

GOOD PRACTICES

Public Private Partnerships (PPP)

in Extension and Advisory Services (EAS)



Promoting Agri-Entrepreneurship (AE) through
Public Private Partnerships (PPP) in India

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Authors: S Baskar Reddy, Rajendra Jog, Parikrama Chowdhry and Aravind Thumbur

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August 2020



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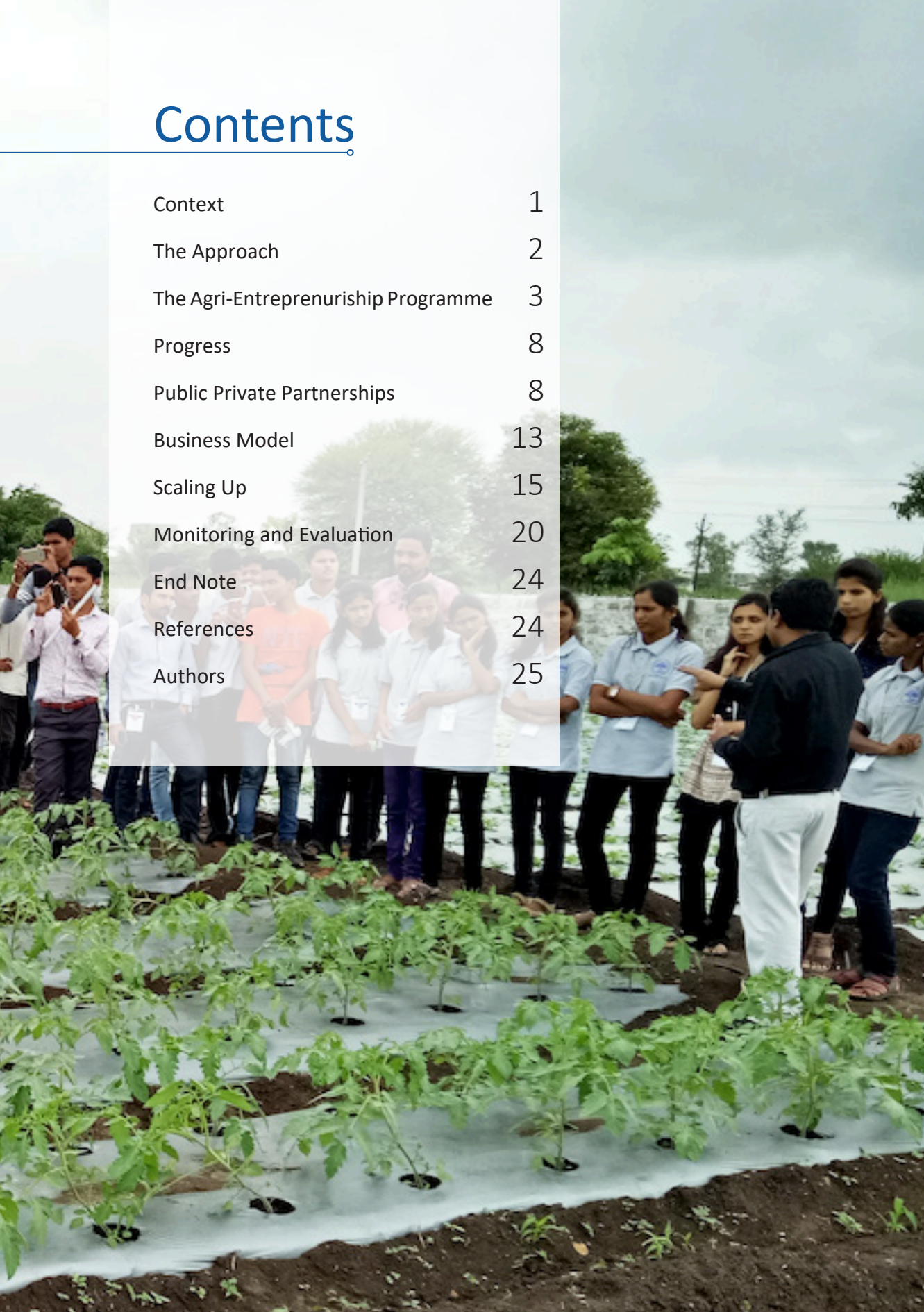
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Promoting Agri-Entrepreneurship through Public Private Partnerships in India

Provision of advice and other services related to farming at the village level is critical for enhancing the incomes of small and marginal farmers. Creation of an eco-system that can support the emergence of agri-entrepreneurs through delivery of these services at the village level is the only way forward if we are keen to enhance farm incomes. In this Good Practices Note, S Baskar Reddy, Rajendra Jog, Parikrama Chowdhry and Aravind Thumbur reflect on their experiences with developing and scaling up a model of agri-entrepreneurship by forging partnerships with a number of agencies.

CONTEXT

Small farmers in India are generally trapped in the vicious cycle of low productivity, high cost of credit, with no market connectivity, and as result, tend to be at the subsistence level of farming. Standalone interventions in productivity enhancement or introduction of high value crops without market linkages is detrimental as the farmer would have incurred more on the cost of cultivation with no prospect of better returns due to poor links with the market. Therefore, to increase the income of small farmers, an integrated approach of increasing productivity, together with market linking and also ensuring access to the proper inputs has to be implemented. The Syngenta Foundation India (SFI) has been following this approach since 2009; and the main reason for its success has been its focus on developing and anchoring of local rural youth as Field Extension Workers or Agri-entrepreneurs, who provide all agricultural services to small farmers.

Box 1: The Syngenta Foundation India (SFI)

SFI was founded in 2005 as an independent, non-profit organization (under Section 25 of the Companies Act), with the support of Syngenta Foundation for Sustainable Agriculture, Basel. SFI's mission is to promote sustainable agriculture among small and marginal farmers of India. SFI educates and enables farmers to adopt the latest agriculture technologies and agronomic practices best suited to local needs, thereby enhancing farm yield and household income.

To create transformational impact at scale, it created an Agri Entrepreneur Growth Foundation (AEGF) in collaboration with Tata Trusts as an independent, not-for-profit organization (Box 2).

Box 2: The Agri Entrepreneur Growth Foundation (AEGF)

AEGF was established in 2019 by Syngenta Foundation India and Tata Trusts. AEGF adopts a decentralized approach towards empowering rural youth and training them to become Agri-Entrepreneurs (AEs) in rural areas. By doing so, the AEs begin playing key roles in developing the agriculture of their surrounding regions. This initiative brings services, such as credit, market linkage, access to high-quality input, and crop advisory together, under one roof for associated farmers, who are able to avail previously inaccessible services and earn improved incomes. It aims at developing 100,000 AEs in the coming five years to ultimately achieve the goal of serving 20 million smallholders.

THE APPROACH

Rationale: Income of the small farmers can be increased by adopting a combination of four possible approaches.

- Reducing the cost of cultivation;
- Connecting farmers to markets and ensuring higher price for their produce;
- Improving access to irrigation; and
- Helping them to use modern agriculture technologies, thereby enabling farmers to cultivate more than one crop in a year (Figure 1).

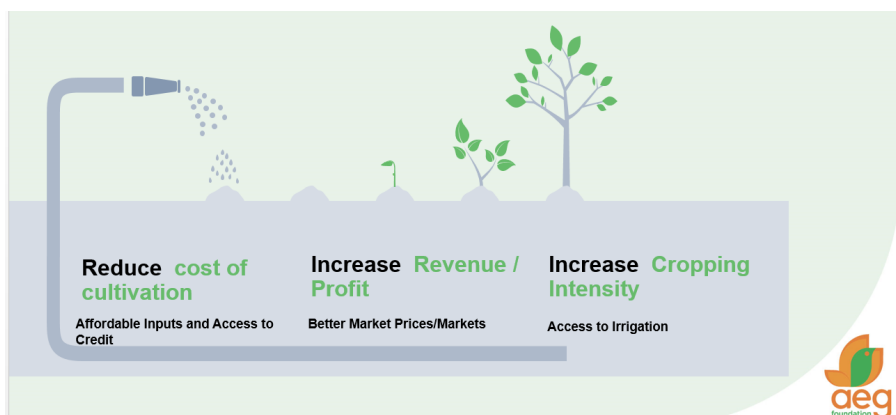


Figure 1: Possible scenarios to increase farmers' income



Broad Principles: This model will work on the two broad principles of aggregation of small farmers, and use of advisory as well as market connect to increase the income of small farmers. Aggregation of small farmers is the key to reducing the cost of inputs or increasing their bargaining power during the sale of agricultural produce. Use of information technologies will further boost the power of aggregation in taking swift and real time decisions.

Change Agents: To achieve aggregation and ensure advisory and market connect, a set of change agents have to be put in place. Change agents in this model are Agriculture Entrepreneurs (AEs) who provide all agricultural services to small and marginal farmers, thereby improving their productivity and connectivity to markets – and ultimately fulfilling the objective of increasing farmers’ income. An Agri-Entrepreneur is a local youth trained through a few one-time trainings and on the job grooming and training for at least a year. When trained as an Agri-Entrepreneur one rural youth has to handhold 150-250 farmers in a cluster of 4-5 villages and acts as a one-stop resource provider for the agricultural needs of small and marginal farmers. The AE has to be a native of one of those 4-5 villages in the cluster. An Agri-Entrepreneur has four critical functions:

- providing better quality inputs;
- providing knowledge and crop advisory;
- linking farmers to markets; and
- facilitating credit.

The AE also acts as a business correspondent for banks and facilitates agri-credit to small farmers. An AE derives his revenue by providing the above services to farmers.

THE AGR-ENTREPRENURISHIP PROGRAMME

The programme starts with the selection of youth who can be developed as entrepreneurs. The programme overview is presented in Figure 2.

Selection of AEs

SFI organizes campaigns including village meeting, handbill distribution, and putting up of posters to announce their call for candidates for the AE programme. Online platforms such as social media, Google form, etc., are also used for campaigning and collecting the data of probable candidates. Online mode is more important in these days of COVID-19 pandemic, as travel, social gatherings and personal contacts are restricted. After getting

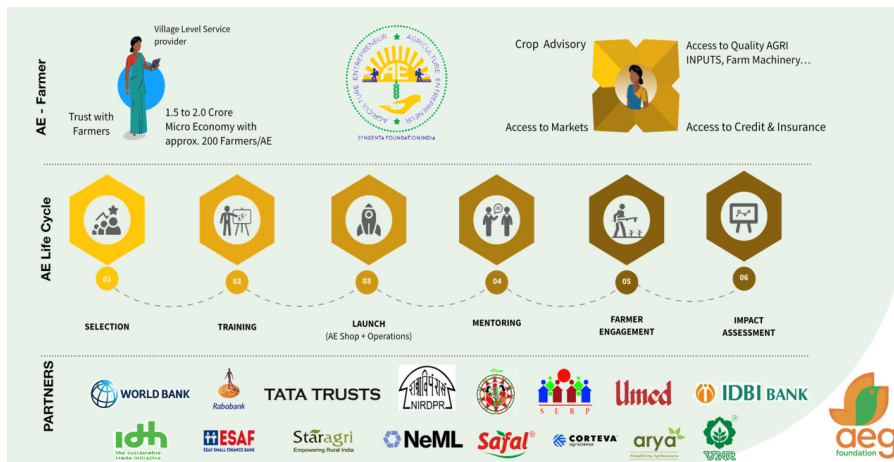


Figure 2: Overview of the Agri-Entrepreneurship Programme

the list of probable candidates, shortlisting is done based on the criteria mentioned below and the shortlisted candidates then undergo a small selection process, which is comprised of a written test, psychometric test, and a personal interview.

The following minimal criteria is considered while selecting a candidate for the AE role.

Education: While we started with 10+2 standard as a minimum qualification (which is ideal), we realized soon that a minimum completion of 10th standard schooling, with 2-3 years’ experience in farming activities at own or other farms is good enough for an AE.

Age: The minimum age should not be less than 20 years and the maximum age could be 30 years. Our experience indicates that candidates between the age group of 25-30 years are doing well and they have only a few dropouts as compared to the 20-25 age group.

Smartphone and Network: Candidates should have a smartphone with working knowledge of operating the same, and he should have access to a good 4G network.

Training

SFI organizes a 45 days training schedule, which included 21 days of residential training at any of its ten training centres established through partner model across Telangana, Andhra Pradesh, Jharkhand, Maharashtra



and Odisha. This is followed by farmer exposure and baseline information collection for 15 days coupled with practical exposure and business plan preparation. The detailed breakup of 45 days training is as follows (Table 1).

Table 1: Training components and duration		
No.	Training Component	Duration (Days)
1	Online training	25
2	On-field practical training & farmer engagement	15
3	Specialized training & business plan preparation	5

But currently due to the COVID-19 situation, we transformed ourselves for online training and practical exposure, which went up to 45 days. Under online training, daily 3 to 4 sessions of 45 to 50 minutes are organized using online platforms such as Zoom. After that there is an exposure visit, where candidates get to see the model and technology practically, and experience the impact first-hand. All the candidates are briefed about using the online platform and once they are comfortable, the actual training starts. Daily attendance is captured online. Two mid-term exams of 30 marks each are conducted every week, with a final exam for 40 marks. The candidate will also be given an assignment (20 marks) during the training and are evaluated by the project team. They will also be assessed based on their participation in the exposure visits (20 Marks) and 100 farmer’s enrollments at the field level (10 marks). Thus, each candidate has to go through a system with 100 marks theory and 50 marks practical assessment. He needs to score 60% combined in both types of assessment.

All the details of the batch will be uploaded on the Learning Management System on fifth day of starting of training. All the activities starting from batch upload, attendance, topics covered, and exams will be monitored online. The trainee should have a minimum attendance of 75% and the passing marks in all the exams is 60% which is compulsory for getting certification. After completing the exam, the practical exposure of the candidates, farmer data collection by AE, and short-term training on the archetype (Figure 3) selected, is also completed within 30 days of the end of online training sessions.

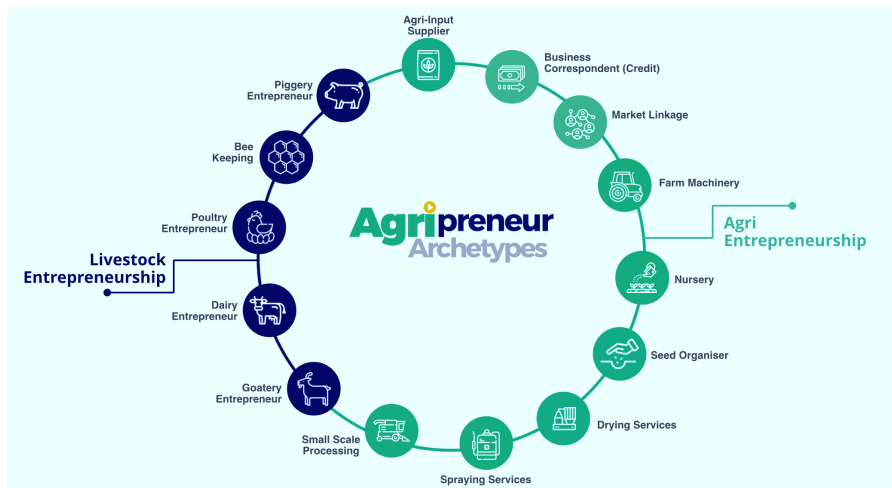


Figure 3: Agri-Entrepreneur Archetypes incubated by AEGF

The following facets of farming are covered in the training programme (related to crops):

- Crop planning;
- Land preparation;
- Sowing;
- Nutrition management;
- Irrigation management;
- Weed management;
- Pest management;
- Disease management;
- Intercultural management;
- Harvesting;
- Post-harvest management.

The crops on which we have been training AEs in various training centers are given in Figure 4. After the initial 45 days training of AEs, these AEs along with their mentors train their own set of farmers.

Apart from crop-specific content, we also train AEs on certain other life skills. This is done through micro-learning content developed for AEs (see Figure 5).

Crop 360° Life Cycle learning content in 7 Languages Telugu Hindi Oriya Marathi Gujarati Punjabi Kannada	 Vegetable Crops	 Food Crops	 Cash Crops	 Plantation Crops
	Tomato	Paddy	Cotton	Tea
	Potato	Wheat	Chilli	
	Cluster bean	Soya bean		
	Onion	Maize		
	Okhra	Groundnut		
	Brinjal	Bengal gram		
	Cabbage	Red gram		
	Capsicum	Black gram		
	Carrot			
Radish				
Cauliflower				
Ridge Gourd				
Sponge Gourd				
Cow Peas				
Water Melon				
Snake Gourd				

Figure 4: Learning content developed for the AE Enterprise Programme





 Soft Skills	 Entrepreneurship	 Financial Literacy	 Digital Skills
Living a Meaningful life	Developing SMART Goals	Maintaining Daily Records	Making USSD payments
Reading Body language	Assessing Business Risk	Managing Physical Inventory	Making AEPS payments
Effective Google Search	Making Pricing Strategies	Maintain Cashflow & Credit	Using Credit & Debit cards
Effective use of Time	Writing a Business Plan	Managing Working Capital	Mobile Wallet Payments
Question your Thinking	Assessing Credit Risk of customers		
Keeping life Organized	Making Marketing Plan	Digital Payment: Best Practices	
Achieving Continuous Improvement		Digital Payments: Suraksha Awareness	
	Using a eCRM software	Managing Costs	
	Managing Aging Debtors		
	How to Improve Collections		
	Getting Repeat Business		
	Giving good Customer Service		
	Doing an Internal Audit		
	Understanding Profit & Loss		

Figure 5: Development Modules taught in the AE Enterprise Training Programme

Mentoring and Hand-holding

The AE gets course material during training, which covers the fundamental aspects of Agriculture. Mentoring support and continuous hand-holding is also provided to AEs through Agri-Entrepreneurship Mentors (AEM) for 2-3 years till the AEs get established. Regular refresher training is also given to AEs so as to enhance their knowledge which can then be conveyed to farmers. AEGF also facilitates market connect with different agri-input companies, market off-takers, commercial banks, Non-Banking Financial Companies (NBFCs), government institutions, Krishi Vigyan Kendras (KVKs), etc. While, AEs have been trained by the faculty through audio visual aids in the initial training, after that they are frequently trained by the local project leader, agronomist and AE Mentor. While training farmers, we are presently using flip charts and handouts but we want to develop comprehensive, audio, visual and interactive digital tools while training farmers and development of these types of tools is in the initial stages. (This could, for example, be the development of a tool where a farmer can actually see the impact of INM and IPM management practices on his yield and thus income).

PROGRESS

Since its inception in 2014-15, the AE programme has expanded and so far anchored 2700 AEs who are currently engaging with 3.09 lakh farmers across India. The progress over the years is indicated in Figure 4 and the state-wide presence is presented in Figure 6. The current status of the AE programme is indicated in Figure 7.

PUBLIC PRIVATE PARTNERSHIPS

A major reason behind the success of this programme is the range of partnerships the SFI/AEGF developed with several organisations to support, strengthen and expand this model. Choudhary Charan Singh National Institute of Agricultural Marketing (CCS-NIAM), Jaipur, and the National Institute of Rural Development and Panchayat Raj (NIRDPR), Hyderabad, are involved in supporting the AE Programme. Both the national organizations in collaboration with Syngenta Foundation trained the mentors and faculty who then trained the Agri-Entrepreneurs. They have also been supporting in evaluating the programme in various regions. Both the national organizations have been also certifying the Agri-Entrepreneurs which help them in getting licenses for selling agri-inputs. The respective roles of SFI/AEGF and CCSNIAM/NIRDPR are illustrated in Table 2.

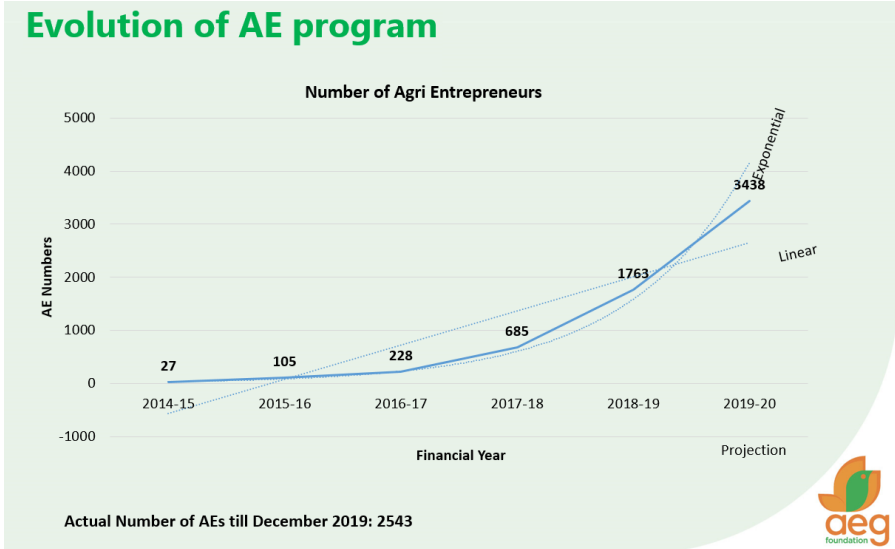


Figure 6: Growth of Agri-Entrepreneurs over the years

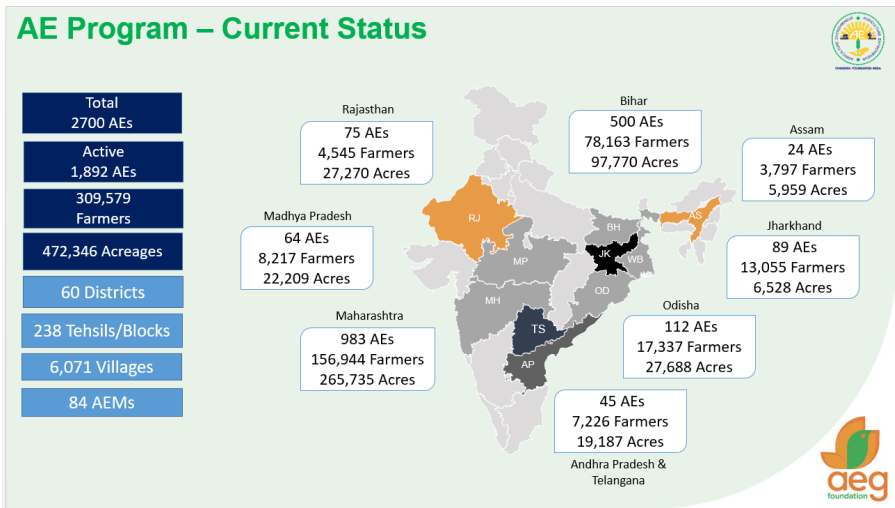


Figure 7: AEs and Farmers supported in various states of India

No.	Nature of Activity	SFI & AEGF	CCS NIAM & NIRDPR
1	Campaigning & mobilization of AEs	✓	
2	Screening, selection and trainings	✓	
3	Training of the Trainers and oversight on all trainings		✓
4	Certificate for AEs		✓
5	Communication to all states for licenses (seeds, pesticide and fertilizer) for AEs		✓
6	AE-Enterprise Training of AEs	✓	
7	AEMs to mentor AEs		
8	Access to credit, market for qualifying AEs	✓	
9	Impact assessment and monitoring and evaluation	✓	✓

SFI/AGEF has also collaborated with Jeevika of Bihar, Society for Elimination of Rural Poverty (SERP) of Andhra Pradesh, Jharkhand State Livelihood Promotion Society (JLPS) of Jharkhand and UP Livelihood Mission (UPLM), to turn their field resources into Agri-Entrepreneurs so that farmers can have access to knowledge, inputs, etc., as envisaged in the model. The respective roles that these agencies play are presented in Table 3.





Table 3: Engagement with State Livelihood Mission

No.	Nature of Activity	SERP/ Jeevika/ JLPS/UPLM	SFI/ AEGF
1	Campaigning & mobilization of AEs	✓	✓
2	Screening, selection and trainings		✓
3	Training of the Trainers and oversight on all trainings		✓
4	Certificate for AEs		✓
5	Licenses (seed, pesticide and fertilizer) for FPOs	✓	
6	AE-Enterprise Training of AEs		✓
9	Project Officers/Cluster Coordinators to manage AEs	✓	
10	Access to credit for qualifying AEs		✓
11	Capital for agri-input shop/kiosk	✓	
12	Service fee for agriculture services by AE	✓	
13	Impact assessment and monitoring and evaluation	✓	✓



SFI has also partnered with several other agencies, such as Rabo Bank Foundation, IDH, Tata Trusts (philanthropic partners) and their roles are presented in Table 4 below.

Table 4: Partners and their roles and responsibilities		
Domain	Partners	Roles and responsibility
Agricultural Input	Nuziveedu Seeds, Mahyco, UPL, Syngenta, Bayer, Corteva, VNR, Seminis, Nunhems, Sungro Seeds	<ol style="list-style-type: none"> 1. Collect the bulk demand for seeds, pesticides and fertilizers 2. Fulfill the collected demand for seeds, pesticides and fertilizers from the farmers through AEs 3. Provide better rates as compared to the local vendors 4. Trial and demonstration of the best varieties of crops/pesticides or fertilizers through AEs
Agricultural Input	ADM, Amaizz, Kamatan, Big Basket, Go4Fresh, MandiApp, StarAgri, Agri Bazaar, Arya Collateral, Reliance Fresh, Synergy, Safal (Mother Dairy), NeML, OurFood, Ninjacart	<ol style="list-style-type: none"> 1. Provide training to the AEs and farmers on sorting, grading and packaging practices 2. Provide collateral or warehousing services 3. Off take of agri-produce being grown by farmers through AEs 4. Ensure timely payment to the farmers 5. Door step delivery of the procurement through AEs



<p style="text-align: center;">Credit Facilitation</p>	<p>State Bank of India (SBI) IDBI Bank, Spice Money, IDFC Bank, JSCB Ranchi, Samaaru, ESAF, BankIT, GramCover Insurance</p>	<ol style="list-style-type: none"> 1. Provision of Mudra loan, viz., Shishu, Kishor, etc., to the newly grown AEs 2. Provide Kisan Credit Card support through AEs by becoming BC of the banks 3. Provide digital banking services – right from depositing the amounts into the farmers’ accounts, booking tickets, doing different recharges for the farmers, etc., through micro ATM kits 4. Provide loan to a group of farmers through JLG system 5. Provide cover to the farmers through different health, life and accident insurances via insurance companies 6. Corporate credit provision to the established AEs for working capital 7. Provide assistance to the FLDG (First Loss Default Guarantee) Scheme designed by SFI/AEGF for the AEs
<p style="text-align: center;">Skill development</p>	<p>KVK Bansur, KVK Bundi, (Rajasthan) KVK Ranchi, (Jharkhand) KVK Sagroli, KVK Baramati, (Maharashtra)</p>	<ol style="list-style-type: none"> 1. Training and demonstration: Training AEs at KVK premises. KVK in Ranchi (Ramkrishna Mission), KVK Bundi, and KVK Alwar in Rajasthan are providing training support to the AE programme KVK, Sagroli Nanded is engaged in end-to-end farm level activities, including demonstrating crops, new technologies, etc. 2. Allot SMS to the local areas for extension activities 3. AEs are also supported through KVK on soil testing and improvement of crop yield in the respective areas 4. Develop 100 AEs

BUSINESS MODEL

The Agri-Entrepreneur model starts with onboarding relevant candidates for incubation and they are monitored at each stage, such as operationalization, business maturity, and business growth as shown below in Figure 8.

SCALING UP

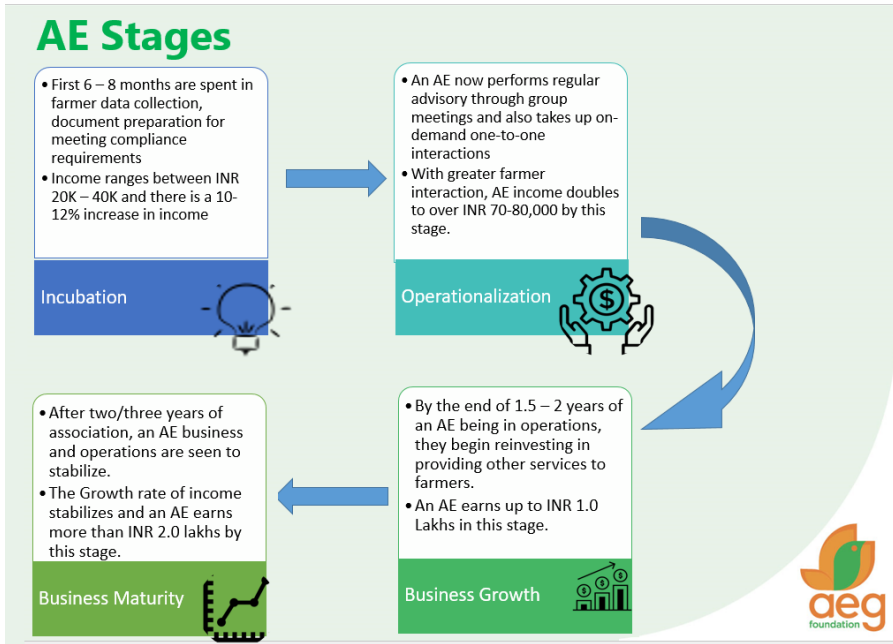


Figure 8. Stages in the development of an Agri-Entrepreneur

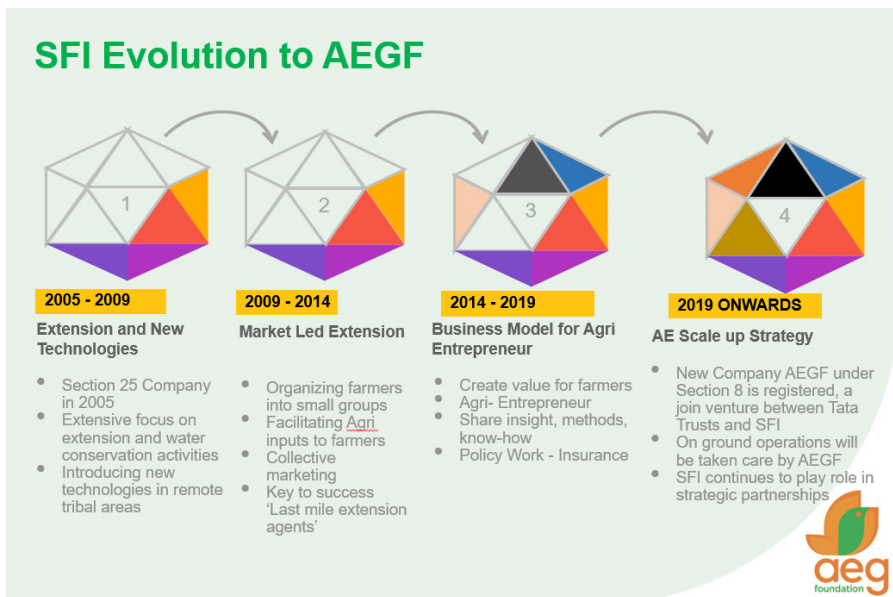


Figure 9. Evolution of Syngenta Foundation AE Programme into AEGF.



The SFI model of agri-entrepreneurship have evolved into the AEGF model based on learning from the previous initiatives as illustrated in Figure 9. The timeline on evolution of the programme is presented in Table 5.

Table 5: Timeline on evolution of programme			
Year	Month	Partner Organisation	Action
2014	June	SFI Pilots	29 AEs incubated across Maharashtra and Odisha
2015	May	IDBI Bank	Facilitating easy credit to farmers and AEs
		SFI Pilots	52
2016	April	SFI with local partners across Maharashtra and Odisha	105 AEs incubated with Kartavya Foundation and Pragati Pratishthan
	February	NIRD&PR	Accreditation of AE training
	July	Transform Rural India (TRI)	Expansion of AE Programme in Jharkhand
	August	IDBI Bank	Target of 500 AEs nationally to be completed by 2020 in partnership with IDBI Bank
	December	Kuza	Technology partners on-boarded for the introduction of Digital Kits to AEs

2017	April	Tata Trusts	Plan for creating 100,000 AEs and 20 million farmers
	September	Bihar Rural Livelihood Program (JEEViKA) on-board	MOU for piloting with 200 AEs across 5 districts in Bihar
	October	Society for Elimination of Rural Poverty (SERP), State Rural Livelihood Mission, Andhra Pradesh	MOU for establishing 100 AEs across 2 districts
	November	Kuza	Launch of Digital Tools
2018	January	Tata Trusts	MOU with Tata Trusts for 100,000 AEs
	February	Rabo Foundation	Funding
	March	500 AEs with over 75,000 farmers onboard	
	April	Training Content digitised	
	July	Maharashtra State Rural Livelihood Program (UMED), Government of Maharashtra	MOU signed for 200 AEs
	August	Credit Guarantee Fund for AE Loans for 580 AEs across 7 states	
2019	April	1721 total AEs trained and incubated across all partners and organically on-boarded AEs, with 230 women AEs, across 14 services creating a micro-ecosystem of over 2500 crores	

We believe that we can anchor AEs in 320,000 villages in the country (50 per cent of the total of 640,000 villages in India) in the next 2-3 years. There is scope for setting up at least four different broad categories of AEs in each village as mentioned below:

Category 1: Agri-inputs, nursery, spraying services, soil testing, vermi-composting;

Category 2: Digital banking, rural insurance, marketing services and village processing;



Category 3: Bee-keeping, dairy, poultry, animal feed, veterinary services;

Category 4: Farm machinery services.

Scope for setting up all four categories of AEs in every village might be a remote possibility, but we can conservatively assume that at least 2 categories of AEs can be set up in each village. This means that we can anchor 640,000 AEs in 320,000 villages in the next 2-3 years. Taking a conservative approach, we will be able to achieve the goal of 500,000 AEs.

Some of the frequently asked questions (FAQs) on the AE Model are discussed in Box 3.

Box 3: FAQs

AE to Farmer Ratio

Ideally, the potential is there for up to 2-3 AEs in each village, providing a varied array of services to the farmers, such as Agri-Inputs, Output Marketing, Digital banking, Custom Hiring Centres, Nursery, Poultry, Dairy, Beekeeping, Vermicomposting, etc. AEs should involve farmers in such a way that they will get enough income for at least 9-10 months per year. On average, each AE works with approx. 150-200 farmers, but this number also varies based on the model he is involved in – for nursery it will be 50-60 farmers, for output marketing it may go up to 300-400 farmers, for custom hiring centres (CHCs), it will be 40-50 farmers, and so on. An AE operates individually, but he provides a set of services to about 50-200 identified and unique farmers based on the archetype. The number is restricted for each set of services so that he gets time for extension service, which is a must for the AE programme.

AE Gestation Period

Gestation period depends on the archetype the AE is involved in, but it is a minimum of 45 days as the training and orientation itself is of 45 days' duration. In the simplest case, without any gestation period, an AE can start operating and earning revenues within seven days of completion of training and with minimal investment is Digital Banking. For Agri-Inputs it takes at least 90-120 days as after completion of training, he needs to get the statutory licenses, which usually takes 45-60 days. Nursery also has less gestation period, and one can start his/her nursery by investing 30-40 thousand rupees of

initial capital, which will start generating revenue after 30-35 days from completion of training as setting up of the nursery will take 5-7 days. After that seedlings will take 21-25 days for attaining the right stage to become marketable. The tentative gestation period without including training of 45 days for various archetypes are as given below:

- a) Agri-Inputs: 45-60 days;
- b) Output Marketing: 5-20 days;
- c) Nursery: 30-40 days;
- d) Custom Hiring Centres: 15-20 days;
- e) Poultry: 150-175 days (layer), 45-60 days (broiler);
- f) Vermicomposting: 80 days;
- g) Beekeeping: 160 days;
- h) Digital Banking: 7 days;
- i) Small scale processing: 45-60 days;
- j) Seed production: 120-150 days.

AE-farmer engagement

As the prime objective of this AE programme is to increase the income level of marginal and smallholder farmers through extension, input and market services, AEs have to be in touch with their clients. Extension services and knowledge transfer are the pillars of this programme and each AE is expected to meet his client farmers at least once a week in the initial stage. This meeting can be on a one-on-one basis or in the form of small group meetings. At a later stage, once the awareness level of the smallholder farmer is enhanced, this outreach can be once in a fortnight. Farmer engagement starts from the day AE completes training. All AEs must capture the baseline information of the farmers in a set format, and based on data collected, they will decide on the model to be used. A business plan for an AE is also developed based on data captured. AE engagement with farmers is majorly offline through home and field visits, and rarely through online channels.



AE-Is it always a physical shop or a combination of virtual and physical?

It depends on the archetype. If AE is involved in Agri-Input, he needs a physical shop to get the licenses. An AE involved in Digital Banking can operate from home. An AE involved in Marketing may work through both the types – either work through a collection center where farmer comes with their farm produce or they can collect that from the farmer’s farm gate without having a physical shop.

Income of AE

AE income depends on the archetype and years of business; it ranges from INR 2000 to INR 50,000 per month. We expect an AE to put in their money for starting the entrepreneurship. AEGF also links them to the financial institutions for credit support by providing FLDG and even to the various government benefit schemes. AEGF is not directly involved in any commercial engagement with AE/Farmers.

Changes during COVID-19

The basic concept and the model of the AE programme remained the same post-COVID-19. In this challenging time, we have ourselves selected a few of the processes wherein earlier we were doing face-to-face interviews or in offline mode we have now changed to online mode. This is for screening and selection, training of new AEs, refresher training of old AEs, data collection from farmers, etc., using various digital tools. Many AEs have started working as banking correspondents for various companies post-COVID, so that they can help farmers in getting necessary banking services at their doorsteps. Almost 60 per cent of the business transactions done by AEs post-COVID-19 is through online mode as compared to only 30% pre-COVID-19.

MONITORING AND EVALUATION

With regard to the regular meetings that AEM and AEs have, a fortnightly meeting is organized at the AEM-AE level where all AEs come together on one platform and share their experiences. All projects have their monthly meeting to get updates from all AEMs about their work. Fortnightly updates are shared by the project team with the central operations teams so as to apprise them of on-ground achievements and challenges, if any. Monthly transactions are also captured and shared with the central team which help in assessing the progress of an individual AE. The various information exchanges and their frequency are given in Table 6 below.

Table 6: Information exchange and frequency		
Meeting Type	Frequency	Report shared with
AE-AEM individual meeting	Regularly (every week)	Project lead
AE-AEM meeting	Fortnightly	Project lead
Project monthly meeting	Every month	Central operation team
Quarterly progress report	Every quarter	Central operation team

We have stop rules for the AEs in operation in order to check on their performance and programme health. AEs are removed from the system if they are not following the requisite guidelines. The various stop rules that we follow are as follows:

- AE well-established and in continuous business for three years or more (self-sufficient);
- Achieved turnover of INR 40 lakh/year or more; or less INR 5000/year after two years;
- Not in business/contact with AEM for 6 months or more;
- Non-compliant/illegal business activity;
- Involved in any activity, which is not part of our AE archetypes;
- Has stopped doing farmer level engagements;
- Has defaulted with any of the programme partners.

We also encourage all the many stakeholders in the programme to share their views and feedback, and we have been proactively acting on these feedbacks. It is an open environment where we work and we encourage all involved



in the programme to share their views. The same goes for farmers with whom we are closely connected. We have a centralized call centre where we regularly capture their feedback on the kind of services provided by the AEs. We also gather information on the areas where farmers need intervention and support. Today we are working on 15 plus archetypes only because of the feedback that we have received from the farmers for which they need our help and support.

Measuring Impact

We are using the following indicators to measure our impact:

- 20% Increase in AE income and profitability;
- Increase in yield through comparative tests;
- Improved soil health of farms of served farmers, based on random sampling (moisture content and organic matter);
- Reduction in cost of cultivation by different means viz., introduction of mechanization services, provision of quality and cost effective agri-inputs to the farmers, introduction of best agricultural practices which have productivity enhancement characteristics, etc.;
- Crop resilience against pests (visual monitoring);
- Improved adoption of sustainable/regenerative agricultural practices by farmers.

The farmers' feedback is being collected through the baseline survey. The baseline indicators were captured at the start of the farmers' engagement and the major points raised were as follows:

- Major challenges being faced by farmers in the current crop scenario;
- Current income sources and income from the agriculture;
- Farmer demographic information;
- Family information;
- Farm and agricultural information;
- Socio-economic information.

At the time of the impact assessment the same information was collected to understand the impact of the AE programme's interventions. The farmer impact uncovers the following points:

- Quality output of the sown crop;
- Adopted new crop variety;
- Increase in yield;
- Better price realization;

- Access to quality input;
- Improved pest/disease management;
- Adopted new crop;
- Better/improved market linkages;
- Affordability;
- Increase in source of income;
- Post-harvest activity;
- Access to improved agro technologies;
- Transportation facilities;
- Better infrastructure.

To know more about our impact, kindly see the findings from the impact study done by NIRDP, Hyderabad, on AE assessment: http://nirdpr.org.in/NIRD_Docs/annualreports/AnnualReport%202017-18n.pdf (Page 27).

A woman Agri-Entrepreneur – Rita Devi – has received a National Mahila Kisan Award for being an inspiring woman on 2 January 2019. Another woman AE, Kavita Patil from Palghar, improved her life and the lives of many other farmers (see Box 4).

The SFI/AEGF model of promoting agri-entrepreneurs has several advantages compared to other approaches promoting agri-entrepreneurs (Table 7).

Table 7: Comparison of SFI/AEGF Model with other approaches promoting agri-entrepreneurship	
Agri-Entrepreneur (SFI/AEGF)	Other Agri-Entrepreneurs
Market creation is the main objective	Market displacement happens
Local youth are trained	May not be the case
Works on buying capacity through credit	Capitalizes on existing buying capacity
Skilled on the needs of local community	Academically skilled at a higher level
Replicable business model	Scaling-up for individual entrepreneur is the growth
Customized for under-developed markets	Mostly concentrated at developed markets

Box 4: Kavita's shop is improving her life and that of other farmers

In the two years since Kavita joined Syngenta Foundation India's (SFI) Agri-Entrepreneur (AE) programme, she has seen her community in India's western Maharashtra State develop through improved agriculture. Her family's income has also increased, and she herself has become an employer as her business has grown. Kavita's shop sells farm inputs, such as seeds, fertilizers, and pesticides to around 215 local farmers. They know they can buy quality products there, as well as access advice and information on both growing and marketing their crops.

Another vital element of the AE's role is providing access to agricultural credit, which is frequently a major obstacle for small farmers. SFI has partnered with IDBI Bank, which provides loans for farmers that are facilitated by the AE – right from initial application to



repayment. Known as the Kisan Credit Card, farmers receive loans made up of 80 per cent credit that must be spent at the AE's shop, with the 20 per cent balance given in cash. This system ensures good use of the credit, generates income for the AE, and keeps IDBI in close contact with its rural customers.

Kavita is helping to trial a tablet-based enterprise resource planning tool for tracking her clients' loans and purchases. With her diploma in agriculture and the fact that her family already owned a small stationery and general store, Kavita was already well-known in the community. This familiarity has helped build trust among local farmers which has been central to the success of the AE programme. They know she can connect them to a dozer owner and also introduce them to traders from Mumbai who will pay for their crops direct from the field.

The demands on Kavita's time as a shopkeeper, farmer, AE, and mother of two have become so great that she now employs someone to help her run the shops. She is using her increased income to invest in her businesses and in her children's education.

END NOTE

Most of the small and marginal farmers need integrated support combining advice, services, and access to both input and output markets to enhance their income from farming. We believe the presence of trained agri-entrepreneurs will facilitate the provision of a variety of services that farmers need at the village level. We are becoming aware of AEs who in the second year of their association with farmers, have started expanding their service and is also providing advisory for adopting new crops. Farmers associated with them are seeing an increase in income and this is attracting other farmers towards adopting suggested practices and are also using AE services. Agri-input companies are recognising the AE model as a mechanism to directly reach small farmers with inputs and services, and this is also acting as a check on the sale of spurious products by local companies.

Trained AEs also ensure that the package of practices are clearly communicated to farmers. As the places where SFI/AEGF works are under-developed markets, the Agri-Entrepreneur becomes a medium for developing the market. Market development is analogous or reflects the increase in incomes of farmers. Furthermore, through Agri-Entrepreneurs banks/financial institutions have discovered a medium for financial inclusion.

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