



AGRI-ENTREPRENEUR ENTERPRISE PROGRAM

CREATING AGRARIAN PROSPERITY

**PROGRESS REPORT
SYNGENTA FOUNDATION INDIA**

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Executive Summary

1.0 Introduction

In an effort to improve economic conditions and quality of life for marginalized farmers, IDH The Sustainable Trade Initiative partnered with Syngenta Foundation India for the Agri-Entrepreneurship (AE) program. Beginning in 2019, the two organizations collaborated to achieve their mutual goal of rural prosperity and agricultural development. Based out of Nasik, Maharashtra, the project was geared towards creating 50 AEs who would provide key services such as quality input, access to credit, market linkage, and impactful advisory for sustainable agriculture.

With several AEs having set up their enterprises, the initial aim of increasing farmer profitability and rural employment is being worked towards through this project, as each AE services between 150 and 200 farmers. AEs promote new technology in farming, while increasing access to common commodities like seeds or pesticides, thereby making previously inaccessible services and common supplies more available.

AE enterprises have been started across multiple service lines ranging from dairy and fertilizers to nurseries and marketing. AEs generated the highest amount of revenues from collective marketing of grapes and market linkage of processed raisins. AEs earned 30% profit from raisin marketing, while making 15% profit off their other ventures. Thus, total AE incomes also increased from an average of INR 45,778 (~639 USD) from March-September, to INR 267,196 (~3729 USD) from October-December. Furthermore, it was observed that multiple AEs belonging to the same village, collaborated their efforts and frequently worked out of joint enterprises. An AE mentor training

was also conducted in collaboration with CABI on integrated pest management. This report herein gives an overview of the progress and current status of the AEs developed for the IDH partnership.

1.1 Objective

Small farmers in India are generally trapped in a vicious cycle of low productivity, high cost of credit, and no market connectivity. As a result, a huge amount of them tend to farm for purely subsistence. Preceding the AE intervention, a significant number of farmers in Nasik practiced subsistence farming as well. In order to increase the income of small farmers, an integrated approach of increasing productivity has to be adopted. Standalone interventions in productivity enhancement or introducing high value crops without linking to markets is highly damaging to farmers income, as the cost of cultivation increases significantly. Thus, linking them to markets and ensuring access to correct inputs has to be adopted. Syngenta Foundation India has been following this approach since 2009, calling this endeavor market-led-extension. The key to success of this initiative is developing and anchoring of local rural youth as agri-entrepreneurs, who provide all agricultural services to small-holding farmers.

The primary objective of this partnership is to increase the income of small famers by introducing modern agriculture technologies and connecting farmers to markets. The income of small farmers can be increased by adopting a combination of the following three approaches:

- a) To reduce the cost of cultivation,
- b) To connect farmers to markets and ensure higher prices for produce and,
- c) To improve access to irrigation and increasing the number of crops grown annually.

In order to achieve the primary goal of increasing small farmers' income, a set of change agents have to ensure the execution of numerous archetypes. The change agents in this prototype are AEs

who deliver agricultural services to small and marginal farmers, thereby improving their productivity and connectivity to markets to ultimately increase farmers' income.

1.2 IDH The Sustainable Trade Initiative

IDH The Sustainable Trade Initiative predominantly combats global issues such as climate change, deforestation, and poverty- issues that require public and private cooperation to be solved. IDH aims at uniting government and private companies in order to create solutions for global sustainability issues.

The organization creates and finances various sustainable action plans, all of which are directed at promoting and implementing sustainable practices at a large-scale. In 2018, IDH's initiative reached over 2.7 million small-holder farmers of tropical food and cash crops to improve their livelihoods, and increase the demand for sustainable products universally.

1.3 SFI AE Enterprise Program

With millions of small holder farmers, the biggest challenge is the effective delivery of technology and new innovations- the '*last mile delivery issue.*' Since 2014, Syngenta Foundation India has been working on an initiative termed the Agri-Entrepreneur (AE) Model to resolve this conundrum of the *last mile delivery*. Untapped potential of unemployed rural youth is put to use by identifying right youth, training and mentoring them for a period of two years. Agri-entrepreneurs engage 150-200 farmers in a cluster of 2-3 villages and act as one-stop service providers for the agricultural needs of small and marginal farmers.

Over the past 5 years, Syngenta Foundation has developed an entire ecosystem around agri-entrepreneurship. It starts with selecting suitable rural youth, training them, mentoring them and

helping them with access to credit, technology and services for a two-year period. Currently, there are 2666 AEs across 9 states and 5500 villages. By end of this financial year 2020, this number is expected to touch 5000 AEs and impact at least 600,000 small farmers.

2.0 Current Status

2.1 AE Dashboard

As part of SFI's AE initiative, rural youth is trained and mentors guide trained youth through starting their enterprises. Today, a total of 54 individuals were selected to be a part of the program. They were taken through short-term training programs as they were existing entrepreneurs. Additionally, supervising visits and campaigning initiatives were conducted to ensure the success of new AEs. Of the total 33 AEs from 21 different villages in the Nasik region remained with the program. Each AE covers approximately 203 acres. The villages they operate out of are, Bhendali, Bopegaon, Chehadi, Devgaon, Khedgaon, Kumbhari, Kurnoi, Nandur, Nasik, Niphad, Ozer, Pimpalas, Pimpalgaon Baswant, Pimplas, Pimpri, Rajapur, Ranwad, Shirasgaon, Shirwade Vani, Thergaon, and Umberkhed. A total of 2811 farmers were registered across all villages.

Name of Village	Number of AEs	Farmers Associated	Total Acreage	Acre Per Farmer
Bhendali	1	112	268	2.39
Bopegaon	1	87	190	2.18
Chehadi	1	78	158	2.02
Devgaon	1	45	142	3.15
Khedgaon	1	134	289	2.15
Kumbhari	3	309	735	2.37
Kurnoi	1	78	154	1.97
Nandur	2	119	328	2.75

Name of Village	Number of AEs	Farmers Associated	Total Acreage	Acre Per Farmer
Nashik	1	54	114	2.11
Niphad	2	190	564	2.96
Ozer	3	289	660	2.28
Pimpalas	1	85	187	2.20
Pimpalgaon Baswant	2	156	346	2.21
Pimplas	2	223	575	2.57
Pimpri	2	183	501	2.73
Rajapur	2	136	276	2.03
Ranwad	1	78	178	2.28
Shirasgaon	1	66	126	1.90
Shirwade Vani	1	87	193	2.21
Thergaon	3	190	426	2.24
Umberkhed	1	112	321	2.86
TOTAL	33	2811	6731	N/A

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

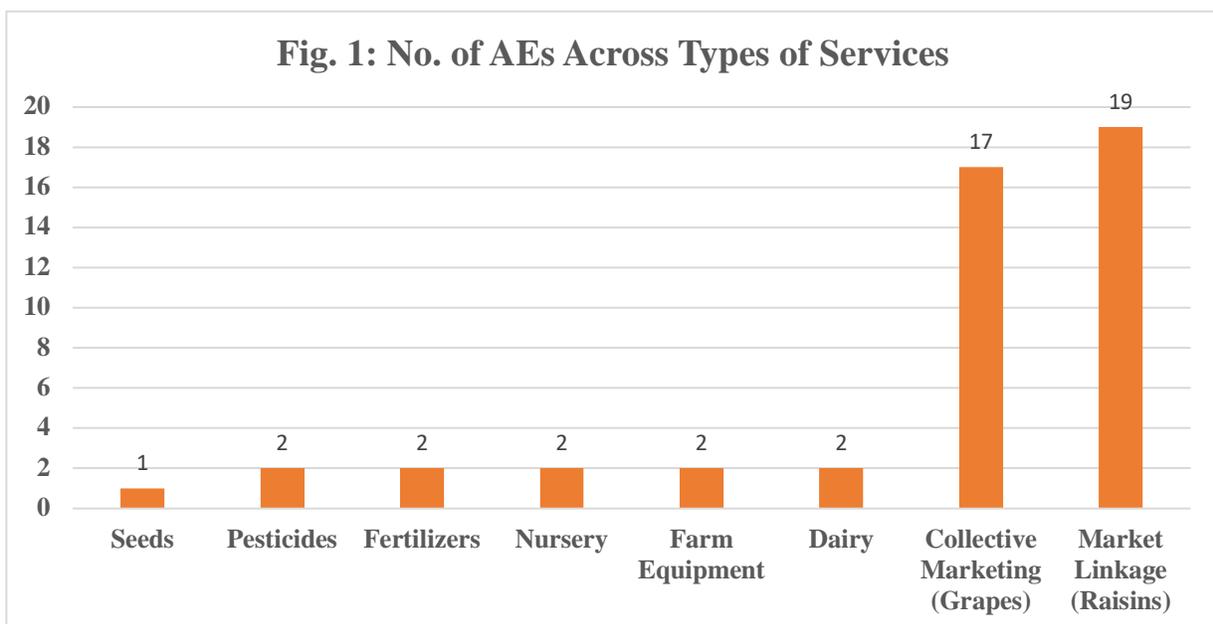
CASE STUDY 1: RUSHIKESH DHIKALE

Rushikesh Dhikale from Pimpri provided grape and raisin marketing services to his farmers and linked them to previously inaccessible cities like Mumbai and Pune. Before Dhikale’s initiative, tradesmen purchased produce from the farmers, who were charged 2% of their total transaction if they wanted their produce to be sold in metropolitan cities. Today, Dhikale saves his farmers the added cost by travelling to the cities and selling their produce. Dhikale not only provided market linkage services but also simultaneously ensured his farmers INR 10/kg above the market rate.

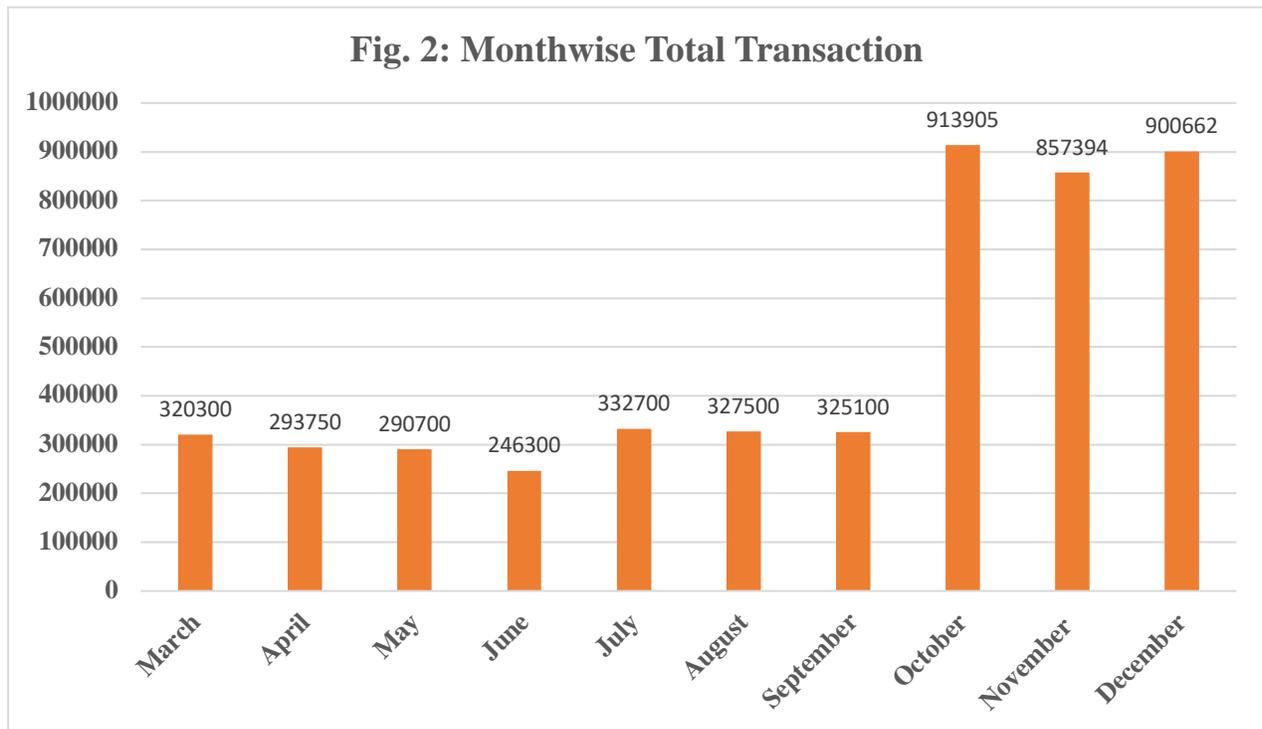


2.2 AE Service Portfolio

AEs are required to provide services relevant to their associated villages’ local needs. Out of the aforementioned 33 registered AEs, 24 reported regular transactions and associated data, and 3 solely provide raisin marketing and linkage services and report only seasonal data. In all it can be said that 27 AEs are actively involved in operations and in their association with SFI. The data procured was from March 2019 to December 2019. 70% of the AEs set up collective marketing centers for procuring grapes, while the most offered service was market linkage of processed raisins, with 79% of the AEs providing it. Collection centers were used for the abovementioned collective marketing, which are essentially storage facilities, wherein farmers are able to weigh their produce which is later sold by their AE. Market linkage is the process by which AEs sell produce for their farmers by transport and communication networks. This method is profitable for the farmers as they gain access to previously distant locations and cities through their AE, where the market rates are higher.



2.3 AE Income Growth



Starting from March 2019, transactions have grown over the year, concentrated around the season corresponding to the grape and raisin sale. The highest amount of revenue was garnered from collective marketing and market linkage. However, pesticide, nursery, and fertilizer services acted as steady streams of income for the AEs throughout the year.

As the AEs gradually set up new enterprises over the months, income increased rapidly toward the latter half of the year. Owing to seasonal variations, a prominent rise in AE incomes was noted in the last quarter of the year. During this period, incomes grew due to collective marketing of processed raisins. While the average total transaction of all AEs from March-September was INR 305,193 (~4,259 USD), the average total transaction in the last quarter of the year from October-December almost tripled (192%) and was found to be INR 890,654 (~12,429 USD).

AEs earned 30% profit from raisin marketing, while making 15% profit off their other ventures. Thus, total AE incomes also increased from an average of INR 45,778 (~639 USD) from March-September, to INR 267,196 (~3729 USD) from October-December. Amol Jadhav, one of the top-performing AEs stated, “My income before the AE program was about INR 200,000 (~2,789 USD) it has almost doubled to INR 400,000 now (~5,578 USD). I’ve received a lot of support for my new ventures and raisin marketing helped my income increase immensely.”

CASE STUDY 2: AMOL JADHAV

Amol Jadhav from Kumbhari excelled at Grape Marketing. He was able to successfully sell 50 metric tons of produce through the year, at INR 125/kg. Jadhav steadily grew his sales, and was selling as much as 8.5 metric tons of produce in a month towards the end of 2019. In addition, farmers benefitted from his ventures as Jadhav began providing an additional INR 2/ kg above the market price, which encouraged farmers to work closely with Jadhav.



Month	Seeds	Pesticides	Fertilizers	Nursery	Farm Equipment	Dairy	Collective Marketing (Grapes)	Market Linkage (Raisins)
March	0	41500	25200	27200	14000	34300	77600	100500
April	0	38400	28500	28000	24000	31500	75050	68300
May	7800	25000	19500	14000	0	0	61500	162900
June	0	15000	18000	52300	0	0	0	161000
July	10000	13000	20000	50000	0	0	0	239700
August	7000	31000	39000	43000	0	0	24500	183000
September	3000	50000	35000	30000	0	0	30000	177100
October	8500	120000	70000	88345	0	0	45600	581460
November	22100	122400	56700	74510	0	0	581684	0
December	19120	155000	65400	77440	0	0	583702	0
Grand Total	77520	611300	377300	484795	38000	65800	1479636	1673960

TABLE 2: Month-wise transactions by AEs across all services (INR).

During this partnership, the foremost focus of the AEs remained marketing. In the last quarter of the year, AEs shifted their attention from all other ventures in order to gain maximum revenues for themselves and their farmers from marketing and linkage services. International export of 2019 raisin crop from Nasik was made possible when links with companies such as Kaliya Export, Euro Fruits, and Freshdrop were established. Furthermore, domestic export links were established with companies such as NCDEC e-Markets Limited (NeML) and Mandi App.

As mentioned above, services like nursery, pesticides, and fertilizers proved to be stable sources of income for the AEs throughout the year. Loaning out farm equipment was a short-termed venture for most AEs because the demand for the equipment went down post the farming season. Being a seasonal venture, AEs will begin providing this service once farming season starts again. In the case of dairy farming, AEs were briefly selling aggregated milk to Amul Pvt. Ltd. but due to an abrupt termination of that market link, dairy farming was halted. Currently, AEs are attempting to procure a different variety of cows, known for higher milk production. With this increase in production the link with Amul Pvt. Ltd will be re-established. Overall, AEs were able to earn between 10% and 15% profit per transaction, but for services such as market linkage of grapes and raisins, AEs earned upwards of 30%.

Services	Average Income Per AE	Median	Duration Enterprise Was Operational (Mar-Dec 2019)
Seeds	3230	7400	7 Months
Pesticides	23741.67	39950	10 Months
Fertilizers	14670.83	31750	10 months
Nursery	19066.46	46500	10 Months

Services	Average Income Per AE	Median	Duration Enterprise Was Operational (Mar-Dec 2019)
Farm Equipment	1000	N/A	2 Months
Dairy	1312.5	N/A	2 Months
Collective Marketing (Grapes)	58418.16	53550	8 Months
Market Linkage (Raisins)	65560.83	161950	8 Months

TABLE 3: Service-wise average and median annual transaction per AE (INR).

CASE STUDY 3: SHAILESH KAWALE

Shailesh Kawale from Bopegaon began marketing a local variety of grapes called Sharad. He was able to efficaciously match the market rates of New Delhi at INR 78/kg. Furthermore, he secured payments for his farmers within 5 days of his sales, as compared to other firms, who took between 21 and 30 days to pay their associated farmers.



3.0 Impact on Farmers

Oftentimes, despite the availability of technology and innovations, farmers are unable to access these due to the *last mile delivery issue*. Technology is not effectively delivered to rural India and the smallholders that reside within the remote regions of the country. Thus, the aim of the AE initiative has been to improve access and thereby augment agricultural development in rural areas by improving farmer practices, thereby increasing their income.

In the Nasik region, farmers were given various opportunities by their AEs that helped them increase their annual revenue. In addition, their skillsets were honed through regular peer to peer learning opportunities, group meetings, pesticides spraying and tractor mechanization trainings, etc. AEs touched base with their farmers at least twice a month and conducted 1:1 meetings regularly as well. Furthermore, SFI arranged two workshops between an agricultural consultant and AEs along with their associated farmers to advise them about their initiatives and projects, and train them in aspects such as cropping patterns, accurate usage of pesticides and fertilizers, reduction in costs of cultivation, etc.

CASE STUDY 4: MAHENDRA MATSAGAR

Mahendra Matsagar from Pimplas provided pesticide spraying services for his 128 associated farmers. Furthermore, he provided these services using a safety kit and a hazmat suit, precautions that were not used previously when dealing with chemicals and pesticides.



The AEs habitually meet with the farmers to inform them about methods and practices that help reduce cultivation costs, spraying and fertilizing schedules so farmers can avail services, and pesticide control. Furthermore, associated farmers benefit greatly from market linkage, through which they cut costs of travel and packaging, which the AE does for them, in addition to having access to higher market rates. Various initiatives taken by AEs helped increase farmer awareness and better agricultural practices as well.

AE Campaign	Villages Covered	AEs Involved	Farmers Reached
Kharif Campaigning	4	7	305
Agri. Input	4	1	70
Nursery	7	2	115
Marketing	3	1	70
Mechanization	2	1	50

TABLE 4: AE Exposures and campaigning & farmers reached.

Farmers also reported the following advantages of being associated with their AEs:

- Regular engagement with their peers,
- Growth in income,
- Provision of high-quality seeds, fertilizers, pesticides, etc.,
- Access to better input and consultancy,
- Increase in agricultural knowledge base,
- New business opportunities and involvement,
- Access to metropolitan cities and higher market rates,
- Involvement with new traders,
- Reduced costs of cultivation,
- Payments delivered to farmers faster (weekly payments, as compared to previous monthly payments),
- Savings in costs of packaging and maintenance of produce.

Lastly, with AEs setting up their respective enterprises within the farmers' villages, access to high quality pesticides and fertilizers increased, which led to better quality crops and thus, higher incomes and better quality of life.



4.0 AE Training and Support

SFI's agri-entrepreneurship program was an initiative designed to augment farmer development. In order to do so, AE's are trained diligently to further handhold farmers in adopting best practices. Furthermore, AEs are required by the program guidelines to review and revisit initial training and standard procedures every three months.

4.1 Exposure Visits

Exposure visits, which are organized so AEs can meet with consultants or subject-matter experts to discuss skill-enhancement and get further trained, were regularly conducted.

- A visit was conducted for 6 AEs from 15th-16th March in Sangli. The visit was aimed at exposing AEs to progressive and advanced methods of grape production and cultivation. AEs were informed about the various varieties of grapes such as the SSN variety and Super Sonaka variety. In addition, they were educated about methods and techniques through which they could ensure higher and better-quality yield.
- On 25th July, an exposure visit with the Koromandal Group was conducted to train AEs about fertilizer application and scheduling, tomato cultivation, and methods by which to reduce costs of cultivation.
- Global Alliance for Mass Entrepreneurship (GAME) conducted a one-day workshop on the 12th of December in New Delhi, headed up by their founder and ex-Microsoft chairman, Mr. Ravi Venkatesan. Nano-entrepreneurs with growing enterprises were chosen to participate in the workshop, and were subsequently trained in entrepreneurial practices to help expand their businesses. 2 AEs from Nasik participated in the event.



CASE STUDY 5: GRAPE AND RAISIN MARKETING IN NASIK

India is amongst the top ten producers of grapes in the world. About 80% of India's grape production comes from Maharashtra. The total raisin production in Maharashtra until May 2019 alone was 1.85 lakh tons, which was 20% higher than the previous years.

Under IDH and SFI's partnership, a large part of which was focused on marketing, AE's became increasingly interested in grape production and subsequently, raisin marketing.

AEs in the Nasik region completed transactions of INR 3,153,596 (~44,030 USD) from March-December 2019. Shailesh Kawale, Harshad Gite, and Hrishikesh Dhikle from Bhopegaon, Kothure, and Pimpalgaon collectively sold 7,015 boxes of grapes to vendors like Kisan Mandi, Shete Traders, and Pune Weekly Bazaars in cities such as New Delhi, Varanasi, Bareilly, and Pune. Harsh Gite alone sold 6,389 boxes to the aforementioned traders.

AEs Dhyaneswar Pawar, Shailesh Kawale, Deepak Gangale, and Amol Jadhav did exceptionally well in the **international export of grapes** and raisins as well, and exported 10,120 boxes of 5 kgs each of grapes to traders such as Kaliya Export, Freshrop and Euro Fruits and earned a collective **profit** of INR 50,680 (~708 USD).

