

MOU IV: Post Harvest Component

Broad Objective

The objective is to reduce postharvest losses of selected agriculture produce through appropriate technological interventions such as appropriate storage structures and increase farmers' financial returns through value addition route which includes primary and secondary processing.

Scope of the Project

Objective 1 : Technology intervention to reduce post harvest losses in onion

Objective 2 : Technology intervention for value addition of agriculture produce via processing.

Important aspects of the Project

1. Screening of FPCs to select most promising FPC (based on set criteria)
2. Exploring Value addition opportunities
3. Feasibility analysis of Value addition intervention considering social, economic and ecological aspects to ensure its sustainability.
4. Collaborative work to establish processing unit/ storage unit with selected FPC/FPCs.



Value addition component

Data received from PMU In first week of August

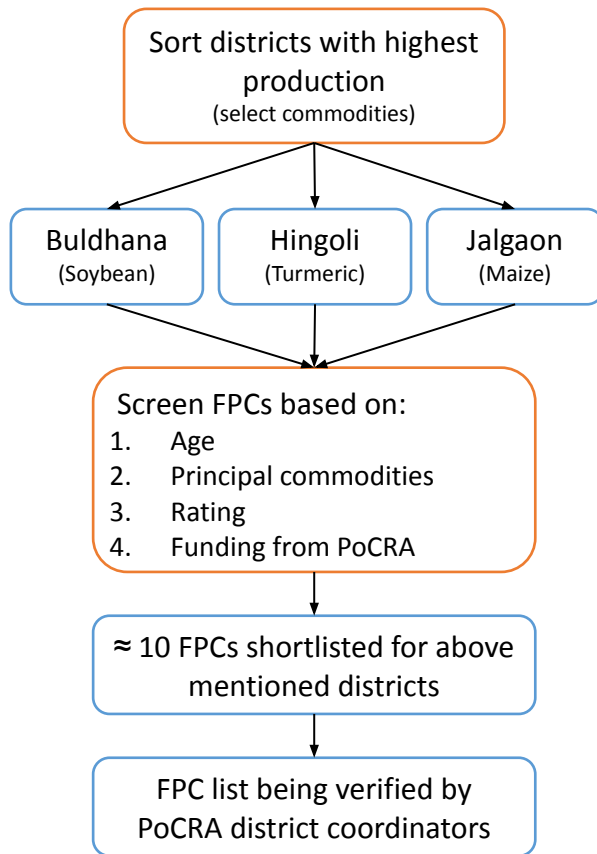
District level
production data
(various commodities)

Second week of
August

FPC details and
ratings

Data received from PMU

Actions taken



Desired output

- Economics of cultivation based on local agroecology
- Production potential for different geographies
- Knowledge of current processing activities
- Current market linkages and logistics

Onion storage Structure (For Farmer Producer Companies)

Literature review of Storage technologies available (India and Abroad)

Feedback of IITB Storage structure from farmers through field experiments and survey

Discussion with MahaFPC members (Mr. Yogesh Thorat)

Work done till now

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1. Study of FPC Portfolio for their selection.
 2. Techno-economic Feasibility analysis of the storage structure
 3. Setting up of 100 MT storage at VNMKV

*Points 2 and 3 are under process

Work under process

Major discussion points

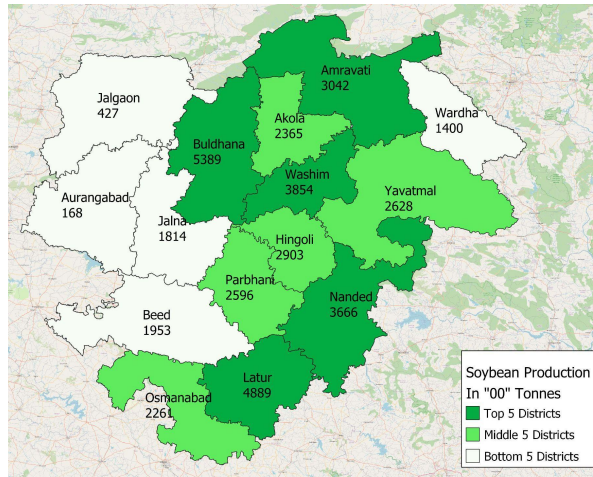
1. From discussion with MahaOnion, It came to know that all the large onion warehousing systems are running as *Open ventilated system*
2. If we could get storage data (and spoilage data) of last 2-3 years of such large storages set up by MahaFPC comparison of performance, and economics of IITB storage structure at different scales can be done.

Onion storage Structure (For Farmer Producer Companies)

Potential Vendors

- Paradigm Services Private Limited
 - (20+ years of experience with Food Processing Plant Design and Operations)
- RINAC India Limited
 - (One of the major players in Cold storage and cold rooms in India)

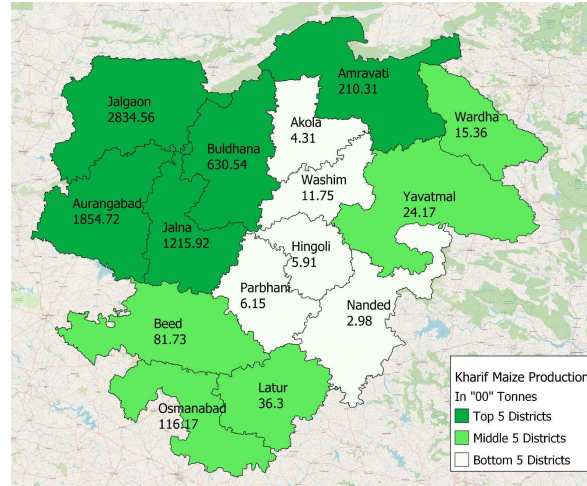
Mapping of Production data



Soybean Production

Top 5 Districts:

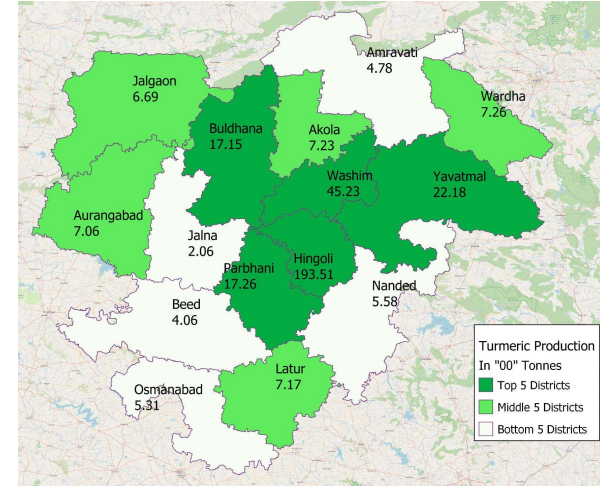
Buldhana
Latur
Washim
Nanded
Amravati



Maize Production

Top 5 Districts:

Jalgaon
Aurangabad
Jalna
Buldhana
Amravati



Turmeric Production

Top 5 Districts:

Hingoli
Washim
Yavatmal
Parbhani
Buldhana

Data received from Field visit to FPCs

	No of shareholders	Month/Year of Registration	Infrastructure	Funding through PoCRA
Rajshree FPC, Tal Lonar, Dist Buldhana	1320	Jan 2019	None	None
Sonpaul FPC, Tal Lonar, Dist Buldhana	1010	Apr 2018	1500 MT (x2) Godown 4 TPH Seed Processing plant	1 cr (60% subsidy)
Ruj FPC, Tal Mehkar, Dist Buldhana	252	Sep 2018	1500 MT (x2) Godown 4 TPH Seed Processing plant	1 cr (60% subsidy)

Crops	Average Productivity(Quintal/Ha)	Average Quantity Procured during last season (Quintal)	Average cost of cultivation (Rs/ha)	Average rate of sale to farmers/seed companies (Rs/Kg)
Soybean	15	Upto 1000	37500	100-120
Tur	7	Upto 50	7500(Additional cost being intercrop with soybean)	100-120
Gram	16	Upto 350	25000	75-90
Wheat	20	12	30000	40-45

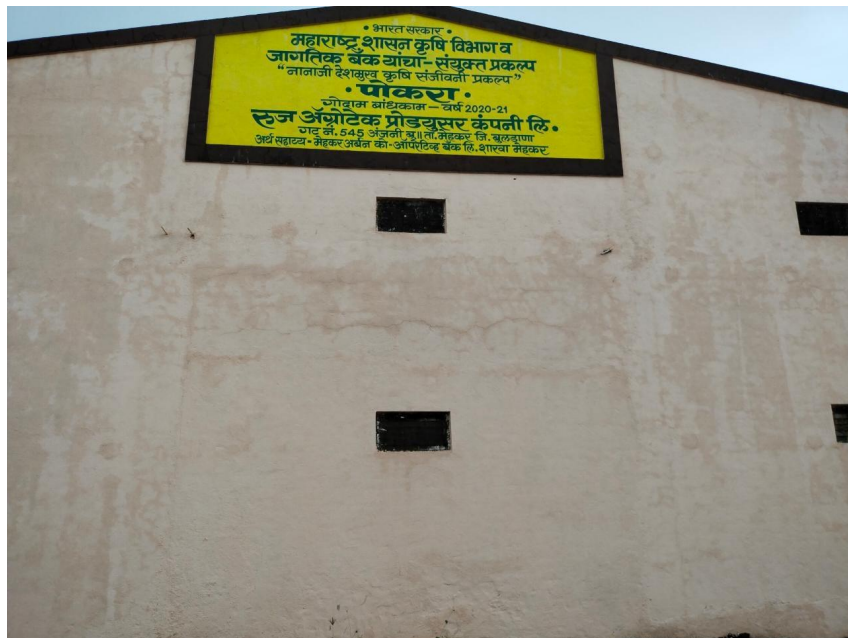
Insights from the field visits

- Currently the FPCs are involved in cleaning, grading, bagging, packing of seeds
- No involvement in value addition
- The procured quantum for soybean is quite small (varying between 10 and 100 tonnes).
- The procured material has been majorly used as seeds for 2nd or 3rd generation crop.
- Apart from selling it to farmers, seed companies procure the produce from the FPC as source.
- Post 2022, the potential for value addition can be explored particularly when the FPCs will have enough quantum of 3rd generation seed.
- Something of interest : Value addition of pulses and gram - Dal mill and flour making facilities (besan).

Way ahead...

- Survey of all the selected FPCs in Buldhana, Jalgaon and Hingoli districts will be completed in first and second week of October.
- Selection of FPC will be done based on insights and analysis of the field data and discussion with PMU.
- Appropriate Value addition intervention will be proposed through techno economic feasibility analysis in consultation with FPC and PMU and will be reflected in the DPR.

Photos of the field visit Dt. 21 Sept 2021 (Tal Lonar, Mehkar, Buldhana district)



Godown facility of Ruj FPC funded through PoCRA



Godown facility of Sonapaul FPC funded through PoCRA

Photos of the field visit Dt. 21 Sept 2021 (Tal Lonar, Mehkar, Buldhana district)



Interaction with Farmer and director of Seed Processing unit of 4TPH at Ruj FPC funded through SMSP - Central Govt scheme



Seed Processing unit of 4TPH at Sonpaul FPC funded through SMSP - Central Govt scheme