



मा.बाळासाहेब ठाकरे कृषि व्यवसाय व ग्रामीण परिवर्तन (स्मार्ट) प्रकल्प,

प्रकल्प अंमलबजावणी कक्ष - महाराष्ट्र सहकार विकास महामंडळ मर्या.

साखर संकुल, शिवाजीनगर, पुणे -411005

दुरध्वनी क्रं - 020 - 29809408

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जा.क्र./स्मार्ट एमसीडीसी/बा.लेखा.अ./ २२२/2023-2024

दिनांक:- 03/11/2023

प्रति,
अतिरिक्त प्रकल्प संचालक,
स्मार्ट प्रकल्प,पुणे.

विषय :- जागतिक बँक अर्थसहाय्यित स्मार्ट प्रकल्पांतर्गतसन 2021-2022 आणि सन 2022-2023 या आर्थिक वर्षातील बाह्यलेखापरीक्षण अहवालाच्या त्रुटीची पूर्तता करण्याबाबत.

संदर्भ :-1) जा.क्र.स्मार्ट/पीसीएमयु/लेखा/FMM/Second Amendment/884/2022 दिनांक 24/09/2022

2) दिनांक 28-10-2023 रोजी मेलद्वारे प्राप्त ऑडीट अहवाल.

मा.बाळासाहेब ठाकरे कृषि व्यवसाय व ग्रामीण परिवर्तन प्रकल्पांतर्गत गोदाम व गोदाम पावती योजना या घटकांतर्गत प्रकल्प अंमलबजावणी कक्ष महाराष्ट्र सहकार विकास महामंडळामार्फत 10 पथदर्शी प्रकल्पांची निवड करण्यात आली आहे. त्या अनुषंगाने 10 उपप्रकल्पास मान्यता देण्यात आली असून 3 प्रकल्प रद्द करण्यात आले आहे.

पहिल्या हप्त्यातील अनुदान वितरण तपशिल									
Sr.No	Name of Beneficiary	Total Cost	Date	Smart Grant 60%	First Tranche	First installment balance	CBO Receiptant's Contribution 40%	First Tranche	First installment balance
1	AHMEDPUR VIVIDH KARYAKARI SEVA SAHAKARI SANSTHA LIMITED	19.04	10-12-2021	11.42	5.76		7.62	3.78	
			24-06-2022		5.66			3.84	
Total				11.42	11.42	0.00	7.62	7.62	0.00
2	KHAROLA SEVA SOCIETY SEVA SOCIETY KHAROLA	68.40	10-12-2021	41.04	4.24		27.36	2.84	
			24-06-2022		10.85			8.82	
Total				41.04	15.09	25.95	27.36	11.66	15.70
3	SMART GODAVARI VIVIDH KARYAKARI SAHAKARVIKAS SEVA SANSTHA	54.44	10-12-2021	32.66	1.99		21.78	1.33	
			24-06-2022		16.07			14.30	

State of Maharashtra
Rural Transport and
Business and
Development Project
Sd/- Ganesh ... 06/11/23

			Total	32.66	18.06	14.60	21.78	15.63	6.15
4	SMART NERPINGLAI VIVID KARYAKARI SANSTHA	56.66	10-12-2021		4.39			2.93	
			24-06-2022	33.99	12.38		19.74		
			Total	33.99	16.77	17.22	22.67	22.67	0.00
5	SMART VADALA MAHADEO VKSS	63.39	10-12-2021	38.04	6.38		25.36	4.26	
			Total	38.04	6.38	31.66	25.36	4.26	21.10
6	YEDESHWARI AUDYOGIK SAHAKARI SANSTHA	61.13	10-12-2021		5.66			3.77	
			24-06-2022	36.68	14.00		20.68		
			Total	36.68	19.66	17.02	24.45	24.45	0.00
7	SPR TALUKA PBVS LTD	24.77	31-01-2022		6.00			4.02	
			24-06-2022	14.86	8.86		5.89		
			Total	14.86	14.86	0.00	9.91	9.91	0.00

वरीलप्रमाणे 7 पथदर्शी उपप्रकल्पांना सन 2021-2022 आणि सन 2022-2023 या आर्थिक वर्षात प्रकल्प राबविण्यासाठी पहिल्या हप्त्याचे अनुदान वितरीत करण्यात आले होते. सदरील अनुदान वितरीत करताना संस्थेने संस्थेचा संपूर्ण स्वहिस्सा 40% उभा करणे अपेक्षित होते. परंतु संस्थेची आर्थिक परिस्थिती कमकुवत असल्यामुळे संस्थेने पहिल्या हप्त्यातील स्वहिस्सा एकत्रितपणे जमा न करता टप्प्या टप्प्याने जमा केल्यामुळे स्मार्ट प्रकल्पाचा संपूर्ण स्वहिस्सा संस्थेस 60% प्रमाणे वितरीत करण्याऐवजी संस्थेने जमा केलेल्या रकमेच्या प्रमाणात वितरीत करण्यात आला आहे. 7 पथदर्शी उपप्रकल्पांना पहिल्या टप्प्यातील अनुदानातील उर्वरित शिल्लक रक्कम वितरीत करून दुसऱ्या अनुदानातील संस्थेचा संपूर्ण स्वहिस्सा financial management manual मधील सूचनांनुसार 40% प्रमाणे पूर्ण जमा करून स्मार्ट प्रकल्पाचा दुसऱ्या अनुदानातील संपूर्ण स्वहिस्सा संस्थेस 60% या प्रमाणे वितरीत करण्यात येईल याची दक्षता घेण्यात येईल.

सन 2021-2022 आणि सन 2022-2023 या आर्थिक वर्षात बाह्य लेखापरीक्षक यांनी उपस्थित केलेल्या पहिल्या अनुदानाच्या हप्त्याचे टप्पे केल्याच्या अनुषंगाने लेखापरीक्षक यांनी अहवालात त्रुटी उपस्थित केली असून सदरील त्रुटी रद्द करण्यात यावी हि विनंती.

प्रमुख
प्रकल्प अंमलबजावणी कक्ष
एमसीडीसी स्मार्ट



मा.बाळासाहेब ठाकरे कृषि व्यवसाय व ग्रामीण परिवर्तन (स्मार्ट) प्रकल्प,
प्रकल्प अंमलबजावणी कक्ष - महाराष्ट्र सहकार विकास महामंडळ मर्या.
साखर संकुल, शिवाजीनगर, पुणे -411005



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जा.क्र./स्मार्ट एमसीडीसी/बा.लेखा.अ.३५१/२०२४-२०२५

दिनांक:- २२/०४/२०२४

प्रति,

मा. वित्त विशेषज्ञ,
स्मार्ट प्रकल्प, पुणे.

विषय :- जागतिक बँक अर्थसहाय्यित स्मार्ट प्रकल्पांतर्गत सन २०२१-२०२२ आणि सन २०२२-२०२३ या आर्थिक वर्षातील बाह्यलेखापरीक्षण अहवालाच्या त्रुटींची पूर्तता करण्याबाबत.

संदर्भ :- १) जा.क्र.स्मार्ट/पीसीएमयु/लेखा/FMM/Second Amendment/884/2022 दि 24/09/2022

- २) दिनांक २८-१०-२०२३ रोजी मेलद्वारे प्राप्त ऑडीट अहवाल.
- ३) जा.क्र./स्मार्ट एमसीडीसी/बा.लेखा.अ./२२२/२०२३-२०२४ दिनांक ०३/११/२०२३
- ४) जा. क्र पीसीएमयु/स्मार्ट/ लेखाशाखा/६२८/२०२४ दिनांक ०३/०४/२०२४.

मा. बाळासाहेब ठाकरे कृषि व्यवसाय व ग्रामीण परिवर्तन प्रकल्पांतर्गत गोदाम व गोदाम पावती योजना या घटकांतर्गत प्रकल्प अंमलबजावणी कक्ष महाराष्ट्र सहकार विकास महामंडळामार्फत १० पथदर्शी प्रकल्पांची निवड करण्यात आली आहे. त्या अनुषंगाने १० उपप्रकल्पास मान्यता देण्यात आली असून ३ उपप्रकल्प विविध कारणांमुळे रद्द करण्यात आले आहेत.

संदर्भ क्र. ३ अन्वये पीसीएमयु कक्षास लेखापरीक्षणाच्या त्रुटी पूर्ततेबाबतचे दिनांक ०३/११/२०२३ रोजीचे प्रमुख एमसीडीसी यांच्या स्वाक्षरीचे पत्र क्र २२२ सादर करण्यात आले होते. या मागे असलेल्या कारणांपैकी खालील मुद्दा क्र ३ नुसार लेखापरीक्षणाच्या आक्षेपावर खुलासा सादर करण्यात आला होता.

संदर्भ क्र ४. अन्वये बाह्यलेखापरीक्षक यांनी सन २०२१-२०२२ आणि सन २०२२-२०२३ या आर्थिक वर्षात बाह्यलेखापरीक्षणात पहिल्या हप्त्यातील स्मार्ट प्रकल्प हिस्सा आणि संस्थेचा स्वहिस्सा जमा करण्याबाबत त्रुटी उपस्थित केली असल्याने पुनश्च मुद्दा क्र १ ते ४ नुसार लेखापरीक्षणाच्या आक्षेपावर खालील प्रमाणे खुलासा सादर करण्यात येत आहे.

- १) मार्च २०२० मध्ये पथदर्शक उपप्रकल्पांना दिलेल्या मंजुरीनंतर २० महिने वाट पाहूनही पहिल्या हप्त्यातील स्वहिस्सा रक्कम संस्थांकडून संपूर्णपणे उभारण्यात आलेली नव्हती.
- २) पहिल्या हप्त्यातील रक्कम उभी करण्यासाठी व बँकांकडे कर्ज प्रकरणाकरिता पाठपुरावा करणे कोरोना काळात संस्थाना शक्य झाले नाही.
- ३) खालील तक्त्यानुसार पहिल्या हप्त्याचे दोन टप्प्यात अनुदान वितरीत करण्यात आले होते. सदरील अनुदान वितरीत करताना संस्थेने संस्थेचा पहिल्या हप्त्यातील संपूर्ण स्वहिस्सा ५०% प्रमाणे उभा करणे अपेक्षित होते. परंतु संस्थेची आर्थिक परिस्थिती कमकुवत असल्यामुळे सदर संस्थेने स्वहिस्सा एकत्रितपणे जमा न करता टप्प्या टप्प्याने जमा केल्यामुळे स्मार्ट प्रकल्पाचा पहिला संपूर्ण स्वहिस्सा वेळेचा अपव्यय टाळण्यासाठी पथदर्शक उपप्रकल्प असल्याने संस्थेस ५०% वितरीत करण्याऐवजी संस्थेने जमा केलेल्या रकमेच्या प्रमाणात वितरीत करण्यात आला आहे.
- ४) उपरोक्त ३ मुद्द्यांचा विचार करता पथदर्शक उपप्रकल्प अंमलबजावणी करताना आलेल्या



अनुभवानुसार या पुढील संस्थाना प्रकल्पाने दिलेल्या मार्गदर्शक सूचनांनुसार अनुदान वाटप करताना काळजी घेण्यात येईल तसेच पथदर्शक उपप्रकल्पातील पहिल्या हप्त्यातील उर्वरित अनुदान वितरित करूनच दुसरा हप्त्याचे अनुदान संपूर्णपणे वितरित करण्याची दक्षता घेण्यात येईल.

5) उपरोक्त 01 ते 04 मुद्यांचे अवलोकन करून सन 2021-2022 आणि सन 2022-2023 या आर्थिक वर्षात बाह्यलेखापरीक्षणतील आक्षेप रद्द करण्यात यावे.

पहिल्या हप्त्यातील अनुदान वितरण तपशील									
Sr. No	Name of Beneficiary	Total Smart Grant 60%	Date	Smart Grant 50%	First Tranche 50%	First installm ent balance	CBO Receipta nt's Contribu tion 50%	First Tranche 50%	First installm ent balance
1	AHMEDPUR VIVIDH KARYAKARI SEVA SAHAKARI SANSTHA LIMITED	22.84	10-12-2021	11.42	5.76		7.62	3.78	
			24-06-2022		5.66			3.84	
Total				11.42	11.42	0.00	7.62	7.62	0.00
2	KHAROLA SEVA SOCIETY SEVA SOCIETY KHAROLA	82.08	10-12-2021	41.04	4.24		27.36	2.84	
			24-06-2022		10.85			8.82	
Total				41.04	15.09	25.95	27.36	11.66	15.70
3	SMART GODAVARI VIVIDH KARYAKARI SAHKARVIKAS SEVA SANSTHA	65.32	10-12-2021	32.66	1.99		21.78	1.33	
			24-06-2022		16.07			14.30	
Total				32.66	18.06	14.60	21.78	15.63	6.15
4	SMART NERPINGLAI VIVID KARYAKARI SANSTHA	67.98	10-12-2021	33.99	4.39		22.67	2.93	
			24-06-2022		12.38			19.74	
Total				33.99	16.77	17.22	22.67	22.67	0.00
5	SMART VADALA MAHADEO VKSS	76.07	10-12-2021	38.04	6.38		25.36	4.26	
Total				38.04	6.38	31.66	25.36	4.26	21.10
6	YEDESHWARI AUDYOGIK SAHAKARI SANSTHA	73.36	10-12-2021	36.68	5.66		24.45	3.77	
			24-06-2022		14.00			20.26	
Total				36.68	19.66	17.02	24.45	24.03	0.42
7	SPR TALUKA PBVS LTD	29.72	31-01-2022	14.86	6.00		9.91	4.02	
			24-06-2022		8.86			5.89	
Total				14.86	14.86	0.00	9.91	9.91	0.00
Total (1 to 7)				208.69	102.24	106.45	139.15	95.78	43.37

सन 2021-2022 आणि सन 2022-2023 या आर्थिक वर्षात बाह्य लेखापरीक्षक यांनी उपस्थित केलेल्या पहिल्या अनुदानाच्या हप्त्याचे टप्पे केल्याच्या अनुषंगाने बाह्य लेखापरीक्षण अहवालात उपस्थित केलेले आक्षेप उपरोक्त मुद्द्यांचे अवलोकन करून निरंक करण्यात यावे हि विनंती.

मा. प्रमुख प्रकल्प अंमलबजावणी कक्ष एमसीडीसी स्मार्ट यांच्या मान्यतेने.



नोडल अधिकारी
प्रकल्प अंमलबजावणी कक्ष
एमसीडीसी स्मार्ट

प्रत : मा अतिरिक्त प्रकल्प संचालक, स्मार्ट पुणे यांना माहितीस्तव सादर.



मा.बाळासाहेब ठाकरे कृषि व्यवसाय व ग्रामीण परिवर्तन (स्मार्ट) प्रकल्प,

प्रकल्प अंमलबजावणी कक्ष -प महाराष्ट्र सहकार विकास महामंडळ मर्या.

साखर संकुल, शिवाजीनगर, पुणे -४११००५



दुरध्वनी क्र - ०२० - २९८०९४०८

ईमेल mcddcpune@gmail.com

जा.क्र./मसविम-स्मार्ट/लेखा. आक्षेप/३७५/२०२४-२५

दिनांक - २१/०५/२०२४

प्रति,

मा.सदस्य सचिव, स्मार्ट सोसायटी तथा
प्रकल्प संचालक, स्मार्ट

विषय:- स्मार्ट प्रकल्पांतर्गत बाह्य लेखा परिक्षणादरम्यान उपस्थित झालेल्या लेखा
आक्षेपांच्या कार्यवाहीबाबत....

संदर्भ :- १. मे. कलोटी व लाठीया या बाह्यलेखापरिक्षकांनी दि. २८ ऑक्टोबर २०२३ च्या
बाह्यलेखापरीक्षण अहवालानुसार उपस्थित केलेले मुद्दे

२. मा. प्रमुख, पीसीएमयु एमसीडीसी स्मार्ट यांचे दि. २८ ऑक्टोबर २०२३ च्या
बाह्यलेखापरीक्षण अहवाल त्रुटी पूर्तताबाबतचे पत्र क्र.२२२ दि.०३/११/२०२३

३. पीसीएमयु कक्ष स्मार्टचे लेखा आक्षेपांबाबतचे पत्र क्र.६२८ दि. ०३/०४/२०२४

४. नोडल अधिकारी, पीसीएमयु-एमसीडीसीचे लेखा आक्षेपांबाबतचे पत्र क्र.३४१
दि.२२/०४/२०२४

५. स्मार्ट सोसायटीच्या ८ व्या बैठकीचे सादरीकरण मुद्दा क्र . ऐनवेळेचे विषयातील
बाह्यलेखापरीक्षणात उपस्थित झालेल्या लेखा आक्षेपांचा कार्यवाहीबाबत.

६. स्मार्ट सोसायटीच्या दि.१५ एप्रिल २०२४ रोजीच्या बैठकीचे इतिवृत्तातील मुद्दा
क्र.६

महोदय,

उपरोक्त संदर्भिय विषयान्वये प्रकल्प अंमलबजावणी कक्ष एमसीडीसी स्मार्ट अंतर्गत "गोदाम
पावती बळकटीकरण" या उपघटकाची अंमलबजावणी करण्यात येत आहे. या उपघटकांतर्गत १०
पथदर्शी उपप्रकल्पांची निवड करण्यात येऊन ३ उपप्रकल्प रद्द करण्यात आले असून उर्वरित ७
उपप्रकल्पांची अंमलबजावणी करण्यात येत आहे.

खालील प्रमाणे ७ पथदर्शी उपप्रकल्पांना सन २०२१-२२ आणि सन २०२२-२३ या आर्थिक वर्षात
उपप्रकल्प राबविण्यासाठी पहिल्या हप्त्याचे दोन ते तीन टप्प्यात अनुदान वितरित करण्यात आले
होते. प्रकल्पातील Financial Management Manual नुसार अनुदान वितरण चार हप्त्यांमध्ये देणे
अपेक्षित असताना पहिल्या हप्त्याचे दोन ते तीन टप्पे करण्यात आल्याने बाह्यस्रोत यंत्रणेने
लेखापरीक्षणात संदर्भ क्र.१ अन्वये आक्षेप नोंदविले आहेत.



पहिल्या हप्त्यातील अनुदान वितरण तपशील

Sr. no	Name of Beneficiary	Total Cost	Date	Smart Grant 60 %	First Tranche	First Instalment Balance	CBO Receipt ant's Contribution 40 %	First Tranche	First Instalment Balance
1.	AHMEDPUR VIVIDH KARYAKARI SEVA SAHAKARI SANSTHA LIMITED	19.04	10-12-2021	11.42	5.76	0.00	7.62	3.78	0.00
			24-6-2022		5.66			3.84	
			Total	11.42	11.42			0.00	
2.	KHAROLA SEVA SOCIETY SEVA SOCIETY KHAROLA	68.40	10-12-2021	41.04	4.24	25.95	27.36	2.84	15.70
			24-6-2022		10.85			8.82	
			Total	41.04	15.09			25.95	
3.	SMART GODAVARI VIVIDH KARYAKARI SAHKARI VIKAS SEVA SANSTHA	54.44	10-12-2021	32.66	1.99	14.60	21.78	1.33	6.15
			24-6-2022		16.07			14.30	
			Total	32.66	18.06			14.60	
4.	SMART NERPINGLAI VIVID KARYAKARI SANSTHA	56.66	10-12-2021	33.99	4.39	17.22	22.67	2.93	0.00
			24-6-2022		12.38			19.74	
			Total	33.99	16.77			17.22	
5.	SMART VADALA MAHADEO VIVIDH KARYAKARI SAHKARI SANSTHA	63.39	10-12-2021	38.04	6.38	31.66	25.36	4.26	21.10
			Total		38.04			6.38	
6.	YEDESHWARI AUDYOGIK SAHAKARI SANSTHA	61.13	10-12-2021	36.68	5.66	17.02	24.45	3.77	0.00
			24-6-2022		14.00			20.68	
			Total	36.68	19.66			17.02	
7.	SPR TALUKA PBVS LTD	24.77	31-01-2022	14.86	6.00	0.00	9.91	4.02	0.00
			24-06-2022		8.86			5.89	
			Total	14.86	14.86			0.00	

सदर आक्षेपांचे अवलोकन करून संदर्भ क्र. २ अन्वये लेखापरीक्षणातील आक्षेपांचा अनुपालन अहवाल सविस्तर स्पष्टीकरणासह प्रमुख पीआययु-एमसीडीसी स्मार्ट यांच्या स्वाक्षरीने सादर करण्यात आला होता.

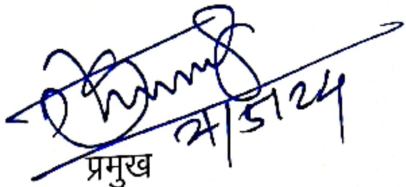
परंतु संदर्भ क्र.३ अन्वये, पीसीएमयु कक्षामार्फत पुनश्च: बाह्यलेखापरीक्षणातील त्या मुद्द्यांबाबत अनुपालन अहवाल सादर करणेबाबत विचारणा करण्यात आली होती. त्याअनुषंगाने संदर्भ क्र.४ अन्वये सदर लेखा आक्षेपाचा अनुपालन अहवाल पुन्हा सादर करण्यात आला होता. परंतु तरीही सदर लेखा आक्षेपांबाबत सन २०२२-२३ नंतर होणाऱ्या लेखापरीक्षणामध्ये मुद्दे उपस्थित करण्यात येत आहे. दि. १५ मे २०२४ रोजी झालेल्या स्मार्ट सोसायटीच्या ८ व्या बैठकीतील चर्चेनुसार ऐनवेळेचे विषय क्र. १ व Financial Management Manual मधील मार्गदर्शक सुचनांनुसार (परिशिष्ट १ अन्वये) २.५० लाख पेक्षा जास्त रक्कमेचे लेखा आक्षेप क्षमापित करण्याचे अधिकार नियामक मंडळास आहेत. उपरोक्त ७ उपप्रकल्पातील बाह्यलेखापरीक्षकाने काढलेले आक्षेप

- २.५० लाखापेक्षा जास्त रक्कमेचे असल्याने
- सदर आक्षेप पथदर्शक प्रकल्पातील असल्याने

- iii. संबंधित संस्थांकडे कोरोना काळात निधीच्या कमतरतेमुळे ४० % संपूर्ण स्वहिस्सा जमा न करता आल्याने, प्रकल्पाचा उर्वरित कालावधी पाहता पहिला हप्त्यांचे संस्थेकडील उपलब्ध रक्कमेनुसार दोन ते तीन टप्पे करण्यात आले.

सदर आक्षेपांचे कायमचे निर्मूलन होण्याच्या अनुषंगाने दि.२८ मे २०२४ रोजीच्या स्मार्ट प्रकल्पाच्या नियामक मंडळाच्या बैठकीत उपरोक्त आक्षेप क्षमापित करणे गरजेचे आहे.

त्याअनुषंगाने सन २०२१-२०२२ आणि २०२२-२०२३ या आर्थिक वर्षात बाह्यलेखापरीक्षक यांनी उपस्थित केलेल्या मुद्द्यांच्या अनुपालन अहवालातील संदर्भ क्र. ४ अन्वये सादर केलेले स्पष्टीकरण गृहीत धरून व स्मार्ट सोसायटीच्या ९ व्या नियामक मंडळाच्या बैठकीत सदर मुद्द्यांचे सादरीकरण करून सदर लेखा आक्षेप क्षमापित करण्यात यावे, ही विनंती.

for 
प्रमुख
प्रकल्प अंमलबजावणी कक्ष,
एमसीडीसी-स्मार्ट, पुणे

प्रत :-

१. वित्त विशेषज्ञ, स्मार्ट प्रकल्प पुणे यांना माहितीस्तव सादर.
२. समन्वयक, पीसीएमयु-स्मार्ट यांना माहिती व पुढील कार्यवाहीस्तव सादर.
३. वरिष्ठ कृषि मुल्यसाखळी तज्ञ तथा समन्वयक, महाराष्ट्र सहकार विकास महामंडळ यांना माहिती व पुढील कार्यवाहीस्तव सादर



मा.बाळासाहेब ठाकरे कृषि व्यवसाय व ग्रामीण परिवर्तन (स्मार्ट) प्रकल्प,

प्रकल्प अंमलबजावणी कक्ष - महाराष्ट्र सहकार विकास महामंडळ मर्या.

साखर संकुल, शिवाजीनगर, पुणे - ४११००५



दूरध्वनी क्र - ०२० - २९८०९४०८

ईमेल mcdepune@gmail.com

जा.क्र./स्मार्ट प्र/बाह्य लेखापरीक्षण/ 49/२०२२-२३

दि. ०१/०२/२०२३

प्रति,

मा. अतिरिक्त संचालक,
स्मार्ट प्रकल्प पुणे.

विषय :- २०२१-२२ च्या बाह्य लेखापरीक्षणाचे अनुपालन अहवाल सादर करणेबाबत...

संदर्भ :- १. जा.क्र.स्मार्ट/पीसीएमयु/लेखा/बाह्य लेखापरीक्षण/१८३९/२०२२ दि.०५/१२/२०२२

रोजी ईमेलद्वारे प्राप्त पत्र

२. जा.क्र. एमसीडीसी/स्मार्ट/उपप्रकल्प रद्द/१३१/२०२२-२३ दि. २१/१०/२०२२ या
कार्यालयाचे पत्र

महोदय,

उपरोक्त संदर्भीय पत्रान्वये, प्रकल्प अंमलबजावणी कक्ष पुणे यांना संदर्भ १ अन्वये लेखापरीक्षणातील मुद्द्यांच्या अनुपालनासाठी सुधारित अनुदान करार व सुधारित डीपीआर सादर करण्याबाबत कळविले होते. त्याअनुषंगाने अनुपालन अहवाल सादर करण्यात येत आहे.

१. श्रीरामपुर प्रगत बागायतदार विविध कार्यकारी सहकारी संस्था, ता.श्रीरामपुर, जिल्हा अहमदनगर.
२. खारोळा विविध कार्यकारी सहकारी संस्था, ता. जिल्हा लातूर
३. नेरपिंगळाई विविध कार्यकारी सहकारी संस्था, ता.जिल्हा अमरावती.
४. अहमदपुर विविध कार्यकारी सहकारी संस्था, ता. अहमदपुर. जिल्हा लातूर.
५. गोदावरी विविध कार्यकारी सहकारी संस्था, चांदोरी ता.निफाड, जिल्हा नाशिक.
६. वडाळा महादेव विविध कार्यकारी सहकारी संस्था, ता.श्रीरामपुर, जिल्हा अहमदनगर.
७. येडेश्वरी औद्योगिक विविध कार्यकारी सहकारी संस्था, ता. जिल्हा उस्मानाबाद

संदर्भ क्र.२ अन्वये पालखेड विविध कार्यकारी सहकारी संस्था, पालखेड, ता.निफाड, जिल्हा नाशिक या संस्थेचा उपप्रकल्प संस्थेच्या विनंतीवरून रद्द करण्यात आलेला आहे. तसेच दि. १५ ऑक्टोबर २०२२ रोजी संबंधित संस्थेकडून स्मार्ट प्रकल्पामार्फत देण्यात आलेली अनुदानाची रक्कम रु २,७३,०००/- पुन्हा स्मार्ट प्रकल्पाच्या बँक खात्यात वर्ग करण्यात आलेली आहे.

लेखापरीक्षण विभागाने उपस्थित केलेल्या मुद्द्यानुसार वरील नमुद एकूण ७ विविध कार्यकारी सहकारी संस्थांचे डीपीआर सुधारित करण्यात आले असून त्यानुसार अनुदान करार मध्येही सुधारणा करण्यात येऊन सदर अहवाल आपणांस सादर करण्यात येत आहे. सदर अहवालाचे अवलोकन व्हावे. ही विनंती.


प्रमुख,

प्रकल्प अंमलबजावणी कक्ष,
एमसीडीसी स्मार्ट, पुणे.



महाराष्ट्र MAHARASHTRA

2022

BS 079081

60/08 29 SEP 2022

500/-



19 SEP 2022

अनु. क्र. दि. मु. शु. रकम.
 दस्तावेज प्रकार **Agreement**
 वस्तु नोंदणी करणार आहेत का ? होय/नाही.
 मिळकतीचे वर्णन
 मुद्रांक विकत घेणाऱ्याचे नांव
 पत्ता
 दुसऱ्या पक्षाच्या नांव
 हस्त व्यक्तिचे नांव व पत्ता

पिये म्से एमिड
 विवाही करी
 विविध कृषि कार्यकारी संस्था

प्रथम मुद्रांक लिपिक
 प्रमाणित करिता

वि. रमण देवराज लडकत
 धरवणा वा. २२०११२५
 ३३९, सोमवार पेठ, पुणे-११
 ज्या कारणासाठी ज्यांनी मुद्रांक करी केला, त्यांनी त्याच कारणासाठी मुद्रांक
 करी केल्याप्रमाणे व अधिकृत दायजे बळकटपारक आहे

SMART Grant Agreement

This Agreement (hereinafter called "Agreement") is made on the 1st day of the month of October, 2022 between, on the one hand, Project Implementation Unit Maharashtra Cooperative Development Corporation limited (MCDC), of Hon. Balasaheb Thackeray Agribusiness Rural Transformation Project (hereinafter called PIU, SMART) and, on the other hand "Kharola Vividh Karyakari Sahakari Sanstha Maryadit, a Co-operative Society," (hereinafter called Grant Recipient).

[Signature]
 Authorized Signature
 Nodel Officer
 SMART PIU MCDC, PUNE



[Signature]
 कृषि सेवा सहकारी संस्था म
[Signature]
 प्रमाणित



I. Definitions:

In this Agreement, the definitions of key terms are the following:

Term	Definition
"Agreement"	This Agreement, including any and all annexes, and any addenda to it agreed by the Nodal Officer, Project Implementation Unit (PIU), SMART.
"Business Day"	Any day of week on which India's banks are open for all business
"Completion Date"	The Completion Date of the Sub Project, as it is specified in the Agreement (The completion date of sub-project should not be later than the closing date for the SMART Project.)
"Confidential Information"	Any information relating to the Sub Project, the existence and contents of this Agreement and any information that arises in relation to this Agreement or the Sub Project
"State Level Project Approval Committee" (SPAC)	The Committee will be chaired by the Project Director and the HoDs of all the PIUs will be members of the said Committee. SPAC will give approval and allocate subproject to one PIU for implementation.
"Amount"	The total amount or amounts of the sub-project, including the Beneficiary's contribution as specified in the Agreement
"Grant"	The money paid to the Grant Recipients under the Grant Agreement relating to the Sub-project

Authorized Signature
Nodal Officer
SMART PIU MCDC, PUNE



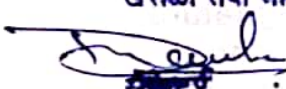
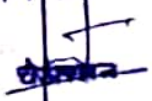
असहकारिता सहाय्यता समिती मध्ये खर्च

मेम्बर

"Payment Schedule"	The Grant tranches set out in the Grant Installment Payment Schedule
"Objectives"	The objectives relating to the sub-project as set out in the sub-project Proposals
"Personnel"	Employees and agents and any other professional, technical, and support services hired by the Project Director to perform the Project
Sub-project	Sub- project entitled: Productive Partnership Project between Star agri warehousing & collateral Management Ltd. & Kharola Vividh Karyakari Sahakari Sanstha Maryadit,
"Reporting Date"	The dates, as they are set out in the Agreement, when the grant recipient must send to the concerned PIU, DIU the Progress Reports having the content and the form as provided by PCMU
"Services"	The services that the concerned PIU and/or the Beneficiary have agreed to undertake as detailed in the Project Agreement
"Implementing Team"	The Agribusiness Value Chain Expert (AVCE), Subproject Manager and specified Personnel in the Project
"Activity Schedule"	The tasks and outputs referred in the Sub Project brief
"Grant Recipient"	The beneficiary CBO, submitting the proposal for funding
"Subproject Manager"	The natural person nominated by SMART Project at regional level with JDA (Agri.) to co-ordinate among DIUs, RIU, PIUs, PCMU and also work with Buyers, CBOs and Regional Technical Support Group (RTSG)
"Regional Technical Support Group (RTSG)"	Regional Technical Support Group (RTSG) is a service provider appointed by SMART project to assist CBOs, Buyers to prepare Project Concept Note (PCN), Full Project Proposal (FPP) and assist in the implementation of the sub-project.
"Partners"	The partners are CBOs, Buyers, Research institutions, Legal and natural persons that assume obligations in the Sub Project's implementation.
PIP	Project Implementation Plan, SMART


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Manual	Community Operational Manual, Procurement Manual (PM), Financial Manual, Social and Environmental Safeguards documents prepared under SMART Project, including the Environmental and Social Management Framework (ESMF) (which includes the Resettlement Policy Framework, Indigenous Peoples Planning Framework and Pest Management Plan), and any environmental and social management plans, resettlement action plans, indigenous peoples plans and any other plans that may be required and prepared in accordance with the ESMF.
Anti-Corruption Guidelines	World Bank Guidelines on Preventing and Combating Fraud and Corruption in Projects Financed by IBRD Loans and IDA Credits and Grants”, dated October 15, 2006 and revised in January 2011 and as of July 1, 2016

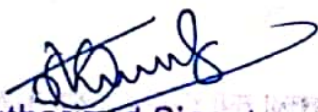
Sub-project title: Productive Partnership Project between
Star agri warehousing & collateral Management Ltd.
&
Kharola Vividh Karyakari Sahakari Sanstha Maryadit,

Art. 1. The Full Project Proposal submitted to the PCMU to be considered for funding, approved by the “State Level Project Approval Committee” (SPAC) of SMART and subsequently negotiated and agreed by and between the PIU and the Grant Recipient shall be hereinafter known as “the Sub-Project”.

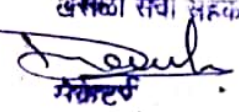
Art. 2. The following entities that are bound by this Agreement are hereinafter referred to as “the Parties” and they are:

Parties:-

Grant Provider	Grant Recipient CBO
Project Implementation Unit MCDC of SMART	Beneficiary CBO represented by Authorized signatory Kharola Vividh Karyakari Sahakari Sanstha Maryadit,


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Art. 3. The abbreviations and acronyms used in the Project Implementation Plan and Community Operation Manual & Financial Management Manual will be used in this Agreement with the same meanings assigned in there.

II. Duration of the Sub-project:

Art. 4. The Sub-project financed through this Agreement shall be implemented during the period mentioned below. Under special circumstances, when Parties commonly agree, duration could be prolonged or shortened, in writing, through an addendum to this Agreement. Notwithstanding contained anything elsewhere in this agreement "SMART reserves the right to terminate the Grant Agreement with immediate effect if the sub project is not started within 6 Months or not received the 1st installment within 12 months after signing the agreement or within the agreed delays and SMART establishes that there is no likelihood that the sub project will be completed within a reasonable delay". In case of termination of this agreement under this article, the grant recipient will not be able to make any claim against PIU or Nodal Agency or any officer and staff of SMART project in respect to this agreement.

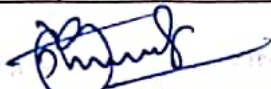
Agreement Commencement Date: (day/month/year) 01/10/2022	Agreement Completion Date: (day/month/year) 30/09/2023 *Agreement completion date can be extended by PIU with prior permission of PCMU in circumstances which may unavoidable/unforeseen.
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III. Sub-project Amount



Cost break down of the sub project showing who will finance what, its implementation phases and agreed mile stone for each phase are as under

Art. 5. The total Amount of the sub-project is INR 149.73 lakhs revised as per meeting dated 11/08/2021 and the breakdown of contributions is listed below:

Sr. No.	Sub-project Components	Cost (Rs. Lakh)	SMART Grant (Rs. Lakh)	CBO Equity (Rs. Lakh)
A	Core investment in Sub-project			
1	Collateral Management Agency Cost –Star Agri	5.40	3.24	2.16
2	Renovation of Warehouse	15.93	9.56	6.37
3	Cleaning and Grading Machine	10.34	6.20	4.14
4	IOT-RFID, CCTV, Smoke Detector, IT Equipment, Security Alarm, Invertor, Weighing	6.00	3.60	2.40


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	Scale			
5	Construction Of New Godown-1000MT*1	82.28	49.37	32.91
6	Construction for Cleaning and Grading Machine (700 sqft.)	5.60	3.36	2.24
7	Spiral Separator + Iron Sieve	1.60	0.96	0.64
8	Electrification, Stitching Machine, Moisture Meter, Fire Extinguisher	3.14	1.88	1.26
	Sub total	130.29	78.17	52.12
A1	Pre-Operative/ Preliminary Exp.	6.51	3.91	2.61
	Total Cost A	136.80	82.08	54.72
B	Complementary Investment by Buyer	0.00	0.00	0.00
C	Extension activity (Value Chain Development School-VCDS) by DoA*	12.93	12.93	0.00
	Total A+B+C	149.73	95.01	54.72

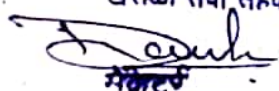
*This grant will be released to concern technical department (Agri./AHD)

IV. Implementation arrangements

- Art. 6. The Grant provided under this Agreement shall be used only in respect of the Sub Project Objectives as per the conditions stipulated in FPP and as per terms laid down in the Project Implementation Plan, Community Operations Manual and Financial Management Manual, Social & Environment safeguard of SMART.
- Art. 7. After signing the Grant Agreement, the Grant Recipient should open an account, at Bank or Financial Institution for the Sub-project, with terms and conditions mentioned in the PIP & Financial Management Manual. The account information shall be communicated immediately to the DIU, RIU, PIU & PCMU SMART.
- Art. 8. The Grant Recipient is asked to ensure that the Grant will not be subject to confiscation, compensation, allotment or seizure.
- Art. 9. All Accounts and Ledgers for the financial operations within the Sub Project, as well as all related documents, will be properly maintained. All payments above Rs.5000/- (Rupees Five thousand only) have to be mandatorily done through RTGS/NEFT/cross cheque (electronic mean). The sub-project proposal related payments are to be recorded in PFMS system. The Grant recipient will be guided by DIU for operation of PFMS system. Whenever


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required by the World Bank or PIU, the Grant Recipient shall have and make available financial records and accounts audited in accordance with appropriate auditing principles consistently applied by an independent auditor (in agreement with SMART)

Art. 10. The Grant Recipient will be exclusively liable for the proper use of the Grant in accordance with the Agreement, including the PIP. **In case the Grant is, totally or partially, improperly used and declared ineligible, the Grant Recipient will be responsible for immediate replenishment of the Grant accounts with the respective Amount.**


Art.11. Grant Recipient shall implement the Sub-Project in accordance with the terms of the PIP, CoM, FM Manual, Procurement Manual, Social & Environmental safeguards, and Anti-Corruption Guidelines.

Art. 12. Leasing and/or credit is not allowed under project financing. **Procurement of second-hand equipment is not allowed.** All procurements should be done with due prudence and open for verification by project authorities.

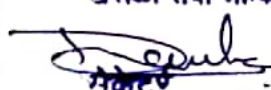
Art. 13. The Grant Recipient shall preserve and use the equipment and the goods acquired within the Sub Project with the diligence of a good owner, and shall refrain from any action having as object and/or affect the damage, the value decrease and/or the making of any pledge or guarantee over the equipment's or goods. All or any equipment's and goods procured as part of subproject for which grants are received by the Recipient and having its purchase value more than Rs.50000/- (Fifty thousand) shall be pledged till the sub-project completion date.

V. Rights and Responsibilities

Art. 14. In carrying-out/performing the Sub-Project, the Grant Recipient will: Exercise the degree of skill, care, and diligence reasonably expected by the State Project Approval Committee and PIU SMART in similar circumstances, and in accordance with the agreed Schedule, unless this Agreement is terminated earlier as provided for in this Agreement. Comply with all provisions of all statutes, regulations and rules of government, local or public authority and any professional codes of conduct or practice that may be applicable to the Sub Project. Observe the PCMU /PIU/RIU/ DIU directives in relation to the Sub Project. Be reasonably available for consultation with the PCMU / PIU /RIU/ DIU SMART during the term of this Agreement on the conduct and progress of the Sub Project.


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for improvement should be addressed by the Grant Recipient in maximum thirty (30) calendar days. In case of disagreement between the grant recipient and the PIU, this should be discussed and agreed upon; if the disagreement could not be solved, such dispute shall be resolved by complying with SMART Grievances Redressal Mechanism as per PIP.

Art. 20. Before signing of the Agreement the Grant Recipient will have clearly defined an Activity Schedule, budget and time frame for completion of tasks. Evidence of completion of these activities and verification of their satisfactory completion will be provided by the DIU/ Regional team upon certification by the assigned specialists of the Technical Assistance Team of the SMART.

Art 21. If delays in the activity a payment schedule are likely and cannot be avoided the Grant Recipient may request an extension. This request may be considered by SMART and a no cost extension with justification may be provided.

Art 22. The Payment Schedule will be as defined in the FMM which given in section XII. The detailed proposed Payment Schedule will be agreed to in the Grant Agreement. Please see Section XII.

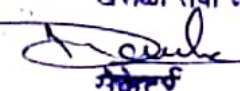

Art. 23. The SMART may terminate this Agreement by giving 30 days' notice in writing to the Grant Recipient, if the Grant Recipient becomes unable to provide the required services and no substitute arrangements satisfactory to the SMART can be made to continue satisfactory implementation of the Sub project.

Art. 24. The Grant Recipient will ensure that all service providers eventually hired for project implementation respect the conflict of interest rules as per Community Operation Manual.

Art. 25. The Grant Recipient will provide the SMART with all relevant data and interpretations made in relation to the Sub project. Such data may include survey information, ground investigations and other data, calculations, plans, drawings, designs, maps, specifications, reports, instructions and decisions. Requests for these data will be made timely and reasonably.


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Art. 26. The Grant Recipient will promptly notify the SMART respective DIU, RIU and PIU of any significant difficulties encountered or foreseen by the Sub-project Manager in carrying out the Sub Project activities.

Art. 27. The SPAC and the PCMU/PIU/RIU/DIU will regularly review the progress for the purposes of running the entire sub-project efficiently and conforming to the budget.

Art. 28. **The Agribusiness Value Chain Expert & Subproject Manager will maintain full and accurate records of performance of the Subproject and will provide reports to the PIU & SMART which includes Activity Schedule, outlining the progress of the Sub-project and highlighting activities undertaken, difficulties encountered, and achievements made.**


Art. 29. It will be a condition of the Agreement that all environmental and social safeguards indicated in the Project Implementation Plan and Community Operation Manual are respected. Grant Recipient will be held accountable for non-compliance with the relevant environmental and social safeguards applicable to this sub-project; and therefore the Grant Recipient is required to implement all mitigation measures identified and costed in the FPP and negotiations, including those on waste water management, if applicable.

Art. 30. The Grant Recipient cannot change the proposed value chain in a joint proposal and the ownership of any partner cannot be transferred to others unless otherwise particularly instructed by concerned PIU & PCMU

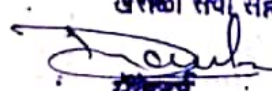
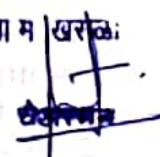
VI. Conflict of interests

Art. 31. As indicated in the Project Implementation Plan, the **Board of Director or Authorized Representative** and concerned official shall sign a legal declaration that they will not receive themselves or pay to their own firms from the sub project account. The legal declaration shall be part of the Agreement.

Art. 32. **Grant Recipient shall have, at least a Manager and an accountant on fulltime/part time basis**


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VII. Addresses for communication purposes

Art. 33. Any communication between the parties is effective only if it is in writing, by fax or e-mail, using the contact details mentioned below:

Contact Details		
	Authorized Representative of Grant Recipient (legally responsible person)	Authorized Representative of Grant Provider (Nodal officer of concerned PIU*) *If the signatory of this agreement get retired/transferred ensuing officiating officer will be responsible for legal compliances
Name:		
Address:	Tal-Renapur Dist-Latur	Maharashtra Cooperative Development Corporation limited (MCDC), Narveer Tanaji Wadi, Sakhar Sankul, Shivaji Nagar Pune 411005
Phone /Fax /e-mail:	darshanbhopi4@gmail.com	<u>mcdepune@gmail.com</u> Phone- 020298089

VIII. Effectiveness, Termination

Art. 34. This Agreement becomes effective on the day of signing by concerned PIU SMART and respective grant recipient.


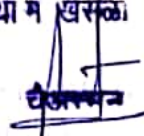
Art. 35. This Agreement will terminate upon completion of the Sub Project in accordance with the Activity Schedule mentioned in Art 4 above unless terminated earlier, or when the SMART officially notifies about termination or cancellation of the Sub Project.

Either of the parties may terminate this Agreement, by written notice to the other, if:

- a) The Grant Recipient becomes unable to provide the required services and no substitute arrangements satisfactory to the SMART can be made to continue satisfactory implementation of the Sub project.


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XII. Proposed Payment Schedule

(Rs. In lakhs)

Payment/ Tranche (Phase)	Total cost	Grant Receiptant's Contribution		SMART's grant		Milestone and reports
First	68.40	27.36	2.84	41.04	4.24	Work plan; milestone achievement including reports as required by FPP, PIP, FMM and CoM
			8.82		10.85	
			15.67		25.95	
Second	41.04	16.42		24.62		
Third	27.36	10.94		16.42		
Total	136.80	54.72		82.08		

This agreement was executed today 1st October 2022 and revised as per SPAC meeting dated 11/08/2021 in three originals, one for each of the parties mentioned below.

From the side of the State of Maharashtra's Agribusiness Rural Transformation (SMART), Project.



[Signature]
Authorized Signature
Nodal Officer

SMART PIU MCDC, PUNE

Nodal Officer, PIU-MCDC

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Authorized Representative of Grant Recipient

Witness 1.

[Signature]

DB BDPi

Witness 2.

[Signature]

[Signature]

List of Appendices to the Grant Agreement

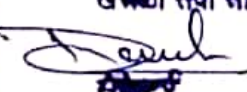
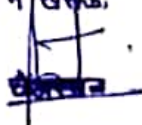
The following documentation is part of the Grant Agreement:

- a. Full Project Proposal (FPP)
- b. Payment Schedule and Milestones
- c. Legal declaration on conflict of interest
- d. Proof of financial co-funding/credit assurance letter from any bank or financial institution
- e. Agreement among the value chain partners (joint proposal applicants)
- f. Authorization letter for authorized representative of beneficiary CBO (Board resolution)
- g. Land Ownership /Land lease (more than 15 Years) Documents
- h. Declaration of Beneficiary Contribution/Bank statement of Beneficiary contribution deposited in sub-project bank account
- i. Documents related CBO selection criteria as per PIP:-
 - i) Legal registration certificate.
 - ii) Membership certificate.
 - iii) Audited books of Accounts (audited by a Chartered Accountant).
 - iv) Turnover certificate of CA
 - v) CBO's undertaking regarding not declared as Non-Performing Asset (NPA) by the Bank/Financial institution due to past loan default.
 - vi) Minutes of at least 2 Annual General Meetings (AGMs) in case of MAP

PIU can add some points to this agreement during negotiations /agreement with grant recipients without altering its original meaning.


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Full Project Proposal

**Productive Partnership Project between Star Agri
Warehousing & Collateral Management Limited**

And

**Kharola Primary Agriculture Credit Society, Taluka –
Renapur, District – Latur**

Submitted to:

State of Maharashtra Agribusiness and Rural Transformation (SMART)

Submitted by:

Jointly by Partners

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Chapter 1: Introduction and Background

Maharashtra is the 3rd largest state of India in terms of total area and largest contributor to the country's GDP. The state's economy is primarily agricultural and it is a major occupation for a large number of people in Maharashtra. The state is one of the largest in terms of the number of agriculture based CBOs (Co-operative Based Organizations), who have evolved and grown in the last few years in terms of production and trade. However, the growth of those CBOs and farmers is at sub-optimum level due to the lack of required resources such as technology to improve their yield and product quality, infrastructure (pre and post-harvest) to increase their product marketability.

The state of Maharashtra has envisaged the SMART project with an overall mission to increase farmer's income, increase women employment, and overall contribution to the state's GDP. Under this project, the state government aims to bring together agriculture producers, technology partners and buyers at one place to identify and fill the existing gap in the agribusiness supply chain through a "Productive Partnership Project".

This current partnership project which is envisaged by Kharola Primary Agriculture Credit Society, is targeting the small and marginal farmers aimed at increasing their farm incomes by providing adequate infrastructure and services in warehouse and collateral management. The chosen commodities are Soybean, Tur, Harbhara and Jowar. PAC will facilitate cleaning, grading services as well as warehouse services to the farmers in partnership with StarAgri Warehousing & Collateral Management Ltd. StarAgri Warehousing & Collateral Management Ltd. will also facilitate farmers in availing loan through warehouse receipt.

This project aims to protect farmer from getting into situation of distress selling at low prices and in process to help them realise better price realisation as well as provide farmers loan facility through collateral management.

Table 1: Project Summary

Sr. No.	Criteria	Our Submission
a)	Name of the Project	Kharola Primary Agriculture Credit Society and StarAgri Warehousing & Collateral Management Ltd. Productive Partnership Project
b)	Name of the Value Chain Partners	<p>Warehousing Collateral Management Partner:</p> <ul style="list-style-type: none"> Star Agri Warehousing & Collateral Management Limited <p>PACs (SHGs/ FPOs/ PACS etc.):</p> <ul style="list-style-type: none"> Kharola Primary Agriculture Credit Society <p>Funding Partner:</p> <ul style="list-style-type: none"> SMART Project Banks/ Financial Institutions PAC

c)	Contact Details of Key Value Chain Partners	<p>Warehousing Collateral Management Partner:</p> <ul style="list-style-type: none"> • Address: 601-604 A Wing, Bonanza Building, Sahara Plaza, J.B. Nagar Metro Station, J.B. Nagar, Andheri (E), Mumbai-400059, Maharashtra, India • Name of Key Personnel(s): Suresh Chandra Goyal • Designation of Key Personnel(s): Chairman and Managing Director • Contact details of Key Personnel(s): 9414093765, 9829037135, 9323893407 <p>PACs:</p> <ul style="list-style-type: none"> • Address: Kharola Primary Agriculture Credit Society, Taluka: Renapur, District: Latur • Name of Key Personnel(s): Mr. Sudhakar Kale • Designation of Key Personnel(s): Chairman • Contact details of Key Personnel(s): +91 97631 39582
d)	Crops	<ul style="list-style-type: none"> • Soybean • Tur • Harbhara • Jowar
e)	Catchment/ Location	Taluka – Renapur; District – Latur
f)	Sub-Project Objectives	<ul style="list-style-type: none"> • To increase the number of small and marginal farmers using warehousing & collateral management services. • To provide cleaning & grading facility to farmers for better price realization of their produce. • To provide warehousing facilities to farmers • To provide hassle free loan against warehouse receipt • To provide market intelligence & linkages
g)	Value Propositions	<ol style="list-style-type: none"> 1. Farmer deposits his produce at PAC owned warehouses against which StarAgri issues him a warehouse receipt. 2. Farmer takes the receipt, which has all the necessary details like quality and quantity of the produce, to the bank. 3. Bank offers credit facility against that receipt up to 70 per cent of the value of the collateral with the warehouse.

h)	Aggregation Targets	Particulars	Y1	Y2	Y3	Y4	Y5	Y6	Y7	
		Soybean	588	980	1078	1176	1274	1372	1372	
		Tur	353	588	647	706	764	823	823	
		Harbhara	470	784	862	941	1019	1098	1098	
		Jowar	294	490	539	588	637	686	686	
		Total	1705	2842	3126	3410	3695	3979	3979	
i)	Project Period	7 years								
j)	Total Project Cost	Sr. No.	Sub-project Components					Cost		
		A	Core investment in Sub-project							
		1	Collateral Management Agency Cost – Star-Agri Warehousing					5.40		
		2	Renovation of Warehouse - 500 MT*2					15.93		
		3	Cleaning and Grading Machine-2MT (Max Cap-3 Lakhs)					10.34		
		4	IOT-RFID, CCTV, Smoke Detector, IT Equipment, Security Alarm, Invertor, Weighing Scale					6.00		
		5	Construction Of New Godown-1000MT*1 (Max Cap-42.00 Lakhs)					82.28		
		6	Construction for Cleaning and Grading Machine(700 sqft.)					5.60		
		7	Spiral Seperator + Iron Sieve					1.60		
		8	Electrification, Stitching Machine, Moisture Meter, Fire Extinguisher					3.14		
		9	Spiral Seperator and iron sieve					1.6		
			Sub total-A					130.29		
		6	Pre-Op/ Preliminary Expenses					6.51		
			Total Cost A					136.80		
			B					Complementary Investment by Buyer		
			C					Extension activity by DoA @ Rs.12.93 Lakh/CBO		
	Total A+B+C					149.73				
k)	Means of Finance	Sr. No.	Sub-project Components			Cost	SMART Grant	CBO Equity		
		A	Core investment in Sub-project							
		1	Collateral Management Agency Cost – Star-Agri Warehousing			5.40	3.24	2.16		
		2	Renovation of Warehouse - 500 MT*2			15.93	9.56	6.37		
		3	Cleaning and Grading Machine-2MT			10.34	6.20	4.14		
		4	IOT-RFID, CCTV, Smoke Detector, IT Equipment, Security Alarm, Invertor, Weighing Scale			6.00	3.60	2.40		
		5	Construction Of New Godown-1000MT*1 (Max Cap-42.00 Lakhs)			82.28	49.37	32.91		
		6	Construction for Cleaning and Grading Machine(700 sqft.)			5.60	3.36	2.24		
7	Spiral Seperator + Iron Sieve			1.60	0.48	1.12				

		8	Electrification, Stitching Machine, Moisture Meter, Fire Extinguisher	3.14	1.88	1.26
			Sub total-A	130.29	78.17	52.12
		6	Pre-Op/ Preliminary Expenses	6.51	3.91	2.60
			Total Cost A	136.80	82.08	54.72
		B	Complementary Investment by Buyer	0	0	0
		C	Extension activity by DoA @ Rs.12.93 Lakh/CBO	12.93	12.93	0
			Total A+B+C	149.73	95.01	54.72

Chapter 2: Introduction of Crop

2.1 Crop Profile: Soybean

Soybean is a major oilseed and a feed crop. Soymeal accounts for over 60% of world meal production (vegetable and animal meal) and occupies a prominent position among protein feedstuffs used for the production of feed concentrates. Soybean is stored and shipped to large – scale industrial units for processing into oil and meal. Down – stream transformation and subsequent marketing of the end products are separate economic activities that generate considerable value outside the agriculture sector. The crop has economic importance for the global food and feed industry.

Legumes play a vital role in human nutrition since they possess a very high nutritional value and are rich source of protein, calories, certain minerals and vitamins. Among legumes, soybean is probably the largest source of vegetable seed oil (20%) and protein (40%). Soybean builds up the soil fertility by fixing large amounts of atmospheric nitrogen through the root nodules.

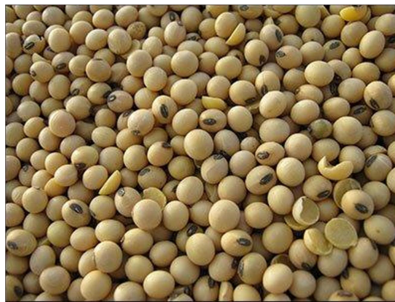


Figure 1: Soybean Crop

Soybean is reported to be originating from China. It is a very rich source of nutrition. It is also used as a supplement with others such as wheat flour fortified with soybean flour which makes good quality and more nutritious `chapati`. Soybean is used for making high protein food for children. It is widely used in the industrial production of different antibiotics. Consumption of soybean is gaining popularity and nutritional superiority on account of its protein containing essential amino acids, unsaturated fatty acids, carbohydrates, vitamins and minerals. Further, its use has an important role in preventing and treating chronic diseases such as heart ailments, osteoporosis, cancer, kidney ailments. It is used as raw material for number of processed food products as well as source of animal feed.

Soybean oil accounts for 25% of global vegetable/ animal oils and fats consumption. There is a rapid growth in the demand for compound feed and soymeal. Soymeal is in high demand and thus the demand for Soybean is said to be sustained. Oil is a lucrative by product of Soybean processing. Products derived from Soybean Are Soya oil, Biofuel, and Soya meal. It is also used in the preparation of antibiotics, manufacturing margarine, vegetable oil, paints, varnishes, linoleum, printing inks, glycerin, etc. Soybean cake is rich in nitrogen and mineral content and can be utilized as soil manure. A large number of Indian and western dishes such as bread, `chapati`,

milk, sweets, pastries etc. and soybean oil is used for manufacturing Vanaspati ghee and several other industrial products.

Worldwide Production Statistics of Soybean

United states are the global leader in Soybean production, followed by Brazil and Argentina. In 2017, India produced 8.4 million MT of Soybean in 2017. India ranks 5th in the world's top 10 producers of Soybean. USA is the major producer of Soybean and ranks first in production. Its share in the world production is almost 34 percent followed by Brazil (32%), Argentina (15%) and China (4%). India occupies fifth place in production and fourth in area in the world. Total world soybean production is 361 million tons.

Production Statistics of Soybean in India

India is a fifth largest soybean-producing country in the world and produces 11 million tons according to SOPA. Production of soybean in India is dominated by Maharashtra and Madhya Pradesh which contribute to 89 per cent of the total Soybean production. Out of the total production, 51.42 % of soybean is mainly produced in Madhya Pradesh followed by Maharashtra (32.50%) and Rajasthan (11.34%) (Directorate of Economics and Statistics). Major soybean producing districts in Maharashtra are Latur, Amravati, Nagpur, Buldhana and Kolhapur. Most of the farmers in Maharashtra use hybrid and local varieties of seeds. Approximate 70% of farmers use their saved seed and 30% farmers purchase it from retailers and fellow farmers.

India has the fifth largest vegetable oil economy in the world. After cereals, oilseeds are the second largest agricultural commodity, accounting for the 14% of the gross cropped area in the country. However, country meets its edible oil demand through imports, which accounts for almost 50% of requirement. The per capita consumption of the vegetable oil is increasing very rapidly due to increase in population and improved economic status of the population.

The demand has increased to about 12.6 kg/year compared to 4 kg/year in 1961 and the projected demand for the year 2020 and 2050 is 16.443 and 19.16 kg/year respectively. To meet this demand, the country will require nearly 25.26 and 35.90 million tons of edible oil. In this scenario, soybean has played and will play a pivotal role in the future. Production of soybean in India is dominated by Maharashtra and Madhya Pradesh which contribute 89 percent of the total production. Rajasthan, Andhra Pradesh, Karnataka, Chhattisgarh and Gujarat contribute the remaining 11 per cent production.

Table 2: Production Statistics of Soybean in India

Name of the state	Area (Lakh. Ha.)	Production (Lakh. MT)
Madhya Pradesh	62.605	59.475
Maharashtra	10.588	48.565
Rajasthan	2.804	12.176
Andhra Pradesh	2.840	3.479
Karnataka	2.470	3.001
Chhattisgarh	1.560	1.560
Gujarat	0.930	0.977
Rest of India	0.630	0.599
Total	120.327	12.176

Source: FICCI Report – Evaluation of PPPIAD

Crop Seasonality: Soybean

Table 3: Crop Seasonality - Soybean

Season	Jan	Feb	March	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec
Kharif						Yellow	Yellow	Yellow	Green	Green	Green	
Rabbi	Green	Green	Green							Yellow	Yellow	Yellow

Sowing	Yellow
Harvesting	Green

2.2 Crop Profile: Tur

Pigeon pea or red gram, also known as Arhar and tur, is mainly cultivated and consumed in developing countries of the world. It is an important pulse crop in India and contributes about 20 % to the total production of pulses. India is a largest producer of pigeon pea in the world and contributes more than 60 % of the total world production. It is the rich source of protein to large population of the country. It enhances the soil fertility through fixing atmospheric nitrogen. Its seeds are round or lens shaped, the flowers are generally self-pollinated and the fruit is a pod. Numerous species of red gram exist which differ in height, habit, time of maturity, color, size and shape of pods and seeds.



Figure 2: Tur

Its actual place of origin is believed to be either India or Africa. Red gram (*Cajanuscajan* (L) Millsp) belongs to family Leguminosae. Red gram is a protein rich staple food as it contains more than 20 % protein, which is almost three times that of cereals and is mainly consumed in the form of split pulse as Dal, which is an essential supplement of cereal based diet and is consumed in different combinations of pulse-rice or pulse-wheat bread in Indian diet. It is reported that the biological value improves greatly, when it is consumed in combination with wheat or rice because of the complementary relationship of the essential amino acids. It is also rich in lysine, riboflavin, thiamine, niacin and iron. It is also used in animal feed. Red gram also plays an important role in sustaining soil fertility by improving physical properties of soil and fixing atmospheric nitrogen. Being a drought resistant crop, it is suitable for dry-land farming and predominantly used as an intercrop with other crops (Cotton, sorghum, pearl-millet, green gram, black gram, maize, soybean and groundnut) for increasing production and maintaining soil fertility

Global Production of Tur

Red gram is grown throughout the tropical and subtropical countries of the world, especially in South Asia, Eastern and Southern Africa, Latin America, Caribbean countries and Australia. According to FAO statistics, worldwide red gram was grown in about 7.02 million ha and its production was 6.80 million tons in 2016. India is the largest producer of red gram accounting 71.53 % of total production and 76.68 % of total area of the world. Other major red gram producing countries are Myanmar (11.73 %), Malawi (7%), Pakistan (5.87%) and Tanzania (4.10%). The productivity is highest in Uganda (1000 kg/ha) followed by Nepal and India.

Production of Tur in India

State (Year 2017-18)	Area (Lakh Ha.)	Production (Lakh Ton.)
Maharashtra	12.29	10.59
Karnataka	8.85	8.39
Madhya Pradesh	6.47	7.29
Telangana	3.31	3.21
Uttar Pradesh	2.82	3.03
Andhra Pradesh	2.78	2.64
Gujarat	2.71	2.22
Jharkhand	1.38	1.28
Orissa	0.86	1.18
Chhattisgarh	1.19	0.61
Others	1.77	1.36

Source: Directorate of Pulses Development

In 2016-17, India's total Tur production was Maharashtra is the largest producer of red gram, accounting for nearly 28.39 % of the total production followed by Karnataka (22.48%), Madhya Pradesh (12.78%), Gujarat (6.43%), Uttar Pradesh (6.26%). These top five tur producing states contribute about 76% of the production of the country in 2016-17.

Among major red gram growing states, Maharashtra has the largest area under the crop and accounts for about one-third area of the country, followed by Karnataka (18.91%), Madhya Pradesh (12.58%), Andhra Pradesh (12.20 %), Uttar Pradesh (8.04%) and Gujarat (5.90%).

Crop Seasonality: Tur

Table 4: Crop Seasonality - Tur

Season	Jan	Feb	March	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec
Kharif												
Rabbi												

Sowing	
Harvesting	

2.3 Crop Profile: Jowar/Sorghum

Jowar or Jowar (Jowar bicolor) is cultivated as a major food crop in several countries in South Asia, Africa and Central America. The crop is mainly grown in tropical and sub-tropical areas that are prone to moisture stress. Jowar is heat and drought tolerant crop. It is a dryland adapted crop. Jowar has widely diverse types of annual and perennial types. Jowar is the fifth most important cereal in the world.



Figure 3: Jowar

Jowar flour is widely used to produce traditional food products, including porridges of many types and flatbreads. It is no longer true that wheat gluten is necessary to make white bread of good quality. Acceptable bread has been made from Jowar flour – without any wheat flour and therefore without gluten. Jowar, popularly known as Jowar, is one of the four important food crops of the country as it occupies about one-tenth of the total area of the cereals. Jowar (Jowar bicolor) is an annual plant belonging to family Gramineae and grows up to over four meters. The inflorescence of Jowar is a panicle or head as grain is usually partially covered by glumes. The color of the grain is white, pink, yellow or brownish-yellow. It is the most important food and fodder crop of dry land agriculture. It is a staple food for millions of poor rural people particularly of Asian and African countries and also serves as an important source of fodder, animal feed and industrial raw material for alcohol, spirit, Syrup and starch production.

The origin of Jowar is generally believed to be Ethiopia or East Central Africa and it was taken from East Africa to India during the first millennium. Jowar is an important crop providing food, feed and fodder in the arid and semi-arid tropics of the world. It is a staple food for the rural poor in the country and African countries. It is primarily used as livestock feed and as industrial use in USA and other developed countries. Jowar is often referred to as “coarse grain”. Though, it is a traditional subsistence crop but now changes its role to commercial/semi-commercial crop. The demand for Jowar for feed purpose is the main driving force in rising the global production and international trade. It has also been used in the production of alcohol.

Jowar grain contains about 10-12 % protein, 3 % fat and 70 % carbohydrates. In India, Jowar grain is eaten by human either by breaking the grain and cooking it or by grinding it into flour and preparing ‘chapatis’. It is also fed to cattle, poultry and swine.

As per recommendation on package of practices for Jowar by Directorate of Sorghum Research, ICAR the details on cultivation practices are described below:

Jowar requires a well prepared seedbed for good crop establishment. Jowar is grown in Kharif and Rabi season in Maharashtra. Kharif sowing is done first week of July in irrigated areas and under rainfed conditions, sowing is done preferably within one week of the onset of first monsoon showers. Jowar is a tropical crop which grows well

at a temperature between 27° and 32°C and can be grown up to 1500 meters above MSL. Jowar requires a moderate rainfall between 30 and 65 cm per annum. Although, Jowar is grown as rainfed crop but if the irrigation facilities are available, irrigation should be given at critical crop stages when adequate rainfall is not received.

As per the practices recommended by TNAU, Harvesting should be done at appropriate stage. Jowar crop should be harvested from 40-45 days after 50% flowering. At this stage, moisture content will be around 20-22 per cent, seeds will have black layer at the basal portion. The ear heads are spread on threshing floor and allowed to dry for 3 to 4 days. Threshing is done by trampling the ear heads under the feet of bullocks or by threshing machine. Threshed material is winnowed and grains are cleaned from the chaff. Seeds are to be dried to a moisture content of 10-12 percent. The major constraints in its production are rainfed cropping with vulnerability to vagaries of monsoon, non-availability of quality seed of high yielding and desired varieties. Biotic stress such shoot fly at early stage and grain mould at maturity.

Post-rainy season Jowar is normally consumed as food whereas the most of the Kharif Jowar is used as animal feed and processing purpose. Its grain is shipped from the major growing areas of Maharashtra to Gujarat and to northern states as seed for fodder. Mixed varieties of post-rainy Jowar of a lower quality are sold as seed, and to some extent, exported to other countries as feed. For the rainy season Jowar, besides food-use, it is traded over long distances for various non-food uses i.e. cattle feed, poultry feed, bird feed and alcohol. In the major centers of North India, industrial users of rainy season Jowar account for a large proportion of the total sales, especially low quality grain or when grain is blackened due to rain at harvest time. Post-rainy season Jowar is consumed exclusively as food, owing to the higher quality of the grain and hence it commands a significant price premium. Therefore, institutional innovations that concentrate on improving post-harvest value addition technologies, establishing more effective and sustainable linkages between farmers and the processed food industry is required. The demand for post-rainy season Jowar grain, for processed products such as ready-to-eat 'chapatis' (flat bread), flour, papad and roasted grain is showing an increasing trend in recent years although from a low base.

The demand for Jowar in the importing countries is primarily for feed use, and hence only Jowar produced during rainy season is exported as the Jowar produced during post-rainy season is used for domestic food consumption as this is of good quality. The major export demand arises from the African and middle-east countries. India exported about 2.59 lakh tonnes of Jowar grain in 2012-13. USA is top exporter of Jowar followed by Argentina and Australia. In the year 2011 there was a total export of 56.9 lakh Mt of Jowar all around the world.

Global Production of Jowar/ Sorghum

The total production of Jowar in the world has been reported at 59.20 million tonnes with cultivated area of 43.7 million ha during the year 2012. Mexico is the largest producer of Jowar, followed by Nigeria, USA and India. India produced about 6 million tonnes of Jowar in 2011-12 with average productivity of 0.96 tonnes/ha.

Production of Sorghum in India

State	Area (Million Ha.)	Production (Million Ton.)
Maharashtra	2.59	2.16
Karnataka	0.95	0.84
Madhya Pradesh	0.22	0.36
Rajasthan	0.58	0.35
Tamil Nadu	0.26	0.22
Utter Pradesh	0.18	0.18
Andhra Pradesh	0.10	0.18

State	Area (Million Ha.)	Production (Million Ton.)
Gujrat	0.10	0.15
Telangana	0.09	0.09
Haryana	0.06	0.03
Others	0.02	0.01
All India	5.14	4.57

Source: Agricultural statistics 2017, Government of India. 4th advance estimate.

Maharashtra has the highest share i.e. 44% with production of 2.67 million tonnes of production followed by Karnataka (20%), Madhya Pradesh (10%), Andhra Pradesh (6%) and Tamil Nadu (5%). Although, Maharashtra is the leading producer of the Jowar in India the productivity of the Jowar in Maharashtra is lower than that of national average. It is only 0.66 tonnes/ha against the national average of 0.96 MT/ha. Maharashtra is the leading producer of Jowar in the country. Jowar occupies about one-third of the total cropped area in the state.

Production of Jowar/Sorghum in Maharashtra

The crop is mainly grown in Jalgaon, Buldhana, Akola, Amravati, Yavatmal, Aurangabad, Ahmednagar, Beed, Osmanabad, Nanded, Solapur, Nagpur and Sangli districts. In Maharashtra, Akalkot, Mohol, Barshi, Pandharpur, Kurduwadi, Mumbai and Kolhapur are the major assembling markets of Jowar. Around 1.52 lakh tonnes of Jowar was brought in the regulated markets in Maharashtra in 2013. The wholesale prices of the Jowar vary across the markets in the states and across the months in the same market as shown in the table below. The monthly average price of Jowar in three consecutive months after the harvest of Kharif Jowar has experienced little changes. The monthly average price of Jowar in the month of January, 2013 stood at Rs.1522/quintal and Rs.1533/quintal in successive month. The average monthly prices of Jowar widely varies across the markets and it has been reported as high as 2124 per quintal in Pune in February, 2013 and as low as 1154/quintal in Nanded during the same period

Seasonality of Jowar/Sorghum

Table 5: Crop Seasonality – Jowar

Season	Jan	Feb	March	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec
Kharif							Yellow	Yellow	Green	Green	Green	
Rabbi	Green								Yellow	Yellow	Green	Green

Sowing	Yellow
Harvesting	Green

2.4 Crop Profile: Harbhara/Chickpea

Chickpea or Bengal gram is a legume and a native of the Mediterranean region. It is a major ingredient of many Middle Eastern, Mediterranean and Indian dishes. Bengal gram is a major pulse crop in India, widely grown for centuries and accounts for nearly 40 the major growing country in the 60 % of the total world area under



% of total pulse production. India is world, accounting for about more than Bengal gram. Chickpea is used in

various dishes in different parts of the world. Dal, or split grains are cooked into a thick soup, is a traditional dish in India. Hummus, mashed chickpea mixed with oils and spices, is a popular appetizer in the Middle East and Mediterranean region. Sprouted seeds are recommended for curing scurvy. India is largest producer of Chickpea in the world and cover maximum area.

Figure 4: Harbhara

Production of Chickpea in India

According to FAO, total world production of Chickpea is 11.28 million tonnes which is cultivated in 12.65 hectare in 2016. India ranks first in both area (62.56 %) and production (66.38 %). In India, chickpea is mainly grown in winter season in northern and central region of the country. Major producing states in the India are Madhya Pradesh (39.10%), Maharashtra (18.16%), Rajasthan (15.23%), Uttar Pradesh (6.96%), Andhra Pradesh (4.78%). These top five producing states contributes to the 84.24% of the total chickpea production in India.

State	Area (Lakh Ha.)	Production (Lakh Ton.)
Madhya Pradesh	35.90	45.95
Maharashtra	20.00	17.61
Rajasthan	13.75	14.71
Karnataka	13.75	8.25
Uttar Pradesh	6.11	6.84
Andhra Pradesh	5.21	6.76
Gujarat	2.95	3.62
Chhattisgarh	2.93	2.60
Jharkhand	2.33	2.03
Telangana	1.03	1.50
Others	1.77	1.70

Source: Directorate of Pulses Development

Maharashtra is the second largest producer of Bengal gram, contributing 18.16% to the total national production of Bengal Gram. Major Bengal gram producing districts in Maharashtra includes Amravati, Latur, Pune, Nasik, Aurangabad and Nagpur. Major commercial varieties grown in Maharashtra are Vijay, Phule G -5, Vishal, ICCV-10, Pusa -1053. All these varieties come under three categories which are early, medium and late ones.

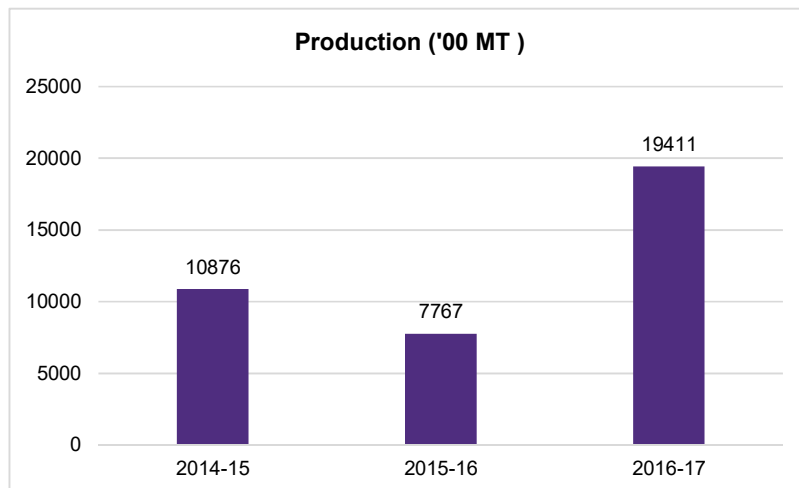


Figure 5: Production Statistics of Harbhara in Maharashtra

Seasonality:

Table 6: Crop Seasonality - Chickpea

Season	Jan	Feb	March	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec
Kharif						Yellow	Yellow	Green	Green	Green		
Rabbi	Green								Yellow	Yellow	Green	Green

Sowing	Yellow
Harvesting	Green

Chapter 3: Introduction to Catchment

3.1 District Profile

Latur is well-connected to major markets like Hyderabad, Pune & Mumbai. However, access to irrigation is weak (17per cent). Irrigation is evenly split between ground water (52per cent) and surface (48per cent) sources. In terms of soil composition, the district is mixed with 56per cent of soil medium to deep black and 24per cent light and shallow soil.



Figure 6: District Profile: Latur

Latur is a pulses hub and famous for its high quality Red gram. Today it is also a major Sugarcane and Soybean production centre. This shift has been for greater profitability, lower costs of cultivation and less risk in Soybean. Vegetables constitute 67per cent of horticulture area. Notably, Latur is part of the Agri-Export zone for 'Kesar' mangoes and there is a Mango Export facilitation centre set up by MSAMB. Sugarcane is an important crop.

APMCs, though the largest trading source, are losing appeal as trading destinations. Processors and DMIs are large purchasers of Soybean, Red Gram and Jowar and directly buy from farmers. Local oil mills as well as traders from other districts and Madhya Pradesh are large purchasers of Soybean. Latur has a number of Dal Mills, who directly purchase from farmers. Jowar on the other hand is mostly (40per cent) consumed by farmers themselves, and the rest sold to distilleries.

Latur has a number of seeds, pesticides and fertilizer retailers. DMI license holders and processors are also helping farmers for technical advice. They have set up village level Agricultural Service Centre to help farmers through the cropping cycle, soil testing, seed supply, land preparation and general best package of practices.

With the district headquarters 300 km away from both Hyderabad & Pune it is well connected to markets. It is also 470 km away from Mumbai. Latur has a GDP of Rs. 9,053 Crore and a per capita income of Rs. 59,496. Around 75per cent of Latur's 430,188 farmers own small or marginal landholdings (less than 2 Ha of land); the average farmer in Latur owns 1.65Ha of land, higher than the state average of 1.44 Ha and the Marathwada average of 1.50Ha. (Agriculture Census 2010-11).

Overall, access to irrigation is weak with only around 17per cent of net sown area irrigated (District Socio-Economic Survey). Irrigation is almost evenly split between ground water (52per cent) and surface (48per cent). The district experiences rainfall in the range of 700-800 mm. Potato, onion and tomato are the most important vegetables grown. In fruits, the largest area is for mango. Though grapes and lemon are also grown. The district is also part of the Agri-Export zone for pomegranates; though pomegranate production is limited to only 300 ha. Green Chilli and Onions are fast emerging crops. Mushroom cultivation also has scope.

Latur has a total of 11 APMC markets with 12 sub yards and 50 rural haats/ mandis for local level trading and these markets are the most important marketing channel for farmers. DMI's is another major channel. Rural haats form a minor marketing channel and cater mostly to vegetable farmers. The major private DMI license holders operating in Latur are ADM Agro Industries, Kisan mitra Warehousing, Indo Distillation Company, Latur Solvent Extraction, Alcoplus Producer, Kirti Gold and Tata Rallis (under their i-Shakti brand).

Some of the notable work carried out by ATMA (including activities supported under MACP and NHM) in the district includes. Since training farmers primarily on cultivation practices, IPM, INM and post-harvest value addition (fruits & vegetable processing, Soybean processing etc.) Under Public Private Partnership (PPP), ATMA, Latur is working with private companies such as ADM Agro for the soybean and Wheat, Hindustan Unilever ltd for Wheat, and Rutam Agro Consultant for Tomato and Chili. The companies are purchasing the produce from the farmers as per agreed rates. As part of contract farming arrangement, Adarsha Agri Clinic and Agri business center has started working with farmers on Tomato, Chilli and Okra with the agreed price (Tomato Rs.7/ per kg, Chilli and Okra Rs.20/ per kg) for the whole year. In association with MSWC, pledge loan awareness campaign has been initiated for the farmers.

The business opportunities we believe are suitable for Latur include: Soybean (Certified seed production and trading; Soymilk processing unit); Pulses (Integrated pulses processing; Certified seed production and trading); Sunflower (Dehulled sunflower seeds processing); Mushrooms (Oyster mushroom production) Potatoes (Potato chips processing).

Chapter 4: Baseline Analysis

To understand the current scenario in the cluster, meetings were conducted with the stakeholders of the PAC. Information was collected from farmers engaged in Soybean, Tur, Jowar and Harbhara farming of different groups to understand the existing practice of cultivation, existing supply chain and value chain mechanism and the hurdles faced by the farmers.

This baseline survey provides insights into storing conditions of the produce available across the cluster districts. This baseline survey has gathered detailed information on conditions and challenges faced by the farmers due to unavailability of appropriate storing facility which leads to distress selling of the produce amongst farmers. The goal of the survey was to measure infrastructural gaps in terms of warehouse and collateral management in the cluster before the implementation of various interventions proposed in project

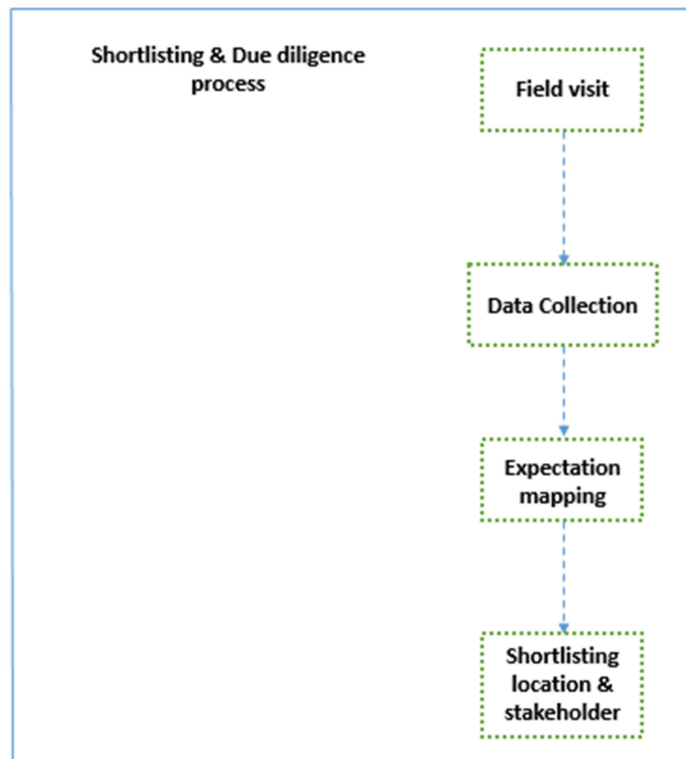


Figure 7: Baseline Analysis:

As per the survey conducted, it was found that the experience in farming of the farmers ranged from 1 year to as high as 60 years.

It is found that there are two warehouses of 500 MT each in the cluster owned by the PAC in the radius of 5 kilometers from the cluster. However, the warehouse is not in good condition, hence renovation is required to

make it operational. Due to the unavailability of proper storing facility, 87% of the farmers in this cluster are left with no other option but to sell their produce in peak harvesting time when prices are low because of high availability of the produce in the market.

Details of Existing Infrastructure of PAC:

Table 7: Details of Existing Infrastructure

Sr. No.	Name of PAC	Existing Infrastructure with Capacity
1	Kharola Primary Agriculture Credit Society, Taluka – Renapur, District – Latur	1. Two warehouse of total capacity of 1000 MT warehouse (500 MT each)

Key challenges being faced by the surveyed farmers and PACs:

- **Scarcity of Capital:** - Post harvest, due to lack of liquidity, a farmer is compelled to sell his produce immediately, sometimes within days of harvest. Due to a supply glut in the market, the farmer is not able to realize the best price for his produce.
- **Lack of storage facility:** As farmers don't have storage facility, farmers are forced to go for distress sell of the produce immediately after harvesting at lower price or they store the produce in open place which damages commodity.
- **Lack of cleaning & Grading Facility:** Farmers do not clean & grade their commodity and they sell it at lower price, as they don't have cleaning and grading facility.
- **Lack of market intelligence & linkages:** Farmers don't have easy and accurate access to market information and due to this they sell their produce without any sales plan and lose market opportunity. Lack of market linkages forces farmer to keep selling their produce to village level aggregator or Artias at lower price.

Chapter 5: Partners' Profile

5.1 Introduction to PAC

Kharola is a Primary Agricultural Credit Society (PACS) Registered under Co-operative Society Act. Primary Agricultural Credit Societies (PACS) occupies a predominant position in the co-operative credit structure and form its base. A PAC is organized at the grass roots level of a village or a group of small villages. It is this basic unit which deals directly with the rural (agricultural) borrowers, gives those loans and collects repayments of loans given. It serves as the final link between the ultimate borrowers on the one hand and the higher financing agencies, namely the SCBS and the RBI/NABARD on the other hand.

The brief details of the applicant, Kharola Primary Agriculture Credit Society is given below:

Table 8: Profile of Partners

a.	Name of the Applicant	Kharola Primary Agriculture Credit Society
b.	Constitution of the Applicant	Primary Agricultural Credit Society (PACS) Registered under Co-operative Society Act
c.	Registered Address of the Applicant	Kharola Primary Agriculture Credit Society, Taluka – Renapur, District – Latur
d.	Number of Farmers/Members	2020
e.	Total Farm Area	10500 Acre/ 4200 Hectare
f.	Production Data	Soybean – 900 MT Tur – 1350 MT Harbhara – 2600 MT Jowar – 600 MT

5.2 Contact Details

Table 9: Contact Details

Name of the Key Contact Person	Address	Mobile	Email
Mr. Sudhakar Kale (Chairman)	A/p – Kharola, Tal-Renapur, Dist-Latur-413527	+91 97631 39582	-
Mr. Balkrishan Dhavale (Secretary)	A/p – Kharola, Tal-Renapur, Dist-Latur-413527	+91 96576 80092	-

5.3 Lead Partner: Star StarAgri Warehousing and Collateral Management Limited

StarAgri is focused on empowering farmers – both small and large - so that they gain more from their harvests. It helps farming communities protect their produce and reduce post-harvest losses to increase food availability without placing additional burden on the environment. As agriculture moves up the global growth agenda, StarAgri is addressing one of the most pressing challenges today - food security with depleting resources.

Their scientific and reliable storage facilities are supported by value-added services such as weighing, testing and certification. Their warehouses have 24x7 physical security and plans are afoot to build CCTV-led remote monitoring facilities from a central location. They are also implementing an IT backbone whereby real-time stock updates across all locations will be available to customers at one click. All warehouses undergo regular physical audits both by internal and external teams thereby ensuring the physical integrity of the stock both in terms of quality and quantity.

Background:

Founded in 2006, StarAgri is one of Asia’s leading post-harvest solutions company with global ambitions. With an integrated Agri-solutions strategy across the post-harvest needs of both producers and buyers, they leverage tie-ups with some of India’s leading financial institutions to hold commodities worth INR 75 billion across over 200 collateral management locations.



Figure 8: StarAgri Services

With a Pan-India network of 800+ warehouses across 16 states and over 1.5 million tons of warehousing capacity, StarAgri caters to customers ranging from banks to international bulk commodity buyers, food, health & FMCG companies and commodity exchanges. They deliver integrated post-harvest solutions including warehousing, collateral financing, procurement and value-added services to enhance efficiency across the entire food supply chain. Their customer base includes:

The brief detail of partner, StarAgri Warehousing & Collateral management Limited is provided in the table below:



Figure 9: Details of Partner

Table 10: Productive Partner Profile

a.	Name of the CMA Partner	StarAgri Warehousing & Collateral Management Limited																				
b.	Constitution of the CMA Partner	Public Company																				
c.	Registered Address of the CMA Partner	601-604 A Wing, Bonanza Building, Sahara Plaza, J.B. Nagar Metro Station, J.B. Nagar, Andheri (E), Mumbai- 400059, Maharashtra, India																				
d.	Name and Contact Detail of Promoters	<table border="1"> <thead> <tr> <th>Sr. No.</th> <th>Name</th> <th>Mobile No.</th> <th>Email ID</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Mr. Amit Goyal</td> <td>9414093765</td> <td>amit.mundawala@staragri.com</td> </tr> <tr> <td>2</td> <td>Mr. Amit Khandelwal</td> <td>9829037135</td> <td>Amit.k@staragri.com</td> </tr> <tr> <td>3</td> <td>Mr. Amit Agrawal</td> <td>9323893407</td> <td>amith@staragri.com</td> </tr> <tr> <td>4</td> <td>Suresh Chandra Goyal</td> <td>-</td> <td>suresh.goyal@staragri.com</td> </tr> </tbody> </table>	Sr. No.	Name	Mobile No.	Email ID	1	Mr. Amit Goyal	9414093765	amit.mundawala@staragri.com	2	Mr. Amit Khandelwal	9829037135	Amit.k@staragri.com	3	Mr. Amit Agrawal	9323893407	amith@staragri.com	4	Suresh Chandra Goyal	-	suresh.goyal@staragri.com
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3	Mr. Amit Agrawal	9323893407	amith@staragri.com																			
4	Suresh Chandra Goyal	-	suresh.goyal@staragri.com																			

Chapter 6: Project Proposal

6.1 Project Summary

The proposed project was initiated post signing of a 'memorandum of understanding' between StarAgri Warehousing & Collateral Management Ltd. and Kharola Primary Agriculture Credit Society, Taluka – Renapur, District – Latur. Kharola is a primary agriculture credit society formed under the Co-operatives ACT and is targeted to benefit their members.

6.2 Project Background

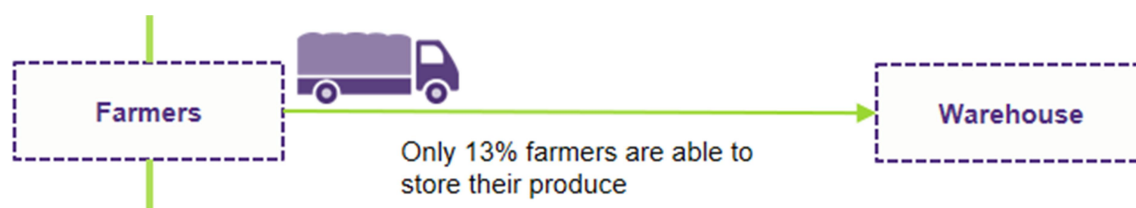


Figure 10: Project Background

In this cluster, due to non-availability of proper warehousing facility in nearby village, majority of farmers prefer to sell their produce to either Artias or village level aggregators. Only 13% of the farmers in this cluster are able to store their produce in a warehouse and reap benefit of it such as – credit loan against warehouse receipt, better price realization in the market.

Project aims to increase the participation of small and marginal farmers of the cluster in warehousing and collateral management as well as utilize the cleaning & grading facility in order to realize the premium of their finished produce. PAC in consultation with StarAgri has come up with a joint proposal for assistance under SMART to build interventions that will help them increase PAC's capabilities in warehousing and collateral management. Primary chosen commodities are Soybean, Tur, Jowar and Harbhara which are cultivated by farmers in the cluster.

In the first couple of years of the project, PAC will only aggregate produce from the farmers and store in nearby warehouses. StarAgri will provide warehouse receipt to the farmers against the produce stored in PAC warehouses. PAC will set up a cleaning grading unit in second year assuming that in first year of the project farmers will enthusiastically participate in warehousing & collateral management practices and more number of farmers will join further. Further, in second year, PAC proposes to erect a new warehouse of 1000 MT in Renapur assuming that aggregated produce will reach a quantity which will make entire warehousing operation economically viable.

6.3 Key Stakeholders and roles being played by them

- **Farmers:** Farmers of this cluster are the target group of this PPP who will be the raw material suppliers. Their problems will be addressed with the soft interventions provided by StarAgri. Hard interventions will be provided by PAC through installation of cleaning and grading machine as well as warehouse proposed in this report.
- **Kharola PAC:** Kharola PAC will provide hard interventions by renovating existing warehouses in the cluster so that they become operational. In first year, it will act as an aggregator of the produce and provide storing facility to farmers. It will also aim to scale up its operation by attracting more number of farmers. Once the quantum of produce reaches to expected volume, it has proposed to set up cleaning grading machine to provide cleaning & grading facility to the farmers in second year. The proposed cleaning & grading unit will be installed in the premises of warehouse situated at Renapur. PAC has also proposed to erect two new warehouse of 500 MT (each) capacity in Renapur in second year of the project. It is important to note that PAC has required land i.e. 20,000 sq. feet to erect proposed warehouse. All four warehouses will be in the radius of 4 km which will be managed by StarAgri.
- **StarAgri Warehousing and Collateral Management Limited:** StarAgri will provide soft interventions through managing warehousing management of PAC's owned warehouses, quality testing of the commodities and providing warehousing receipt to PAC's farmers against the commodities stored. StarAgri has proposed to manage maximum 3 warehouses situated in 4 km radius and will charge INR 45000/- p.m. against it. 60% of the warehouse management charges to StarAgri will be provided by SMART and rest 40% will be borne by PAC for one year. Second year onwards StarAgri will charge that amount to PAC.

Apart from issuing warehouse receipt, StarAgri will provide market intelligence like supply demand situation, price trend and market linkages to farmers/PAC through its existing customer base. StarAgri further proposes to link farmers/PAC to its online trading platform – “Agribazaar” and will not charge any amount to farmers/PAC against registration, however will charge 1% of the traded amount through this online platform.

6.4 Problems to be addressed



Figure 11: Problems to be addressed

The Problems that will be addressed by the project are:

1. **Scarcity of Capital:** Agriculture is an important industry and like all other industries it also requires capital. The role of capital input is becoming more and more important with the advancement of farm technology. Since the agriculturists' capital is locked up in his lands and stocks. Farmers face difficulty for getting crop loan for next sowing.
2. **Lack of storage facility:** Spoilage and wastage have become the hallmark of Indian agriculture. Also, lack of storing facility minimizes the chance of selling produce at higher price after harvesting season

when the glut like situation is over. Also farmers with small quantity of produce find difficulty in getting his produce to faraway warehouses.

- 3. Lack of cleaning & Grading Facility:** Farmer do not clean & grade their commodity and they sale it at lower price, as they either don't understand the importance of cleaning & grading or they don't have facility to do so.
- 4. Lack of Market intelligence & linkages:** Farmers don't have easy or adequate access to market information and neither they have a pool of buyers to strategies their sales plan. They get over dependent on single established sales channel.

Chapter 7: Proposed Project Components

7.1 Proposed Intervention

The project will focus on the following interventions:

1. Capacity Building of the farmers/PACs

- a) PAC will learn about warehouse and collateral management practices, while working in tandem with StarAgri. They will learn about documentations process such as issuing warehouse receipt etc.
- b) StarAgri will provide market information and linkages to farmer in order to help them strategies their sales plan
- c) StarAgri will issue warehouse receipt so that farmer avail loan against the commodities stored

2. Capital Expenditure Requirement

- a) **Machinery** – PAC has proposed cleaning & grading and stitching machine for the field crop. The PAC shall provide cleaning and grading facility at a highly competitive rate to their farmer members. The proposed cleaning & grading unit will be installed in the premises of warehouse situated at Renapur. PAC has also proposed to provide 5 Spiral Separator and 5 Iron Sieve to its farmer for cleaning purpose.
- b) **Infrastructure** – PAC has warehouses as an infrastructure but two warehouse needs to be renovated in order to achieve maximum potential, functioning and also for storing of the produced goods. Further it's required to set up more number of warehouses to cater maximum farmers in the cluster. Also, it is important to note that PAC has acquired 20,000 sq. ft. to erect new warehouse of 1000 MT capacity and install new cleaning and grading line.
- c) **Computer** – PAC has proposed to own a computer for better MIS purpose

7.2 Expected Outcome

- **Storage facility:** Increase in number of farmers involved in warehousing and collateral management, resulting to reduced post-harvest loss. Farmers store their commodity in warehouse on rent till they get better market price.
- **Easy Availability of credit:** Farmer deposits his produce in a warehouse. Warehousing & Collateral management agency issues him a warehouse receipt. Farmer takes the receipt, which has all the necessary details like quality and quantity of the produce, to the bank. Bank offers credit facility against that receipt up to 70 per cent of the value of the collateral with the warehouse. The farmer can use the fund for his consumption needs and inputs for the next season. Meanwhile

farmer keeps an eye on the price, and sells the produce at better price after paying loan amount to bank.

- **Cleaning & Grading:** Farmer gets his produce cleaned & graded from PAC at less than the market price. This increases the acceptability of farmer's produce amongst buyers by reducing the rejection percentage which results in better price realization by Rs 200/- to 300/- per quintal.
- **Market intelligence & linkages:** Farmers have better access to market information, which helps them to plan their future action in much better way. Market linkage reduces farmer's dependency on Mandi/Artias and has larger pool of assured buyers.

7.3 Proposed Intervention

Table 11: Proposed Intervention

Sr. No.	Particulars	Outcome
1	Training Workshops	<ol style="list-style-type: none"> 1. Increased awareness about digital platforms 2. Better documentation
2	Renovation of existing Storage Erection of new warehouse	<ol style="list-style-type: none"> 1. Better post-harvest management 2. Credit facility through warehouse receipt 3. Better price realization post harvesting season
3	Cleaning & grading unit	<ol style="list-style-type: none"> 1. Better quality (Less foreign material, immature grains) 2. Improved acceptance of produce quality among buyers

Chapter 8: Project Implementation

Below is the representation of the project implementation:

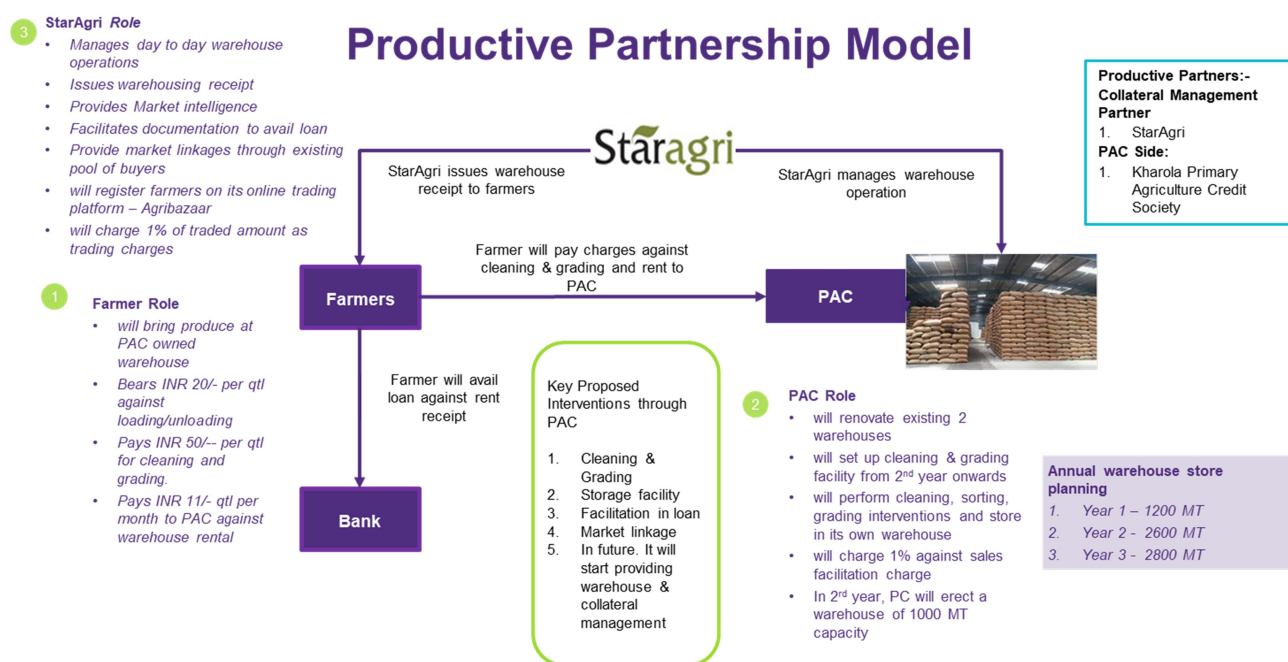


Figure 12: Productive Partnership Model

The entire implementation plan comprises activities of different steps such as:-

- PAC will invest 40% of the project cost and rest 60% of the project cost will come from SMART to upgrade the existing cleaning, grading and storing facility.
- PAC will get connected with farmers for the aggregation of the commodities and renovate one existing warehouse in the cluster in order to make it operational.
- In the first year of the project, PAC will only act as an aggregator of the produce and aim to scale up the quantum of produce by attracting more number of farmers.
- PAC will store the aggregated produce at its warehouse and charge farmers Rs 11/- per quintal per month against rent.
- In first year, PAC will own 10 spiral separator which can be used by its farmer to clean their produce before bringing it to warehouse. Cost of the separator will be shared by project grant and PAC in the ratio of 60:40.

- In second year of the project, as the quantum of aggregated produce makes cleaning & grading job an economically viable operation, PAC will establish cleaning & grading facility at its Lehgaon warehouse.
- In the third year, PAC will erect an additional warehouse of 1000 MT capacity at Lehgaon to cater maximum number of farmers. PAC has required land i.e. 20,000 sq. feet of land to erect proposed warehouse. All three warehouses will be in 4 km of radius, which will be managed by StarAgri.
- StarAgri will manage the PAC owned warehouse and look after day to day operation, cost of which i.e. INR 45000/- per month, 60 of this amount will be covered under grant and rest 40% will be borne by PAC in first year and from 2nd year onwards PAC will pay that amount to StarAgri
- StarAgri will issue warehouse receipt to the farmers against stored commodities at PAC warehouse, which further can be used by farmers to avail loan from the bank.
- StarAgri will provide market intelligence such as price trend, supply demand situation in the market and will not charge any amount against this services
- StarAgri will provide market linkages to farmers through its existing pool of buyers and will not charge any amount to farmers against this service
- StarAgri has its own online platform- "Agribazaar", where farmers will get registered free of cost. However, StarAgri will charge 1% of the traded amount as trading charge.

Chapter 9: Project Financials

9.1 Project Cost

Table 12: Project Cost

Sr. No.	Sub-project Components	Cost
A	Core investment in Sub-project	
1	Collateral Management Agency Cost – Star-Agri Warehousing	5.40
2	Renovation of Warehouse - 500 MT*2	15.93
3	Cleaning and Grading Machine-2MT	10.34
4	IOT-RFID, CCTV, Smoke Detector, IT Equipment, Security Alarm, Invector, Weighing Scale	6.00
5	Construction Of New Godown-1000MT*1 (Max Cap-42.00 Lakhs)	82.28
6	Construction for Cleaning and Grading Machine(700 sqft.)	5.60
7	Spiral Seperator + Iron Sieve	1.60
8	Electrification, Stitching Machine, Moisture Meter, Fire Extinguisher	3.14
	Sub total-A	130.29
6	Pre-Op/ Preliminary Expenses	6.51
	Total Cost A	136.80
B	Complementary Investment by Buyer	0
C	Extension activity by DoA @ Rs.12.93 Lakh/CBO	12.93
	Total A+B+C	149.73

Preliminary and Pre-operative expenses taken to be 5% of the total cost of components A.

9.2 Means of Finance

Table 13: Means of Finance

Sr. No.	Sub-project Components	Cost	SMART Grant	CBO Equity
A	Core investment in Sub-project			
1	Collateral Management Agency Cost – Star-Agri Warehousing	5.40	3.24	2.16
2	Renovation of Warehouse - 500 MT*2	15.93	9.56	6.37
3	Cleaning and Grading Machine-2MT	10.34	6.20	4.14
4	IOT-RFID, CCTV, Smoke Detector, IT Equipment, Security Alarm, Invertor, Weighing Scale	6.00	3.60	2.40
5	Construction Of New Godown-1000MT*1	82.28	49.37	32.91
6	Construction for Cleaning and Grading Machine(700 sqft.)	5.60	3.36	2.24
7	Spiral Seperator + Iron Sieve	1.60	0.48	1.12
8	Electrification, Stitching Machine, Moisture Meter, Fire Extinguisher	3.14	1.71	1.43
	Sub total-A	130.29	78.17	52.12
6	Pre-Op/ Preliminary Expenses	6.51	3.91	2.60
	Total Cost A	136.80	82.08	54.72
B	Complementary Investment by Buyer	0	0	0
C	Extension activity by DoA @ Rs.12.93 Lakh/CBO	12.93	12.93	0
	Total A+B+C	149.73	95.01	54.72

Preliminary and Pre-operative expenses taken to be 5% of the total cost of components A.

Chapter 10: Business Model

10.1 Profitability Statement

Table 14: Profitability Statement

Particulars	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7
Revenue							
Cleaning & Grading Service Charges	19.2	21.42	23.81	25	26.25	27.57	28.95
Warehousing Charges	1.88	3.28	3.79	4.34	4.94	5.59	5.87
Sale Facilitation Charges	12.77	22.35	25.81	29.57	33.63	38.03	39.93
Grant from SMART - Training & CMA	3.24	0	0	0	0	0	0
Total Revenue	37.09	47.05	53.42	58.92	64.83	71.19	74.75
Expenses							
Fixed Cost	5.86	6.28	6.59	6.92	7.27	7.63	8.01
Variable Expense	12.32	18.97	21.69	24.35	27.22	30.33	31.86
Total Expenses	18.18	25.25	28.28	31.27	34.49	37.96	39.87
Earnings Before Interest, Depreciation, Taxes and Amortization (EBITDA)	18.91	21.8	25.14	27.65	30.34	33.22	34.88
Depreciation	2.32	5.87	5.87	4.27	3.97	3.97	3.97
Amortization	0.08	0.08	0.08	0.08	0.08	0	0
Earnings Before Interest and Taxes (EBIT)	16.5	15.86	19.19	23.3	26.29	29.26	30.91
Interest Expense	0	2.88	2.32	1.66	1.01	0.35	0
Earnings Before Tax (EBT)	16.5	12.98	16.87	21.64	25.28	28.9	30.91
Tax	2.44	0.36	1.76	3.2	4.6	6.01	6.89
Earnings After Taxes (EAT)	14.06	12.62	15.11	18.44	20.69	22.89	24.02
Profit	14.06	12.62	15.11	18.44	20.69	22.89	24.02

10.2 Cash flow Statement

Table 15: Cash Flow Statement

Particulars	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7
Cash-Inflow							
Revenue	37.09	47.05	53.42	58.92	64.83	71.19	74.75
Equity/ Share capital	7.72	13.02					
Grant	15.93	55.73					
Long Term Loan		29.48					
Short Term Loan							
Increase in Current liability	1.51	0.59	0.25	0.25	0.27	0.29	0.16
Amortization							
Depreciation							
Sub Total (A)	62.25	145.87	53.67	59.17	65.1	71.48	74.9
Cash-Outflow							

1. Capital Expenditure							
Furniture and Fixtures	0.71	1.61					
IT and Infrastructure	6						
Land and Building	7.11	87.88					
Plant and Machinery	2.43	10.34					
Preliminary Expenses	0.4						
2. Operational Expenditure							
Fixed Cost	5.86	6.28	6.59	6.92	7.27	7.63	8.01
Variable Cost	12.32	18.97	21.69	24.35	27.22	30.33	31.86
3. Loan							
LTL - Principal		3.28	6.55	6.55	6.55	6.55	
LTL - Interest		2.88	2.32	1.66	1.01	0.35	
Dividend							
Tax	2.44	0.36	1.76	3.2	4.6	6.01	6.89
Increase in sundry debtors	3.71	1	0.64	0.55	0.59	0.64	0.36
Sub Total (B)	40.97	132.59	39.55	43.24	47.24	51.52	47.12
Net Cashflow	21.28	13.27	14.12	15.93	17.86	19.96	27.79
Opening Cash and Bank		21.28	34.55	48.67	64.6	82.46	102.42
Cumulative Cash Balance	21.28	34.55	48.67	64.6	82.46	102.42	130.21

10.3 Balance Sheet

Table 16: Balance Sheet

Particulars	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7
Assets							
Current Assets							
Cash and Bank Balance	21.28	34.55	48.67	64.6	82.46	102.42	130.21
Sundry Debtors	3.71	4.71	5.34	5.89	6.48	7.12	7.47
Other Current Assets							
Total Current Assets	24.99	39.26	54.01	70.49	88.95	109.54	137.68
Gross Fixed Assets	16.24	13.92	107.88	102.02	97.75	93.79	89.82
Add: Additions during the year		99.83					
Less: Depreciation	2.32	5.87	5.87	4.27	3.97	3.97	3.97
Net Fixed Assets	13.92	107.88	102.02	97.75	93.79	89.82	85.85
Preliminary Expenses	0.32	0.24	0.16	0.08			
Total Assets	39.22	147.38	156.19	168.32	182.73	199.36	223.54
Liabilities							
Partners' Capital	7.72	20.74	20.74	20.74	20.74	20.74	20.74
Total Capital	7.72	20.74	20.74	20.74	20.74	20.74	20.74
Grant from SMART	15.93	71.66	71.66	71.66	71.66	71.66	71.66
Reserve & Surplus							
Profit & Loss							
Opening Balance		14.06	26.68	41.79	60.22	80.91	103.8
Add: Profit after tax	14.06	12.62	15.11	18.44	20.69	22.89	24.02
Total	14.06	26.68	41.79	60.22	80.91	103.8	127.82
Secured Loan from bank		26.2	19.65	13.1	6.55	0	

Current Liability	1.51	2.1	2.36	2.61	2.87	3.16	3.32
Total Liabilities	39.22	147.38	156.19	168.32	182.73	199.36	223.54

10.4 Key Financial Ratios

Table 17: Key Financial Ratios

IRR	15.68%
Payback Period	6 year 7 months
NPV	31.37
DSCR (Average)	3.28
DSCR (Minimum)	2.63

10.5 Key Assumptions

Capacity Utilisation:

1. Cleaning & Grading Line

Capacity Utilisation	Y1	Y2	Y3	Y4	Y5	Y6	Y7
No. of Operation Days	240	255	270	270	270	270	270
Total Commodity Clean & Grade in MT	3840	4080	4320	4320	4320	4320	4320

2. Warehouse

Particulars	Capacity in MT
Warehouse 1: Old	500
Warehouse 2: Old	500
Warehouse 3: New	1000

Warehouse

	First Year	Second Year
Collective Capacity	1000 MT	2000 MT
No. of Months	12	

Particulars	Y1	Y2	Y3	Y4	Y5	Y6	Y7
Storage (Quantity)							
Kharif							
Soyabean	588	980	1078	1176	1274	1372	1372
Tur	353	588	647	706	764	823	823

Total	941	1568	1725	1882	2038	2195	2195
Rabi							
Harbhara	470	784	862	941	1019	1098	1098
Jowar	294	490	539	588	637	686	686
Total	764	1274	1401	1529	1656	1784	1784
Total Storage in a Year	1705	2842	3126	3410	3695	3979	3979

Cumulative Quantity in MT

Particulars	Y1	Y2	Y3	Y4	Y5	Y6	Y7
Soybean	588	980	1078	1176	1274	1372	1372
Tur	353	588	647	706	764	823	823
Harbhara	470	784	862	941	1019	1098	1098
Jowar	294	490	539	588	637	686	686
Total	1705	2842	3126	3410	3695	3979	3979

Other Assumptions

Sr. No.	Particulars	Rate/Details	Rate/Details
1	Average land holding per farmer	in hectare	2
a	Average land holding per farmer	in acre	5.00
2	Average land holding per farmer (Crop Wise) for Select Commodities		
	Soyabean	in acre	2
	Tur	in acre	2
	Harbhara	in acre	2
	Jowar	in acre	1
3	Average Productivity for the Storage Crops		
	Soybean (Current Scenario as per baseline)	in quintal/acre	10
	Tur (Current Scenario as per baseline)	in quintal/acre	6
	Harbhara (Current Scenario as per baseline)	in quintal/acre	8
	Jowar (Current Scenario as per baseline)	in quintal/acre	10
4	Average Production for the Storage Crops		
	Soybean (Current Scenario as per baseline)	In quintal	20
	Tur (Current Scenario as per baseline)	In quintal	12
	Harbhara (Current Scenario as per baseline)	In quintal	16
	Jowar (Current Scenario as per baseline)	In quintal	10

	Total Average Production for the Storage Crops	Average	14.5
3	Revenue		
a	Cleaning & Grading Service Charges	Rs/per MT	500
b	Warehousing Charges	per MT per Month	110
c	Facilitated Service Charge	of sale value	1%
2	Dunnage	per sq. feet per quarter	1.5
3	Insurance	Value of commodity	0.10%
4	Fumigation	Rs. per MT per Month	14
5	Warehouse Cleaning Charges	Monthly	500
6	After 1 year, CBO will bear the cost of collateral agency		
7	No. of Labour for cleaning & Grading	No.	4
8	Daily labour Charges	per day	300
9	Average Market Price Before Intervention		
	Soybean	per MT	30000
	Tur	per MT	45000
	Harbhara	per MT	30000
	Jowar	per MT	32000
10	Average Market Price After Intervention		
	Soybean	per MT	34000
	Tur	per MT	49000
	Harbhara	per MT	34000
	Jowar	per MT	36000
11	Cleaning & Grading Facility		
	No. of Working Days	days	300
	No. of Hours in day	hours	8
	Capacity MT/hour	MT per Hour	2
12	Holding period	months	6

- Rate of depreciation for Plant & machinery, building and IT Infrastructure are 6.33%, 3.17% and 31.67% respectively as per company's act. Rate of depreciation is calculated using straight line method.
- Rate of depreciation for plant & machinery, building and IT Infrastructure are 15%, 10%, 60% resp., as per IT Act. Rate of depreciation is calculated using written down value method.

Chapter 11: Financial Analysis

11.1 Project Impact

Once we implement the project activities project shall have the following economic impact

- **Adequate Credit Available:** As against traditional loans by banks, loans against warehouse receipt are quick. Warehouse Financial Receipt brings about better price realization for farmers, especially small and marginal farmers thereby reducing poverty.
- **Premium against clean & graded produce:** Clean & graded produce usually fetches premium price in the market and buyers are willing to buy properly graded commodity as per the accepted quality parameter.
- **Encourage scientific storage:** Spoilage and wastage have become the hallmark of Indian agriculture. It is estimated that 25-30 per cent of agricultural produce every year is lost due to poor storage and frail handling post-harvest. Increased usages of Warehouse Financial Receipts will kick-start a circle of investments in warehousing infrastructure.
- **Increase Farmers Earning:** As farmer able to realize best price for their commodity because of collateral management system, farmer's income will increase by Rs 23,680 per farmer per year.
- **Employment Creation:** As PACs providing cleaning & grading service to farmers, PACS will have to employ some workforce to run day to day operation, which will create some employment opportunity in the community. Over a period, number of people associated in this operation will increase as the quantum of produce increases.
- **Better Market Intelligence & Linkages:** StarAgri will provide current prices of the stored commodities to the farmers as well as forecast data about price fluctuation. This information will help farmers to decide their selling strategy in much better way rather than just selling their produce in the mandis. It will lead to better price realization for the farmer. Also, market linkages will provide farmers flexibility to sell their produce instead of depending on just nearby mandis. In a long run, these linkages will be helpful for the farmers to get into larger deals, better price realization and to mitigate their risk.

11.2 Details of Benefit to Farmer

Below are the charts depicting the earning of the farmers in the current situation and the expected benefit after the intervention of PACs and StarAgri.

Particulars	Y1	Y2	Y3	Y4	Y5	Y6	Y7
Number of farmers using the service	300	500	550	600	650	700	700
Number of farmers benefitted	300	500	550	600	650	700	700
Average land available for Soybean per farmer (In acre)	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Total Land available for Soybean with benefitted farmers (In acre)	600.00	1000.00	1100.00	1200.00	1300.00	1400.00	1400.00
Average land available for Tur per farmer (In acre)	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Total Land available for Tur with benefitted farmers (In acre)	600.00	1000.00	1100.00	1200.00	1300.00	1400.00	1400.00
Average land available for Harbhara per farmer (In acre)	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Total Land available for Harbhara with benefitted farmers (In acre)	600.00	1000.00	1100.00	1200.00	1300.00	1400.00	1400.00
Average land available for Jowar per farmer (In acre)	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Total Land available for Jowar with benefitted farmers (In acre)	300.00	500.00	550.00	600.00	650.00	700.00	700.00
Current Scenario							
Average current productivity per acre of Soybean (in Qtl)	10.00	10.00	10.00	10.00	10.00	10.00	10.00
Total Production of Soybean (in Qtl)	6000.00	10000.00	11000.00	12000.00	13000.00	14000.00	14000.00
Rate of Soybean (per Qtl)	3000.00	3150.00	3307.50	3472.88	3646.52	3828.84	4020.29
Average current productivity per acre of Tur (in Qtl)	6.00	6.00	6.00	6.00	6.00	6.00	6.00
Total Production of Tur (in Qtl)	3600.00	6000.00	6600.00	7200.00	7800.00	8400.00	8400.00
Rate of Tur (per Qtl)	4500.00	4725.00	4961.25	5209.31	5469.78	5743.27	6030.43
Average current productivity per acre of Harbhara (in Qtl)	8.00	8.00	8.00	8.00	8.00	8.00	8.00
Total Production in Harbhara (in Qtl)	4800.00	8000.00	8800.00	9600.00	10400.00	11200.00	11200.00
Rate of Gram/Chana (per Qtl)	3000.00	3150.00	3307.50	3472.88	3646.52	3828.84	4020.29
Average current productivity per acre of Jowar (in Qtl)	10.00	10.00	10.00	10.00	10.00	10.00	10.00
Total Production in Jowar (in Qtl)	3000.00	5000.00	5500.00	6000.00	6500.00	7000.00	7000.00
Rate of Jowar (per Qtl)	3200.00	3360.00	3528.00	3704.40	3889.62	4084.10	4288.31
Total Revenue (in Lakh)	582.00	1018.50	1176.37	1347.48	1532.75	1733.19	1819.85
Scenario post introduction of Arya CMA in the system							
Normal Loss percentage in Cleaning & Grading Level	2%	2%	2%	2%	2%	2%	2%
Total Production of Soybean (in Qtl)	5880.00	9800.00	10780.00	11760.00	12740.00	13720.00	13720.00
Rate of Soybean per Qtl	3400.00	3570.00	3748.50	3935.93	4132.72	4339.36	4556.33
Total Production of Tur (in Qtl)	3528.00	5880.00	6468.00	7056.00	7644.00	8232.00	8232.00

Rate of Tur per Qtl	4900.00	5145.00	5402.25	5672.36	5955.98	6253.78	6566.47
Total Production of Harbhara (in Qtl)	4704.00	7840.00	8624.00	9408.00	10192.00	10976.00	10976.00
Rate of Harbhara per Qtl	3400.00	3570.00	3748.50	3935.93	4132.72	4339.36	4556.33
Total Production of Jowar (in Qtl)	2940.00	4900.00	5390.00	5880.00	6370.00	6860.00	6860.00
Rate of Jowar per Qtl	3600.00	3780.00	3969.00	4167.45	4375.82	4594.61	4824.34
Total Revenue (Rs. In lakhs)	638.57	1117.49	1290.71	1478.44	1681.73	1901.65	1996.73
Gross Benefit (Rs. In Lakhs)	56.57	98.99	114.34	130.97	148.98	168.46	176.88
Revenue retained by CBO (%)	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Revenue retained by CBO (Amount in Rs. Lakhs)	12.77	22.35	25.81	29.57	33.63	38.03	39.93
Net Benefit to farmers collectively (In Lakhs)	43.80	76.64	88.52	101.40	115.34	130.43	136.95
Revenue from Normal loss of cleaning & Grading (in Lakhs)	3.24	5.67	6.55	7.50	8.53	9.65	10.13
Total Benefit to Farmer Collectively (In lakhs)	47.04	82.31	95.07	108.90	123.88	140.07	147.08
Net benefit per farmer (Rs. In lakhs)	0.16	0.16	0.17	0.18	0.19	0.20	0.21
Net benefit per farmer	15679	16463	17286	18150	19058	20011	21011
Cost per Farmer (Rs. In 000)	6651	6984	7333	7700	8085	8489	8914
Net Benefit per Farmers (In Rs.000)	9027	9479	9953	10450	10973	11522	12098

Income of producer will increase by nearly 7% after the intervention by StarAgri. This intervention will also help to increase in quality of the produce due to proper guidance on cleaning and grading activities carried out by the farmers with the help of PACs. PACs is also assuring a market for the produce and StarAgri will provide future trends to farmers that help realize better price for their produce. Hence it is expected that the farmers will get more realization for their produce. As per detailed analysis presented in the above table, it is expected that the producer will approximately earn Rs. 23,680/- per year.

Chapter 12: Result Framework

Results Framework Indicators for Productive Partnerships

The Development Objective specific to the subcomponent of Productive Partnerships is to “*develop a long-term, voluntary and commercial relationship that will help the participating partners to improve their competitiveness in terms of price, cost, productivity, quality, and sales volume.*” Monitoring and Evaluation (M&E) of relevant processes and interventions will help in achieving the said sub-component level development objective. Specific Results Framework Indicators will be tracked by the M&E team at pre-decided intervals for this purpose.

There are three entity level stakeholders in the Productive Partnerships sub-component. These are i) Buyer firm, ii) CBO(s), and iii) Farmers within the CBOs. Clearly, the outcome indicators will have to be defined vis-a-vis all three entities so that competitiveness of each of the stakeholders can be assessed correctly.

Below table gives the names of Indicators and connects the indicator to the exact outcome it will be able to track. Definitions of the indicators have been clearly delineated. The data sources from which the M&E team will collect the requisite information have also been quoted.

Indicator, Definition, Related Outcome and Source

Chapter 13: Fund Flow

- The Project will support developing Collateral Management Proposals (CMP), between CBOs and Collateral Management Agencies (CMA) & will partially finance such proposals.
- The grant agreement between the Beneficiary CBO, Collateral Management Agency and SMART project will govern the funding ratio and release of tranches for execution of CMPs.
- If the managerial grants incurred by CMAs are to be 100% financed by the Project, then the balance Project grants to be released to CBOs will be adjusted accordingly.
- The collateral management proposal approved by the competent authority at PCMU will be assigned to a particular Project Implementing Unit (PIU). After assigning the proposal to the PIU, the fund flow will be on the same lines as that of productive partnership.
- Managerial grants of CMAs will be released at the level of CBO.

Chapter 14: Environmental and Social Impact and Safeguards of the Project

Environment and Social Safeguards assessment

As per the ESA/ESMF Report of the SMART project and the activities/interventions of the “Star Agri Kharola” subproject proposal, Operational policies of the World Bank related to the Environmental Safeguards, i.e., Environment Assessment (OP/BP 4.01) and Pest Management (OP 4.09) are triggered. All activities under all the component and subcomponents of the subproject shall be implemented in accordance with the provisions and mitigation measures given in the ESA/ESMF document and implementation guidelines for environmental safeguards mentioned in the SMART PIP.

The key Environmental and Climate Co-benefit Considerations of the given subproject proposal and that derived from the ESA/ESMF findings which needs to be addressed through “Environment Management Framework” of the ESMF Report are enlisted below:

1. Need to promote IPM strategies, to check incidences of attack of Pigeon Pea (Tur) crop by Gram Pod Borer (*Helicoverpa armigera*), Legume Pod Borer (*Maruca Vitrata*), Pod fly (*Melanagromyza obtuse*), Plume Moth (*Exelastis atomsa*), Blue butterfly (*Lampides boeticus*) and Blister Beetles (*Mylabris spp.*). Key IPM strategies preferably should involve deep ploughing during summer to expose the hibernating pupae to adverse weather conditions and natural enemies, use of pheromone traps (05/ha), hand picking of grown up larvae & blister beetles, use of neem oil (12.5 lit./ha), erection of bird perches (50-70/ha), etc. (ICAR, 2019) with judicious use of permitted pesticides in the sustainable crop production.
2. IPM strategies should be promoted, to check incidences of attack of Jowar (Sorghum) crop by Fall armyworm (*Spodoptera frugiperda*), Pyrilla (*Pyrilla perpurilla*), Shoot bug (*Peregrinus maidisand*) Earhead caterpillars (*Helicoverpa armigera*) and other pests. Key IPM strategies preferably should involve use of pheromone traps (12/ha), erection of bird perches (50/ha), hand picking of grown up larvae, use of neem cake (200 kgs/ha), etc. (TNAU, 2019). Growing of tall sorghum to serve as biological bird perches.
3. IPM strategies should be promoted, to check incidences of attack of soybean crop by Tobacco caterpillar (*Spodoptera litura*), Pod borer (*Helicoverpa armigera*), Leaf miner (*Aproaerema modicella*) and other leaf eating pests. Key IPM strategies preferably should involve use of deep summer ploughing to expose soil-borne pathogens, nematodes and insect-pests, rhizomes and bulbs of perennial weeds, erection of bird perches @ 10-12/ha, pheromone traps (10/ha), exploitation of maximum potential of bio-control fauna, viz., spiders, coccinellid beetles, tachinid fly, praying mantids, etc., (National Centre for Integrated Pest Management, 2014).
4. Deep summer ploughing, removal and productive utilization of the crop residues by its conversion into compost and maintaining field sanitation to avoid carry over of the pest to the next season.
5. Judicious water management for the crop to prevent excessive vegetative growth and larval harbourage.
6. Optimizing the use of nitrogenous fertilizers which will not favour the multiplication of the pest.
7. Promotion of food safety for agrochemical residue level compliance through the MRL testing of the agricultural produce samples. The production system needs to be brought under Good Agricultural Practice (GAP).

8. Energy efficiency should be promoted in the warehouses, processing units through the use of LED bulbs, solar energy, energy efficiency improvement technologies and use of humidifiers and dehumidifiers for the temperature and humidity regulations.
9. Training and capacity building of farmers on safe disposal of the pesticide containers and bags through awareness generation on methods such as crushing and deep underground burying, away from water sources and/or transfer of the same to suppliers for its scientific disposal.

Environmental Baseline Database for the “Star Agri Kharola” CMA Proposal sourced from the Farmer Producers and the related Enterprises is given below:

A. Production Stage

A.1. Basic Production Related Information for the Given Agri- Commodity (ies)

Sr No.	Enlist Name of the Agri-Commodity (ies)	Production Through- Agrochemicals or Organic Method	Total Area under Production in Ha.	Quantity Produced in Tons/Ha. /Yr	Irrigation Type- Rain fed/Canal/ Drip/Sprinkler	Water Requirement for Irrigation in (Litres/Ha. or m ³ /Ha. Per Yr.
1.	Tur	Agrochemical	500	1	Rainfed	800 Litres/Ha. /Yr
2.	Jowar	Agrochemical	300	1	Rainfed	550 mm of rainfall
3.	Soybean	Agrochemical	1500	2	Rainfed	5 Lakh Litres per Ha.

A.2. Maximum Residue Limit (MRL) Compliance for Export and Local Markets

For Agro-Chemicals Usage- Pesticides/Insecticides/Weedicides

		To be Filled in By the CBOs/Enterprises				To be Filled in By SMART Env. Expert	
Sr. No.	Name of the Agro-Chemical's Used	Name of the Target Pest(s) and Frequency of Attack (Frequent-Annual/biennial or Rare)	Type- Pesticide/Insecticide/Weedicide	Quantity Applied Solid- (kg/ha/yr.) Liquid (ml/ha/yr.)	Price (INR/Kg) or (INR/Litre)	MRL (Mg/Kg) Prescribed by FSSAI Regulation 2011	Actual Above MRL Below MRL
Tur							
1.	Chlorpyrifos	Frequently	Pesticide	1 Lit/Ha	560/Lit	0.05 mg/kg	
2.	Profex Super	Frequently	Insecticide	1 Lit/Ha	533/Lit	0.01 mg/kg	
3.	Coragen	Frequently	Insecticide	90 MI/Ha	350/100MI	0.03 mg/kg	
Total							
Jowar							
1.	Chloropyripho	Frequently	Pesticide	1 Lit/Ha	560/Lit	0.05 mg/kg	

		To be Filled in By the CBOs/Enterprises				To be Filled in By SMART Env. Expert	
Sr. No.	Name of the Agro-Chemical's Used	Name of the Target Pest(s) and Frequency of Attack (Frequent-Annual/biennial or Rare)	Type-Pesticide/Insecticide/Weedicide	Quantity Applied (Solid- (kg/ha/yr.) Liquid (ml/ha/yr.))	Price (INR/Kg) or (INR/Litre)	MRL (Mg/Kg) Prescribed by FSSAI Regulation 2011	Actual Above MRL Below MRL
	s						
2.	2-4-D	Annual	Weedicide	250Kg/ha	500/kg	0.05 mg/kg	
Soybean							
1.	Profenofos	Frequently	Insecticide	150 gm/ha	2300/kg	0.5 mg/kg	
2.	Coragen	Frequently	Insecticide	90 MI/Ha	350/100MI	0.03 mg/kg	

A. 3. For Fertilizers- Synthetic, Organic Fertilizer or Both (Represent Separately)

Sr. No.	Name of the Synthetic Agro /Organic Fertilizer	Type- Synthetic or Organic Fertilizer	Quantity Applied (Solid- kg/ha/yr.) Liquid (ml/ha/yr.)	Price (INR/Kg) or (INR/Litre)	Whether Soil Health Card (SHC)– Issued/Not-Issued	Whether Fertigation done as per SHC
Tur						
1.	12:32:16	Synthetic	100kg/ha/yr.	1290/100kg	Issued	Yes
2.	D.A. P	Synthetic	100kg/ha/yr.	1460/100kg	Issued	Yes
3.	10:26:26	Synthetic	100kg/ha/yr.	1280/100kg	Issued	Yes
4.	Neem Cake	Organic	50kg/ha/yr.	1000/100kg	Issued	No
5.	Farmyard Manure	Organic	10 Tons/ha/yr.	2000/ton	Not Issued	No
Jowar						
1.	12:32:16	Synthetic	100kg/ha/yr.	1290/100kg	Issued	Yes
2.	D.A. P	Synthetic	100kg/ha/yr.	1460/100kg	Issued	Yes
3.	10:26:26	Synthetic	100kg/ha/yr.	1280/100kg	Issued	Yes
Soybean						
1.	12:32:16	Synthetic	100kg/ha/yr.	1290/100kg	Issued	Yes
2.	D.A.P.	Synthetic	100kg/ha/yr.	1460/100kg	Issued	Yes

A.4 For Pest Management and Training Need Assessment

Sr. No.	Name of the Agri-Commodity (ies)	Number of IPM Demonstrations Done (if any)	Area in Ha. Brought under IPM	Number of INM Demonstrations Done (if any)	Area in Ha. Brought under INM
1.	Soybean	-	500 ha	-	900 ha
2.	Jowar	-	160 ha	-	400 ha
3.	Tur	-	200 ha	-	200 ha

A.5. Waste Production

Sr. No.	Type of Waste Generated	Quantity Produced (tons/ha/yr.)	Is it Reused on Field? (Yes/No)	Purpose of Reuse		Disposal Method	
				Storage and Cleaning	Field Application	Open Dumping/ Underground Burial	Collection by Supplier/ CBOs
Tur							
1.	Biodegradable Waste – Plant Residue (stalks, bagasse, drops and pruning's)	--	Yes	Yes	Yes	--	--
2.	Non-Biodegradable Waste (Pesticide/Fertilizer Plastic Containers, Plastic Bags, Sheets)	--	Yes	Yes	Yes	--	--
Total							
Jowar							
1.	Biodegradable Waste – Plant Residue (stalks, bagasse, drops and pruning's)	10 Ton	Yes	Yes	Yes	--	--
2.	Non-Biodegradable Waste (Pesticide/Fertilizer Plastic Containers, Plastic Bags, Sheets)	--	Yes	Yes	Yes	--	
Total		10 Ton					
Soybean							
1.	Biodegradable Waste – Plant Residue (stalks, bagasse, drops and pruning's)	11 Ton	Yes	Yes	Yes	Yes	--
2.	Non-Biodegradable Waste (Pesticide/Fertilizer Plastic Containers, Plastic Bags, Sheets)	--	Yes	Yes	Yes	Yes	--
Total		11 Ton					

A. 6. Area brought under GLOBAL G.A.P. (Good Agricultural Practices) or INDGAP Certification whichever is applicable: 0 (Ha.)

B. Harvesting and Storage Stage- SMART Support for Equipment's and Technologies

Sr. No	Name of the Harvesting, Storage Activity and/or Operation Machinery	Name of the Machinery Used Ex: Thresher/Combined Harvester/DG Set/Cold Storage	Diesel/Petrol Consumed in Litres / ton of agri-produce)	Electricity Consumed in (kWh / ton of agri-produce)	Source of Electricity- Grid Supply/Solar/Co-generation (Within Unit)
Tur					
1.	By Labour cutting	Thresher	7 Lit/ton	--	--
Jowar					
1.	By Labour cutting	Thresher	6 Lit/ton	--	--
Soybean					
1.	By Labour cutting	Thresher	7 Lit/ton	--	--

C. Transportation Stage

Sr. No.	Purpose of Transportation		Mode of Transportation used- Truck/Van/ Tempo/Bullock Cart/Others	Average Distance Travelled in Kms per Trip	Type of Fuel- Diesel/Petrol	Quantity of Fuel Used in Litres/Km	Average price of the Fuel in INR/Litre
	From	To					
Tur							
1.	Field Production	Aggregation Point	Tempo /Bullock cart	7.40 kms	7.20 Ltr	7.20 Ltr	70
2.	Aggregation	Processing					
3.	Processing	Trader/ Retailer					
Jowar							
1.	Field Production	Aggregation Point	Tempo /Bullock cart	7.40 kms	7.20 Ltr	7.20 Ltr	70
2.	Aggregation	Processing					
3.	Processing	Trader/ Retailer					
Soybean							
1.	Field Production	Aggregation Point	Tempo /Bullock cart	7.40 kms	7.20 Ltr	7.20 Ltr	70
2.	Aggregation	Processing					
3.	Processing	Trader/					

		Retailer					
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D. Processing Stage

Sr. No	Name of the Processing Activity- Ex: Cleaning/Boiling/Drying Grading/Sorting or any Other (Pls name it)	Name of the Machinery Used	Diesel/Petrol / furnace oil Consumed in Litres / ton of agri-produce)	Electricity Consumed in (kWh / ton of agri-produce)	Source of Electricity- Grid Supply/Solar/Co-generation (Within Unit)	Quantity of Waste Produced in tons for Processing one tonne of Agri-produce	Quantity of Wastewater Produced in Litres for Processing one tonne of agri-produce
Tur							
1.	No	No	No	No	No	No	No
Jowar							
1.	No	No	No	No	No	No	No
Soybean							
1.	No	No	No	No	No	No	No

“Star Agri Kharola” subproject proposal Component Specific Environmental Safeguards Requirements and related Environmental Inclusion Targets Proposed are mentioned below:

Project Components	Component Interventions as per FPP	Environmental Safeguards Suggestions	Environmental Inclusion Targets and its Timeline
Cleaning & Grading	For aggregation of the produce in the warehouse, cleaning and grading for better price realization	<p>Cleaning & Grading Units should be BEE star rated and fuel efficient (use of low Sulphur diesel) in machinery and DG Sets.</p> <p>The Crates to be procured should of food quality and made up of ecofriendly plastic material.</p> <p>The collection and disposal of the Cleaning & Grading Units waste should be as per Solid Waste Management Rules (SWM), 2016.</p>	<p>The average electricity consumption in a grading machine is reported to be 10.50 kWh/ton.</p> <p>With the use of energy efficient grading machine, electricity consumption would be targeted to be reduced by 10 % during the project period.</p>
Warehouse storage	For minimization of the post-harvest losses	<p>Erection of Warehouse storage structure should be as per Construction Management Guideline’s detailed out in the SMART’s ESMF report.</p> <p>Green infrastructure should be supported: LED based lighting, switch from traditional packing materials (plastic, thermocol) to products that are biodegradable (fiber cloth, ecofriendly material, etc.).</p> <p>The fuel (diesel) to be used in the DG Sets should preferably be of low Sulphur content 50 ppm (BS IV;</p>	<p>With the promotion of Green Warehouse Infrastructure, Kwh of coal-based electricity consumed shall be replaced by renewable energy sources (solar) by 50 % in the new warehouses and 25 % replacement in existing warehouses. For the same, electric meter reading would be referred during the project period.</p>

		Nationwide) and above standards.	
Warehouse receipt	To avail hassle free loan from the banks against the warehouse receipt	To support the sustainable business, electronic Warehouse receipt may be issued to the CBOs.	Trainings would be provided to the stakeholders on sustainable agricultural business practices within 01 st year of the project initiation.
Market intelligence & linkages	To overcome producer's dependency on Market Middleman's and to have larger pool of assured buyers	Facilitate inter-sectoral information-sharing on GAP practices through trade forums and consultation meetings.	The awareness on GAP for all the CBOs (100 %) to be completed within initial 02 years of the project initiation through the Farmer Field School (FFS).

Aligned with the recommendations of the ESMF, Overall; “**Star Agri Kharola**” subproject stakeholders are required to follow the principles of environment & biodiversity protection, facilitate adoption of GAP, IPM and INM practices amongst its producers, foster aspects of food safety (MRL compliance), promote resource use efficiency, greenhouse gases emission reduction, reduce production and processing level solid and liquid waste discharges, foster sustainability, and promote climate smart agricultural value chain development.

Social Safeguards

CBO Information:

1: Social Inclusion:

In the Collateral Management Plan, **Kharola Seva Sahakari Sanstha Maryadit. Kharola Tal.Renapur Dist. Latur** is involved. Currently the CBO is working in 3 villages (Kharola, Ramwadi Anand wadi) of Renapur Block of Latur district.

a. **Land holding & Sex disaggregated details:** The membership details of the CBO with respect to land holding and sex disaggregation at present are given in Table No 1 as below;

Table 1- Current status of CBO farmers on land holding and social category													
Small & Marginal Farmers							Others (Big & Medium Farmers)						
Total No. of Farmers	Male	Female	SC	ST	NT	Others	Total No of farmers	Male	Female	SC	ST	NT	Others
1234	919	315	50	25	75	1084	720	675	45	0	0	0	720

Source: Information from CBOs

From the table 1, it is observed that currently CBOs has 1954 producer members out of which 63 percent (1234) falls in small and marginal category. Out of total members, 18 percent (360) are female members and out of these 87 percent women have land title. Out of total female members, majority of women i.e.87 percent belong to small and marginal category. The membership of SC, ST and NT is 2 percent, 1 percent and 3 percent respectively and all represent the small and marginal category.

b. Details of Board of Director

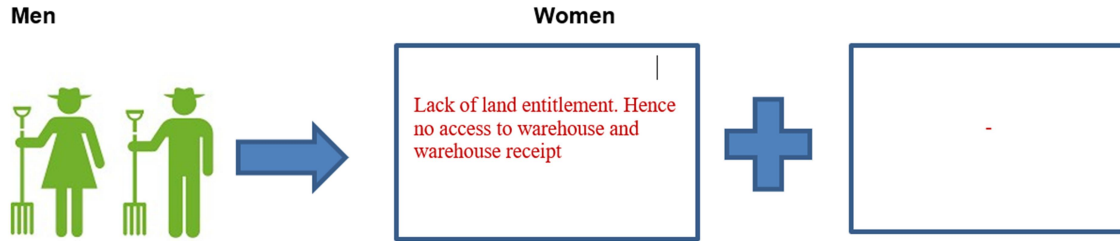
Table No.2: Details of Board of Directors									
Name of CBO	Total No of Directors			Women on signatory positions	Social Category				
	M	F	Total		SC	ST	NT	OBC	Other
Kharola Seva	4	1	5	-	-	-	-	3	2

Sahakari Sanstha Maryadit. Kharola									
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Source: Information from CBO

As indicated above out of total BoDs, 20 percent are women BoD. As signatories, no women representation is observed.

Gender Gap:
Men



Based on the baseline and in adherence with the Social Management Framework, the Safeguard Plan is as below:

Social Safeguard:

I. World Bank Operational Policy:

Activity	Description	Targets for CBOs
1. OP 4.10 Indigenous people	The operational district is not from Schedule V area.	-
2. OP 4.12 Involuntary resettlement	As per the ESMF, compliance will be ensured in case of civil works, which may lead to temporary / permanent loss of asset / shelter/ livelihood	Construction of new warehouse and construction for cleaning and grading machine. Land should be free from encroachment/squatters. The rent/lease agreement of the land will be attached by the CBO in the FPP. The same is applicable to other infrastructure (cleaning and grading machine) where land is required.

II. Other Social issues:

Issue	Description	Risk Mitigation
1. Women's Land entitlement	Lack of land ownership restricts women's access to warehouse and warehouse receipt	Special campaign/program/sensitization for land entitlement of women
2. Labour Management	Civil works are envisioned for renovation of warehouse, construction of warehouse and construction for cleaning and grading machine.	Compliance with Labour Management Framework

III. Social Inclusion Plan: Targets

Small & Marginal		Women		ST		NT		SC	
Current CBO baseline	Target	Current CBO Baseline	Target	Current CBO baseline	Target	Current CBO baseline	Target	Current CBO baseline	Target
63%	Increase by 17%	18%	Increase by 12%	1%	Increase by 5%	3%	Increase by 5%	2%	Increase by 5%

	against baseline		against baseline		against baseline if population exists		against baseline if population exists		against baseline
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IV. Gender Integration: Targets

Activity	Sub-activity	Target for CBOs	Indicator	Outcome
Trainings/Workshop	Identification of farmer	30%	% of women covered	Increased knowledge of women
Promoting women in BoD	Inclusion of women in BoD of CBO	30% women BoD At least one women signatory	% of women member in BoD of FPO % of women as signatory authority in BoD of FPO	Increased participation of women in decision making
Labour Management Framework	Facilities to be provided at labour camp	-Crèche -Mechanism to address the gender-based violence	No of facilities provided	Enabling Environment created for women

Name Of the CBO :- Kharola Seva Sahakari Sanstha Maryadit kharola

District :- Latur

Sub:- Project Proposal Productive Partnership amount Approved : Total Project Cost 136.80 Lakh (Smart Grant 82.08 Lakh)
Audit Utilisation Certificate Formate (to be issued at the time of completion of sub - project activity as per grant agreement)

Receipts	Amounts in Rs.		Payment & Nature of Expenses	Amounts in Rs.		
	Grants	Own Contribution		Grants	Own Contribution	Over and Above Sub project proposal cost
1 st Tranch	1509000.00	1008126.00	Collateral Management Agency Cost – Star-Agri Warehousing Amount of Rs. 371700}	223020.00	148690.00	—
			Renovation of Warehouse (Amount of Rs 708170)	424902.00	283269.00	—
			Cleaning and Grading Machine-2MT	0.00	0.00	—
			IOT-RFID, CCTV, Smoke Detector, IT Equipment, Security Alarm, Invertor, Weighing Scale (CCTV Amount of Rs 80360/-)	48216.00	32144.00	—
			Construction Of New Godown-1000MT*1	0.00	0.00	—
			Construction for Cleaning and Grading Machine(700 sqft.)	0.00	0.00	—
			Spiral Seperator + Iron Sieve	—	—	—
			Electrification, Stitching Machine, Moisture Meter, Fire Extinguisher (Fire Extinguisher Amount of Rs , 41200/-)	24720.00	16480.00	—
			Pre-Op/ Preliminary Expenses	30000.00	20000.00	—
2 st Tranch	—	—		0	0	—
	—	—		0	0	—
	—	—		0	0	—
3 st Tranch	—	—		0	0	—
	—	—		0	0	—
	—	—		0	0	—
	1509000.00	1008126.00		750858.00	600572.00	0

Name Of the Auditor

M.No. 170495

Date :- 17/7/25

Place

UDIN : 25170495 BMHNWR4258



TTS & ASSOCIATES
CHARTERED ACCOUNTANTS
F.R.N.No.140761W

sd/ CA SHAFIODDIN M. SHAIKH
PARTNER M.N 170495