership this year were:

- 337 safe-use campaigns were held across the state - which were attended by more than 4,600 farmers. The AEs also advised the farmers to spray fungicide on their plants to prevent the cotton crop bowl from rotting in the heavy rains.
- A series of collaborations with Krishi Value team members in the Kalamb and Ralegaon blocks, where inputs were collected in regard to the granular and foiler sprays being used in the region.

UMED

The key activities carried out under the UMED-AEGF project this year were:

- 51 AEs set up low-cost vermicompost units.
- A layer farming enterprise was formed by 21 AEs, along with thirty AEs who started mini-layer farms alongside the crops they planned on sowing.
- Seven AEs started cultivating high-value mushrooms, some in the comfort of their homes.
- Four AEs are promoting farm mechanization by providing harvesters and operators to farmers, showing them the benefits of machine assistance first hand. Two AEs organized a Bank of India Zonal Team visit in rural districts.
- 10,212 goats were vaccinated against Peste des Petits Ruminants (PPR) and other diseases by a team of 163 AEs.
- The benefits of broad-spectrum insecticides, such as ICON 10 WP, were displayed by all the AEs under the project.
- Sales of the seedlings grown in thirteen polyhouses across the state nurseries totalled INR 1,333,355.
- Fifteen AEs associated with the project increased their monthly incomes by INR 5,000.
- Our partners Avanti Finance & ESAF Bank disbursed loans between INR 25,000 to INR 75,000 to sixteen AEs.

- Data related to farming was collected and provided by telecaller teams, usually based out of agri-input shops set up by AEs.
- The Gramcover insurance campaign was started by 15 AEs and Personal Accident (PA) policies of INR 1,00,000 were provided to farmers.
- Tal-ya tray installations were carried out by a team of thirteen AEs.
- Sixty AEs participated in a financial orientation meeting by Kotak Mahindra Bank.
- Seventeen AEs provided market linkage training to farmers online, and data collected by 135 AEs across the state was shared with the market linkage department as well.
- 280 AEs attended and completed Short Term Training (STT) sessions on pest and disease management in cotton crops, while another 170 received their training online.
- Ten AEs established a milk collection centre in collaboration with Hinduja Dairy, assisting the local farmers in obtaining better prices for their milk and dairy-based goods.

PUNJAB

During the year under review, a collaboration with Corteva was initiated to improve transplanting practices through the direct seeding of rice (DSR) method. The other collaboration was on reducing stubble burning through the adoption of crop residue management (CRM) with The Nature Conservancy. These interventions have been implemented in 18 districts, with the AEM and AEs holding farmers' meetings to train 2,545 farmers on the maintenance of farm machinery, market linkages, soil testing, and several pest and disease management practices as well.

The state KVKs and agriculture department officials have been coordinating with the team to visit our project locations through the year to understand how farmers and AEs have adopted CRM. A total of 270 AEs has been trained this year, and 233 AEs are actively providing support to 16,658 farmers and 44,057 acres. The output linkages made by the team earned the farmers INR 2,424,500, and credit worth INR 1,875,000 was made available to them as well.

A nursery is used for the transplantation state in direct seeded rice (DSR) cultivation. Through this method, farmers avoid the major problems of labor and water shortage. Direct sown rice

consumes less water as compared to transplanted flooded rice and leads to an increase in energy and water conservation. 4,516 acres of paddy were sown for 1,900 farmers using DSR technology. Campaigns were also run with the Corteva team for DSR sowing services and hybrid paddy seed cultivation. A collaborative approach with the state horticulture department to replace the mulching sheets with Tal-ya trays is also underway.

AEGF and TNC have trained 118 AEs to promote crop residue management (CRM) and provide farmers with sowing services by using Happy Seeders, Super Seeders, and Smart Seeders. These technologies have prevented stubble burning on 14,000+ acres across Punjab in 2021-22.

RAJASTHAN

The AE program in Rajasthan was started in partnership with Arpan Sewa Sansthan and Tata Trusts, and is currently operational in 8 districts. Through the program, a total of 194 AEs has been trained, and 88 AEs are actively providing support to 21,316 farmers with a farmland acreage of 33,303 acres.

The team has focused on training farmers about the production and processing of Iron Pearl Millet (IPM) under the Commercialization of Biofortified Crops (CBC) program with partners GAIN and HarvestPlus. The initiative is aimed to tackle the serious challenge of iron deficiency in different consumer populations, especially mothers and children. Technical guidance on IPM cultivation for 3,750 farmers was facilitated, with a total of 354 farmers cultivating them on 474 acres of land.

The project team has helped more than 20 AEs launch their agri-input businesses, and a total of 17,500 farmers were registered through the Delta Exchange data collection app. Tal-ya trays were successfully fitted on a leasing basis for 21 farmers in 11 villages. 10 demonstration plots were developed for demonstrating new technologies like staking, trellis, mulching, pheromone traps, micronutrients, and crop diversification.

UTTAR PRADESH

The AE program in UP was started in collaboration with Tata Trusts, Corteva, and the Uttar Pradesh State Rural Livelihood Mission (UPSRLM) across 26 districts.

A total of 782 AEs has been trained, of which 447 AEs are active through various business archetypes. serving 31,091 farmers covering 34,095 acres of land. The highlight of this year has been the successful implementation of the GAIN (Global Alliance for Improved Nutrition) and Syngenta Foundation India (SFI) tie up for the commercialization of biofortified crops (CBC) program, and the creation of a supply chain of zinc-fortified wheat.

This was done by a team of 87 AEs, who provided the fortified wheat seeds to 2600+ farmers and helped them cultivate the crop in over 2,000 acres. As the initiative covers the supply chain from end to end, market linkages have also been provided to procure and market wheat. 139 meetings were conducted with flour millers to plan the same, with 2,700 associated farmers benefiting from the market linkages. In order to get fair prices for the farmers, the AEMs also collected warehouse data and planned their storage to counter the steep fall in the price of wheat due to excess supply in the market this financial year. This has led to the sales of 150MT of zinc-fortified wheat this year.

Here are some more highlights from the project location:

- 2,400 farmers benefited from the project team's farmers' meetings. 797 farmers from Balrampur, 806 farmers from Bahraich, 352 farmers from Shravasti, and 233 farmers from Pratapgarh attended trainings conducted by them on the package of practices for wheat cultivation.
- Agri-input sales worth INR 3,100,000 were generated from the four districts.
- 139 AEs visited 2,788 farmers to provide advice about infections in wheat crops.
- Our AEs registered data from 3,500 farmers on the AE Digital Diary app, with farmers using the WRMS (Weather Risk Management Services) app to plan their crop cultivation cycles accordingly.
- Milk collection centres were started by 24 AEs with the Shwetdhara farmer producer company, resulting in transactions worth INR 1,013,450.

- AEGF also provided offline training to 200+ women entrepreneurs on business and skill development, and the certificate distribution and orientation program was conducted in Pratapgarh and Balrampur districts.
- The 'seed care' program was started in Bahraich and Kishanganj districts with regards to maize cultivation, and 45 demo sessions were conducted.
- Onion seedling cultivation began in the Sravasti, Balrampur, and Bahraich districts.
- The AEMs helped 14 AEs set up polyhouse nurseries, 4 AEs started new poultry businesses, and 11 AEs prepared vermicompost production units for the farmers associated with them. More than 75 AEs have had their businesses launched this year.

BIHAR

A strong alliance with JEEViKA (BRLPS) as a state-wide partner has enabled the creation of an AE network across 13 districts. This year, the shift to high-value crops as recommended by our AEMs and AEs has increased the average income of the farmers associated with AEs and cultivating high value crops.

SFI has collaborated with local NGOs to establish a center of excellence at every village for the dissemination of new technologies and practices for the enhancement of production per unit area. It has helped farmers get better prices and also led to 32 large-scale demonstrations of bio-products under the Global Agri Technology Evaluation (GATE) platform. 24 demonstration plots were set up for the same, with 15 geared to showcase the advantages of the 'Krishi Value' bio-products. The project team has also planned the establishment of 10 Israel polyhouse nurseries for the next financial year. Of the 1,340 AEs trained till date, currently, there are 1,184 active AEs serving 249,316 farmers with a coverage of 232,847 acres in the state. 892 of them are registered on the Delta Exchange application, and have registered 144,661 farmers on the same. Four new districts have also been selected for the setting up of the AE training program (Bhojpur, Kishanganj, Begusarai, Sheikhpura).

Our AEs are aggregating the vegetable, fruit, and food grain produce and selling it through nationalized

traders, which is helping farmers get better prices and have the payments directly credited into their bank accounts. 348 AEs under the agri-input initiative have been able to generate sales worth INR 541,100,000 and agri-output transactions worth INR 477,900,000 were facilitated by them as well. The cultivation of biofortified crops such as Iron Pearl Millet (IPM) and Zinc Wheat were also implemented on a smaller scale with 700 farmers through partners JEEViKA and HarvestPlus, with plans for expansion laid out for the upcoming year. 307 AEs received financial support of up to INR 100,000 from JEEViKA as well.

The project team has also been able to take a huge step forward towards empowerment of women this year, through a new Memorandum of Understanding (MoU) with the Bill and Melinda Gates Foundation (BMGF) to train 5,000 women AEs in the next five years.

ASSAM AND WEST BENGAL

With the help of project partners IDH, Harsha Trusts, and Samhita Math, operations have been started in 7 districts across the two states. A total of 249 AEs has been trained, and 230 AEs are serving 28,061 farmers with farmland acreage of 55,397 acres. These AEs are primarily working with small tea growers (STGs) and helping them increase their yield and incomes by providing better market linkages with tea factories. In this year, 447 farmers were trained by 39 AEs.

Good agricultural practices for tea cultivation like tipping, plucking, pruning, manuring, weeding and drainage have been disseminated by the AEMs and AEs. Farm mechanization has also been a key focus in Assam, with pruning machines and post-plucking spraying being utilized instead of manual labor. Awareness programs were conducted with the help of the Tea Board of India to accelerate the adoption of machine plucking, and a subsidy of 25% for their purchase was provided as well.

Assam and West Bengal have emerged as states that have been highly successful in their commitment to the tie-ups forged this year. The project team has started providing water pump services to the farmers to mitigate irrigation issues by utilizing the tie-up between AEGF, GIZ, FICCI, and SFI. A pilot project was started in Golaghat and Karbi Anglong districts to set up Micro Solar Powered Irrigation Systems (MSPIS) in

various districts. The farmers have received 25 pumps under this pilot project in Assam till now; and 115 farmers received 18 irrigation pipes with 3 sprinklers free of cost with the support of the State Agriculture Department of West Bengal.

The project team has encouraged intercropping and infilling of plants like king chillies, Assam lemons, and areca nuts to create more income. These efforts have been accelerated by the promotion of nurseries and the adoption of new technologies like coco pits, tal-ya trays, and sprinkler irrigation while growing the seedlings. The collection of soil samples before applying fertilizers has also led to better productivity, healthier fields, and lower costs of cultivation. With the support of KVKs, the training provided for cultivation of crops other than tea also included disease and pest management.

The AE Service models provided to farmers for procuring farm machinery on rental basis for spraying, pruning, and plucking generated most of the agri-input revenue, while market linkages like supplying green tea leaves to BLFs (Bought Leaf Factories) generated most of the agri-output revenue. The project team has also collaborated with companies and NGOs such as Green Agro. Pvt. Ltd. and Brahmananda for selling paddy, mushrooms, vegetables, king chillies, Assam lemons and areca nuts. During the covid lockdown, our AEs also developed intra-district market linkages for pineapple and poultry.

Some more highlights from Assam have been the training programs on mushroom cultivation for jail inmates, which was held with the support of the Tinsukia district administration. With the help of ASRLM (Assam State Rural Livelihood Mission), the project team has also focused on encouraging women farmers to take up businesses like the production of low hanging fruits like mushroom, pickle making and water hyacinth.

25 AEs and 45 farmers received financial assistance from Avanti Finance, Rang De and North Bengal Co-operative Bank to set up or expand their ventures as well. After receiving credit from the Bank of India, 2 AEs and 4 farmers from Dibrugarh district started a novel business of collecting and selling rice husk to poultry farms. The local AEs have also set up five centres for vermicompost and azolla sales, and two women AEs from Golaghat and Jorhat established soil testing units. Finally, 13 AEs have received biometric cards from the Tea Board of India to start a green leaf collection and supply businesses with a group of 90 farmers.

ANDHRA PRADESH AND TELANGANA

Our projects in Andhra Pradesh and Telangana were started in collaboration with IDH and the Bhagavatula Charitable Trust (BCT), and the AE training program comprises nine districts at present. A total of 449 AEs has been trained, out of which 214 AEs are active and helping 25,009 farmers with a farmland acreage of 63,757 acres.

The teams have been extremely proactive in involving third parties, institutes and individuals from the state agricultural ecosystem, especially in the West Godavari and Vishakhapatnam districts. Alliances have been forged with the Agriculture Department in Khammam, Horticulture Department in Paderu, DAAT (Directorate of Agriculture Technology & Transfer) Center Vizianagaram, Directorate of Floriculture Rajahmundry, the SRI Energy Group, Dabur and NGOs such as Kovel foundation, SMILE Foundation and Girijana Vikas.

The farmers' meetings organized by the AEMs and AEs focused on the cultivation of red chillies, turmeric, cotton, cashew, coffee, and pepper through natural farming methods. Topics such as crop management, pre and post-harvest techniques, harvest quality parameters and marketing linkages through FPOs have also helped smallholder farmers improve their yields and incomes.

A total of 72 AEs were involved in facilitating agri-input sales, with 19 AEs from the group starting their own agri-input businesses, and another 13 in the process of obtaining licenses for the same. 67 AEs from the project team provided collective marketing services and market linkages to the associated farmers, with 36 of them starting agri-output businesses of their own. Here are some of the milestones achieved in Andhra Pradesh and Telangana:

- 37 AEs enabled credit worth INR 6,000,000 with our partners Avanti Finance, Samunnati and Rang De.
- 350 Tal-ya trays were installed in upland areas with little or no irrigation facilities, largely for the better cultivation of guava, cashew nut, mango, and papaya.
- 22 AEs have started digital banking kiosks across the project location to enable farmers to receive payments on time.
- Our partnership with IDH and NGOs Kovel Foundation, SMILE Foundation, and Girijana Vikas has also enabled the development of 23 organic coffee farms in AP, with the growers enjoying the benefits of the high-value crop.
- The team in Srikakulam district collaborated with a local NGO to start developing AEs under an AP state government program promoting the production and processing of pulses.
- One of our AEs in Guntur district has successfully launched a polyhouse chilli nursery and successfully cultivated 15 lakh seedlings in two seasons, resulting in a sale of INR 663,230.
- 128 AEs received advanced training on the provision and promotion of key archetypes such as agri-input businesses, vermicompost units, poultry, dairy, milk collecting, apiculture, pisciculture, cattle feed and goatery.

The project team has also held discussions with the Directorate of Floriculture in Rajahmundry to provide venture incubation facilities for the AEs launching polyhouse nurseries. The team has also been in talks with the SRI Energy group and Thanos Aerial Solutions, and developed AE business models around renewable energy-based farm equipment and drone-based spraying services. Our AEMs from Khammam and Guntur also took part in a demonstration on drone-based pesticide spraying in collaboration with Syngenta Commercial for groundnut crops in Kalvakurthi, Telangana to learn more about the agri-technology.

A total of 10 demo plots were used to introduce the farmers in the project location to methods such double row paddy cultivation, Integrated Nutrient Management (INM), Integrated Pest Management (IPM), mulching, and drip irrigation. 27 demonstrations on organic farming, indigenous crop varieties, soil health etc. were also conducted under the GATE platform.

ODISHA

Odisha has emerged as a state where change is readily accepted by farmers, and aptly facilitated by our AEMs and AEs. The project team has organized over 150 farmers' meetings to accelerate rural adoption of digital technologies, and is encouraging farmers to obtain online training on Krishi Abhyaas, a YouTube-based digital skill development program launched by AEGF that acts as an easily accessible repository of the latest agricultural know-how and practices.

The meetings included modules on the cultivation and upscaling of high-value crops like capsicum, broccoli, and red cabbage, and introduced the smallholders to high-yield tomato varieties. Training on the benefits of nursery transplanting, pre and post-harvest crop management, and agronomic techniques like mulching, staking, Integrated Pest Management (IPM), Integrated Nutrient Management (INM), and trellis farming were also conducted.

4 ToT (Training of Trainers) sessions were held on the Krishi Abhyas portal for 142 AEs to help them convene and conduct meetings with farmers. This year has also seen a lot of enthusiasm among women farmers in the state about our AE training program, with nearly 50 women joining the project team. A noteworthy achievement has been a collaboration with GIZ, FICCI, and SFI to provide sustainable Micro Solar Powered Irrigation Systems (MSPIS) to the farmers of Odisha,

and 22 have been installed across 2 districts so far. They are expected to lower energy costs and help improve yields by ensuring a steady supply of water. 362 AE's have been trained till date of which 206 AEs are currently active. They are serving 39,896 farmers and covering 63,671 acres of land across 5 districts - in partnership with the Odisha Livelihoods Mission (OLM), Harsha Trusts, and Kartabya.

The market linkages division of the project team concentrated its efforts on providing market linkages for 615.5 MT of maize from 127 farmers, helping them earn ₹9,882,890. The farmers made approximately ₹16 per kg, while the AEs received commissions of around ₹25 per kg. The linkages of other major crops such as paddy and vegetables generated ₹ 5,315,937. Credit linkages for the ventures of 40 AEs were also developed with the help of partners Rang De, Avanti Finance, Kotak Mahindra Bank, and IDBI Bank.

Some more highlights this year have been the installation of 600 tal-ya trays in crops like mango, guava, citrus and cashew. The establishment of 12 demo plots and 2 Israel-based nurseries has been completed by the AEs, and 6 more polyhouse nurseries are under development.

MADHYA PRADESH

At the end of FY21-22, we have completed the certification of 363 AEs. 221 AEs are actively working with 26,170 associated farmers and helping them manage 56,602 acres of farmland across 7 districts.

The project team has focused on pioneering the adoption of high-value crops like garlic, onion, tomato, broccoli, capsicum, chilli, gourds and peas. Our AEMs and AEs have also trained 2,080 farmers on modern agronomic interventions such as stacking, drip irrigation, and mulching, to ensure that the farmers are able to successfully cultivate the new crop varieties. The seedlings for these crops were also provided under our polyhouse nursery archetype, which also used pro-trays instead of the traditional raised bed methodology. Over 150,000 seedings were produced using 3000 trays. 85 Tal-ya trays were also installed in citrus, mango, and guava orchards, and also brought better yields to farmers.

Market linkages for major crops like soyabean, wheat, paddy, pulses, lentils, and the vegetables mentioned above were facilitated by a group of 96 AEs, who linked 1061 MT of produce to various markets. Credit worth INR 3,500,000 was enabled for 39 associated farmers and their ventures. 28 special guest lectures and farmer training sessions were also conducted through the year, and two new business archetypes

(poultry and goatery) have been promoted as sources of additional income alongside the existing portfolio of services. The table below displays the revenue generated by the project team through them.

Archetype	Transactions (INR)
Agri-inputs	13,220,732
Agri-outputs	26,763,076
Dairy	1,004,802
Poultry Farming	1,120,000
Farm Mechanization	2,500,750
Nursery	5,735,00
Digital Banking	49,112,234
Others	16,186,700
Total	**110,481,794**

The Madhya Pradesh project will also be key to fulfilling our commitment towards the United Nations' Sustainable Development Goals (SDG). A Memorandum of Understanding (MoU) was signed with the Bill & Melinda Gates Foundation (BMGF) and the Madhya Pradesh State Rural Livelihoods Mission (MPSRLM) to train and empower 5,000 women AEs in the next five years.

KARNATAKA AND TAMIL NADU

The AE program in Karnataka was started across three districts in association with Kalike, an initiative of Tata Trusts, and 152 AEs have been trained so far. AEGF focused on the creation of new ventures in the two fledgling project locations, especially in regard to the input and output of agri-products. A total of 17 AEs from the Nilgiris (Tamil Nadu) and Yadgir district (Karnataka) also availed financial support to the tune of INR 4,000,000 from partners Sammunati, Avanthi Finance and Rang De. Our AE network in the states promoted farm mechanization and new irrigation technologies, while also providing smallholders with access to digital banking through mobile kiosks - a popular archetype that generated INR 4,670,000 of additional income for associated farmers.

AEs have served a total 13,527 farmers with a farmland acreage of 19,716 acres. They provided regular agri-advisory services to the farmers through such meetings, training sessions and field visits, and spread awareness about mechanization in tea cultivation to overcome challenges such as labor unavailability and long leaf processing time, such as machines for quality leaf plucking, pruning, and weeding.

The meetings also shed light on many other crop productivity enhancement inputs, such as bio-fertilizers, intercropping between tea bushes, grading and sorting in garlic and carrot crops, the packing method for strawberry cultivation, cotton stubble management, the use of pheromone traps for pest management, and the importance of soil testing.

37 AEs have generated INR 11,084,620 in agri-input sales this year, and our market linkage team of 19 AEs has successfully enabled agri-output sales worth INR 38,000,000. A major contributing factor has been our team in the Nilgiris district, where our AEs are involved in collecting green tea leaves from Small Tea Growers (STGs) and supplying them to Bought Leaf Factories (BLF). The teams are also developing market linkages for commodities like red gram and paddy with the state governments, and planning to establish procurement centers to alleviate transportation concerns.

JHARKHAND

In FY 2021-22, the team in Jharkhand partnered with the Transform Rural India Foundation (TRIF), Grant Thornton (GT), and Mobile Agricultural School and Services (MASS) to expand the reach of the AE model. Through the training programs in the project location, 381 AEs (78 women AEs) have been certified who serve 19,510 farmers across 8 districts and a farmland acreage of 9,504 acres. .

One of the highlights in the project has been the addressing the issue of irrigation and water scarcity issues in Jharkhand, especially for paddy farming, through our collaboration with GIZ, FICCI, TRIF and SFI. 27 Micro Solar Powered Irrigation Systems (MSPIS) have been set up in three blocks so far. The project team has trained thousands of farmers in the adoption and use of drip irrigation under government schemes, with the benefits becoming immediately evident. 14 AEs were also supplied with credit by Avanti Finance to purchase and set up polyhouse nurseries.

The team succeeded in promoting high-value crops such as tomatoes, cucurbits, and watermelons, with over 500 farmers being trained to cultivate the same. 30 farmers have also established vermicompost production units as a source of secondary income. The cultivation of cucurbits by the in-trellis method and tomatoes through the stacking method has also begun to become popular in the farming communities reached out to by our AEs. The team was able to generate INR 6,900,000 of value for the state agricultural sector through the sales of agri-inputs, and marketed produce worth INR 5,800,000.

Key Highlights

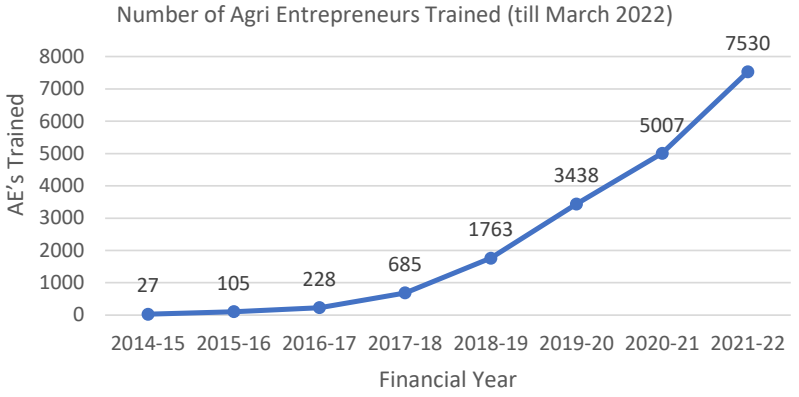
Table 4: Total number of AEs trained so far in comparison to the ones trained in FY21-22

No.	State	Total AEs Trained	AEs trained (FY21-22)
1	Andhra Pradesh & Telangana	449	197
2	Assam & North Bengal	291	56
3	Bihar	1,340	351
4	Gujarat	44	0
5	Jharkhand	374	80
6	Karnataka & Tamil Nadu	152	101
7	Madhya Pradesh	303	36
8	Maharashtra	2,927	842
9	Manipur	9	0
10	Odisha	360	182
11	Punjab	270	137
12	Rajasthan	194	62
13	Uttar Pradesh	746	340
14	West Bengal	71	29
Total		**7,530**	**2,413**

Note: The numbers above do not include AEs in training and those being initiated into the program.

AE Network and Service Archetypes

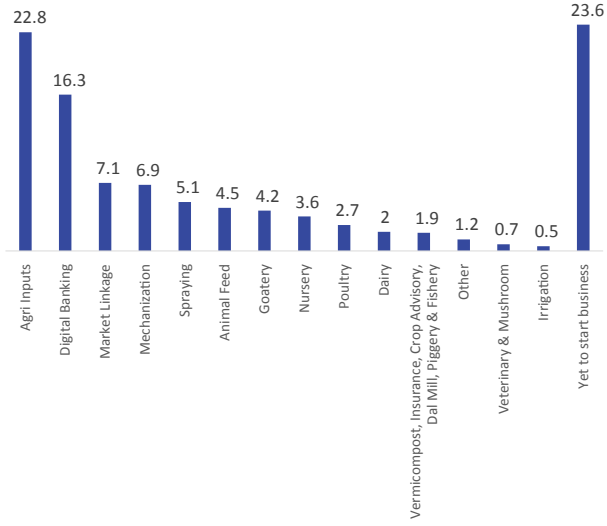
Figure 4: No. of AEs trained over the period



At the end of FY 2021-2022, a total of 2413 AEs were trained across the states taking the total up to 7530 trained AEs across India. 5,431 of them (72%) are actively providing support to smallholder farmers.

As mentioned before, our AEs operate under a revenue-based and market-linked model, wherein the services provided by them enables a fair income through commissions or other modes. The value of total business transactions across AE archetypes has grown from INR 175 Cr to INR 472.54 Cr - a 270% growth in FY 2021-22. The figure below provides an overview of the proportionate transactions of the key business archetypes adopted by the AEs.

Figure 5: Percentage of AEs based on their business archetypes



Agri-input services such as supplying better seeds, pesticides, and fertilizers accounted for the highest volume of transactions at INR 143 crores, or 30% of the total transaction volume of AEs. In the digital banking archetype where banking support services are provided in rural areas, the total transaction volume was INR 141 crores, also accounting for 30% of the total transaction volume.

Figure 6: Percentage of transaction volume of different archetypes

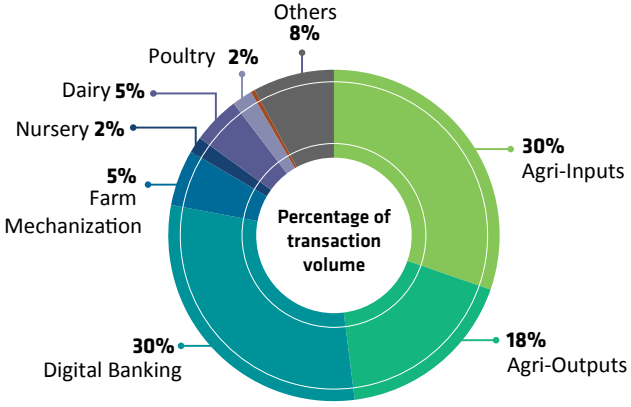


Figure 7: All types of archetypes offered by AEs in FY21-22

Gender Equity

There are currently 57 female employees at the foundation, encompassing 17% of the total (336). Fifty percent of the in-house faculty are also women. There is a sustained and sincere effort to increase the participation of women at all levels across the verticals. Our network of AEs contains 1,245 women at present, or 22% of the total, and we are working on training 10,000 more from the states of Madhya Pradesh and Bihar become Agri-Entrepreneurs (AE). We are working with a significant number of women farmers as well.

Outreach and Impact

The number of farmers reached by AEs has gone up from 4,95,822 to 7,14,000, indicating a 144% growth in the FY 2021-22.

The total farmland acreage covered has gone up from 6,61,812 to 11,47,624 acres – a 173% growth compared to last year's coverage.

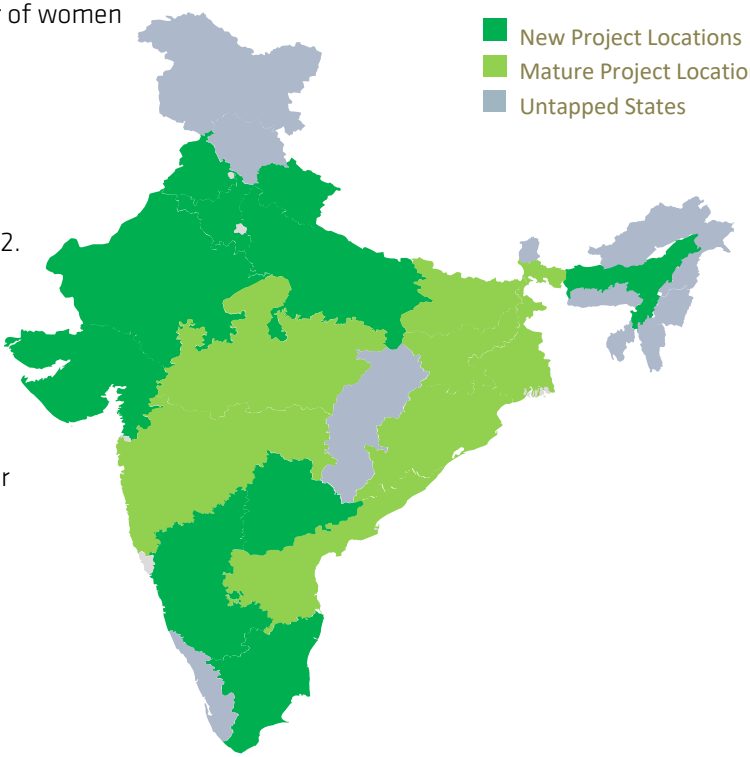
Median income of farmers: INR 116,850 per annum

Reduction in input costs: 11-14%

Increase in income of women AEs over baseline:

- 26% have seen increases of up to 40,000
- 28% have incomes increased up to 60,000
- 28% of them have increased their incomes up to 100,000
- 19% have an income increase of up to INR 100,000 year-on-year

The highest per annum average transaction per AE is from Bihar, followed by Odisha.



Agritech

TAL-YA TRAYS

A unique and easy-to-use plastic tray specifically designed for young fruit trees, vines, and re-forestation, Tal-ya trays accelerate growth, increase yields, and improve farmer ROIs significantly. They can also be used to cultivate vegetables, ornamentals, etc.

The trays help the plants grow in height, girth and branch density, and also maintain high levels of moisture – thereby reducing water consumption.

Figure 8: Percentage of Tal-ya trays demonstrated at various project locations

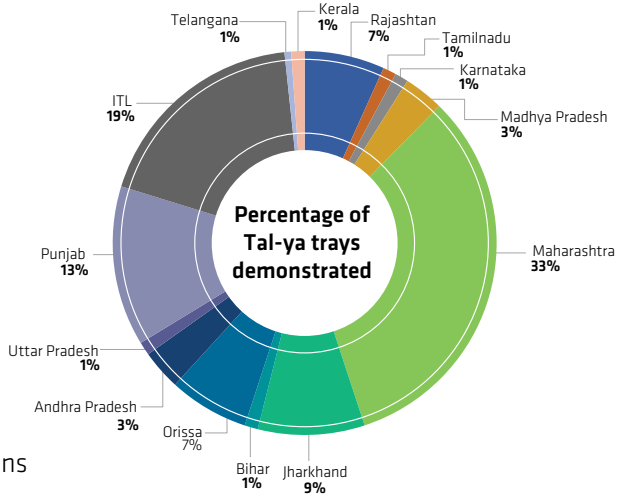
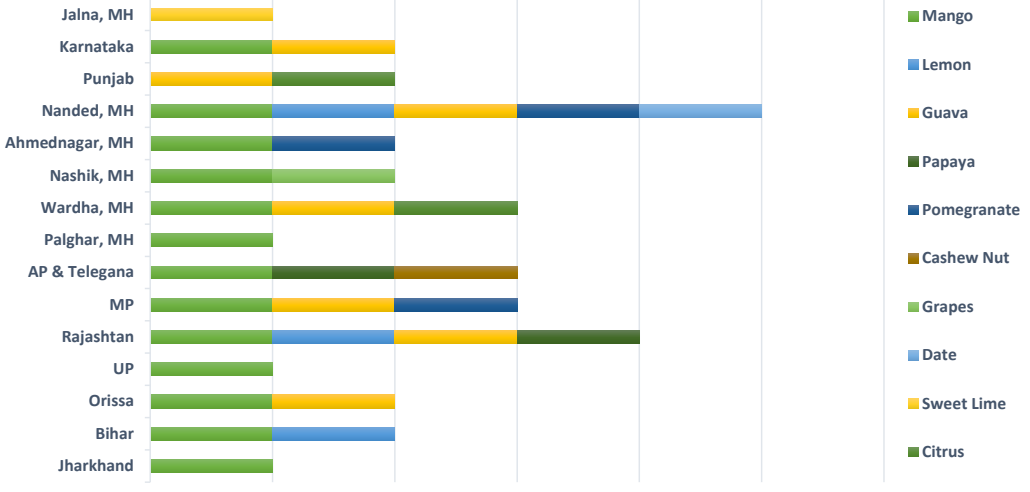


Figure 9: Trays used in different fruit crops at project locations



GATE (GLOBAL AGRI-TECHNOLOGY EVALUATION) PLATEFORM

G.A.T.E. is a digital platform enabling transparent project management and technology transfer. The platform sources innovative and cost-effective technology which have the potential to enhance productivity/profitability from different research stations or startups across the globe. Once the tech is analyzed and found suitable according to parameters such as relevance, value addition, ease of use etc., it is commercialized through the AE network.

Services include identification, testing, validation, and adaptation of new technologies to upscale ventures. By supporting high quality technology transfer, G.A.T.E. helps develop new markets for the innovators and delivers high value for smallholders and local businesses in developing regions. SFI/

AEGF is currently implementing 13 climate-resilient technologies across 18 project locations, such as:

- Soil-Sathi (soil and water testing kit)
- Krishitantra (soil testing kit)
- Tal-ya Tray
- Lingord
- CUMIjal (Hydrogel)
- PICS bags (Purdue Improved Crop Storage)
- Krishivalue (bio-organic)
- Sea6energy (Biostimulant)
- Kamaal clamp
- Navbharat Gold (organic Manure)
- Dr. Bohra's growth promoters and organic pesticides
- Agro-solar (piston driven solar pump)
- Bhujal (water table monitoring app).

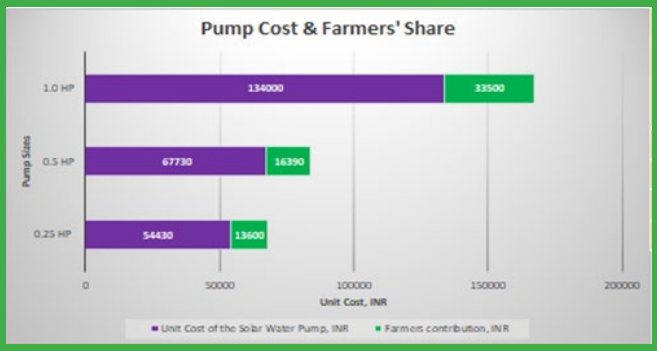
Figure 10: Various phases of implementing new technologies

PHASE1	PHASE 2	PHASE 3	PHASE 4	PHASE 5
Definition Phase	Designing Phase	Development Phase	Pre-commercial P	Commercial Phase
• Task- governing bodies • Relevance, goals & hypothesis • Market potential • Impact	• Technical questions – experimental design • Factors to evaluated • Resources- requirements • materials and budget	PILOT • Data acquisition- rounds	• Field trails expansion • Potential markets – estimation of benefits • Access to suppliers	• Marketing product profile • External investisors- time frame for next evaluation

Micro Solar Powered Irrigation Systems (MSPIS)

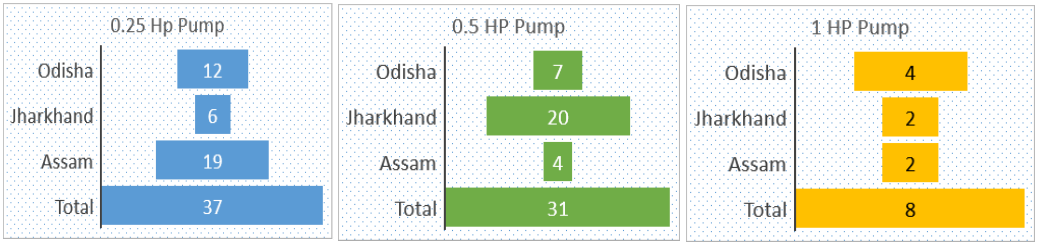
AEGF has been working with the Federation of Indian Chamber of Commerce and Industry (FICCI), Syngenta Foundation India (SFI), Transform Rural India Foundation (TRIF) and GIZ India to provide sustainable and subsidized agricultural solutions to the farmers of Assam, Jharkhand and Odisha. The project aims at promoting the sustainable use of solar-powered 0.25, 0.5 or 1 HP water pumps under the Water-Energy-Food nexus.

Figure 11: Pump cost and farmer's share



The portable pumps provide a stable source of water and reduce energy costs; and have helped the marginal farmers engaged in agriculture and allied activities in the states take up vegetable gardening, plant nurseries etc. to supplement their incomes. Over 76 MSPIS' have been installed in FY 21-22.

Figure 12: Number of pumps installed in various states



New Projects and Partnerships

Axis Bank Foundation (ABF): The collaboration between AEGF and Axis Bank Foundation will develop ~2000 AEs in 12 to 13 districts across Maharashtra. The partnership will also support credit extension to Agri Entrepreneurs as well as smallholder farmers.

Samunnati: Samunnati Financial Intermediation & Services Pvt. Ltd. is the first commercial entity which placed faith in Agri Entrepreneurship model and came forward to develop a cohort of 700 Agri Entrepreneurs in Madhya Pradesh and Maharashtra. The partnership aims to support farmers by providing services in Agri Output as well as Agri Input services. Soyabean, Wheat, Chana and other dry commodities will be targeted to support the farmers. Samunnati will be covering 90% of the total cost per AE in the given model.

The Bill & Melinda Gates Foundation (BMGF): Our partnership with the Bill and Melinda Gates Foundation enables the creation of 10,000 female Agri-Entrepreneurs (AEs) in the Indian states of Bihar and Madhya Pradesh for improving the incomes and

livelihoods of millions of smallholder farmers. The collaboration aims to create a sustainable ecosystem that ensures their economic empowerment, leverages existing rural development programs and facilitates access to smart agricultural solutions.

Our operations with BMGF have also resulted in the development of a project to strengthen the agricultural financial services available to our entrepreneurs. Stemming from research conducted to identify the specific requirements of women entrepreneurs and smallholder farmers with the help of the Asia-Pacific Rural and Agricultural Credit Association (APRACA), the project aims to provide crucial resources such as financial literacy, digital platforms, credit, and insurance.

International Fertilizer Development Center (IFDC): A partnership between Syngenta Foundation India (SFI) and International Fertilizer Development Center (IFDC), USA started in March 2022 in the state of Telangana. The project aims to develop 600 AEs in Rangareddy, Medak, and Mahabubnagar districts by September 2023, and will ensure that the development of women AEs occurs on an equal level as well.

GIZ: SFI has been working with GIZ India and other partners to provide subsidized water supply solutions (in the form of solar powered irrigation systems) to the farmers of Assam, Jharkhand and Odisha.

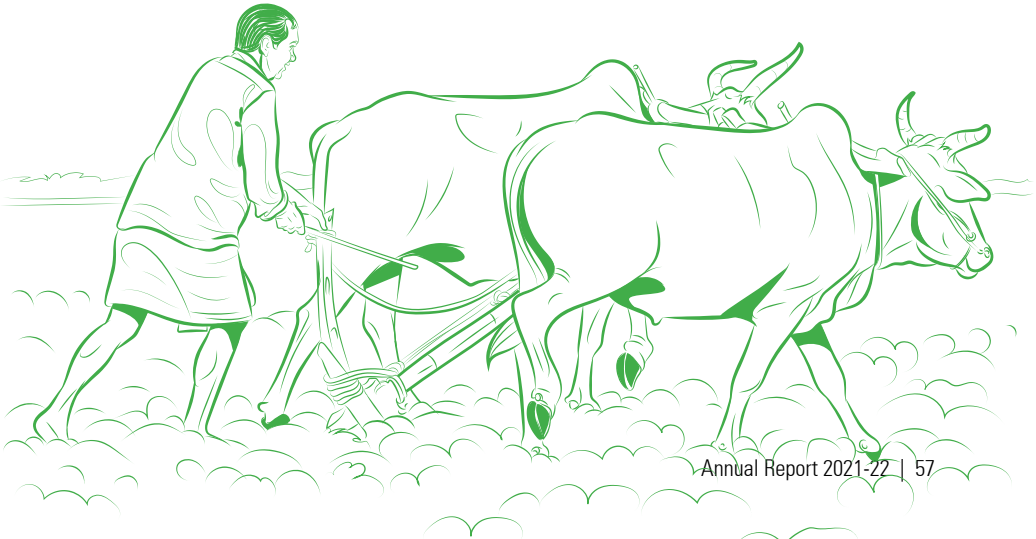
Noteworthy Case Studies

LAXMIKANTH KURMI

“I used to practice traditional farming due to inadequate access to inputs, resources, and knowledge. Because of this, I was unable to get the maximum yield and profit from my land. I used to grow only one variety of tomato on a 1.5-acre plot,”
says Laxmikanth Kurmi.

“After completing my training from SFI, I started farming with modern technologies, such as drip irrigation, mulching, well nutrition and weed management. Furthermore, I started a nursery and provided seedlings to the farmers. At present, I am growing three varieties at a time which motivated my neighbors as well, who have also installed nurseries of their own and started growing tomatoes on a large scale. This progress continued and has grown to cover 150 acres of land in my village.”

"There is a huge lack of market linkages in my village, so selling the commodity post-harvest has become our top priority. I decided to expand my services and started procuring tomatoes from farmers to sell in the main markets. This is creating a great source of income for me and saves transportation costs. Now I provide agri-inputs, knowledge transfer and market linkages to my customers."



OM PRAKASH

"I am Om Prakash from Nanded, Maharashtra. I had just completed my agricultural diploma when I came to know about the AEGF training program. I joined and completed my training in November 2019. I joined my father on the farm and realised that there was a lack of information amongst the farmers about the latest advancements in the agribusiness sector. I decided to help the local farmers gain knowledge of non-farm products like digital banking, insurance, and advisory services."

"While working, I understood that there was a lot of Government help available for the farmer. I started helping them with information about government schemes and the documentation process, both offline and online. I also coordinated with the nearby agriculture department on matters beneficial to the farmers. To supplement my income for non-farm products, I took a loan from Samunnati Finance and started providing good quality seedlings, sericulture services and crucial information with the help of the department and let more than 80 farmers know what schemes they were eligible for. The AE Training programme has helped me change my life and the lives of everyone around me."

SAILEN MORAN

"I am a small-scale Tea Grower in a remote area called Nalani, in Dibrugarh district, Assam. My village is over 12 km away from the nearest town. Poor roads and little access to transport put the farmers at a significant disadvantage. The villagers were once forced to pay unfair prices for agri-inputs in this town.

I come from a family with eight members and our household income was only INR 4000 a month. I battled to feed my family with the profits from the small one-acre tea garden I owned. In an AEGF team meeting, I once said that we wanted to change our lives but were limited by a lack of opportunities and knowledge. My circumstances have altered dramatically since then. I came to know about intercropping in between harvests from my AE. Tea gardens always need some permanent shade-giving trees. Keeping the market demand in mind, I decided to plant betel nut trees. I planted 150 betel nut trees in the plot, between the bushes. Now I'm earning 1,35,000 rupees from this new 'second' harvest. Now, I regularly take advice on what type of chemicals to use, when to use them, pruning cycles, plucking days etc. from my AE," says Sailen Moran from Assam with a grin.

AMARAVATI DHURVE

"I am Amaravati Dhurve from Dindori district, Madhya Pradesh. I studied till 12th grade before hearing about AEGF while working. I decided to enroll and become an Agri-Entrepreneur. After completing my training, I joined the Foundation for Development of Rural Value Chains (FDRVC). Now, I purchase millets from 50 to 60 known farmers and sell them at the main market, resulting in huge profits. I provide crop advisory training to my associates as well, and I am happy to share that I have been able to stand up on my own two feet as a successful Agri-Entrepreneur by procuring commodities and providing mechanization services to the farmers," Mrs. Amaravati Dhurve says with a confident smile.

K. NAGAMANI

"Sathanigudem is a tribal village. It falls under Kamepalli Mandal in Khammam district, Telangana. My husband works on our four acres of land, and we have two kids in school. I'm a skilled tailor and I earn some money from it, but it wasn't enough for us to make ends meet. I heard about AEGF and its AE program through some of my neighbours and wanted to join the program to get some knowledge about agriculturally allied businesses. I came on board in August 2020 and identified three opportunities during an exposure visit with some AEs after completing my training. I think that was when what I learnt really came in handy. I realized the milk produced in the village was not being sold in an organised manner. The nearest bank was 10 km away, and the scope for chilli nurseries in the region was immense.

I started a milk collection point and provided digital payment facilities in the village through a small kiosk. I had a turnover of INR 3,45,600 from Dec'20 to Feb'22 and earned a profit of INR 84,650 from the collection point. On the other hand, the kiosk made INR 22,12,000 in the same period and I was able to earn INR 22,500. In the last thirteen months, I have earned about INR 13,000 every month through the commissions I get on the transactions.

Buoyed by my success, I built the confidence to start a commercial chilli nursery on half an acre of our land. In September and October, there were heavy rains and the farmers nearby had to transplant chilli plants for the 3rd time in their fields, which created a huge demand for seedlings. I started trading chilli seedlings from the neighbouring districts of Guntur, Prakasham, and Krishna. I was able to get a good price due to the easy availability of these seedlings in those regions. The sale of 2.5 lakh seedlings at INR 2.10 each to 54 farmers netted a turnover of INR 5,25,500 and earned me a profit of INR 62,500.

syngenta foundation India

Financials

	Notes	As at 31 March 2022 Rs.'000	As at 31 March 2021 Rs.'000
Equity and liabilities			
Reserves and surplus	3	5,943	1,036
		5,943	1,036
Non-current liabilities			
Long-term provisions	4	8,056	9,979
		8,056	9,979
Current liabilities			
Trade payables	5		
- total outstanding dues to micro enterprises and small enterprises		-	-
- total outstanding dues of creditors other than micro enterprises and small enterprises			
to related parties		10,947	5,550
others		1,818	756
Short-term provisions	4	1,165	1,026
Other current liabilities	6	12,047	4,540
		25,977	11,872
Total		39,976	22,886
Assets			
Current assets			
Cash and bank balances	7	25,186	13,476
Short-term loans and advances	8	2,290	324
Trade Receivables	9	2,547	-
Other current assets	10	9,953	9,086
		39,976	22,886
Total		39,976	22,886
Significant accounting policies	1-2		
Notes to the financial statements	3-26		

The notes refered to above form an integral part of the financial statements

As per our report of even date

For B S R & Associates LLP
Chartered Accountants
Firm's registration no.: 116231W/W- 100024

SUCHETA SURESH KOLHATKAR
Digitally signed by SUCHETA SURESH KOLHATKAR
Date: 2022.08.19 20:55:51 +05'30'

Sucheta Kolhatkar
Partner
Membership No. 114192
UDIN: 22114192APJLSD3201

Place: Pune
Date: 19 August 2022

For and on behalf of the Board of Directors of
Syngenta Foundation India
CIN: U91120PN2005PTC139186

KARUGALAM CHANDRASEKARAN KERAN RAVI
Digitally signed by KARUGALAM CHANDRASEKARAN KERAN RAVI

KC Ravi
Director
DIN - 07245784

Place: Delhi
Date: 19 August 2022

SANNADI BASKAR REDDY
Digitally signed by SANNADI BASKAR REDDY

Sannadi Baskar Reddy
Director
DIN - 07245794

Place: Delhi
Date: 19 August 2022

SYNGENTA FOUNDATION INDIA
Statement of Income and Expenditure for the year ended 31 March 2022

	Notes	Year ended 31 March 2022 Rs.'000	Year ended 31 March 2021 Rs.'000
Income			
Grants and donations		209,469	153,080
Fees from activities		14,621	-
Transfer from earmarked fund		-	-
Other income	11	1,274	780
Total income		225,364	153,860
Expenses			
Project expenses	12	155,590	94,556
Employee Benefit Expenses	13	56,770	49,721
Other expenses	14	8,097	3,927
Total expenses		220,457	148,204
Excess of income over expenditure - surplus		4,907	5,656
Significant accounting policies	1-2		
Notes to the financial statements	3-26		

The notes refered to above form an integral part of the financial statements

As per our report of even date

For B S R & Associates LLP
Chartered Accountants
Firm's registration no.: 116231W/W- 100024
SUCHETA SURESH KOLHATKAR
Digitally signed by SUCHETA SURESH KOLHATKAR
Date: 2022.08.19 20:56:46 +05'30'
Sucheta Kolhatkar
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UDIN: 22114192APJLSD3201

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Date: 19 August 2022

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KARUGALAM CHANDRASEKERAN RAVI
SANNADI BASKAR REDDY
Digitally signed by SANNADI BASKAR REDDY
Date: 2022.08.19 20:15:48 +05'30'

KC Ravi
Director
DIN - 07245784

Sannadi Baskar Reddy
Director
DIN - 07245794

Place: Delhi
Date: 19 August 2022

Place: Delhi
Date: 19 August 2022

List of Abbreviation

ABF	Axis Bank Foundation
ADO	Agricultural Development Officer
AE	Agri-Entrepreneur
AEGF	Agri-Entrepreneur Growth Foundation
AEM	Agri-Entrepreneur Mentor
ASRLM	Assam State Rural Livelihood Mission
BLF	Bought Leaf Factories
BMGF	Bill and Melinda Gates Foundation
BRLPS/JEEViKA	Bihar Rural Livelihoods Promotion Society
CBC	Commercialization of Biofortified Crops
CRM	Crop Residue Management
DAAT	Directorate of Agriculture Technology & Transfer
DSR	Direct Seeding of Rice
EDF	Environmental Defense Fund
FICCI	Federation of Indian Chambers of Commerce & Industry
FPO	Farmer Producer Organization
FY	Financial Year
GAIN	Global Alliance for Improved Nutrition
GATE	Global Agri Technology Evaluation
GIZ	Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH
IFDC	International Fertilizer Development Center
INR	Indian Rupee
INM	Integrated Nutrient Management
IPM/PPM	Integrated/Proper Pest Management
IPM	Iron Pearl Millet
IWM	Integrated Water Management
KVK	Krishi Vigyan Kendra
MASS	Mobile Agricultural School and Services
MoU	Memorandum of Understanding
MPSRLM	Madhya Pradesh State Rural Livelihoods Mission
MSPIS	Micro Solar Powered Irrigation Systems

MSRLM/UMED	Maharashtra State Rural Livelihoods Mission
NGO	Non-governmental Organization
OLM	Odisha Livelihoods Mission
PoP	Package of Practices
SDG	Sustainable Development Goals
SFI	Syngenta Foundation India

SHF	Smallholder Farmer
STG	Small Tea Grower
STT	Short Term Training
TBI	Tea Board of India
TNC	The Nature Conservancy
ToT	Training of Trainers
TRIF	Transform Rural India Foundation

NOTES

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For further information, please contact:

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