

**Success Story of
Krushijeevan Agro FPO on
“PPP-IAD”**

**In Value Chain Development of Tomato Crop
(2014 -15)**



Prepared By:

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A/P- Narayangaon, Tal.- Junnar, Dist.- Pune

Submitted To:

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Maharashtra State, Sakhar Sankul ,Shivajinagar,Pune

Introduction

Krushijeevan Agro FPO is supported by Small Farmers Agri-Business Consortium (SFAC) and registered under Company Act 2013 (sub section 2 of section 7, Amendments in Company Act 1956, New Rules as per 2013). We worked with 1500 mobilized farmers of Pune District in Junnar & Ambegaon Taluka. Agriculture is the main occupation of this region

Krushijeevan Agro Farmers Producer Company Ltd is established on 25th July 2014 to strengthening farmer capacity through agricultural best practices for enhanced productivity; ensuring access to and usage of quality inputs and services for intensive agriculture; enhancing cluster competitiveness; facilitating access to fair and remunerative markets including linking producer groups to marketing opportunities by market aggregators.

This is the first time in Maharashtra that Farmers Producer Co. (FPO) got PPP-IAD project with support & Coordination of Department of agriculture Government of Maharashtra state & Government of India.

Krushijeevan FPO completed the journey of PPP in 201-2015 successfully by enhancing yield & productivity in all sense.

Challenges –

- Storage capabilities
- Marketing Facilities
- Insufficient Agro-Processing units
- Increased production cost
- Less yield

Why PPP in Tomato Crop???

Tomato is major crop of Junnar and Ambegaon Taluka, Total area under cultivation of tomato is around 25000hec. And around more than 50% of total farmers are engaged in Tomato crop during both Kharip and Rabbi Seasons.

Company found scope in enhanced productivity in Tomato crop by using advanced technology, Also reduction in production cost by collective farming & common purchasing was crucial need.

Another major reason for selection of Tomato crop for PPP is Tomato Auction Market of Narayangaon is one of the biggest tomato market in India. Major traders & exporters from all over India came for the business in this market. It help us to market linkages of production which is growing under the project.

FPO Initiative & Contribution :

It's not only about the rates but in the whole period of Tomato season group farming can perform well. Krushijeevan Agro Farmers Producer Company Ltd decided to work for the change through PPP project. It was be the first FPO in Maharashtra who working for PPP. Krushijeevan Agro FPC was going to start from soil testing, all the plants input & plant protection products will be brought commonly for all involved farmers. It reduces the production cost. Also drip material, mulching films, sticky traps, and

sprayers were provided. Trainings, exposure visits & visits of national scientists helped to reduce disease incidence, zero crop failure & about to 35% to 45% increase in productivity. Because of field & plot level pack house, collection center will be a most important part of value addition. Refer van will be plus point for export quality goods. Farmers also had an assurance to buy back guarantee from Company & other sources. This unique method of farming definitely increased the productivity & good returns to farmers.

Government's contribution in this project helped to spread the best agricultural practices among the farmers. The best implementation of this project increased earnings of farmers extent of 100% compare to past.

S. N.	Component/ Activity	Programme		Achievement		Done by
		Physical	Fin (In Lac)	Physical	Fin (In Lac)	
1	Farmers Training	3	3.75	3nos	3.75	Krushijeevan Agro FPO
2	Crop Demonstration	10	4	10 acer	4	
3	Co-ordination (Technical Assistance)	6	13.80	6 Staff (12 Months)	13.80	

Objectives of PPP:

- ❖ To set an ideal tomato crop management Project for Farmers.
- ❖ To implement modern & high tech technology.
- ❖ Provide direct marketing support to the farmers.
- ❖ Introduce & implement Global GAP in target area.
- ❖ Establishment of Farm Machinery Banks for Custom Hiring.

Area of Operation:

Area- 200 Hector (Junnar & Ambegaon Taluka)

Involvement of Farmers- 500 Farmers

Components for intervention :

1) **Soil Testing:**

As the Production quality is dependent on the type of soil. Proper recommendation of fertilizers & micro nutrients are based on the soil testing reports. It will be help to optimize the cost of nutrients.

Benefits:

- Improvement in yield.
- Reduction in cost of nutrients.
- Proper use of micronutrients & fertilizers.

2) Farmer's Training:

Training programs were provided for all involved farmers. In this, 3 training sessions arranged during the crop season. Experts consulted to the growers at the stage of plantation phase of crop, growth stage, and bud initiation stage. The timetable dispatched before a week of training.

Benefits-

- Better management from start to end.
- Improvement in quality of crop.
- Growth in production.
- Good Agricultural Practices & post-harvest services.
- Increase in returns.



3) Exposure Visits:

Tomato is one of the sensitive Crops, its need to constant attention for the quality production. Good management practices will help to increase the production. Exposure visit is an opportunity to share new things & clear doubts & queries of farmers. 4 visits will be taken .

Benefits:

- Sharing of new ideas & technology
- Come to know the difference between traditional methods & new methods
- Regular visits help to make schedule for crop management.

4) Demonstration of Crop:

Trying new things helped to arise new ideas & innovations. Demo can show the differences between traditional methods & new methods.... 10 Acer plot will use for demo of new varieties & inputs during season. All expenses on demos will be bared by Company.

Benefits:

- New variety of most productivity was found.
- Helped to management of fertigation & preventions.
- New ideas & research performed on plot.



5) Mulching Paper:

This technique was very useful in protecting the roots of the plants from heat, cold. Mulch is used to cover soil surface around the plants to create congenial condition for the growth. Company covered minimum 100 hector area for mulching. FPO tried to convince the important of mulching paper in modern agricultural method. Farmers were beneficiary for the subsidy directly.



Benefits:

- Helped to keep humidity in soil.
- Growth in yield & quality of crop.
- Increased in production compare to plot without mulch.

6) Sticky Traps:

Sticky traps are used for pest management. Now a days It's use instead of pesticides but it's being helpful for health of crop. Sticky traps provided an easy method to estimate pest population densities. So there was definite reduction in pesticide use. The crop under 100 Hector area protected by sticky traps.

Benefits:

- Provided an easy method for estimating pest population densities.
- Reduction in pesticide use
- Improved plant quality with less pesticide
- Sticky traps can provide an early warning of pest presence before plant damage

7) Establishment of Farm Machinery Banks for Custom Hiring:

Agricultural activities in general are facing considerable challenges due to labor shortage and enhanced wage rates. These challenges have severely affected sowing and harvesting activities. Considering the high cost of ownership and limited utilization in a family's land, farmers are more amenable to hiring modern equipment's rather than buying them. Company supported to farmers for all equipment's to make work easy. Company purchased a tractor & a set of equipment's for farmers.

Benefits:

- Adoption of new techniques.

- Reduction in human resources.
- Availability of high technology machineries on hiring system at minimum cost.
- Reduces the cost of cultivation.



8) Sprayers:

Insects and weeds are largely responsible for the crop destruction. In modern horticulture and agriculture, insecticides/pesticides are important part of farming. Sprayers help to weed/pest control, liquid fertilizing and plant leaf polishing. Taiwan & Nap Sack sprayers (12 to 16 Liter.) mostly using for crop season.

Benefits:

- Easy to operate, maintain and handle.
- It facilitates uniform spread of the chemicals.
- Capable of throwing chemicals at the desired level.
- Precision made nozzle tip for adjustable stream.
- Capable of throwing foggy spray, light or heavy spray, depending on requirement.



9) Pack House (Plot Level & Field Level) :

Pack House is necessary to collect the produce from FIG's. Plot level & Field level pack house constructed by Company & Farmers Interest Group. FPO planned 4 pack house for collection & value addition. Farmers who unable to reach at collection center or far from market collected their produce at Pack House.

Benefits:

- Value addition of goods possible at Plot & Field level.
- Farmers can store their goods in pack houses.
- Useful for packaging of produces to dispatch to forward linkages.

10) Collection Center (Grading & Packing Unit):

After harvesting of tomatoes it's too important to grading & sorting the goods. Sorted & graded produce gets higher rates in market. Collection center performed main role in the process of value addition. Collection Center was constructed by Company for the farmers. 15 Lac expenses for the total set up of Collection Center including Grading & Packing unit.

Benefits:

- Sorting, Grading & packing of goods.
- Farmers can stock their goods in Collection Center.
- Its helps carry the goods for transportation.



11) Refer Van:

Tomatoes are perishable goods at specific temperatures. Refrigerator vans help to keep proper temperature during the transportation in case of export & long distance supply. Refers vans can be ice-cooled, come equipped with any one of a variety of mechanical refrigeration systems. Company will buy a 4 Metric ton refer van for the procurement.

Benefits:

- Keep good quality of produce.
- Helps to avoid damage because of environment.

12) Plastic Crates:

The quality of any goods depends on handling & transportation. Crates maintained quality after harvesting tomatoes. 4500 crates will be requiring for the carrier of produce goods.

Benefits:

- Easy transportation without damage in goods.
- Simple to place graded tomatoes.
- Easy to packing & help to send other state's markets.

13) Poly House:

The need to protect the crops against unfavorable environmental conditions led to development of protected agriculture. Poly house is the most practical method of achieving the objectives of protected agriculture, where natural environment is modified by using best methods to

growth of plant & yield. Poly house was constructed by the Company. Poly house planned around 1430 Square Meter.

Benefits:

- Management of insect pests, diseases and weeds is easier under these structures
- Export oriented production is possible under these structures
- Production of uniform quality crops
- Protection from birds, animals and human activities

14) Visits of National Scientists:

In period of crop season it's very important to develop the confidence of farmers. Participation of National Scientists helps to know about the crop management, proper technologies for the crop. 10 visits will be arranging by the company for farmers. Experts will share their knowledge to encourage & motivate farmers.

Benefits:

- Resolutions of queries.
- Adoption of new technologies & varieties.
- Management of crop in case of diseases, water management.
- Parameters & Requirement of Export quality.

15) Technical Assistant & Maintaining :

Experts are the soul of the project. Good management & implementation is an important part of the whole project. Technical & Qualified staff can handle the things carefully. We are going to appoint 6 expert officers for implementing project successfully including technical officers, marketing officer & accounting persons. Company will pay them.

Benefits:

- The men tactfully getting the things done.
- Achieving the goals.
- Provides coordination & establishes team spirit
- Planning, organizing, directing, coordinating, motivating and controlling.

Varad farmers Producer Company ltd., is working with us as a technical assistant for a better performance. They have good experience in agriculture and horticulture - multiple crops & fields of work.



Role of Krushijeevan Agro FPO in Procurement:

- Krushijeevan Agro FPO played very important role in this project for procurement of produces & to search market linkages for their production.
- Krushijeevan Agro FPO has Direct Marketing Licenses. So, FPO procured tomatoes directly from the farmers which are involved in this project.
- Also tied-up with traders, exporters & processing industries for forward linkages.
- Procurement of production will done through pack houses, collection center, where all facilities are already available .i.e. crates, weighing machines etc. were available.
- FPO provided vehicles, reefer van for the procurement of production.

Achievements of PPP

- Ideal tomato crop management.
- Implementation of modern & high tech technology.
- Provided direct marketing support to the farmers.
- Introduced Global GAP in target area.
- Establishment of Farm Machinery Banks for Custom Hiring.
- More returns to farmers in terms of cost of production, assured rates for produce, quality, quantity, subsidies etc .

 **Impact of PPP**

Area (in Ha.)		No.of Farmers	
Target	Achievement	Target	Achievement
200 Ha	200 Ha	500	500

Productivity in Kg/Ha			Benefit to farmers			Procurement (in MT)
Crop	Initial Base Line	Actual Productivity	Related Market rate/Kg	Procurement rate/Kg given by FPO	Incremental benefit per Ha	Actual Procurement
Tomato	20Ton/ha	25-30Ton /ha	Rs.15-17/Kg	Rs.19-20/Kg	20000-25000/Ha	3400 MT