



IMPACT STUDY OF THE AGRI-ENTREPRENEURS PROGRAMME

INDIA 2016 - 2017

SUMMARY

October 2017

INTRODUCTION

This report summarises a study on the impact of Syngenta Foundation India's (SFI) Agri-Entrepreneurs (AE) programme which was conducted from May to September 2017. The impact assessment set out to determine the benefits for both farmers and AEs associating with the programme, as well as its wider impact on local communities. Data was gathered through interviews with farmers associated with the AE programme, as well as farmers who were not, and AEs themselves in the following states: Maharashtra and Odisha.

THE AGRI-ENTREPRENEURS PROGRAMME

In 2014, SFI began its AE programme to create employment for rural youth and to increase farmer income. The AE programme is part of the approach of developing scalable and sustainable business models to foster local agricultural development. It selects and trains local youths who go through an intensive 45-day residential programme to become Agricultural Technology Assistants (ATAs). Then, focuses on three or four local dominant crops and covers agronomy, plant protection, markets and bank linkages, with skills relevant to their particular region. ATAs then complete an internship lasting from 15 days to 1 month, before becoming an AE and running their own retail business: providing crop advice, selling farm inputs and linking smallholders to markets. They also facilitate access to agricultural credit provided by national banks like *Industrial Development Bank of India* (IDBI), (60-80% of which must be spent at the AE's shop). AEs act as the bank's business correspondents and receive a commission on the credits they facilitate. Each AE works with 150-250 farmers in a cluster of 4-5 villages and acts as a one-stop shop for the agricultural needs of small and marginal farmers.



Young Agricultural Technology Assistant commencing a 15-day internship with Ravindra Benda, an established Agri-Entrepreneur

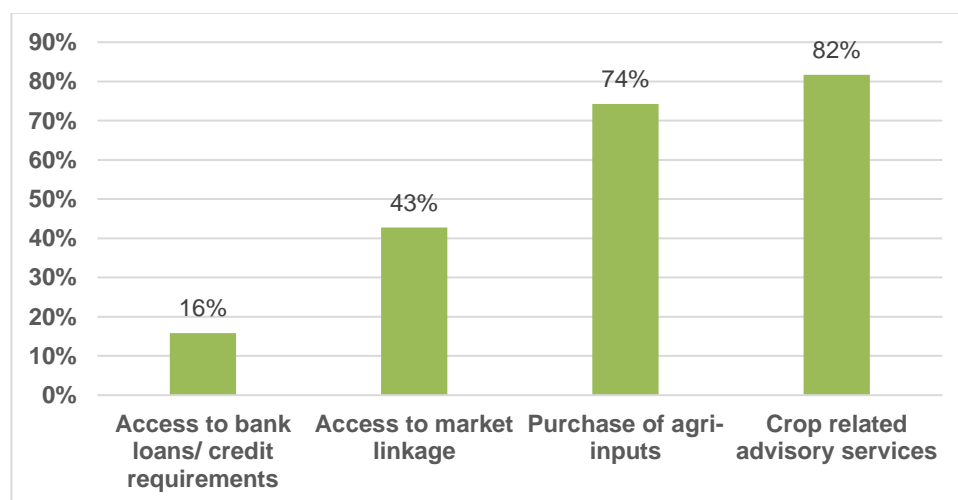
The scheme currently operates in four states : Maharashtra, Odisha, Andhra Pradesh and Madhya Pradesh in India's north and east, where 228 AEs help smallholders who face a range of challenges. These include small land holdings, limited access to machinery and irrigation, outdated farming techniques, low yields, post-harvest losses, lack of access to credit and weak supply chains, among others.

KEY FINDINGS FOR AGRI-ENTREPRENEURS

A growing number of farmers

The number of farmers associated with an AE has increased continuously over the years. Between 2014 and 2017, the average number of farmers associated per AE has increased by 145%. The intensity of the services provided by the AEs in 2016 was greater for crop-related advisory services and sales of agri-inputs than market linkages and access to credit.

Chart 1: Services provided by AEs to farmers
in percentage (FY 2016)



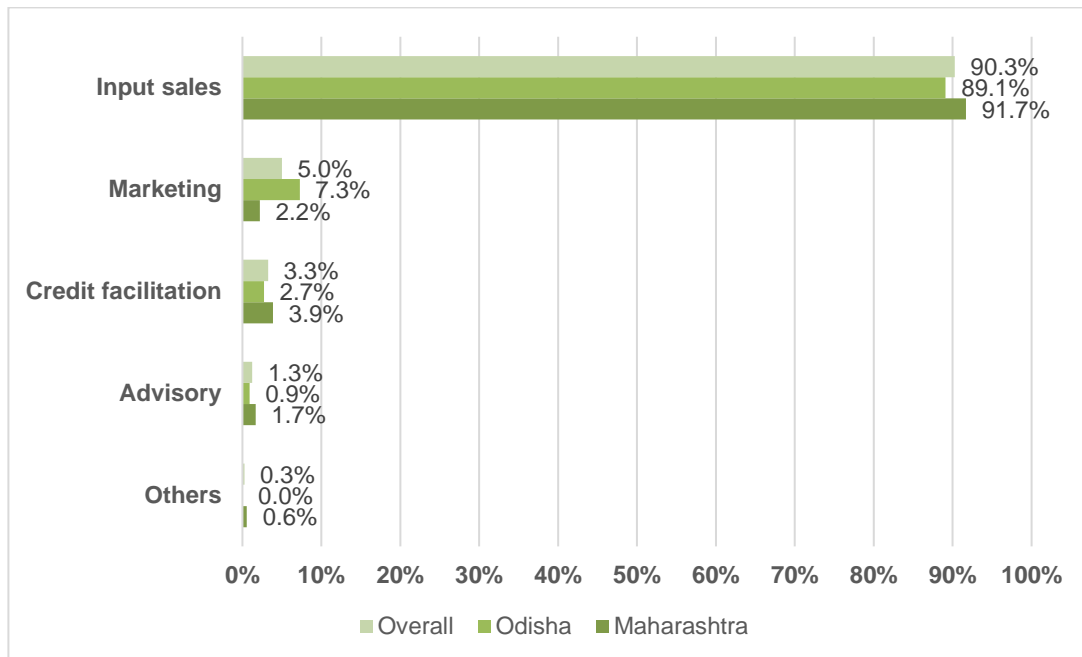
An increase in net income

All AEs reported an increase in annual income since joining the programme. The additional income of an AE after associating with the programme was INR 0.137 million (almost 2000 USD) in Maharashtra and INR 0.165 million (2400 USD) in Odisha for the FY 2016-17. Most of the AEs' revenue came from input sales, followed by commission on access to credit and market linkages. In most cases, advisory and extension services are provided for free to farmers.



“Association with the AE program has changed my life as I started earning more; I could provide better household facilities to my daughter and wife. When I started, only 25 farmers were associated with me in the first year, but now a total of 175 farmers are associated with me and they trust me for my services”.
Sudhir Bandhu Padrey, AE

Chart 2: Revenue streams for AEs
 in percentage (FY 2016-17)



Enhancing technical knowledge

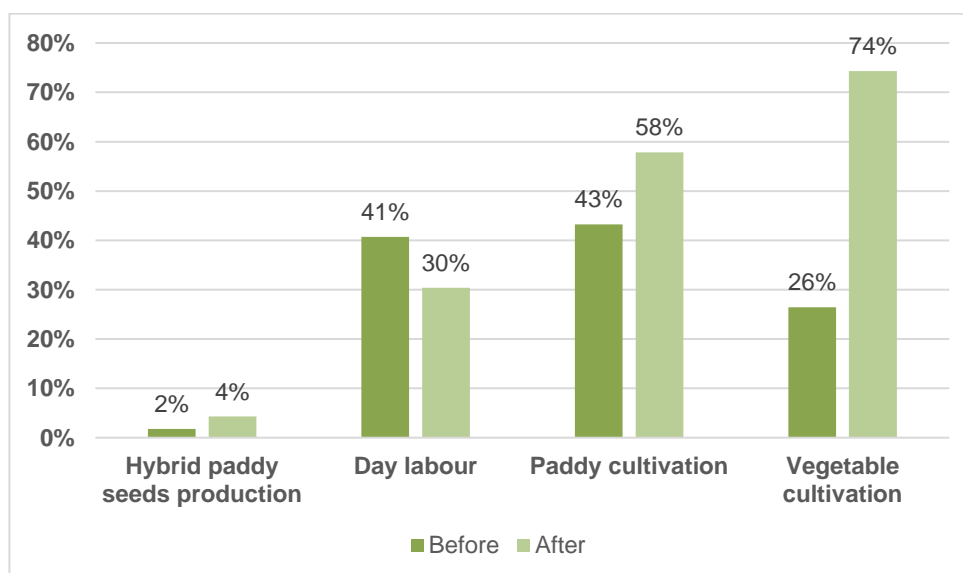
AEs all agreed that their knowledge of agricultural production and marketing had been enhanced by the training provided by the programme. This enabled them to feel more confident in facing and managing the financial risks of their own agri-businesses. As a result of advisory services, farmers’ trust in AEs was strong, resulting in increased sales.

KEY FINDINGS FOR FARMERS

Additional source of household income

The number of farmers growing vegetable crops, which are more profitable than paddy, increased by 48% as a result of access to good agricultural practices and irrigation techniques from AEs. Increased income from vegetable cultivation means that fewer farmers under the AE programme need to work as day labour for others to supplement their incomes. The overall trend for associated farmers show that there is a reduction in day labour as source of income and an increase of income coming from paddy and vegetable cultivation. This new source of income prevented the trend of outward migration to nearby cities and reduced the risk of exposure to a single crop.

Chart 3: Major sources of income for associated farmers
before and after AE programme



Change in productivity

Paddy productivity for farmers linked with the programme increased by 27% compared with non-associated farmers in 2016. Paddy productivity in Odisha was higher than in Maharashtra for both associated and non-associated farmers. This can be partly explained with the establishment of canals where the on-going availability of irrigation allows farmers in Odisha to cultivate two paddy crops a year (double cropping) unlike in Maharashtra where farmers can only cultivate once a year during the *kharif* season (wet season). Additionally, the increased usage of inputs like manure, fertilisers, insecticides and pesticides in Odisha, compared with Maharashtra, also had an impact on the higher productivity in that state.

While vegetable productivity increased for both associated and non-associated farmers, productivity for most vegetables was higher for associated farmers thanks to availability of irrigation techniques and improved knowledge of good agricultural practices.

Access to credit facilities

67% of associated farmers reported having access to credit. Of those, 89% obtained loans from banks and the remainder from informal sources. Out of the 79% of associated farmers aware of the possibility to access credit through IDBI, 64% of them actually took bank loans through the AE. Only 37% of non-associated farmers had access to credit. Of those, around 61% obtained loans from semi-formal and informal sources.

Market linkages

Although 42% of associated farmers were aware of the marketing services offered by the AEs, only 23% used them. The AEs were aggregating the produce of the farmers in a collection centre to sell it to wholesalers. Most of the farmers not using the service reported that low production volumes and distance to markets made it more convenient to sell their produce to local traders, also saving time and transport costs.



Marketing their tomatoes

Changes in income

Net income per acre using paddy for associated farmers was 53% higher than for non-associated farmers in 2016. Net income per acre from vegetable cultivation for associated farmers was 62% higher than non-associated farmers. This is mainly due to additional sources

of income, increased productivity, reduction in losses at different stages of production processes, access to credit, and access to markets.

Improvements in technical knowledge

70% of associated farmers attended capacity building programmes conducted by AEs, resulting in increased confidence in risk-taking in regards to growing new crops. 74% of associated farmers now grow higher-earning vegetables compared with only 26% prior to the programme. This increased knowledge and risk tolerance is also reflected in greater investment in purchasing quality inputs such as high quality seeds.

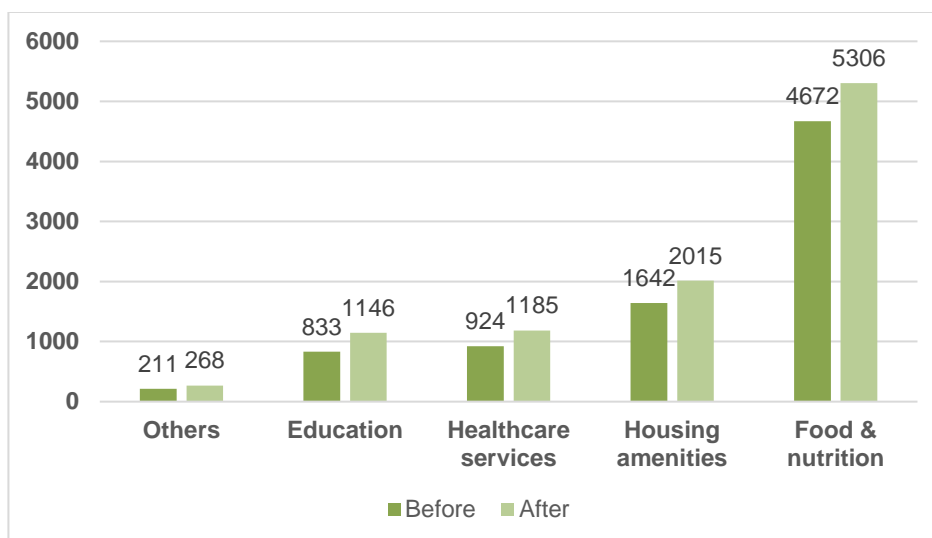


Commercial farmers using technical practices taught by AE

Improved socio-economic indicators

Per capita annual expenditure on household items for farmers has increased after interacting with the programme. Expenditure on food and nutrition, health services, education and housing amenities among associated farmers has increased by 13%, 28%, 37% and 22% respectively.

Chart 4: Annual household expenditure for associated farmers (INR) per capita



CONCLUSIONS

The AE programme has been successful in improving the productivity for both paddy and vegetable production and increasing income for farmers associated with an AE than for non-associated farmers. The AE programme is also an enabler for farmers to venture into alternative sources of income such as vegetable cultivation and has helped reduce seasonal migration. This has resulted in more secure livelihoods for farming families.

Programme elements vary widely in the impact they have had on farmers, with the greatest benefits being seen in access to quality inputs and crop advisory, while market linkages and credit facilitation lag somewhat behind.

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