



स्टेट फोकस पेपर 2024-25

State Focus Paper 2024-25

राज्य - पंजाब

State - Punjab

राष्ट्रीय कृषि और ग्रामीण विकास बैंक

National Bank for Agriculture and Rural Development

पंजाब क्षेत्रीय कार्यालय, चंडीगढ़

PUNJAB REGIONAL OFFICE, CHANDIGARH



दृष्टि

ग्रामीण समृद्धि के लिए राष्ट्रीय विकास बैंक

ध्येय

सहभागिता, संधारणीयता और समानता पर आधारित वित्तीय और गैर-वित्तीय सहयोगों, नवोन्मेषों, प्रौद्योगिकी और संस्थागत विकास के माध्यम से समृद्धि लाने के लिए कृषि और ग्रामीण विकास का संवर्धन

Vision

Development Bank of the Nation for fostering rural prosperity

Mission

Promote sustainable and equitable agriculture and rural development through participative financial and non-financial interventions, innovations, technology and institutional development for securing prosperity

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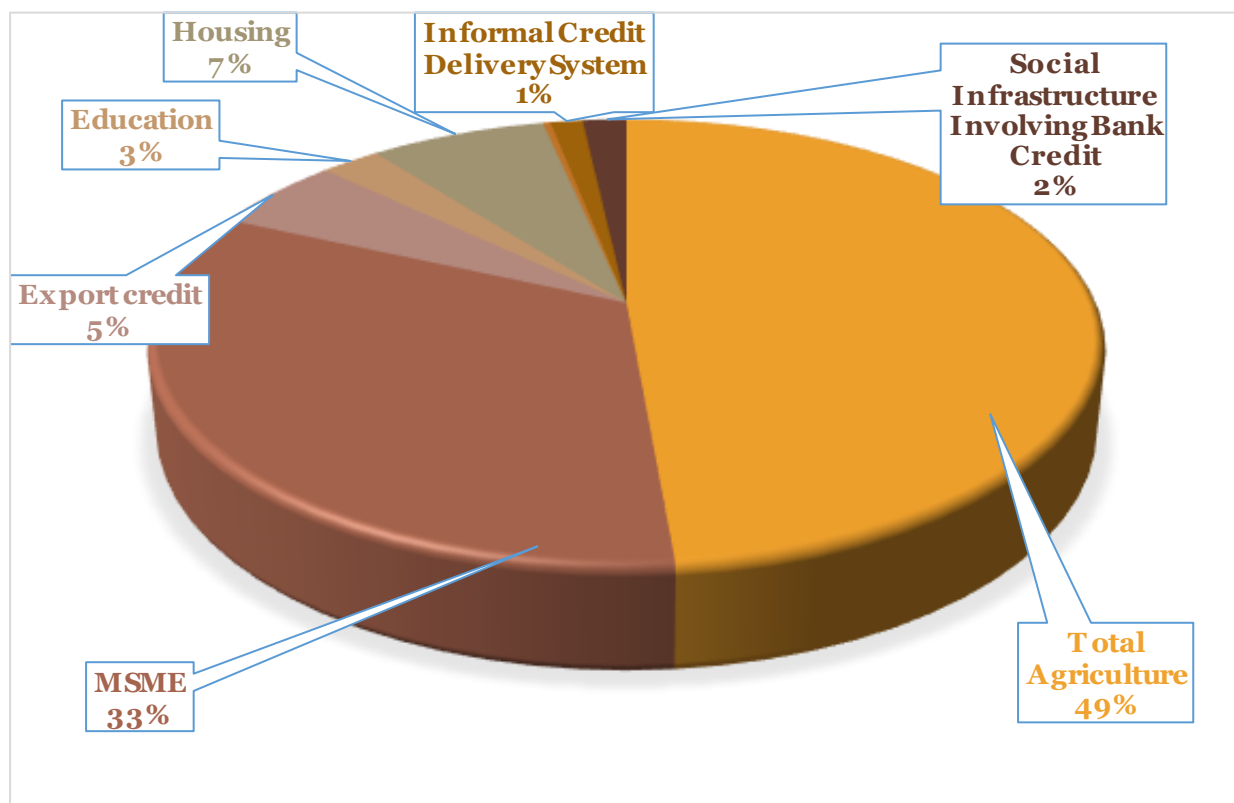
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Appendix A
Broad Sector Wise Projections of Credit for 2024-25

(₹ crores)

Sr.No	Sector	Credit Potential	% of Total
1	Crop Loan	69393.35	28.49
2	Agriculture Term loan	24526.61	10.07
3	Agriculture Infrastructure	8718.25	3.58
4	Ancillary activities	15807.64	6.49
5	Total Agriculture	118445.86	48.62
6	MSME	80724.34	33.14
7	Export credit	13085.93	5.37
8	Education	5850.17	2.40
9	Housing	17305.39	7.10
10	Renewable Energy	761.46	0.31
11	Informal Credit Delivery	3147.14	1.29
12	Social Infrastructure Involving Bank Credit	4286.14	1.76
	Total Priority Sector	243606.43	100.00



Appendix B
Sub- Sector Wise Credit Projections for FY 2024-25

(₹ crore)

A	Farm loan	Credit Potential
(i)	Crop Production, Maintenance and Marketing	69,393.35
(ii)	Water Resources	1,826.76
(iii)	Farm Mechanisation	5,783.62
(iv)	Plantation and Horticulture	1,622.55
(v)	Forestry and Waste Land Development	367.27
(vi)	Animal Husbandry - Dairy	8,864.87
(vii)	Animal Husbandry - Poultry	1,352.80
(viii)	Animal Husbandry - Sheep, Goat, Piggery etc.	527.10
(ix)	Fisheries	427.70
(x)	Others – Bullock, Bullock cart etc.	3,753.95
	Sub total (i to x)	93,919.96
B	Agriculture Infrastructure	
(i)	Construction of Storage facilities	4,538.07
(ii)	Land Development, Soil Conservation, Watershed Development	3,438.09
(iii)	Others	742.09
	Sub Total (i to iii)	8,718.25
C	Ancillary Activities	
(i)	Food and Agro Processing	4,331.85
(ii)	Others - Loans to PACS, ACABC, etc.	11,475.79
	Sub Total (i to ii)	15,807.64
I	TOTAL AGRICULTURE (A to C)	1,18,445.86
	Micro, Small and Medium Enterprises	
(i)	MSME – Investment Credit	44,739.62
(ii)	MSME – Working Capital	35,984.72
II	TOTAL MSME (i to ii)	80,724.34
III	Export Credit	13,085.93
IV	Education	5,850.17
V	Housing	17,305.39
VI	Renewable Energy	761.46
VII	Informal Credit Delivery	3,147.14
VIII	Social Infrastructure involving Bank Credit	4,286.14
	Total Priority Sector (I to VIII)	2,43,606.43

कार्यकारी सारांश

परिचय

ग्रामीण समृद्धि को बढ़ावा देने के लिए शीर्ष विकास वित्त बैंक के रूप में नाबार्ड, जमीनी स्तर से राज्य स्तर तक की विस्तृत ऋण योजना निर्माण प्रक्रिया से जुड़ा हुआ है। इस प्रक्रिया में जिला स्तर पर संभाव्यतायुक्त ऋण योजनाएं (पीएलपी) तैयार करना शामिल है जो ब्लॉक स्तर पर शाखा ऋण योजनाओं और जिला स्तर पर जिला ऋण योजनाएं तैयार करने के लिए आधार प्रदान करती हैं। राज्य स्तर पर, नाबार्ड द्वारा स्टेट फोकस पेपर (एसएफपी) तैयार किया जाता है, इस दस्तावेज़ में जिला स्तर पर किए गए अनुमानों से (पीएलपी) को समेकित किया जाता है और इसके आधार पर राज्य की वार्षिक ऋण योजनाएं तैयार की जाती हैं। इस तरह की योजना बनाने का मूल उद्देश्य क्षेत्र विशिष्ट सम्भाव्यताएं, अपेक्षित बुनियादी ढांचा, उत्पादन पूर्व एवं उत्पादनोत्तर सुविधाओं, स्थानीय कौशल, प्राकृतिक संसाधनों और ऋण अधिशोषण क्षमता को ध्यान में रखते हुए ऋण संभाव्यताओं का आकलन करना है। भारत सरकार, राज्य सरकार और भारतीय रिजर्व बैंक की प्राथमिकताओं और नीतियों को ध्यान में रखते हुए इन ऋण अनुमानों में संशोधन किया जाता है।

राज्य की रूपरेखा

पांच नदियों की भूमि पंजाब, देश के सबसे संपन्न राज्यों में से एक है, जिसका देश के गेहूं और चावल के उत्पादन में वर्ष दर वर्ष अधिकतम शेयर रहा है। वित्त वर्ष 2022 के दौरान धान और गेहूं की कुल सरकारी खरीद का 21.18% और 30.50% भाग पंजाब राज्य द्वारा प्रदान किया गया। पंजाब देश के उत्तर पश्चिम भाग में स्थित है जो देश के कुल भौगोलिक क्षेत्र का 1.54 प्रतिशत है। राज्य में अर्द्ध आर्द्र से अर्द्ध शुष्क जलवायु स्थितियाँ हैं। राज्य तीन कृषि –जलवायु अंचलों में विभाजित है - यथा उप पर्वतीय अथवा कण्डी अंचल, केन्द्रीय जलोढ़ अंचल अथवा केन्द्रीय मैदानी अंचल तथा दक्षिणी शुष्क अंचल। वर्ष 2011 की जनगणना के अनुसार पंजाब की कुल जनसंख्या 2.77 करोड़ है जो देश की कुल जनसंख्या का 2.29% है। राज्य की 62.50% जनसंख्या गाँवों में रहती है। स्थिर मूल्यों (2011-12) पर सकल राज्य घरेलू उत्पाद में पिछले वर्ष की तुलना में वर्ष 2022-23 में 7.9% की वृद्धि हुई है। वर्ष 2022-23 में पंजाब में वर्तमान मूल्यों पर प्रति व्यक्ति अनुमानित आय ₹ 1,73,873/- थी इसमें पिछले वर्ष की तुलना में 3.40% की वृद्धि दर्ज की गई है। यह, तथ्य है कि राज्य में बीपीएल जनसंख्या केवल 11.3% है, जबकि बीपीएल जनसंख्या का राष्ट्रीय स्तर 29.5% है। (डॉ. सी रंगराजन विशेषज्ञ समूह की रिपोर्ट 2011-12 के अनुसार) यह दर्शाता है कि पंजाब गरीबी उन्मूलन की ओर अग्रसर है।

बैंकों की रूपरेखा

31 मार्च 2023 की स्थिति में, पंजाब में 27 वाणिज्यिक बैंक (12 सार्वजनिक क्षेत्र के बैंक और 15 निजी क्षेत्र के बैंक), 01 क्षेत्रीय ग्रामीण बैंक, 01 राज्य सहकारी बैंक (पीएसटीसीबी), 20 जिला केंद्रीय सहकारी बैंकों (डीसीसीबी), 01 राज्य सहकारी कृषि और विकास बैंक (एससीएआरडीबी), और 89 पंजाब सहकारी कृषि और विकास बैंकों (पीएडीबी) का नेटवर्क है।

31 मार्च 2023 की स्थिति में, पंजाब राज्य में बैंकों की 7190 बैंक शाखाएं हैं जिनमें सरकारी और निजी क्षेत्र के वाणिज्यिक बैंकों की 6000 शाखाएं, पंजाब ग्रामीण बैंक की 435 शाखाएं, पंजाब राज्य सहकारी बैंक की 18 शाखाएं, 20 जिला केंद्रीय सहकारी बैंकों की 802 शाखाएं और 89 पंजाब कृषि विकास बैंक

(पीएडीबी) राज्य के शहरी तथा ग्रामीण क्षेत्रों में ऋण आवश्यकताओं को पूरा करने के लिए अपनी सेवाएं प्रदान कर रहे हैं। राज्य में (89 पीएडीबी और 3967 पैक्स सहित) प्रति शाखा 2451 जनसंख्या का आकलन किया गया है। 31 मार्च 2023 तक सभी बैंकों का समग्र ऋण जमा अनुपात (सीडी अनुपात) 60.24% था। 31 मार्च 2023 तक राज्य में बैंकों की कुल जमा राशि ₹5,78,954 करोड़ थी। 31 मार्च 2023 तक कुल बकाया ऋण ₹3,48,787 करोड़ थे।

I. आधार स्तरीय ऋण प्रवाह - वार्षिक ऋण योजना (एसीपी) के तहत प्रदर्शन

वार्षिक ऋण योजना (एसीपी) के तहत प्राथमिकता क्षेत्र ऋण का वितरण वर्ष 2022-23 में 1,71,351/- करोड़ रुपये से बढ़कर वर्ष 2022-23 में ₹1,97,224/- करोड़ हो गया। वर्ष 2022-23 के दौरान, एमएसएमई के लिए वार्षिक ऋण योजना के तहत उपलब्धि लक्ष्य से अधिक रही लेकिन कृषि क्षेत्र में लक्ष्य से कम रही। इसलिए कृषि के लिए आधार स्तरीय ऋण प्रवाह बढ़ाने की तत्काल आवश्यकता है।

कृषि में संभावित ऋण परिव्यय

वर्ष 2024-25 के स्टेट फोकस पेपर में भारतीय रिजर्व बैंक द्वारा जारी संशोधित प्राथमिकता क्षेत्र ऋण (पीएसएल) मानदंडों को ध्यान में रखते हुए, भारत सरकार द्वारा कृषि क्षेत्र के लिए ऋण प्रवाह को बढ़ाने के लिए जोर देने और राज्य सरकार द्वारा कृषि और ग्रामीण विकास के लिए संचालक के रूप में पहचान की गई प्रमुख गतिविधियों को ध्यान में रखते हुए, प्राथमिकता क्षेत्रों के लिए, ₹2,43,606.43 करोड़ की कुल ऋण संभाव्यता का अनुमान लगाया गया है। प्रमुख क्षेत्रवार विशेषताओं के साथ जिला और क्षेत्रवार विवरण अनुबंध-1 में प्रस्तुत किए गए हैं। विभिन्न क्षेत्र, उनकी संबंधित ऋण संभाव्यता, संबंधित मुद्दे और सुझाए गए विभिन्न सहयोगों को अध्याय 4 में विस्तार से कवर किया गया है।

कृषि और संबद्ध क्षेत्रों के तहत ऋण संभाव्यता ₹1,18,445.86 करोड़ आंकी गई है, जिसमें कृषि निवेश गतिविधियों की हिस्सेदारी लगभग 41.40% है।

कृषि फार्म क्रेडिट: वर्ष 2022-23 में राज्य में सकल फसली क्षेत्र 78.51 लाख हेक्टेयर है, जिसमें से सकल सिंचित क्षेत्र 77.30 लाख हेक्टेयर है। धान और गेहूं प्रमुख खाद्यान्न हैं, मक्का, कपास, गन्ना राज्य की अन्य प्रमुख फसलें हैं। राज्य में उपलब्ध संभाव्यता को ध्यान में रखते हुए, वित्तीय वर्ष 2023-24 के लिए फसल ऋण के तहत अनुमान ₹69,393.35 करोड़ है। यथार्थवादी लक्ष्यों को प्राप्त करने के लिए राज्य में वित्तमान और खेती योग्य क्षेत्र को देखते हुए इस वर्ष कृषि फार्म क्रेडिट में ऋण संभाव्यता को कम कर दिया गया है।

कृषि फार्म क्रेडिट के अंतर्गत कृषि के लिए निवेश ऋण की संभाव्यता ₹49,052.51 करोड़ आंकी गई है।

कृषि सावधि ऋण

जल संसाधन : सूक्ष्म सिंचाई प्रणाली, भूजल पुनर्भरण पद्धति, कृषि जल आपूर्ति के लिए पाइपलाइनों आदि हेतु बैंक वित्तपोषण के लिए अच्छी संभावनाएं हैं। पंजाब सरकार द्वारा इस क्षेत्र को सर्वोच्च प्राथमिकता दी जा रही है।

वित्तीय वर्ष 2024-25 के लिए राज्य में जल संसाधनों के अंतर्गत ₹1826.76 करोड़ के कुल ऋण परिव्यय का आकलन किया गया है।

फार्म मशीनीकरण : पंजाब देश के सर्वाधिक मशीनीकृत राज्यों में से एक है जिसमें 31% कृषि परिवार ट्रैक्टर के मालिक हैं (एनएएफआईएस रिपोर्ट 2017) इस राज्य में भारत में सबसे ज्यादा 3.50 किलोवाट/हेक्टेयर कृषि के लिए बिजली की उपलब्धता है जबकि राष्ट्रीय औसत 2.02 किलोवाट/हेक्टेयर है. राज्य में ट्रैक्टर, पावर टिलर, रोटोवेटर, धान ट्रांस प्लांटर्स, थ्रेसर, हार्वेस्टर आदि के वित्तपोषण की संभावना है. लघु और सीमांत किसानों की समस्या को ध्यान में रखते हुए कस्टम हायरिंग सेंटर समय की मांग है और इन्हें एफपीओ, एसएचजी फेडरेशन, पैक्स को एमएससी के रूप में परिवर्तित करने आदि के माध्यम से बढ़ावा दिया जा सकता है. कृषि में ड्रोन प्रौद्योगिकी का एकीकरण बढ़ी हुई दक्षता, बढ़ी हुई उत्पादकता, श्रम अनुकूलन और सटीक कृषि पद्धतियों के आगमन को उत्प्रेरित करने के लिए तैयार है।

वित्तीय वर्ष 2024-25 के लिए राज्य के लिए कृषि मशीनीकरण के तहत ऋण संभाव्यता ₹5783.61 करोड़ आंकी गई है.

बागवानी और मधुमक्खी पालन : पंजाब में 477000 हेक्टेयर क्षेत्र में बागवानी उत्पादों का उत्पादन होता है, जिसमें से फलों का उत्पादन 109880 हेक्टेयर, सब्जियों का उत्पादन 316580 हेक्टेयर, फूलों का उत्पादन 2320 हेक्टेयर और मसाले और सुगंधित फसलों (भारत की बागवानी सांख्यिकी 2022-23) का उत्पादन 34860 हेक्टेयर में किया जाता है. फलों में लगभग दो-तिहाई उत्पादन किन्नु का और सब्जियों में लगभग आधा उत्पादन आलू का होता है. कई बारहमासी और वार्षिक बागवानी फसलों के लिए बीमा उत्पादों सहित उचित जोखिम को कम करने संबंधी सहयोगों की अनुपस्थिति एक प्रमुख मुद्दा है, साथ ही फसल कटाई के बाद की हैंडलिंग, परिवहन और भंडारण संबंधी बुनियादी ढांचे में महत्वपूर्ण कमियां भी हैं, जिन्हें यथाशीघ्र दूर करने की जरूरत है. फसल कटाई के बाद से होने वाले नुकसान को कम करने के लिए सफाई, छंटाई, ग्रेडिंग और पैकिंग पर जोर दिया जाना चाहिए और विस्तार की दिशा में इन्टरनेट ऑफ थिंग्स (आईओटी) संबंधी सहयोग अपेक्षित है.

बागवानी क्षेत्र के लिए उपलब्ध संभावनाओं को देखते हुए, वित्तीय वर्ष 2024-25 के लिए ₹1622.54 करोड़ की ऋण संभाव्यता का आकलन किया गया है.

पशुधन और मत्स्य पालन: पंजाब देश में पशुपालन के लिए सबसे उन्नत राज्यों में से एक है. मत्स्य पालन सहित पशुधन क्षेत्र का कृषि और संबद्ध क्षेत्रों के सकल राज्य मूल्य वर्धित (GSVA) में 39.91% से अधिक योगदान है. देश में राज्य का दुग्ध उत्पादन में भी चौथा स्थान है. राज्य में प्रति व्यक्ति दूध की उपलब्धता 1281 ग्राम / प्रतिदिन है जोकि सबसे अधिक है. इस क्षेत्र को अतिरिक्त बल प्रदान करने के लिए सहकारी बैंकों को पशुपालन और मत्स्य पालन क्षेत्र के लिए केसीसी को अभियान स्तर पर क्रियान्वित किए जाने की आवश्यकता है.

पशुधन क्षेत्र पंजाब में समग्र आर्थिक समृद्धि के लिए महत्वपूर्ण संभावना रखता है, क्योंकि वर्ष 2022-23 में राज्य के अंकित जीएसवीए में इसकी 11.1% हिस्सेदारी है. पशुधन और मत्स्य पालन क्षेत्र ने वर्ष 2022-23 में 4.2% और 11.1% की वास्तविक वृद्धि दर दर्ज की गई.

वित्तीय वर्ष 2024-25 में पशुधन और मत्स्य पालन क्षेत्रों के लिए संयुक्त रूप से ₹11,172.45 करोड़ की ऋण संभाव्यता का आकलन किया गया है.

कृषि बुनियादी ढांचा सुविधा : कृषि विकास दर में योगदान देने के लिए कृषि बुनियादी ढांचा सुविधा की सबसे अहम भूमिका है। कृषि उत्पादन वृद्धि का निर्धारण मुख्यतः सड़क, सिंचाई, बाजार, फसल की कटाई के बाद अपेक्षित बुनियादी ढांचे और मजबूत ऋण सुविधाओं जैसे इन्फ्रास्ट्रक्चर द्वारा किया जाता है। फार्म गेट स्तर पर कृषि बुनियादी ढांचे के विकास और उन्नयन के साथ-साथ समुदाय प्रबंधित बुनियादी ढांचे के विकास के लिए एमएसएमई और सिडबी मंत्रालय के साथ विशेष रूप से कृषि इन्फ्रास्ट्रक्चर फंड (एआईएफ) बनाया गया है। ग्रामीण कृषि मंडियों, विनियमित थोक मंडियों और कृषि उपज मंडी समितियों (एपीएमसी) में बुनियादी ढांचे के विकास की भी संभावनाएं हैं। राज्य में खराब होने वाली और खराब न होने वाले ज़ींसों के वेयरहाउसिंग और भंडारण के लिए पर्याप्त बुनियादी ढांचे को सुनिश्चित किया जाना चाहिए क्योंकि इससे किसानों को उपज के लिए बेहतर मूल्य मिलता है और उपज की बर्बादी भी कम होती है। सहकार-से-समृद्धि, "सहकारी क्षेत्र में दुनिया की सबसे बड़ी अनाज भंडारण योजना" के दृष्टिकोण को मूर्त रूप देते हुए, इसे पायलट परियोजना के रूप में शुरू किया जाएगा, जिसके लिए राज्य में उपयुक्त पैक्स की पहचान की जा रही है। जैविक खेती के तहत इनपुट के उत्पादन सहित पूरी मूल्य श्रृंखला को बैंकों से ऋण सहायता की जरूरत होती है। मृदा की रक्षा और फसल उत्पादन बढ़ाने के लिए गुणवत्तापूर्ण मृदा परीक्षण सेवाओं के साथ-साथ अन्य विस्तार गतिविधियों को भी निजी उद्यमों के माध्यम से प्रोत्साहित किए जाने की आवश्यकता है।

वित्तीय वर्ष 2024-25 के लिए कृषि इन्फ्रास्ट्रक्चर के लिए ₹8718.25 करोड़ की ऋण संभाव्यता का आंकलन किया गया है।

सहायक गतिविधियाँ: राज्य में ग्रामीण जन का मुख्य व्यवसाय कृषि है, इस कृषि क्षेत्र में उद्यम विकास के लिए खाद्य एवं कृषि प्रसंस्करण पर ध्यान केन्द्रित किया जाना चाहिए। यह क्षेत्र कृषि और औद्योगिक क्षेत्रों के बीच एक महत्वपूर्ण कड़ी के रूप में कार्य करता है। कृषि कच्चे माल की बर्बादी को कम करने, उनके शेल्फ-लाइफ को बढ़ाकर कृषि उत्पादों के मूल्य में सुधार करने, खाद्य उत्पादों की पोषक क्षमता को बढ़ाने और किसानों के लिए लाभकारी मूल्य सुनिश्चित करने के साथ-साथ उपभोक्ताओं के लिए किफायती मूल्य सुनिश्चित करने के लिए इस कड़ी को मजबूत करना महत्वपूर्ण है। कृषि प्रसंस्करण उद्योग के विकास को प्रोत्साहन प्रदान करने के लिए विशेष रूप से भारत सरकार की योजनाओं जैसे पीएम-एफएमई, पीएम कृषि संपदा योजना के साथ-साथ कृषि स्टार्टअप के वित्तपोषण को बैंकों द्वारा बढ़ावा देने की आवश्यकता है ताकि इस क्षेत्र को बढ़ावा दिया जा सके।

वित्तीय वर्ष 2024-25 में सहायक गतिविधियों के लिए ₹15807.64 करोड़ की ऋण संभाव्यता का आंकलन किया गया है।

सूक्ष्म लघु और मध्यम उद्यम (एमएसएमई): पंजाब सरकार ने एमएसएमई के विकास पर जोर दिया है। राज्य सरकार ने औद्योगिक और व्यवसाय विकास नीति 2022 तैयार की है, जिसका उद्देश्य रुपये 5 लाख करोड़ के निवेश को बढ़ावा देना है। इस नीति में रचनात्मक रोजगार के अवसरों के अतिरिक्त 15 औद्योगिक पार्क और 20 ग्रामीण क्लस्टर विकसित करने की परिकल्पना की गई है।

वित्तीय वर्ष 2024-25 के दौरान एमएसएमई (निवेश ऋण और कार्यशील पूंजी) को बढ़ावा देने के लिए ₹80724.34 करोड़ की ऋण संभाव्यता का आंकलन किया गया है।

II. लोगों के संगठन जैसे एफपीओ, जेएलजी और एसएचजी के माध्यम से विकास

किसी भी प्रकार की सरकारी नीति, पहल, निवेश योजना आदि तभी सफल होती हैं जब राज्य के लोग समान रूप से और समान प्रतिबद्धता के साथ उसे स्वीकार करते हैं। उत्पादक संगठनों (पीओ), संयुक्त देयता समूहों (जेएलजी) और स्वयं सहायता समूहों (एसएचजी) आदि जैसे लोगों से जुड़कर बने संगठनों को बढ़ावा देकर विकास प्रक्रिया हेतु लोगों को एक साथ लाना, विकास को संधारणीय बनाता है।

एफपीओ : पंजाब में, नाबार्ड ने विभिन्न क्षेत्रों में काम कर रहे 119 एफपीओ का संवर्धन किया है। इनमें से 67 एफपीओ को प्रोड्यूस फंड के तहत और 44 एफपीओ को नाबार्ड के अपने प्रमोशनल फंड (एफएसपीएफ) के तहत और नई आरंभ की गई पीओडीएफ-आईडी निधि और 11 एफपीओ सीएसएस-10,000 योजना के तहत बनाया बनाए गए हैं। प्रोड्यूस निधि के अंतर्गत संवर्धित सभी 67 एफपीओ का क्रमशः 15 एफपीओ का कंपनी के रूप में, 20 एफपीओ का सोसाइटी के रूप में और 32 एफपीओ का सहकारी समितियों के रूप में पंजीकरण किया गया है। उनके द्वारा संचालित गतिविधियों में अनाज की खरीद, शहद, पशुपालन, खाद्य प्रसंस्करण (आचार, पापड़, स्कैश), डेयरी, मधुमक्खी पालन, सब्जी की खेती, कस्टम हायरिंग सेंटर, प्राथमिक प्रसंस्करण, मसाले, बासमती चावल, जैविक उत्पाद आदि शामिल हैं।

वित्तीय समावेशन और सूक्ष्म ऋण

- **जेएलजी :** राज्य में जेएलजी के क्रेडिट लिंकेज की संभाव्यता का दीर्घकालिक आकलन ₹2500 करोड़ है। पंजाब में क्रेडिट लिंक किए गए जेएलजी की संचयी संख्या 31 मार्च 2023 तक 4.25 लाख है। नाबार्ड द्वारा विभिन्न डीसीसीबी और क्षेत्रीय ग्रामीण बैंक को जेएलजी के संवर्धन और क्रेडिट लिंकेज के लिए अनुदान सहायता मंजूर की जा रही है।
- **एसएचजी और माइक्रोफाइनेंस :** राज्य में 31 मार्च, 2023 तक, संचयी रूप से 64560 स्वयं सहायता समूहों को बचत से और 10599 स्वयं सहायता समूहों को ऋण से जोड़ा गया है। पंजाब के अधिकांश ब्लॉक एनआरएलएम के गहन कार्यक्रम के अंतर्गत आते हैं जहां एसएचजी एसआरएलएम द्वारा संवर्धित किए जा रहे हैं। राज्य में एसआरएलएम के माध्यम से एसएचजी को बढ़ावा देने के प्रयासों को तेज करने की आवश्यकता है। बैंकों को आरबीआई दिशानिर्देशों के अनुसार एसआरएलएम द्वारा पोषित/संवर्धित एसएचजी के वित्तपोषण पर ध्यान केंद्रित करने की आवश्यकता है।

वित्तीय समावेशन : वित्तीय समावेशन भारत सरकार, भारतीय रिजर्व बैंक और नाबार्ड का एक महत्वपूर्ण एजेंडा है, जिसका उद्देश्य देश में बड़ी संख्या में बैंकिंग सुविधाओं से वंचित जनसंख्या को सस्ती लागत पर वित्तीय सेवाएं उपलब्ध कराना है ताकि इस क्षेत्र में सम्भाव्य विकास सुनिश्चित किया जा सके। अब तक राज्य में वित्तीय समावेशन को बढ़ावा देने के लिए नाबार्ड द्वारा की गई पहलें निम्नानुसार हैं :

- वित्तीय साक्षरता शिविरों/ डिजिटल शिविरों के लिए ग्रामीण वित्तीय संस्थानों के अतिरिक्त ग्रामीण सहकारी बैंकों और पंजाब ग्रामीण बैंक को अनुदान सहायता उपलब्ध करवाना।
- ग्रामीण वित्तीय संस्थानों जैसे आरआरबी और डीसीसीबी द्वारा शाखाओं और अन्य विक्रेता स्थानों पर माइक्रो-एटीएम लगाने के लिए अनुदान सहायता उपलब्ध करवाना।
- मोबाइल एटीएम के साथ बैंकिंग प्रौद्योगिकी प्रदर्शित करने के लिए मोबाइल वैन उपलब्ध करवाना।
- प्रशिक्षण उपकरणों की खरीद और उसके रख-रखाव के लिए ग्रामीण स्वरोजगार प्रशिक्षण संस्थान / ग्रामीण विकास और स्वरोजगार प्रशिक्षण संस्थान को पूंजीगत व्यय प्रदान करना।

- भीम / यूपीआई प्लेटफार्म आदि के बोर्डिंग के लिए बैंकों को अनुदान सहायता प्रदान करना.
- भारत बिल भुगतान प्रणाली के साथ-साथ आरसीबी द्वारा पॉज़िटिव पे सिस्टम शुरू करने के लिए बैंकों (आरसीबी/आरआरबी) को सहायता प्रदान करना.
- नाबार्ड भारत सरकार के 'घर-घर केसीसी अभियान' को क्रियान्वित करने के साथ-साथ मॉनिटरिंग भी कर रहा है. 31.12.2023 तक, राज्य में कुल 262 जागरूकता शिविर आयोजित किए गए हैं, जिसमें कुल 21 जिले, 101 ब्लॉक और 255 गाँव शामिल हैं.
- किसानों को रियायती ब्याज दर पर अल्पकालिक कृषि ऋण की सुविधा प्रदान करने और उन्हें ऋण के शीघ्र चुकौती करने हेतु प्रोत्साहित करने के लिए किसानों को कृषि ऋण पर सब्सिडी प्रदान करने के उद्देश्य से भारत सरकार द्वारा संशोधित ब्याज सबवेंशन योजना (एमआईएसएस) शुरू की गई है.

राज्य में सहकारी समितियों की स्थिति एवं संभावनाएँ:

पंजाब राज्य में अल्पावधि सहकारी ऋण संरचना के तहत 3-टियर संरचना है. शीर्ष स्तर पर पीएसटीसीबी है जिसके बाद 20 जिला केंद्रीय सहकारी समितियाँ हैं. जिला स्तर पर बैंक और जमीनी स्तर पर 3552 सक्रिय पैक्स हैं.

राज्य में सहकारी समितियों का क्षेत्रवार विभाजन नीचे दिया गया है:

कर्म संख्या	प्रकार	सोसाइटियों की संख्या
A. गैर-ऋण सहकारी समितियों का विवरण		
1	एएच सेक्टर (दूध, मत्स्यपालन, मुर्गीपालन आदि)	11 जिला सहकारी दुग्ध उत्पादक संघ (डीसीएमपीयू) से संबद्ध 6459 प्राथमिक सहकारी दुग्ध उत्पादक समितियाँ.
2	कंज्यूमर स्टोर	निल
3	हाउसिंग सोसाइटी	प्राथमिक सहकारी हाउस बिल्डिंग समितियाँ
4	बुनकर	निल
5	विपणन	85 सक्रिय प्राथमिक सहकारी विपणन समितियाँ.
6	श्रमिक सोसाइटी	2141 प्राथमिक सहकारी श्रम एवं निर्माण समिति.
7	औद्योगिक सोसाइटी	निल
8	कृषि प्रसंस्करण एवं चीनी	85 गैर-ऋण समितियाँ – कृषि से संबद्ध/कृषि-प्रसंस्करण और 15 सहकारी चीनी मिलें.
9	अन्य सभी	29 सहकारी समितियाँ
	Total	9358
B. ऋण सहकारी समितियों का विवरण		
10	प्राथमिक कृषि ऋण समितियाँ	राज्य में पैक्स की कुल संख्या 3967 है. इनमें से केवल 3552 सक्रिय हैं जबकि शेष 415 पैक्स निष्क्रिय हैं.
C. बहु राज्य सहकारी समितियों का विवरण		
11	एमएससीएस की संख्या	निल
स्रोत: वार्षिक प्रशासनिक रिपोर्ट, सहकारिता विभाग, पंजाब सरकार-2020-21		

विकसित भारत संकल्प यात्रा (वीबीएसवाई):

नाबार्ड अपने जिला विकास प्रबंधकों (डीडीएम) के माध्यम से देश भर में जिला स्तर पर कार्यक्रमों में भाग लेने के लिए जनता को जुटाने में महत्वपूर्ण भूमिका निभा रहा है। 27.12.2023 तक, प्रत्येक ग्राम पंचायत में 170 लोगों की औसत भागीदारी के साथ कुल 5043 ग्राम पंचायतें (जीपी) कवर की गईं। राज्य में वीबीएसवाई कार्यक्रम के तहत कुल मिलाकर 8,59,989 लोगों को कवर किया गया है।

राज्य में भौगोलिक संकेतकों (जीआई) की संभाव्यता:

जीआई ग्रामीण विकास, समुदायों को सशक्त बनाने, उत्पाद विभेदकों के रूप में कार्य करने, ब्रांड निर्माण को बढ़ावा देने, स्थानीय रोजगार को प्रोत्साहित करने, क्षेत्रीय ब्रांड बनाने, पर्यटन और गैस्ट्रोनॉमी में अनपेक्षित (स्पिन-ऑफ) प्रभाव उत्पन्न करने, पारंपरिक ज्ञान और पारंपरिक सांस्कृतिक अभिव्यक्तियों और जैव विविधता को संरक्षित करने में महत्वपूर्ण भूमिका निभा सकते हैं।

अभी तक पंजाब में केवल दो उत्पादों अर्थात् फुलकारी और बासमती चावल को जीआई टैग दिया गया है। पंजाब समृद्ध विरासत वाला राज्य है, यहां ठठेरा शिल्प, लकड़ी के इनलेज़, पंजाबी जूती आदि जैसे उत्पादों को जीआई टैग मिलने की बहुत अधिक संभावना है।

जीआई पंजीकरण के लिए कार्यान्वयन एजेंसी- पंजाब लघु उद्योग और निर्यात निगम (PSIEC) को वित्त वर्ष 2022-23 के दौरान जंडियाला गुरु, अमृतसर में नाबार्ड द्वारा ठठेरा शिल्प पर पहली जीआई परियोजना स्वीकृत की गई है।

II. ग्रामीण बुनियादी ढांचा और लिंकेज सहायता: नाबार्ड, देश के ग्रामीण क्षेत्रों के साथ-साथ कृषि एवं सम्बद्ध और ग्रामीण गैर-कृषि क्षेत्र की गतिविधियों के विकास के लिए बुनियादी ढांचे के निर्माण और अन्य प्रचार गतिविधियों के लिए परियोजनाओं को वित्तीय सहायता प्रदान करता रहा है। ग्रामीण क्षेत्रों में बुनियादी ढांचे के विकास के लिए आरआईडीएफ, नीडा, वेयरहाउसिंग इन्फ्रास्ट्रक्चर फंड, एमआईएफ, एलटीआईएफ, फूड प्रोसेसिंग फंड आदि जैसे विशेष फंड बनाए गए हैं। इन निधियों के अंतर्गत राज्य सरकार और उनकी स्वामित्व वाली संस्थाओं को कृषि, सड़कों, सामाजिक क्षेत्र, पावर ट्रांसमिशन, सिंचाई, पशुपालन आदि क्षेत्रों में बुनियादी ढांचे के विकास के लिए परियोजनाओं को मंजूरी दी गई है। पंजाब में ट्रांच XXIX के तहत 30 सितंबर 2023 तक आरआईडीएफ के अंतर्गत 8660 परियोजनाओं को ₹12828.70 करोड़ के ऋण की मंजूरी दी गई।

राज्य सरकार के लिए कार्रवाई बिंदु

- 1) राज्य में लेजर लैंड लेवलर, ज़ीरो टिल ड्रिल, हैप्पी सीडर, रिज और बेड प्लानर, इंटर क्रॉप प्लांटेशन मशीन, न्यूमेटिक प्लान्टर, गन्ना हार्वेस्टर, कपास बीनने, ट्रैक्टर से तालाब की खुदाई, ड्रिप और स्प्रींकलर सिंचाई प्रणाली जैसे सटीक उपकरणों के माध्यम से फार्म मशीनीकरण का फोकस संसाधन संरक्षण प्रौद्योगिकी (आरसीटी) पर होना चाहिए।
- 2) फसल कटाई के बाद के तंत्र, विपणन चैनलों को मजबूत करना और विशिष्ट खेती के लिए उत्पादक संगठनों (पीओ) को बढ़ावा देना। सब्जी उत्पादकों और बागवानी किसानों को संगठित करना और इन्हें खाद्य प्रसंस्करण उद्योगों से जोड़ना भी समय की मांग है।
- 3) जैविक खेती से संबंधित प्रथाओं, केंचुआ खाद तकनीक का प्रदर्शन और जिला स्तर पर इसके लागू करने से होने वाले लाभ को देखते हुए सरकारी विभागों और कृषि विज्ञान केन्द्रों द्वारा इन्हें प्राथमिकता दी जा सकती है।
- 4) गेहूं और धान जैसी महत्वपूर्ण फसलों की पैदावार राज्य में हालांकि राष्ट्रीय औसत से अधिक है, परन्तु किसी भी नवीन वैज्ञानिक खोज के अभाव में यह लगभग स्थिर है। इन खाद्यान्न फसलों की पैदावार बढ़ाने

के लिए वैज्ञानिक सहयोग की आवश्यकता है, जो भविष्य में उनके उच्च उत्पादन को बनाए रखने के लिए महत्वपूर्ण हैं। 'केवल कृषि' से कृषि और संबद्ध गतिविधियों जैसे बागवानी, फूलों की खेती, कृषि वानिकी, डेयरी, पशुपालन, मत्स्य पालन, एकीकृत खेती और कृषि प्रसंस्करण आदि की ओर बढ़ने की आवश्यकता है। सामान्य रूप से फल और विशेष रूप से सब्जियों के उत्पादन में विविधता से छोटे और सीमांत किसानों को लाभ होने की संभावना है। धान-गेहूं के अतिरिक्त कृषि में विविधता लाने के लिए अन्य फसलें उगाने के लिए प्रेरित करने हेतु किसानों को नकद प्रोत्साहन और समान रूप से मजबूत खरीद प्रणाली प्रदान करके प्रोत्साहित किया जा सकता है।

5) नाबार्ड अत्यधिक नवीन संसाधन संरक्षण प्रौद्योगिकी आधारित स्थायी कृषि पद्धतियों पर प्रदर्शन मॉडल लेकर आया है। उनमें से कुछ इस प्रकार हैं:

पंजाब कृषि विश्वविद्यालय (PAU) को तर-वतर डीएसआर पर स्वीकृत परियोजना: 02 वर्षों की समय अवधि में ₹24.73 लाख के वित्तीय परिव्यय के साथ, परियोजना राज्य के कुल 12 जिलों (पठानकोट, गुरदासपुर, अमृतसर, तरनतारन, फिरोजपुर, फरीदकोट, बठिंडा, बरनाला, संगरूर, पटियाला, फतेहगढ़ साहिब और लुधियाना) में संचालित की गई। प्रत्येक वर्ष 200 एकड़ में डेमोंस्ट्रेशन, किसान प्रशिक्षण और प्रभाव मूल्यांकन को शामिल किया गया। डेमोंस्ट्रेशन के अलावा, परियोजना में 03 लकी सीड ड्रिल (डीएसआर के लिए आवश्यक) की खरीद की गई जिन्हें स्थानीय कृषि विज्ञान केन्द्रों को दिया गया। तर-वतर डीएसआर तकनीक सामान्य डीएसआर (सूखी बुवाई) से अलग है। इस तकनीक में, एक समतल खेत में बुवाई से पहले सिंचाई की जाती है, खेत को तर-वतर की स्थिति में तैयार किया जाता है (मिट्टी में नमी इतनी हो कि उसमें ट्रैक्टर चलाना संभव हो लेकिन मिट्टी टायरों से न चिपके) और बीज तुरंत बोया जाता है। इसके अलावा, बुवाई के लगभग 21 दिनों में सिंचाई की जाती है।

पंजाब के अर्ध-शुष्क क्षेत्र में खारे पानी का उपयोग करके सूक्ष्म सिंचाई के माध्यम से कपास-गेहूं फसल पद्धतियों द्वारा बंजर भूमि का सुधार: इस परियोजना का उद्देश्य सूक्ष्म सिंचाई तकनीक के माध्यम से असिंचित बंजर भूमि के अंतर्गत कपास-गेहूं फसल प्रणाली पर उपयुक्त कृषि पद्धतियों का विकास करना है। परियोजना का प्रायोगिक प्लॉट क्षेत्रीय अनुसंधान केंद्र, बठिंडा में स्थापित किया गया है। पंजाब के दक्षिण-पश्चिमी क्षेत्र में सिंचाई सुविधाओं की कमी या रेतीली मिट्टी के कारण बंजर हो गई भूमि को खेती के तहत लाने के लिए यह परियोजना चलाई जा रही है। पिछली दो फसलों के नतीजे उत्साहवर्धक हैं।

अबोहर में सब्जी फसलों के माध्यम से फसल विविधीकरण पर परियोजना: इस परियोजना में 200 एकड़ में फसलों के विविधीकरण की परिकल्पना की गई है, जिसमें लगभग 200 किसान (औसतन 1 एकड़ प्रति किसान) 20 गांवों में फैले हुए हैं जो गाजर, प्याज, लहसुन और फूलगोभी आदि सब्जियों की खेती कर रहे हैं। इस फसल विविधीकरण मॉडल से क्षेत्र के अधिकांश किसानों को अपनी फसल में विविधता लाने में मदद मिलने की अपेक्षा है। परियोजना के तहत लगभग 1200 किसानों को विस्तार सेवाओं और प्रशिक्षण का लाभ मिलेगा।

वित्तीय वर्ष 2021-22 के दौरान संगोष्ठियों/किसान जागरूकता कार्यक्रम के आयोजन के साथ डेमोंस्ट्रेशन और विस्तार सेवाएं शुरू की गईं और धान/कपास की अपेक्षा गाजर की बुवाई के लिए फसल के विविधीकरण के लिए 200 किसानों को चिन्हित किया गया है। पंजाब एग्रो इंडस्ट्री कॉर्प ने पास में एक

प्रोसेसिंग प्लांट भी लगाया है, जो किसानों की उपज के विपणन और प्रसंस्करण की सुविधा प्रदान कर रहा है। परियोजना के क्रियान्वयन से किसानों को लगभग 0.75 लाख से 1.00 लाख प्रति एकड़ की आय हो रही है।

राज्य में विकासात्मक क्षेत्र के सभी हितधारकों द्वारा ऐसे सफल डेमोंस्ट्रेशन मॉडलों से निकली सफलता की कहानियों के दोहराव की तत्काल आवश्यकता है। राज्य में बड़े पैमाने पर किसानों द्वारा इन संसाधन संरक्षण तकनीकों (आरसीटी) को अपनाने की आवश्यकता को देखते हुए राज्य सरकार अपने कृषि विस्तार विभाग को सुव्यवस्थित कर सकती है।

1) राज्य सरकार खाद्य प्रसंस्करण उद्योग को प्रोत्साहित करने के लिए विशेष योजनाएं शुरू कर सकती है। बागवानी और सब्जी उत्पादों की शेल्फ-लाइफ का बढ़ना किसानों और उद्यमियों दोनों के लिए फायदेमंद है।

2) पंजाब के उत्तरी और पूर्वी हिस्सों में सब्जियों की खेती, विशेष रूप से टमाटर, हरी मटर आदि फसलों के साथ मोनोकल्चर के विविधीकरण को बढ़ावा दिया जा सकता है।

3) धान की पराली न जलाने के लिए किसानों को प्रोत्साहित करना। पीओ, एसएचजी/जेएलजी, पैक्स आदि को सब्सिडी सहायता में वृद्धि के माध्यम से धान की पराली के इन-सीटू और एक्स-सीटू प्रबंधन के लिए मशीनों के उपयोग को बढ़ावा दिया जा सकता है।

4) गाँव के बड़े तालाब सिंचाई के लिए विकसित किए जा सकते हैं। इन्हें आस-पास के क्षेत्र से फ़िल्टर किए गए बारिश के पानी का संग्रहण करके भूजल के लिए रिचार्ज बिंदु के रूप में विकसित किया जा सकता है। नाबार्ड मोगा और फिरोजपुर जिले में तालाबों के माध्यम से जल संरक्षण के लिए पायलट परियोजनाओं को लागू कर रहा है। यह मॉडल पंजाब के गांवों में दोहराया जा सकता है।

5) पंजाब सरकार ने पटियाला जिले में धान की पराली पर आधारित ब्रिकेट विनिर्माण संयंत्र शुरू किया है जो ब्रिकेट बनाने के लिए कच्चे माल के रूप में धान की पराली का उपयोग करता है। इसके अलावा, पंजाब सरकार ने संगरूर जिले में प्राइवेट एंटरप्राइजेज के सहयोग से 300 टीपीडी क्षमता का जैव ऊर्जा विनिर्माण संयंत्र स्थापित किया है। इन विनिर्माण इकाइयों को कच्चे माल की आपूर्ति के लिए पैक्स को जोड़कर राज्य में ऐसे मॉडलों को दोहराने की आवश्यकता है। धान की पराली से ब्रिकेट के निर्माण के लिए पराली के गैसीकरण के लिए और अधिक बायो चार (Bio Char) इकाइयों की स्थापना को प्रोत्साहित करने के साथ-साथ पैडी स्ट्रा के मलबे से इथेनॉल के निर्माण की "लिग्नोसेल्यूलोज हाइड्रोलिसिस" प्रक्रिया को बढ़ावा देने की आवश्यकता है क्योंकि इससे पर्यावरण के साथ-साथ अर्थव्यवस्था को लाभ होता है

6) **कोल्ड स्टोरेज और कोल्ड चैन:** भंडारण सुविधाओं (नियंत्रित वातावरण और संशोधित वातावरण और प्रशीतन युक्त इकाइयों) को विकसित करने की आवश्यकता है ताकि खराब होने वाली उपज को संरक्षित किया जा सके, उन्हें लंबी दूरी तक पहुँचाया जा सके और फसल कटाई के बाद के नुकसान को रोका जा सके क्योंकि आज भी किसान के लिए यह एक बड़ी चिंता का विषय है। इन्हें खाद्य प्रसंस्करण इकाइयों के साथ एकीकृत किया जाना चाहिए और लिंगेज को मजबूत करने में सहायक होना चाहिए। एकीकृत पैकेजिंग इकाइयों के विकास के साथ-साथ क्षेत्रीय बाजारों में सब्जियों / फलों को ले जाने के लिए प्रोत्साहित किया जाना चाहिए।

7) **सूक्ष्म-सिंचाई तकनीक :** सरकार द्वारा किसान को सहायता देकर ड्रिप सिंचाई और स्प्रिंकलर सिंचाई को प्रोत्साहित किया जाना चाहिए ताकि भूजल दोहन कम हो सके, इस प्रकार किसान ट्यूबवेल लगाने और उसे गहरा करने के लिए अनौपचारिक स्रोतों से ऋण लेने से बचेंगे। नाबार्ड ने सूक्ष्म सिंचाई निधि

(एमआईएफ) के तहत पंजाब सरकार को ₹150 करोड़ का ऋण स्वीकृत किया था ताकि सरकार / संस्थागत / प्रगतिशील किसानों / फार्म्स (660 हेक्टेयर) पर प्रदर्शन इकाइयां स्थापित करके सटीक कृषि को बढ़ावा दिया जा सके और अतिरिक्त टॉप-अप सब्सिडी प्रदान कर 25090 हेक्टेयर में सूक्ष्म सिंचाई प्रणालियों को बढ़ावा दिया जा सके, इससे 12000 किसानों को लाभ हुआ। ऐसी परियोजनाओं से होने वाले लाभों को संबंधित सरकारी विभागों द्वारा पूरे राज्य में दोहराया जाना चाहिए।

8) **जलवायु परिवर्तन:** नाबार्ड ने जलवायु परिवर्तन के तहत राज्य के 3 जिलों में "जलवायु परिवर्तनशील पशुधन उत्पादन प्रणाली के विकास की ओर" प्रायोगिक परियोजनाएं शुरू की हैं, इस परियोजना की खासियत डेयरी पशुओं के बीमा के लिए वेदर लिंकड इंश्योरेंस प्रोडक्ट का विकास है। इस योजना ने छोटे और सीमांत किसानों के जीवन में वास्तविक परिवर्तन लाया है; इस तरह की परियोजनाओं को राज्य में दोहराया जाना चाहिए। जलवायु परिवर्तन आदि के कारण कम उत्पादकता के जोखिम को कम करने के लिए अनुकूलित बीमा योजना राज्य द्वारा शुरू की जा सकती है।

9) **विस्तार सेवाएं:** पंजाब में कृषि विश्वविद्यालयों, कृषि विज्ञान केंद्रों, कृषि प्रौद्योगिकी प्रबंधन एजेंसी (एटीएमए), किसान क्लबों आदि का एक विस्तृत नेटवर्क है। किसानों को नवीनतम तकनीकों और सूचनाओं की जानकारी दी जानी चाहिए ताकि किसान अपनी आय को अधिकतम करने के लिए अपनी कृषि पद्धति में सुधार कर उसे प्रभावी बना सकें। प्रशिक्षण प्रदान करने के लिए आईसीटी, स्मार्टफोन, प्रशिक्षण के वीसी मोड का उपयोग कृषि विस्तार और सूचना प्रसार गतिविधियों के लिए अधिकतम सीमा तक किया जा सकता है।

10) सौर ऊर्जा, ऊर्जा के सबसे महत्वपूर्ण नवीकरणीय स्रोतों में से एक है जिसका उपयोग विभिन्न उद्देश्यों के लिए किया जा सकता है। सौर ऊर्जा को व्यापक रूप से आवासीय, वाणिज्यिक और औद्योगिक क्षेत्रों में अपनाया जा रहा है। इसमें किसानों की सुविधा के अनुसार सिंचाई एवं बिजली की व्यवस्था के साथ-साथ कृषि क्षेत्र को भी लाभान्वित करने की बहुत सम्भावनाएं हैं। इसलिए, किसानों को वित्तीय और जल सुरक्षा प्रदान करने के प्रयासों के साथ, सरकार कृषि अपशिष्ट और परती भूमि पर ग्रिड से जुड़े सौर ऊर्जा संयंत्रों की स्थापना को बढ़ावा दे सकती है और नए सोलर पंप एवं मौजूदा सिंचाई पंप सेटों के सौर ऊर्जाकरण को बढ़ावा देते हुए अतिरिक्त ऊर्जा ग्रिड को प्रदान करने के लिए प्रोत्साहित किया जा सकता है। इससे किसानों को अतिरिक्त आय प्राप्त होगी। राज्य सरकार भारत सरकार की पीएम-कुसुम योजना के तहत किसानों को लाभ भी प्रदान कर सकती है और आरआईडीएफ के तहत मंजूरी के लिए और अधिक परियोजनाएं प्रस्तुत करने पर विचार कर सकती है।

11) भूमि रिकॉर्ड के डिजिटलीकरण से संबंधित मामलों, भूमि मालिकों के स्वत्व विलेखों की सुरक्षा के साथ कृषि भूमि को पट्टे पर देने के लिए तौर-तरीके तैयार करना और ऐसी पट्टे वाली भूमि पर प्रभार के अभिलेखन को सुनिश्चित करने के लिए राज्य सरकार को प्राथमिकता के आधार पर उचित कदम उठाने चाहिए।

12) पैक्स कम्प्यूटरीकरण: सभी स्टेकहोल्डर्स- आरसीएस, पीएससीबी, नाबार्ड और सिस्टम इंटीग्रेटर्स (जैसे साइ फ्यूचर इंडिया प्राइवेट लिमिटेड और इंटेलेक्ट इंडिया प्राइवेट लिमिटेड) एक साथ मिलकर केंद्र सरकार द्वारा आवंटित लक्ष्यों को समय पर प्राप्त करने के लिए समन्वित रूप से काम कर सकते हैं। पंजाब में इस परियोजना के लिए 72.94 करोड़ रुपये का बजटीय प्रावधान किया गया है। 20.12.2023 तक, पहले चरण में कंप्यूटरीकरण के लिए राज्य द्वारा 3523 पैक्स में से 3482 की पहचान की गई है। शेष 41 पैक्स को दूसरे चरण में लिया जाएगा।

बैंकों के लिए कार्रवाई बिंदु

- बैंकों और वित्तीय साक्षरता केन्द्रों की ग्रामीण शाखाओं द्वारा डिजिटल साक्षरता पर जोर देते हुए वित्तीय और डिजिटल साक्षरता शिविर, नियमित रूप से आयोजित करने की आवश्यकता है। इस तरह के शिविरों में जल संरक्षण और फसलों के अवशेष जलाने के मुद्दों के सम्बन्ध में भी चर्चा की जा सकती है। सहकारी बैंकों में आंतरिक और बाहरी आईटी का प्रयोग समय की जरूरत है। लागत कम करने और बैंकिंग को सुविधाजनक बनाने के लिए मोबाइल बैंकिंग और भुगतान के डिजिटल मोड अपनाने को प्रचारित किया जाना चाहिए। सहकारी बैंकों को प्रतिस्पर्धा का सामना करने के लिए इंटरनेट बैंकिंग को अपनाना चाहिए। राज्य में सहकारी बैंकों द्वारा माइक्रो-एटीएम की खरीद भी धीमी गति से हुई है, जिससे बिजनेस करिस्पोडेंट्स (बीसी) के कामकाज / सेवाओं में बाधा आ रही है। भारत सरकार की पायलट परियोजना "63,000 पैक्स के कम्प्यूटरीकरण" के तहत राज्य में 3523 परिचालनगत पैक्स को कम्प्यूटरीकृत किए जाने और डीसीसीबी से जोड़े जाने के फलस्वरूप राज्य में बड़े स्तर पर वित्तीय समावेशन के मुद्दे को आवश्यक प्रोत्साहन मिलेगा।"
- राज्य में हाईटेक कृषि, जैविक खेती जैसे उभरते क्षेत्रों में मॉडल परियोजनाएं तैयार की जा सकती हैं और बैंकों को ऐसी परियोजनाओं के वित्तपोषण के लिए सक्रिय प्रयास करने चाहिए।
- किसान एक से अधिक स्रोतों जैसे कि बैंक, साहूकार, रिश्तेदार और आढ़तियों आदि से ऋण ले रहे हैं। इससे किसान ऋणग्रस्त हो जाते हैं। इसलिए, बैंकों को किसानों की समग्र ऋण आवश्यकता का अनुमान लगाने और तदनुसार ऋण समाधान प्रदान करने की आवश्यकता है। बैंकों को संस्थागत ऋण उपायों के लाभों के साथ-साथ संस्थागत स्रोतों के माध्यम से किसानों को दिए जा रहे रियायती ऋण उपलब्ध कराए जाने के बारे में वित्तीय साक्षरता प्रदान करना भी आवश्यक है। गैर-संस्थागत ऋणदाताओं की शोषण करने वाली पकड़ से लघु / सीमान्त किसानों को बचाने के लिए बैंकों / वित्तीय संस्थानों द्वारा एक सहायक वातावरण बनाए जाने की आवश्यकता है।
- चूंकि राज्य में कृषियोग्य भूमिजोत का आकार कम हो रहा है, इसलिए किसानों के फार्मपॉवर और मशीनीकरण की जरूरतों को किफायती ढंग से पूरा करने और ग्रामीण रोजगार पैदा करने के लिए कस्टम हायरिंग केंद्रों को बढ़ावा देने की आवश्यकता है। बैंक कस्टम हायरिंग सेंटरों को बढ़ावा देने के लिए अभिनव ऋण उत्पाद विकसित कर सकते हैं और पैक्स नाबार्ड द्वारा शुरू की गई "पैक्स को एमएससी के रूप में बदलने" वाली योजना के तहत रियायती पुनर्वित्त सहायता उपायों का लाभ उठा सकते हैं। किसानों को सेवा (DrAAS) पारिस्थितिकी तंत्र के रूप में ड्रोन का लाभ लेने में मदद करने के लिए इन सीएचसी के माध्यम से कृषि ड्रोन की कस्टम हायरिंग को भी बढ़ावा दिया जा सकता है।
- बैंकों को किसान क्रेडिट कार्ड (केसीसी) के लिए आवेदनों का निपटान निर्धारित समय सीमा के भीतर सुनिश्चित करने के लिए एक नियंत्रक और रिपोर्टिंग प्रणाली की व्यवस्था विकसित करनी चाहिए। सभी किसानों को केसीसी प्रदान करके पीएम किसान सम्मान लाभार्थियों को कवर करने की आवश्यकता है।
- बैंक निवेश ऋण परिचालन को बढ़ाने के लिए ठोस प्रयास कर सकते हैं और यह सुनिश्चित कर सकते हैं कि निवेश ऋण परिचालन के तहत ऋण कृषि क्षेत्र को प्राप्त कुल ऋण का लगभग 1/3 हो ताकि पूंजी निर्माण को बढ़ाया जा सके। ताजा और प्रसंस्कृत दोनों वस्तुओं के लिए भंडारण बुनियादी ढांचे और कोल्ड चेन मार्केटिंग सुविधा की स्थापना के लिए निजी और सार्वजनिक निवेश को बढ़ावा देना समय की मांग है। कृषि मूल्य श्रृंखला के आधुनिकीकरण हेतु ऋण देने के लिए बैंक कृषि आधारभूत सुविधा निधि (एआईएफ) सुविधा का लाभ उठा सकते हैं।
- पशुपालकों की ऋण आवश्यकता को पूरा करने के लिए केवल पंजाब ग्रामीण बैंक पशुपालन के लिए केसीसी को कार्यान्वित कर रहा है। जबकि, सहकारी बैंक पशुपालन के लिए केसीसी स्वीकृत नहीं कर रहे हैं। चूंकि सहकारी बैंकों/पैक्स की अपने सदस्यों के रूप में किसानों तक अधिक पहुंच है, इसलिए ग्रामीण सहकारी बैंकों को पशुपालन/मुर्गीपालन और मत्स्य पालन क्षेत्र के लिए केसीसी जारी करने के उपाय भी करने चाहिए।

- सभी सहकारी बैंकों को केवाईसी मानदंडों का सख्ती से कार्यान्वयन सुनिश्चित करने की आवश्यकता है।
- बैंक केवल उन्हीं ट्रैक्टर और पावर टिलर को वित्त प्रदान कर सकते हैं, जो बीआईएस मानकों को पूरा करते हैं। ट्रैक्टर के शेष आर्थिक उपयोगी जीवन को ध्यान में रखते हुए, बैंकों द्वारा पहले उपयोग किए गए ट्रैक्टर पर वित्तपोषण सावधानीपूर्वक किया जाना चाहिए।
- बैंक वित्तीय साक्षरता सह ऋण मेलों, शिविरों और फार्मर क्लब बैठकों के माध्यम से किसानों को नवीनतम आधुनिक प्रौद्योगिकियों और उपकरणों, न्यूनतम प्रदर्शन मानकों आदि के बारे में जागरूक करने पर अधिक जोर दे सकते हैं।
- नाबार्ड द्वारा बढ़ावा दिए जा रहे मेगा-फूड पार्क, बैंकों के लिए विविध खाद्य प्रसंस्करण परियोजना इकाइयों को वित्तपोषित करने का एक बड़ा अवसर है। पंजाब राज्य में ऐसे चार पार्क स्थापित किए जा रहे हैं, जो लुधियाना, कपूरथला, फाजिल्का और तरन-तारन में हैं जिन्हें बैंकों द्वारा वित्तीय सहायता प्रदान की जा सकती है।
- बैंक वेयरहाउसिंग क्षेत्र में वित्तपोषण परियोजनाओं पर विचार कर सकते हैं। सार्वजनिक निजी भागीदारी (पीपीपी) मोड के माध्यम से स्टोरेज इन्फ्रास्ट्रक्चर को बढ़ावा दिया जा सकता है। प्राप्त प्रस्तावों का नैबकांस द्वारा तकनीकी-आर्थिक व्यवहार्यता अध्ययन कराया जा सकता है।
- बैंकों, विशेष रूप से, सहकारी बैंकों को राज्य में विशेष रूप से डेयरी किसानों के वित्तपोषण के लिए जेएलजी मोड को दोहराने की आवश्यकता है ताकि सावधि ऋण परिचालन की प्रभाविकता में सुधार लाया जा सके और उनके परिसंपत्ति पोर्टफोलियो में निष्फल ऋणों के उदाहरणों को कम किया जा सके।

Executive Summary

Introduction

NABARD, as an apex Developmental Finance Institution for fostering rural prosperity, is associated with detailed credit planning process commencing at the grassroots level and culminating at the state level. The process involves the preparation of district level Potential Linked Credit Plans (PLPs) that provide the base for branch credit plans at block level and district credit plans at district level. At the State level, the State Focus Paper (SFP), prepared by NABARD, presents an aggregation of the district level projections made in the PLPs and forms the base for preparation of Annual Credit Plan. The basic objective of such a planning exercise is to assess the credit potential keeping in view the sector specific potential, infrastructure support, forward and backward linkage, local skills, natural resources, and credit absorption capacity. The credit projections also fine-tuned by factoring in the priorities and policies of the Government of India, State Government and RBI.

State Profile

Punjab, the land of five rivers has been one of the most endowed states of the country, contributing the largest share to the Central pool of wheat & paddy year after year (30.50% and 21.18% of the total procurement of paddy and wheat during FY 22 season) to the Central pool. Punjab, situated in the North West part of the country constitutes 1.54% of the total geographical area. The State has semi-humid to semi-arid climatic conditions. It is divided into three agro climatic zones viz., Sub-mountainous Zone or Kandi area, Central Alluvial Zone or Central Plains and Southern Dry Zone. As per the 2011 Census, the population of Punjab was 2.77 crore, constituting 2.29% of the total population of the country. About 62.50% of the State's population lives in rural areas. The Gross State Domestic Product at constant (2011-12) prices has increased by 7.9% in 2022-23 as compared to the previous year. The per capita income at current prices was estimated at ₹ 1,73,873 for Punjab in 2022-23, registering a growth of 3.40 % over the previous year. BPL Population in the State is 11.3% as compared to national figures of 29.5% (As per the Dr. C. Rangarajan Expert Group Report 2011-12), which indicates that Punjab is better poised to eradicate poverty.

Banking Profile

As on 31 March, 2023, Punjab had a network of 27 Commercial Banks (12 Public Sector Banks and 15 Private Sector Banks), 01 Regional Rural Bank (RRB), 01 State Cooperative Bank (StCB), 20 District Cooperative Central Banks (DCCBs), 01 SCARDB and 89 PADBs. As on 31 March 2023, Punjab has 7190 bank branches comprising 6000 branches of public and private sector commercial banks, 435 branches of Punjab Gramin Bank, 18 branches of Punjab State Cooperative Bank, 802 branches of 20 District Central Cooperative Banks and 89 PADBs catering to the credit requirements in rural areas of the State. The population served per branch (including 89 PADBs and 3967 PACS) works out to 2451 persons. The Credit Deposit Ratio (CD Ratio) of all banks put together was 60.24% as on 31 March 2023. The aggregate deposits of banks in the state as on 31 March 2023 was ₹5,78,954 crores. Against the same, the aggregate loans outstanding stood at ₹3,48,787 crores as on 31 March 2023.

I. Ground Level Credit Flow – Performance under Annual Credit Plan (ACP)

The performance of priority sector lending under ACP has increased from ₹1,71,351 crores in 2021-22 to ₹ 1,97,224 crores in 2022-23. During 2022-23, achievement under ACP surpassed the target for MSME but remained below target in case of Agriculture. Hence, there is a need to increase the GLC flow to agriculture.

Potential Credit Outlay in Agriculture

State Focus Paper for the year 2024-25 estimates total credit potential of ₹2,43,606.43 crore under Priority Sector, taking into account the revised Priority Sector Lending (PSL) norms issued by RBI, thrust given by GoI to increase the credit flow for agriculture sector and key activities which have been identified as growth drivers for agriculture and rural development by the State Govt. The district and sector- wise details of the potential are presented in

Annexure I, with major sectoral highlights presented below. The various sectors, their corresponding credit potentials, the related issues and suggested interventions have been covered in detail in Chapter 4.

The potential under Agriculture and Allied Sectors has been estimated as ₹1,18,445.86 crores with the share of agriculture term lending activities constituting 41.40%.

Agriculture Farm Credit: The gross cropped area in the state stood at 78.51 lakh ha, with gross irrigated area being 77.30 lakh ha in 2022-23. Paddy and Wheat are the major food grains with maize, cotton, sugarcane, being the other major crops in the state. Keeping in mind the potential available in the state, the projections under crop loans for 2024-25 is ₹ 69,393.35 crores. The Credit potential in Agriculture Farm Credit has been reduced this year to consider the scale of finance and cultivable area in the state in order to attain realistic targets.

The potential for agricultural term loan under farm credit for agriculture has been envisaged as ₹49,052.51 crore.

Agricultural Term Loan

Water Resources: There is good scope for bank financing of micro-irrigation technology, ground water recharge system, under-ground pipelines for water conveyance etc. Government of Punjab is also giving top priority to the sector.

The total credit outlay assessed in the State under water resources is ₹1826.76 crores for FY 2024-25.

Farm Mechanization: Punjab is one of the highly mechanized states in the country with 31% Agriculture households (AHH) owning tractor (NAFIS Report-2017). The State has the highest farm power availability in India at 3.50 kw/ha compared to a national average of 2.02 kw/ha. There is, however, limited potential for financing tractors, power tillers, rotavators, paddy trans-planters, threshers, harvesters, etc. Considering the problem of small and marginal farmers, Custom Hiring Centres are the need of the hour and may be promoted through FPOs, SHG Federations, PACS as MSC, etc. The integration of drone technology in agriculture stands poised to catalyze enhanced efficiency, heightened productivity, labor optimization, and the advent of precision farming methodologies.

The credit potential assessed under farm mechanization for the state is ₹ 5783.61 crore for FY 2024-25.

Horticulture & Apiculture: Presently, area under Horticultural crops in Punjab State is 477000 ha out of which 109880 ha is under Fruits, 316580 ha is under Vegetables, 2320 ha is under Flowers and 34860 ha is under Spices and Aromatic crops (Horticulture Statistics of India 2022-23). Among fruits, around two-third of the production is that of Kinnow and among vegetables, half of the production is that of potatoes. Absence of appropriate risk mitigation interventions including insurance products for several perennial and annual horticulture crops is a major issue, as also there are critical gaps in post-harvest handling, transport & storage infrastructure, which need to be addressed at the earliest. Emphasis needs to be given on cleaning, sorting, grading & packaging to minimize post-harvest losses and inclusion of IoT interventions towards extension operations.

Considering the scope available for the horticulture sector, the credit potential has been assessed at ₹1622.54 crore for FY 2024-25.

Livestock and Fisheries: Punjab is one of the most advanced states for animal husbandry in the country. The livestock sector, including fisheries and aquaculture, contributes about 39.91% to GSVA of agriculture and allied sectors. The State also stands fourth in milk production in the country. The State had the highest per capita availability of milk at 1281 gms/day in 2021-22. KCC for animal husbandry and fisheries needs to be operationalised in full spirit for providing additional thrust to the sector especially by Cooperative banks. Livestock sector holds significant promise to overall economic prosperity in Punjab, as it has 11.1% share in nominal GSVA of the state in 2022-23. Livestock and fisheries sector shown real growth rate of 4.2% and 11.1% in 2022-23.

The combined potential estimated under livestock and fisheries sectors is ₹11,172.45 crore for FY 2024-25.

Agriculture Infrastructure: Agriculture Infrastructure is the most essential input which contributes to agriculture growth. Agricultural output growth is determined largely by infrastructure such as roads, irrigation, market, post-harvest infrastructure and sound credit facilities. A dedicated Agri Infrastructure Fund (AIF) has been created with Ministry of MSME and SIDBI for development and upgradation of agri infrastructure at farm gate level as well as for development of community managed infrastructures. There is also potential for infrastructure development in rural agriculture markets, regulated wholesale markets and Agricultural Produce Market Committee (APMC) Mandis. Adequate infrastructure for warehousing and storage in the state for both perishable and non-perishable commodities is to be ensured as it facilitates better price realization for the farmers and also reduces the wastage of produce. Embodying the vision of "Sahakar-se-Samridhi", "World's Largest Grain Storage Plan in Cooperative Sector", to be rolled out as a Pilot Project, for which the suitable PACS are being indentified in the state. The entire value chain under organic farming, including production of inputs, needs credit support from banks. Quality soil testing services for protecting the soil and increasing crop production, and other extension activities through private enterprises need to be encouraged.

The credit potential assessed for Agriculture Infrastructure is ₹8718.25 crore for FY 2024-25.

Ancillary Activities: Agriculture being the main occupation of the rural people in the State, the major focus in the area of enterprise development has to be on food and agro processing. This sector serves as a vital link between the agriculture and industrial segments of the economy. Strengthening this link is of critical importance to reduce wastage of agricultural raw materials, improve the value of agricultural produce by increasing their shelf-life, fortify the nutritive capacity of the food products and ensure remunerative prices to farmers as well as affordable prices to consumers. Loans towards development of agro processing industry especially through GoI's schemes viz. PM-FME, PM Kisan Sampada Yojna as well as financing of Agri. Startups needs to be promoted by the banks so as to give fillip to the sector.

The credit potential assessed for Ancillary Activities is ₹15807.64 crore for FY 2024-25.

Micro, Small and Medium Enterprises (MSME): Government of Punjab is focussing on development of MSMEs. The State Government has formulated an Industrial and Business Development Policy 2022, which seeks to attract an investment of Rs. 5 lakh Crore. The policy envisages to develop 15 industrial parks and 20 rural clusters, besides creative employment opportunities.

The credit potential for supporting the MSME sector (Investment credit plus Working Capital) during 2024-25 has been assessed at ₹80724.34 crore.

Development through people's organizations like FPOs, JLGs and SHGs: Any Government Policy, initiatives, investment planning etc, is successful only when people accept and participate in it with equal commitment. Bringing the people together for developmental process by promoting people's institutions like Producers Organisations (PO), Joint Liability Groups (JLG) and Self Help Groups (SHGs), etc, makes the development sustainable.

FPO: In Punjab, NABARD has promoted 119 FPOs in various sectors. Out of these, 67 FPOs have been promoted under the PRODUCE fund and 44 FPOs under NABARD's own promotional fund i.e. (FSPF) & PODF-ID fund and 11 FPOs under CSS-10,000 FPO scheme. All 67 FPOs promoted under PRODUCE are registered viz. 15 as companies, 20 as societies and 32 as co-operative societies. The activities being handled by them are grain procurement, honey, animal husbandry, food processing (achaar, paapad, squashes), dairy, bee keeping, vegetable cultivation, custom hiring centre, primary processing, spices, basmati rice, organic products, etc.

Financial Inclusion and Microfinance

- **JLG:** Long-term assessment of potential for credit linkage of JLGs in the State is ₹2500 crore. Cumulative number of JLGs credit linked in Punjab stood at 4.25 lakh as on 31 March 2023. Grant assistance to various DCCBs and PGB is being provided by NABARD for promotion and credit linkage of JLGs.
- **SHGs and Microfinance:** As on 31.3.2023, cumulatively 64560 SHGs have been saving linked and 10599 SHGs have been credit linked in the State. Most of the blocks in Punjab are covered under intensive programme of NRLM where SHGs are promoted by SRLM. There is need for stepping up efforts for intensifying promotion of SHGs through SRLM in the State. The banks need to focus financing SHGs nurtured/promoted by SRLM as per RBI guidelines.
- **Financial Inclusion:** Financial Inclusion is an important agenda of the GoI, RBI and NABARD. The objective is to extend financial services at an affordable cost to the large hitherto unreached and un-served population in the country to unlock their growth potential. Initiatives by NABARD for promoting financial inclusion in the State so far include:
 - Supporting Financial Literacy Camps/ Going Digital Camps to RFIs as well as RCBs and PGB.
 - Grant assistance to the Rural Financial Institutions (RFIs) viz. RRB and DCCBs for deploying micro-ATMs at branches and other vendor locations.
 - Providing Mobile Van to demonstrate banking technology with Mobile ATMs.
 - Provide Capital Expenditure to RSETIs/RUDSETIs for purchase of training equipment and maintenance thereof.
 - Provide Grant assistance to banks for on-boarding to BHIM/ UPI platform, etc.
 - Providing assistance to the banks (RCB/RRBs) for on boarding to Bharat Bill Payment System as well as initiation of the Positive Pay System by RCBs.
- NABARD is executing as well as monitoring the 'Ghar Ghar KCC Abhiyan' of GoI. As on 31.12.2023, total 262 awareness camps have been conducted in the state, covering a total of 21 districts, 101 blocks, and 255 villages.
- Modified Interest Subvention Scheme (MISS) has been launched by GoI with an objective of providing subsidy on agricultural credit to the farmers to facilitate short-term agricultural loan at concessional rate of interest and incentivize them for prompt repayment of loan.

Status and prospects of cooperatives in the state:

The State of Punjab has a 3-tier structure under ST Coop. Credit Structure. At apex level there is PStCB followed by 20 District Central Coop. Banks at the district level and 3552 functional PACS at the grassroot level.

Sector wise distribution of cooperatives in the state is as given below:

Sr. No	Type	Number of Societies
D. Details of Non-Credit Cooperative Societies		
1	AH Sector (Milk/Fishery/Poultry etc.)	6459 Primary Coop. Milk Producers' Societies affiliated to 11 Distt. Coop. Milk Producers' Union (DCMPU).
2	Consumer Stores	NIL
3	Housing Societies	684 Primary Coop. House Building Societies
4	Weavers	NIL
5	Marketing	85 functional Primary Coop. Marketing Societies.
6	Labour Societies	2141 Primary Cooperative Labor and Construction Society.
7	Industrial Societies	NIL
8	Agro Processing and Sugar	85 Non- Credit Societies - Agro-allied/Agro-processing and 15 Coop. Sugar Mills.
9	All others	29 Coop. societies.
	Total	9358
E. Details of Credit Cooperative Societies		
10	Primary Agriculture Credit Societies	Total number of PACS in the State stood at 3967. Out of the same only 3552 are active whereas the remaining 415 PACS are defunct /dormant.
F. Details of Multi State Cooperative Societies		
11	No. of MSCS	NIL
<i>Source: Annual Administrative Report, Dept. of Cooperation, Govt. of Punjab-2020-21</i>		

Viksit Bharat Sankalp Yatra (VBSY):

NABARD through its District Development Managers (DDMs) playing a pivotal role in mobilising masses to participate in the programmes at district level across the country. As on 27.12.2023, total 5043 Gram Panchayats (GPs) covered with average participation of 170 people in each GP. Cumulatively 8,59,989 people have been covered under the VBSY program in the state.

Potential of Geographical Indicators (GI) in the state:

GIs can play an important role in rural development, empowering communities, acting as product differentiators, support brand building, create local employment, creating a regional brand, generating spin-off effects in tourism and gastronomy, preserving traditional knowledge and traditional cultural expressions and conserving biodiversity.

Till date only two products have been GI tagged in Punjab i.e. Phulkari and Basmati Rice. Punjab being a State with rich heritage, there is huge scope for more products getting GI tagged like Thathera Craft, Wooden Inlays, Punjabi Jutti etc.

First GI Project on Thathera Craft has been sanctioned by NABARD at Jandiala Guru, Amritsar during FY 2022-23 to implimenting agency- Punjab Small Industries & Export Corporation (PSIEC) for GI registration.

II. Rural Infrastructure and linkage support: NABARD has been supporting projects for building infrastructure and other promotional activities for development of agriculture, allied and rural non-farm sector activities in rural areas of the country. Special funds like RIDF, NIDA, WIF, MIF, LTIF, Food Processing Fund, etc. are deployed for the development of infrastructure in rural areas. Under these funds Projects are sanctioned to the State Government and state owned agencies for development of infrastructure in sectors- Agriculture and rural connectivity, social sector, power transmission, irrigation, animal husbandry, etc. In Punjab, 8660 projects have been sanctioned with RIDF assistance of ₹12828.70 crores upto tranche XXIX (30 September 2023).

Action points for the State Government

- 1) The focus of Farm Mechanisation in the State should be on promotion of Resource Conservation Technologies (RCT) through precision equipment such as laser land levellers, zero till drill and happy seeder, ridge and bed planter, inter-crop planter, pneumatic precision planter, sugarcane harvester, cotton picker, tractor operated pond excavation machinery, drip and sprinkler irrigation system.
- 2) Strengthening of post-harvest mechanism, marketing channels and promotion of Producers' Organizations (POs) for niche farming. Organising vegetable growers and horticulture farmers and linking these to the Food Processing Industries is also the need of the day.
- 3) Demonstration of organic farming related practices, vermi-culture technology and benefits from its application at district level may be prioritised by the Government Departments and the KVKs.
- 4) The yield of important crops like wheat and paddy, though higher than national average, is nearing stagnation. There is a need for scientific interventions for increasing the yield of these food grain crops which will hold the key to sustain their high production in the future. There is also a need to shift from 'only agriculture' to agriculture & allied activities viz. horticulture, floriculture, agro-forestry, dairy, animal husbandry, fisheries, integrated farming and agro- processing. Diversification into production of horticulture crops, in general and vegetables in particular, is likely to benefit the small and marginal farmers. Diversification from paddy-wheat cycle could be incentivized by providing cash incentive and strengthen the robust procurement system for other crops.
- 5) NABARD has come up with demonstration models on highly innovative resource conservation technology based sustainable agricultural practices. Some of them are as under:

Project on Tar Wattar Direct Seeding of Rice (DSR) to PAU: With an outlay of ₹24.73 lakh, spanning 02 years, the project is covering demonstration, farmer training and impact assessment in 200 acres each year in a total of 12 districts (Pathankot, Gurdaspur, Amritsar, Tarn Taran, Ferozepur, Faridkot, Bathinda, Barnala, Sangrur, Patiala, Fatehgarh Sahib and Ludhiana) of the State. Besides demonstration, the project involves purchasing of 03 lucky seed drills (needed for DSR) which will be passed on to local KVKs. The Tar wattar DSR technology is different from normal DSR (dry sowing). In this technique, pre-sowing irrigation is applied in a levelled field, field is prepared in tar wattar condition (good soil moisture when it is feasible to run tractor but soil does not stick to tyres) and seed sown immediately. Further irrigation is applied about 21 days after sowing.

Amelioration of Barren undulated land to cotton-wheat crop systems through micro irrigation using saline water in semi-arid region of Punjab: The aim of this project is to develop suitable agronomic practices on cotton-wheat cropping system under undulated barren land through micro irrigation technique. Demonstration plot of the project is established at Regional Research Station, Bathinda. The project is planned to bring lands under cultivation that have turned barren, either due to lack of irrigation facilities or due to undulated sandy soils, in south-western region of Punjab. The results of last two crops are encouraging.

Project on Crop Diversification through vegetable crops in Abohar: The project envisages diversification of crops in 200 acres involving around 200 farmers (average of 1 acre per farmer) spread over 20 villages where vegetables viz. Carrot, Onion, Garlic and cauliflower will be grown. This crop diversification model is expected to motivate more farmers from the region to diversify their crops. Around 1200 farmers will be getting the benefit of extension services and trainings under the project. During FY 2021-22 demonstration and extension services were started with conduct of seminars/farmers awareness programme and 200 farmers were identified for diversification of crop for sowing carrot against the paddy/ cotton. The Punjab Agro Industry Corp has also set up a processing plant nearby, which will facilitate the marketing and processing of produce of the farmers.

The implementation of project is likely to provide income of about ₹0.75 lakh to ₹1.00 lakh per acre to the farmers.

There is an urgent need for replication of success stories emanating out from such successful demonstrative models by all the stakeholders in the developmental sector in the state. The need for adoption of these RCTs by the farmers at large in the state may be streamlined by the State Govt. through its Agriculture Extension department.

- 6) The State Govt. may launch special schemes to incentivise the food processing industry. The increasing of shelf- life of horticulture and vegetable products is beneficial both for the farmers and entrepreneurs.
- 7) Diversification of monoculture with vegetable cultivation, especially crops like tomato, green peas, etc. may be promoted in northern and eastern parts of Punjab.
- 8) Incentivise farmers for not resorting to paddy stubble burning. Use of machines for in-situ and ex-situ management of paddy stubble may be promoted through increased subsidy support to POs, SHGs/JLGs, PACS, etc.
- 9) The relatively large village ponds can be developed for irrigation. They can be developed as recharge points for ground water by harvesting the filtered rain water from adjoining area. NABARD is implementing Pilot Projects in Moga and Ferozepur districts for water conservation through ponds. This model may be replicated across the villages of Punjab.
- 10) The Government of Punjab has commissioned a paddy straw based briquette manufacturing plant in Patiala district which uses paddy straw as raw material for making briquettes. Besides, Govt. of Punjab has set up a 300 TPD capacity Bio Energy manufacturing plant in Sangrur district in collaboration with Pvt. Enterprises. Such models need to be replicated in the State by linking the PACS for supply of raw material to these manufacturing units. Incentivizing setting up of more bio char units for gasification of stubbles for manufacture of briquettes from paddy straw stubbles as well as need for promotion of “Lignocellulose Hydrolysis -Process of manufacturing ethanol from paddy straw rubbles for environment protection as well as economic growth need to be considered.
- 11) Cold Storage and cold chains: The storage facilities esp. Controlled Atmosphere (CA) and Modified Atmosphere (MA) cold storages along with Pre-Cooling Units need to be developed so as to preserve the perishable produce, transport them over long distances and prevent the post-harvest losses which remains a major concern for the farmer. They should be integrated with the food processing units and be instrumental in strengthening the linkages. Incentives for transportation of vegetables/fruits to regional markets along with development of Integrated Packaging Units should be planned.
- 12) Micro-irrigation techniques: Drip irrigation and sprinkler irrigation should be incentivised with assistance from the government to the farmer so as to reduce the ground water exploitation, thus avoiding the farmer to take debt from the informal sources for installation and deepening of the tube wells. NABARD has sanctioned loan worth ₹150 crore to Govt. of Punjab under Micro Irrigation Fund (MIF) for promotion of microirrigation by setting up demonstration units on Govt./Institutional/Progressive Farmers’ farms (660 ha) and providing additional top-up subsidy to farmers to promote Micro Irrigation Systems in 25090 ha, benefitting 12000 farmers. Benefits emanating from such projects need to be replicated throughout the State by concerned departments.
- 13) Climate Change: NABARD has launched pilot projects under climate change viz. “Towards Development of Climate Resilient Livestock Production System” in 3 districts of the State. The USP of this project is development of Weather Linked Insurance Product for insuring dairy animals. The learnings of such projects need to be replicated in the state. The customised insurance scheme to reduce the risks of low productivity due to climatic change etc. may be launched by the State.

- 14) Extension services: Punjab has a wide network of Agriculture Universities, Krishi Vigyan Kendras, ATMA centres etc. These must be leveraged to disseminate the latest techniques and information to the farmers for adopting methodology to maximise their income. Use of ICT for imparting training, use of smartphone, VC mode of training may be used to maximum extent for undertaking Agricultural Extension and information dissemination activities.
- 15) Solar energy is one of the most vital renewable sources of energy that can be utilized for various purposes. Solar energy is widely being adopted in residential, commercial and industrial sectors and it has huge potential to benefit the agriculture sector also for providing power for irrigation at the time of convenience to farmers. So, with an endeavour to offer financial and water security to farmers, the government may promote the installation of grid-connected solar power plants on agricultural waste and fallow lands; promotion of new solar pumps; solarisation of existing irrigation pump sets and providing incentives whereby excess energy can be transmitted to grid. This will work as source of additional income to the farmers. The State Govt. may also provide benefit to farmers under PM-KUSUM scheme of GoI and may consider posing more projects for sanction under RIDF.
- 16) Issues related to digitization of land record, devising modalities for legalizing leasing of agricultural farm lands with protection of title deeds of landowners and recording of charge on such leased lands may be looked into by the State Govt. on a priority basis.
- 17) PACS Computerization: All stakeholders- RCS, PSCB, NABARD and System integrators (viz. Cy Future India Pvt. Ltd. and Intellect India Pvt. Ltd.) may coordinate for timely achievement of targets as allocated by Central Government. In Punjab, the budgetary provision of Rs. 72.94 Crore has been made for the project. As on 20.12.2023, 3482 out of 3523 PACS have identified by the state for computerization in the first phase. Remaining 41 PACS will be taken up in second phase.

Action point for Bankers:

- Financial-cum-digital literacy camps, need to be regularly conducted by rural branches of banks & FLCs. In such camps, issue of water conservation and stubble burning may also be taken up. Both internal and external IT revolution is the need of the hour in case of cooperative banks. Mobile banking and adoption of digital mode of payments must be publicized to reduce costs and ease comfort of banking. Cooperative banks must adopt internet banking to face competition. Procurement of micro-ATMs, by cooperative banks in the state has also been slow thus hampering the functioning/services of Business correspondents (BCs). The operationalization of GoI's pilot Project for "Computerization of 63,000 PACS" whereby 3523 operational PACS in the state are to be computerized and linked to the DCCBs will also provide necessary fillip to the issue of greater financial inclusion in the State.
- Model projects in the emerging areas like hi-tech agriculture, organic farming etc. in the state may be prepared and banks should have proactive approach to finance such projects.
- Farmers are availing loan from multiple sources such as from banks, moneylenders, relatives and Arhatiyas etc. This leads to indebtedness of farmers. Therefore, banks are required to estimate the holistic credit requirement of the farmers and provide credit solutions accordingly. Banks are also required to impart financial literacy about the benefits of institutional credit measures as well as cost-effective finance being made available to farmers through institutional sources. There is a need for creation of a supportive environment by banks/FI for weaning away the SF/MFs from the exploitative grips of non-institutional lenders.
- As size of operational land holdings is decreasing in the State, there is a need for promotion of custom hiring centres to effectively address the Farm Power and Mechanization needs of farmers in an economical manner and to generate rural employment. Banks may develop innovative loan products for promotion of custom hiring centres and PACS may avail concessional refinance support measures under scheme titled "Transformation of PACS as

MSC” launched by NABARD. Custom hiring of Krishi Drones through these CHCs may also be promoted to help the farmers take benefit of Drone as a Service (DrAAS) ecosystem.

- The banks should put in place a control and reporting mechanism to ensure that the applications for Kisan Credit Card (KCC) are disposed of within the prescribed period. PM Kisan Samman beneficiaries needs to be saturated by providing KCC to all farmers.
- Banks may make concerted efforts to increase lending for investment credit and ensure that the loans under investment credit constitute at least 1/3rd of the total credit purveyed to agriculture sector to improve capital formation. Promoting private and public investment for setting up of storage infrastructure and cold chain marketing facility for both fresh and processed commodities is the need of the hour. Banks may leverage AIF facility to lend for modernization of agri value chain.
- PGB is implementing the KCC for Animal Husbandry, in order to meet the credit requirement of livestock farmers. While, the cooperative banks are not sanctioning KCC for Animal Husbandry. As cooperative banks/PACS have more reach to farmers as their members, the RCBs should also initiate measures for issuing of KCC for AH/Poultry and Fisheries sector.
- All the cooperative banks need to ensure strict implementation of KYC norms.
- Banks may finance only those tractors and power tillers which meet BIS standards. Banks’ financing of second hand tractors should be done carefully after taking into account the residual economic life of the tractor.
- Banks may give greater thrust on making farmers aware of the latest modern technologies and equipment, minimum performance standards etc., through leveraging Financial Literacy cum Loan Melas, Camps, Farmers’ Club meetings, etc.
- The Mega-food parks being promoted by NABARD provide big opportunity for bankers to finance diverse food processing project units being constructed in such parks. Four such parks are coming up in the state of Punjab one each at Ludhiana, Kapurthala, Fazilka and Taran Taran districts, which may be explored by, banks for providing financial support.
- Banks may consider financing projects in the warehousing sector. Storage infrastructure may be promoted through PPP mode. The services of NABCONS may be availed for techno-economic feasibility studies of the proposals received.
- Banks especially, the Coop. Banks need to replicate the JLG mode of financing, particularly for financing of Dairy Farmers in the State so as to improve the efficacy of the term lending operations and reduction of instances of infructuous loans in their asset portfolio.



State Profile

PUNJAB

SFP 2024-25

1. PHYSICAL & ADMINISTRATIVE FEATURES

Total Geographical Area (Sq.km)	50362
No. of Sub Divisions	97
No. of Blocks	152
No. of Villages (Inhabited)	12092
No. of Panchayats	13191

3. LAND UTILISATION [ha]

Total Area Reported (Ha)	50,33,000.00
Forest Land (Ha)	2,48,000.00
Area Not Available for Cultivation	5,45,000.00
Permanent Pasture and Grazing Land	4,000.00
Land under Miscellaneous Tree Crops	11,000.00
Cultivable Wasteland	12,000.00
Current Fallow	86,000.00
Other Fallow	6,000.00
Net Sown Area	41,19,000.00
Total or Gross Cropped Area	78,51,000.00
Area Cultivated More than Once	37,32,000.00
Cropping Intensity [GCA/NSA]	190.60

6. WORKERS PROFILE [in '000] 2011 Census

Cultivators	1935
Of the above, Small/Marginal Farmers	1446
Agricultural Labourers	1588
Workers engaged in Household Industries	386
Workers engaged in Allied Agro-activities	
Other workers	5988

8. HOUSEHOLDS [in '000] 2011 Census

Total Households	5156
Rural Households	3145
Urban Households	2011

10. VILLAGE-LEVEL INFRASTRUCTURE [Nos]

Villages Electrified	12303
Villages having Agriculture Power Supply	12581
Villages having Post Offices	12581
Villages having Banking Facilities	6544
Villages having Primary Schools	12581
Villages having Primary Health Centres	2913
Villages having Potable Water Supply	12015
Villages connected with Paved Approach Roads	12581

13. IRRIGATION COVERAGE [Ha]

2. SOIL & CLIMATE

Agro-climatic Zone	3 (Sub mountainous Zone or Kandi area, Central Alluvial Zone or Central Plains, Southern Dry Zone)		
Climate	Semi humid to Semi Arid		
Soil Type	Alluvial		

4. RAINFALL & GROUND WATER

Rainfall [in mm]	Average Rainfall(mm)	2019-20	2020-21	2021-22
	565.9	578.6	602.6	565.9
Availability of Ground Water [BCM]	Net Annual Recharge	Net Annual Draft		Balance
	22.8	33.85		-11.05

5. DISTRIBUTION OF LAND HOLDING

Classification of Holding	Holding		Area	
	Nos.	% to Total	ha	% to Total
<= 1 ha	154000	14.13	93000	2.36
>1 to <=2 ha	207000	18.98	290000	7.33
>2 to <=4 ha	368000	33.67	983000	24.87
>4 to <=10 ha	305000	27.93	1730000	43.75
>10 ha	58000	5.28	857000	21.68
Total	1092000	100.00	3953000	100

7. DEMOGRAPHIC PROFILE [in '000](2011)

Category	Male	Female	Rural	Urban
Population	14639	13104	17344	10399
Scheduled Caste	4640	4220	6497	2363
Scheduled Tribe	0	0	0	0
Literate	10436	8271	10998	7709
BPL			2532	1882

9. HOUSEHOLD AMENITIES ['000 Households]

Having brick/stone/concrete houses	5097	Having electricity supply	5156
Having source of drinking water	5110	Having independent toilets	4790
Having access to banking services	3527	Having TV sets	4212

11. INFRASTRUCTURE RELATING TO HEALTH & SANITATION [Nos]

Anganwadis	26656	Dispensaries	3140
Primary Health Centres	524	Hospitals	72
Community Health Centres	161	Hospital Beds	12984

12. INFRASTRUCTURE & SUPPORT SERVICES FOR AGRICULTURE

Fertiliser/Seed/Pesticide Outlets [Nos]	10254	Agriculture Pumpsets[Nos]	1315000
Total N/P/K Consumption ['000 T]	2007	Pumpsets Energised [Nos]	1065000
Certified Seeds Supplied [MT]	NA	Agro Service Centres [Nos]	A
Pesticides Consumed [MT]	5376	Soil Testing Centres [Nos]	149
Agriculture Tractors [Nos]	446354	Plantation nurseries [Nos]	36

Total Area Available for Irrigation (NSA + Fallow)	4221000
Irrigation Potential Created	6160000
Net Irrigated Area	4095000
Area irrigated by Canals / Channels	1159000
Area irrigated by Wells	2936000
Area irrigated by Tanks / Other Sources	NIL
Gross Irrigated Area	7730000

15. AGRO-PROCESSING UNITS

Type of Processing Activity	No of units	Cap.[MT]
Food (Rice/Flour/Dal/Oil/Tea/Coffee)	##	NA
Sugarcane (Gur/Khandsari/Sugar)	24	67016 MT/d
Fruit (Pulp/Juice/Fruit drink)	95	NA
Spices (Masala Powders/Pastes)		NA
Vegetable and Animal Oils & Fats	91	NA
Cotton (Ginning/Spinning/Weaving)	41	NA
Milk (Chilling/Cooling/Processing)	62	82.4 lakh l/d
Meat (Chicken/Mutton/Pork/Dry fish)	7	NA
Animal feed (Cattle/Poultry/Fishmeal)	66	NA

17. ANIMAL POPULATION AS PER CENSUS 2019 [in '000]

Category of animal	Male	Female
Cattle - Exotic	70	1977
Cattle - Indigenous	97	328
Buffaloes	##	3838
Sheep - Exotic		
Sheep - Indigenous		
Goat	##	53
Pig - Cross bred/Indigenous		
Poultry - Exotic/Indigenous		

Sources

Irrigation at India 2020; CMIE State of India; Statistical Abstract of Punjab 2021; Economic Survey of Punjab 2021-22

Power Tillers [Nos]	300000	Farmers' Clubs [Nos]	780
Combines [Nos]	12180	Krishi Vigyan Kendras [Nos]	22

14. INFRASTRUCTURE FOR STORAGE, TRANSPORT & MARKETING

Rural/Urban Mandi/Haat [Nos]	1878	Wholesale Market [Nos]	154
Length of Pucca Road [Km]	139493	Godown [Nos]	NA
Length of Railway Line [Km]	1470	Godown Capacity[LMT]	214
Public Transport Vehicle [Nos]	6262939	Cold Storage [Nos]	697
Goods Transport Vehicle [Nos]	299762	Cold Store Capacity[LMT]	23

16. AREA, PRODUCTION & YIELD OF MAJOR CROPS

Crop	2021-22	2022-23		Avg. Yield [kg/ha]
	Prod. ('000 tonnes)	Area ('000 ha)	Prod. ('000 tonnes)	
Wheat	14871	3518	16567	4710
Paddy	20363	3168	20524	6479
Maize	414	93	410	4393
Cotton	645	249	444	303
Sugarcane	7167	90	7506	83123
Potato	3050	114	3175	27645
Kinnow	1254	48	1284	26832
Production of Cotton '000 bales (170 kg per bale in India)				

18. INFRASTRUCTURE FOR DEVELOPMENT OF ALLIED ACTIVITIES

Veterinary Hospitals/Dispensaries [Nos]	2856	Animal Markets [Nos]	857
Disease Diagnostic Centres [Nos]	1	Milk Collection Centres [Nos]	6873
Artificial Insemination Centers [Nos]	3681	Fishermen Societies [Nos]	NIL
Animal Breeding Farms [Nos]	9	Fish seed farms [Nos]	14
Animal Husbandry Tng Centres [Nos]	9	Fish Markets [Nos]	2
Dairy Cooperative Societies [Nos]	6432	Poultry hatcheries [Nos]	31
Improved Fodder Farms [Nos]	2	Slaughter houses [Nos]	91

19. MILK, FISH, EGG PRODUCTION & THEIR PER CAPITA AVAILABILITY

Egg	Production [Lakh Nos]	60389	Per cap avail. [nos/p.a.]	202
Milk	Production [000 T]	14076	Per cap avail. [gm/day]	1281

Chapter 1 State Profile

Introduction

Punjab is situated in the northwest region of India with a geographical area of 50,362 sq. km, constituting 1.54% of the country's total geographical area. It is located between 29°30' N to 32°32' N latitude and between 73°55' E to 76°50' E longitude. Its average elevation is 300 m from the mean sea level. The name Punjab is made of two words Punj (Five) + Aab (Water) i.e. land of five rivers. These five rivers of Punjab are Sutlej, Beas, Ravi, Chenab, and Jhelum. The State has two major rivers Beas and Sutlej flowing in the northern half thus dividing the State into three major regions viz. Majha, Doaba and Malwa.

Agriculture is the mainstay of Punjab's economy. It is one of the leading producers of wheat, rice contributing to the national food security. The percentage of produced wheat crop procured was 88.9% in the year 2021-22 while, that of the paddy crop was 92.5%. Punjab produced 10% and 16% of the total rice and wheat production of India, respectively. The respective share of contributions of the rice and wheat crops from Punjab to the Central Pool was approximately 21.18% and 30.50% in 2021-22. As per the advanced estimates released by the Department of Food and Public Distribution in 2022-23, 46.24% of the country's wheat procurement and 21.42% of the country's rice procurement was from Punjab. The major industries of the state include manufacturing of electrical goods, machine tools, textiles, bicycles, sewing machines etc.

The State is endowed with semi-humid to semi-arid climatic conditions. The south-west monsoon brings maximum rainfall in the State during July to mid-September. The average annual rainfall in the State for the last 05 years was recorded at about 495.11 mm. The State is divided into three agro climatic zones as shown in the Table below.

Table: Agro Climatic Zones in Punjab

Zone	Agro Climatic Zone	Districts Covered
I	Sub mountainous Zone Or Kandi area (4)	Gurdaspur, Pathankot, Hoshiarpur and Rupnagar.
II	Central Alluvial Zone Or Central Plains (11)	Amritsar, Tarn Taran, Kapurthala, Jalandhar, Ludhiana, Patiala, SAS Nagar, Shaheed Bhaga Singh Nagar, Barnala, Sangrur and Malerkotla.
III	Southern Dry Zone (8)	Bathinda, Faridkot, Ferozepur, Fazilka, Mansa, Fatehgarh Sahib, Moga and Muktsar.

Zone-I: The Kandi area is located in the foothills of Shivalik Hills and is characterized by sub mountainous undulating plains. This zone receives an average annual rainfall of more than 1000 mm. The run-off is very high at the upper hills, leading to floods and heavy soil erosion. This region is dominated by paddy/maize crop culture in Kharif season and wheat cultivation in Rabi season. Irrigation facilities are comparatively less developed in this zone.

Zone-II: It is characterised by fertile plain lands. Wheat and Paddy are dominant crops in this zone. It has a well-knit irrigation system with significant area under high yielding varieties. The cropping intensity is highest in this zone. The wheat-paddy crop rotation has adversely affected the soil health as well as the underground water table in the region. The depleting water table has forced the farmers to install submersible pumps, which has further pushed up the cost of cultivation.

Zone-III: The South Western Zone is also known as the cotton belt of the State. However, there has been a decline in total production of cotton in the state which has decreased from 1206 (One cotton bale of 170 kgs) during FY 2019-20 to 646 (One cotton bale of 170 kgs) in 2021-22 (CMIE), which is attributed to water logging problems and menace of pests (Pink Bullwurm & White Fly). Accordingly, this important Kharif crop is being gradually replaced with long grain variety of paddy. The shift from cotton to paddy has led to increased soil salinity, lesser percolation of water and resultant high humidity manifested in an increase in insect population.

Demographic Features

Table 1.1: Demographic particulars of the State vis-à-vis the country

Particulars	Punjab	India
Total Population(lakh)	277	12,101
Urban Population (%)	37	31
Rural Population (%)	63	69
Decadal Growth (%)	14	18
Population Density	551	382
Total Literacy (%)	76	74
Male Literacy (%)	80	82
Female Literacy (%)	71	65
BPL Population (2011-12) (%)	11.30	29.50

(Source: Economic Survey 2021-22, Govt. of Punjab)

Economic Indicators

The per capita Gross State Domestic Product (GSDP @ current prices) in Punjab is estimated to be ₹1,97,802 in FY 2022-23 (A), thereby showing a growth of 7.9% over FY 2021-22. The per capita income is estimated at ₹1,73,873 in FY 2022-23 (A) in comparison to ₹1,70,620 at All India level.

Table 1.2: Per Capita Income of Punjab

(₹lakh)

Year	Current Prices	% Increase	Constant Price (2011-12)	% Increase
2018-19(R)	1,49,974.00	7.25	1,15,529.00	4.21
2019-20(P)	1,55,590.00	3.74	1,18,134.00	2.25
2020-21 (Q)	1,54,517.00	-0.69	1,11,833.00	-5.33
2021-22 (A)	1,67,995.00	8.72	1,17,679.00	5.23
2022-23 (A)	1,73,873.00	3.40	1,21,671.00	3.39

(Source: Economic Survey 2022-23, Govt. of Punjab) The GSDP trend at constant prices (2011-12) and at current prices is given below.

Table 1.3: GSDP at current prices and constant (2011-12) prices

(₹crore)

Year	At Current Prices	Growth (%)	At constant (2011-12) prices	Growth (%)
2019-20(P)	5,40,22,375	5.41	4,11,64,601	3.68
2020-21 (Q)	5,41,51,821	0.24	3,95,89,433	-3.83
2021-22 (A)	5,98,61,346	10.54	4,22,64,633	6.76
2022-23 (B)	6,38,02,258	6.58	4,49,16,235	6.27

(Source: Economic Survey 2022-23, Govt. of Punjab)

Sectoral contribution

At constant (2011-12) prices, the Gross State Value Added (GSVA) from the primary sector, which mainly comprises agriculture and allied activities, forestry, fishing and mining has increased from ₹90,971 crores in 2018-19 to ₹97,727 crores in 2022-23. Out of the same, the GSVA by Agriculture Sector which comprises Crops and Livestock had increased from ₹82,377 crores during FY 2018-19 to ₹88,184 crores during FY 2022-23. According to advance estimates, GSVA at constant prices (2011-12) by the primary sector is expected to be ₹97,727 crores in 2022-23. The contribution of secondary as well as tertiary sector has witnessed a good improvement in 2022-23 in comparison to 2021-22 as the economy of the State is regaining momentum after the COVID-19 crisis.

Table 1.4: Gross State Value Added (GSVA) at Constant (2011-12) Prices

(₹crore)

Financial Year	2019-20	2020-21	2021-22	2022-23
Primary Sector	92,686	95,511	96,842	97,727
Share(%)	24.46	27.28	24.83	23.75
Growth(%)	1.82	3.04	1.39	4.00
Secondary Sector	91,421	89,492	95,687	1,04,087
Share(%)	24.65	23.9	24.54	25.29
Growth(%)	1.13	-2.11	6.92	4.00
Tertiary Sector	1,92,050	1,82,625	1,97,446	2,09,649
Share(%)	50.89	48.82	50.63	50.95
Growth(%)	5.3	-4.90	8.12	7.00
Total	3,76,156	3,67,628	3,89,975	4,11,462

(Source: Economic Survey 2022-23, Govt. of Punjab)

Agriculture Sector Performance

The agriculture and allied sector's contribution to GSVA at constant prices has declined marginally during the recent years, the share in the GSVA, which was about 30.90 % in 2020-21, has declined to 28.94% in 2022-23.

Agriculture marketing and Storage

Punjab has well connected and adequate marketing infrastructure. As of 2021, there were 152 principally regulated agricultural markets in Punjab. This amounts to a catchment area of 80 sq. km for every market. Additionally, Punjab has 1390 rural primary markets and 488

farmers’ markets called Apni Mandis where farmers directly sell to retail consumers. There is 213.95 lakh MT storage/ warehouse capacity available with the procurement agencies viz. FCI, PSWC etc. as well as 24.46 lakh MT cold storage capacity.

Social Indicators

All the rural habitations in the State have been provided with pucca roads, electricity and drinking water supply. Under sanitation programme, the State Government is providing assistance to poor households in rural areas for construction of individual toilets. Based on high priority indicators, NITI Aayog has developed an Indexing framework to assess the progress of the States on SDGs. In the SDG India Index 2020-21 performance of States on 15 Sustainable Development Goals (SDGs), 70 SDG Targets consisting of 115 Indicators has been scored and ranked. Punjab is ranked 12th among the States in overall ranking. State of Punjab has scored Composite Index Score of 68 which is 6-point improvement viz-e-viz 2019-20 which was 62.

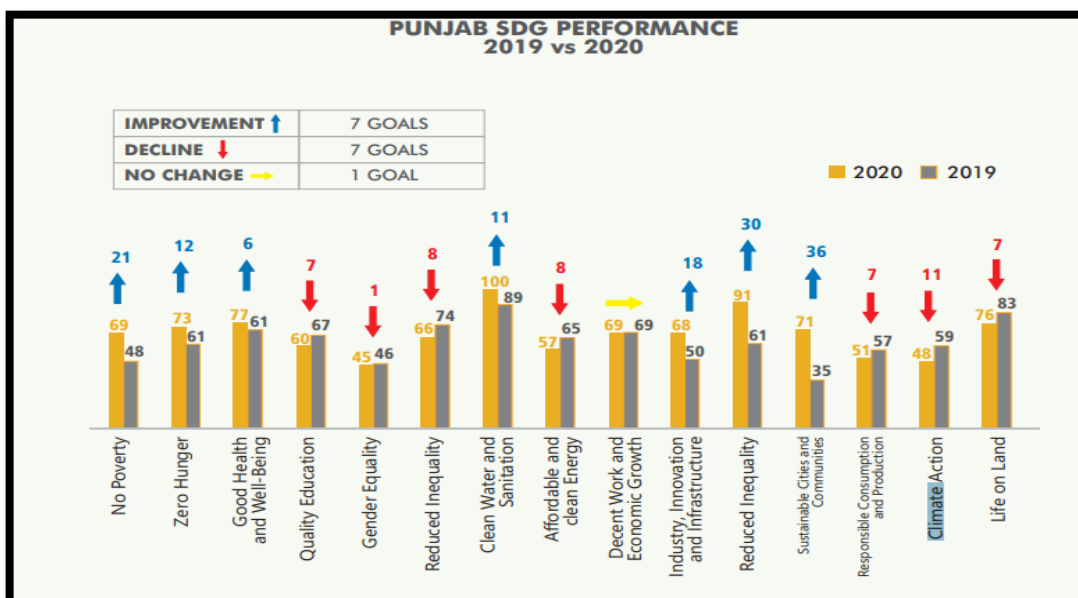
Some of the health indicators of Punjab in consonance with the SDG-2030 are given in table below:

Table1.5: Health Indicators of Punjab vis-à-vis All India

Particulars	Punjab	All India
Total Fertility Rate	1.50	2.0
Maternal Mortality Rate	114	103
Under –five mortality rate per 1000 live births	33.2	49.7
Infant Mortality Rate	29.2	40.7
Life Expectancy at Birth	74.5	71.4

(Source: Economic Survey 2022-23, National Family Health Survey)

Performance of Punjab in 2019 vs 2020 in achievement of SDGs



Status of Cooperatives in the State

Cooperatives have played a vital role in improving the economic conditions of farmers and accelerating the pace of development in Punjab. Cooperative principles ensure harmonious development, through democratic management and governance. Cooperatives have brought both the services and resources at the doorsteps of villagers in Punjab. The status of

Cooperative banks has been discussed in banking profile apart from that the status of other cooperative institutions is as under

Sr. No	Type	Number of Societies
G. Details of Non-Credit Cooperative Societies		
1	AH Sector (Milk/Fishery/Poultry etc.)	6459 Primary Coop. Milk Producers' Societies affiliated to 11 Distt. Coop. Milk Producers' Union (DCMPU) and federated at the State level as Punjab State Coop. Federation of Milk Producers' Union Ltd. (MILKFED), Chandigarh.
2	Consumer Stores	NIL
3	Housing Societies	638 Primary Coop. House Building Societies federated at the State Level as Punjab State Coop. Housing Federation Ltd., (HOUSEFED).
4	Weavers	NIL
5	Marketing	76 functional Primary Coop. Marketing Societies and federated at State Level under the aegis of MARKFED.
6	Labour Societies	2141 Primary Cooperative Labor and Construction Society, federated into 17 District Cooperative Labor and Construction Unions and further federated at the State level as the Punjab State Cooperative Labour and Construction Federation Ltd.
7	Industrial Societies	NIL
8	Agro Processing and Sugar	15 Coop. Sugar Mills federated at the State Level into Punjab State Coop. Sugar Mills Federation Ltd. (SUGARFED).
9	All others	29 Coop. societies federated at the State Level into Punjab State Coop. Development Federation Ltd. (PUNCOFED), Jalandhar with a membership of 29 Coop. Societies.
	Total	9358
H. Details of Credit Cooperative Societies		
10	Primary Agriculture Credit Societies	As on 31.03.2022, the total number of PACS in the State stood at 3967. Out of the same only 3552 are active whereas the remaining 415 PACS were defunct /dormant.
I. Details of Multi State Cooperative Societies		
11	No. of MSCS	NIL
<i>Source: Annual Administrative Report, Dept. of Cooperation, Govt. of Punjab-2020-21</i>		

Recent Initiatives taken by State Government in strengthening of outreach and activities of Cooperatives

- The Govt. of Punjab in the State Budget for FY 2023-24 has allocated ₹550 crore for development of the sector.
- Govt. of Punjab has allocated ₹100 crore in the State Budget for FY 2023-24 to Punjab State Cooperative Supply and Marketing Federation Ltd., (MARKFED), Chandigarh to augment its covered capacity, new storages godowns to be set up at 13 different locations in the State.
- Govt. of Punjab has made a budgetary allocation of ₹100 crore in the State Budget for FY 2023-24 for expanding the procurement network of MILKFED.

- Govt. of Punjab has made a budgetary allocation of ₹250 crore in the State Budget for FY 2023-24 for payment to cane growers – SUGARFED.
- As per Budgetary allocation for FY 2023-24, two new Oil Mills at Budhlada and Gidderbaha for processing of Mustard crop to be installed.
- As part of operationalization of the Centrally Sponsored Project for Computerization of Primary Agricultural Credit Societies (PACS) launched by GoI on 29 June, 2022 aimed at computerization of 63,000 PACS over a period of 03 years with an overall project outlay of ₹2516 crore. In Punjab, the budgetary provision of ₹ 72.94 Crore has been made for the project. As on 20.12.2023 3482 out of 3523 PACS have identified by the state for computerization in the first phase. Remaining 41 PACS will be taken up in second phase.
- As far as Punjab is concerned, data compiled from the website of Dept. of Cooperation, GoP, as on 31.03.2022 there were a total of 3552 functional PACS operating in the State.

Industrial Scenario in Punjab

The State Government has formulated an Industrial and Business Development Policy 2022. The Goals of the Policy are as under:

1. To accelerate industrial growth and job creation
2. To develop world class infrastructure and bring anchor units
3. To facilitate availability of skilled manpower to the Industry.
4. To create opportunities for moving up the Global Value Chain.
5. To bring synergy between State programs and Central schemes.
6. Achieving Global scale, Standards and competitiveness in Products and services.
7. To have a Circular and sustainable economy
8. To align targets with Sustainable Development Goals set by UN.

In order to fulfil the above goals, Government has made specific budgetary announcement and provision for the expenditure involved in the State Budget for FY 2023-24.

Banking Profile

State - Punjab

1. NETWORK & OUT REACH (As on 31/03/2023)

Agency	No. of Banks/Soc.	No. of Branches				No. of non-formal agencies associated			Per Branch Outreach	
		Total	Rural	Semi-urban	Urban	mFIs/mFOs	SHGs/JLGs	BCs/BFs	Villages	Households
Commercial Banks	27	6000	2243	1867	1890	NA	NA	2666	6	919
Regional Rural Bank	1	423	354	60	21	NA	NA	154	36	13033
PStCB	1	18	0	0	18	NA	NA	NA	NA	NA
DCCB	20	803	591	145	67	NA	NA	0	21	4182
PSCADB	89	89	89	0	0	NA	NA	NA	141	37730
All Agencies	138	7333	3277	2072	1996	NA	NA	2820	4	752

2. DEPOSITS OUTSTANDING

Agency	No. of accounts					Amount of Deposit [lacs]				
	31 Mar 21	31 Mar 22	31 Mar 23	Growth(%)	Share(%)	31 Mar 21	31 Mar 22	31 Mar 23	Growth(%)	Share(%)
Commercial Banks	59694161	53673695	39699742	-26	83.22	45202077	49859306	54699313.69	9.71	94.48
Regional Rural Bank	3280728	3489394	3709229	6	7.78	1080323	1220813	1339129	9.69	2.31
Cooperative Banks	4232722	4206252	4293826	2	9.00	1704895	1799199	1856976	3.21	3.21
All Agencies	67207611	61369341	47702797	-22	100.00	47987295	52879318	57895419	9.49	100.00

3. LOANS & ADVANCES OUTSTANDING

Agency	No. of accounts					Amount of Loan [lacs]				
	31 Mar 21	31 Mar 22	31 Mar 23	Growth(%)	Share(%)	31 Mar 21	31 Mar 22	31 Mar 23	Growth(%)	Share(%)
Commercial Banks	5758840	6218715	7200196	15.78	78.81	26652590	29533685	32743167	10.87	93.88
Regional Rural Bank	352632	369989	403108	8.95	4.41	762590	872454	971393	11.34	2.79
Cooperative Banks	1510879	1474040	1533154	4.01	16.78	1186710	1183960	1164145	-1.67	3.34
All Agencies	7622351	8062744	9136458	13.32	100.00	28601890	31590099	34878705	10.41	100.00

4. CD-RATIO

Agency	CD Ratio		
	31 Mar 21	31 Mar 22	31 Mar 23
Commercial Banks	58.96	59.23	59.86
Regional Rural Bank	70.59	71.46	72.54
Cooperative Banks	69.61	65.80	62.69
All Agencies	59.60	59.74	60.24

5. PERFORMANCE UNDER FINANCIAL INCLUSION (No. of A/cs)

Agency	Cumulative up to 31 March 2023			
	PMJDY	PMSBY	PMJBY	APY
Commercial Banks				
Regional Rural Bank				
Cooperative Banks				
All Agencies				

6. PERFORMANCE TO FULFILL NATIONAL GOALS (As on 31/03/2023)

Agency	Priority Sector Loans		Loans to Agr. Sector		Loans to Weaker Sections		Loans to Small and Marginal Farmers		Loans to Women	
	Amount [Lacs]	% of Total Loans	Amount [Lacs]	% of Total Loans	Amount [Lacs]	% of Total Loans	Amount [Lacs]	% of Total Loans	Amount [Lacs]	% of Total Loans
Commercial Banks	17297885	52.83	7321518	22.36	5602874	17.11%	2884092	8.81%	3625986	11.07%
Regional Rural Bank	909438	93.62	789659	81.29	594557	61.21%	554507	57.08%	190107	19.57%
Cooperative Banks	1029989	88.48	889136	76.38	670932	57.63%	583027	50.08%	129829	11.15%
All Agencies	19237312	55.15	9000312	25.80	6868363	19.69%	4021626	11.53%	3945921	11.31%

7. AGENCY-WISE PERFORMANCE UNDER ANNUAL CREDIT PLANS (Priority Sector)

Agency	2020-21			2021-22			2022-23			Average Ach [%] in last 3 years
	Target [Lacs]	Ach'ment [Lacs]	Ach'ment [%]	Target [Lacs]	Ach'ment [Lacs]	Ach'ment [%]	Target [Lacs]	Ach'ment [Lacs]	Ach'ment [%]	
Commercial Banks	17046300	12725200	75	18253400	14698700	81	19161830	17675817	92	82
Regional Rural Bank	909500	838700	92	976800	906200	93	1012652	852370	84	90
Cooperative Banks	3090400	1516900	49	2938800	1504700	51	3023678	1183522	39	46
PSCADB	159700	22700	14	167200	25400	15	149826	10645	7	12
All Agencies	21205900	15103500	71	22336200	17135000	77	23347986	19722355	84	77

8. SECTOR-WISE PERFORMANCE UNDER ANNUAL CREDIT PLANS

Broad Sector	2020-21			2021-22			2022-23			Average Ach [%] in last 3 years
	Target [Lacs]	Ach'ment [Lacs]	Ach'ment [%]	Target [Lacs]	Ach'ment [Lacs]	Ach'ment [%]	Target [Lacs]	Ach'ment [Lacs]	Ach'ment [%]	
Crop Loan	8276419	7233946	74	9570200	7456768	78	9008556	6941835	77	76
Term Loan (Agr)	4807344	1735121	57	3832949	1669024	44	4990457	3061577	61	54
Total Agri. Credit	13083763	8969067	70	13403149	9125792	68	13999001	10003412	71	70
Non-Farm Sector	4296300	4428500	105	4981000	5346400	107	5277109	7472868	142	118
Other Priority Sector	3825800	1713600	37	3952000	2662900	67	4071875	2246075	55	53
Total Priority Sector	21205863	15111167	71	22336149	17135092	77	23347986	19722355	84	77

9. NPA Position (Outstanding)

Agency	2020-21			2021-22			2022-23			Average NPA [%] in last 3 years
	Total O/S	NPA Amount	% NPA	Total O/S	NPA Amount	% NPA	Total O/S	NPA Amount	% NPA	
Commercial Banks	32321075	3196453	9.89	29533685	2252649	7.63	32743167	2241476	6.85	8.13
Regional Rural Bank	762590	55611	7.29	872454	57690	6.61	971393	56726	5.84	6.52
Cooperative Banks	1186710	126627	10.67	1183960	122671	10.36	1164145	124249	10.67	10.57
PADB		165485.53	80.29		153375	78.87				
All Agencies	28601890	3378691	11.81	31590099	2433992	7.70	34878705	2422451	6.95	8.66

Source:

156th, 160th & 164th SLBC, Punjab

Chapter 2 Banking Profile

Introduction

As on 31 March 2023, there were 7333 bank branches comprising of 6000 branches of public and private sector commercial banks, 423 branches of Punjab Gramin Bank, 18 branches of Punjab State Cooperative Bank, 803 branches of 20 District Central Cooperative Banks and 89 branches of PSCADB in Punjab. In addition, there are 3967 Primary Agricultural Cooperative Societies catering to the credit requirements in rural areas of the State. The population served per branch (including 89 PADBs and 3967 PACS) worked out to 2450.

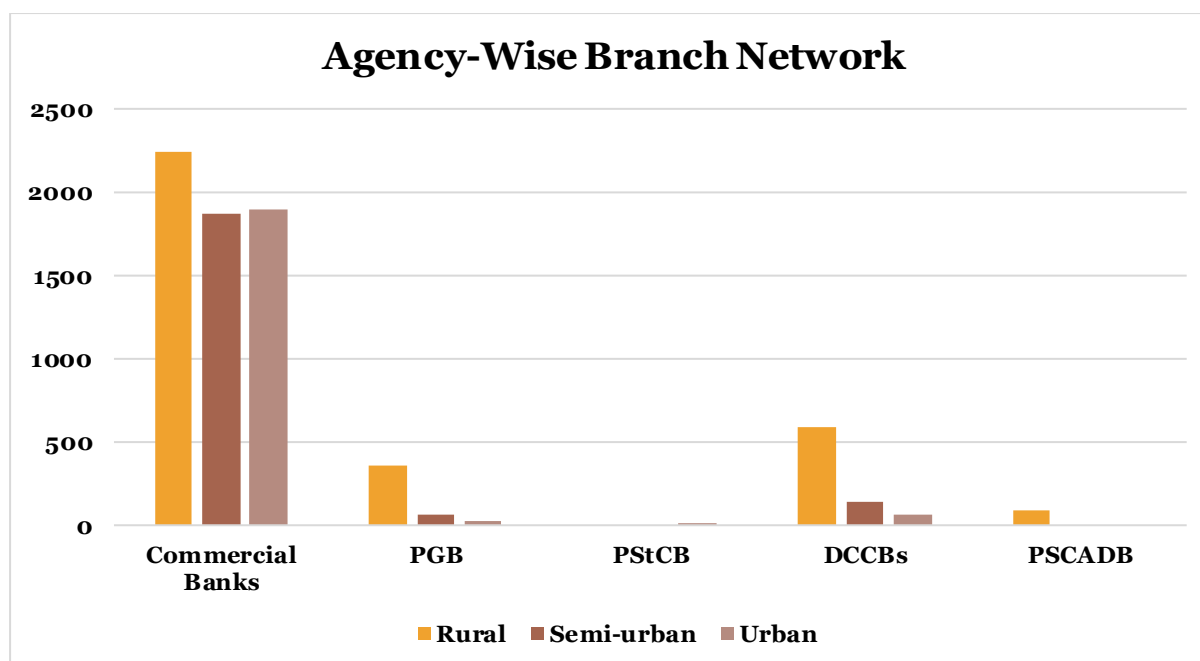
Rural Financial Institutions

The branch/outlet network of Rural Financial Institutions in the State on 31.03.2023 is given in Table below. Out of a total network of 7333 banking outlets (excluding PACS), 45% of outlets are in rural areas; 28% in semi urban and 27% outlets in urban areas.

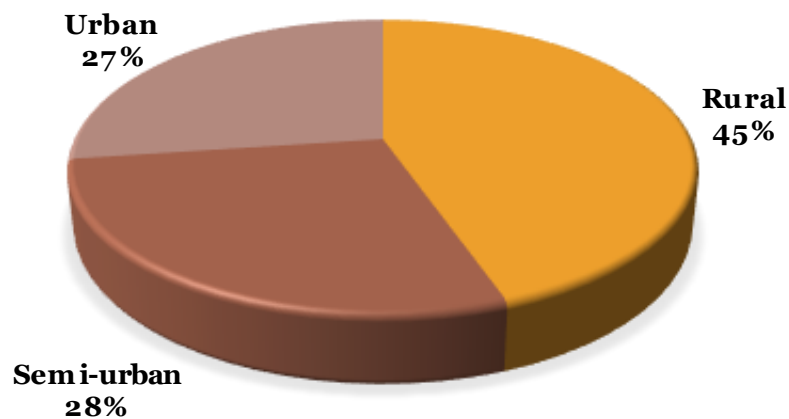
Table 2.1:
Details of Banking Network in Punjab

Agency	No. of Banks/Soc.	No. of Branches			
		Total	Rural	Semi-urban	Urban
Commercial Banks	27	6000	2243	1867	1890
Regional Rural Bank	1	423	354	60	21
PStCB	1	18	-	-	18
DCCBs	20	803	591	145	67
PSCADB	89	89	89	0	0
All Agencies	138	7333	3277	2072	1996

(Source: SLBC, PSCADB)



GEOGRPHICAL SPREAD OF BANKING NETWORK



Institutional Credit Outreach in Punjab

A. Cooperative Structure

The Cooperative sector in the State comprises the Punjab State Cooperative Bank, 20 DCCBs, 3,523 Primary Agriculture Cooperative Societies (PACS), the Punjab State Cooperative Agriculture Development Bank (PSCADB) and 89 Primary Agriculture Development Banks (PADBs). While the PSCADB and PADBs cater to the long-term credit needs of farmers, the DCCBs primarily cater to the short-term credit requirement of farmers. The share of PStCB & DCCBs and PSCADB in total Ground Level Credit flow (Agriculture Sector) during 2022-23 was 10.79% and 0.05% respectively.

The Punjab State Cooperative Bank and all the 20 DCCBs have migrated to Core Banking Solution (CBS) platform. These banks are providing card technology, SMS alerts, CTS, ATM, RTGS, and NEFT facilities. They have also started providing the facility of direct benefit transfer (DBT). The process of operationalization of a uniform Common Accounting System (CAS) in PACS and systematic integration of the same with the CBS platform of the DCCBs and PStCB is currently being undertaken by NABARD in coordination with the State Govt. as part of GOI's flagship programme of computerization of 63,000 PACS over a period of 05 years.

Financial health of Punjab StCB Ltd.

The bank's total loans and advances has increased from ₹552589.18 lakh as on 31 March 2022 to ₹568554.39 lakh as on 31 March 2023, thereby registering a growth of 2.89%. The deposits of the bank had also increased from ₹371435.40 lakh as on 31 March 2022 to ₹383398.70 lakh on 31 March 2023, i.e. a growth of 3.22%. The gross NPA improved marginally from 1% as on 31 March 2022 to 0.92% as on 31 March 2023. The profit after tax stood at ₹2678.08 lakh for the year 2022-23 reflecting a decline of 9.26% over 2021-22.

Table 2.2: Financial parameters of PStCB

(₹lakh)

Particulars	31.03.2022	31.03.2023	Growth (%)
Share Capital	16941.34	16981.34	0.24
Deposits	371435.40	383398.70	3.22
Borrowings	406320.89	388364.63	-4.42
Loans & Adv. o/s	552589.18	568554.39	2.89
Investments	90969.19	93806.60	3.12
Net worth	75059.00	78417.92	4.48
CRAR	13.94	14.08	1.00
Business per Branch	51334.70	52886.28	3.02
Profit	2951.43	2678.08	-9.26
Gross NPAs (%)	1.00	0.92	-8.00
Net NPAs (%)	0.00	0.00	0.00

(Source: NABARD)

As far as the LT Coop. Credit Structure is concerned, the state has a federal structure with PSCADB at the State Level and 89 nos. of PADBs at the district level. The important financial parameters of PSCADB are as under:

(₹lakh)

Parameters	31.03.2022	31.03.2023
Capital Funds		
Tier-I Capital		
Paid –up share capital	7888.15	7888.15
Statuary reserves and other free reserves	25353.90	32113.77
Capital Reserves arising out of sale of assets	0.00	0.00
Surplus in P&L Account	519.70	20147.37
TOTAL	33761.75	60149.29
Deduct		
Accumulated Losses		
Short provision	8541.99	0.00
Net Tier I Capital	25219.76	60149.29
Tier-II Capital		
Undisclosed reserves, if any	0.00	0.00
Revaluation Reserve	0.00	0.00
Provision for standard assets	536.97	536.96
Investment fluctuation reserve , if any	150.08	150.08
Total of Tier-I and Tier II capital	25906.81	60836.33
Risk weighted assets	230156.23	184599.32
CRAR	11.26	32.96
Overdue (as on 30 June)	74.32	
Gross NPA	93352.97	115740.06
Gross NPA (%)	45.35	62.05
Provision Coverage Ratio	16.74	

B. Commercial Banks

There is a network of 27 Commercial Banks consisting of 12 Public Sector and 15 Private Sector banks. In addition to purveying credit, these banks are also involved in implementation of financial inclusion programme, credit linkage of SHGs, JLGs, Financial Literacy Centres, capacity building of farmers and entrepreneurs through RSETI, issuance of KCC, SCC, GCC, and implementation of various government sponsored as well as credit linked subsidy programmes. The share of Commercial Banks in ground level credit flow to agriculture sector

during 2022-23 was high at 81.81%, while for total priority sector the share was 89.62% with network of 6000 branches in the state.

C. Regional Rural Banks

Punjab Gramin Bank is providing banking services largely in the rural areas. Punjab Gramin Bank is having 81% of their branches in rural areas and another 14% of their branches in semi-urban areas. The share of PGB in total Ground Level Credit to priority sector during 2022-23 was 4.32% and to the agriculture was 7.33%.

Table 2.3: Financial health of PGB as on 31.03.2023

Particulars	31.03.2022	31.03.2023	Growth (%)
Owned funds	1162.50	1303.22	12.10
Deposits	12208.03	13391.31	9.69
Loans & Advances O/s	8712.07	9707.74	11.43
Agri. Credit o/s	7130.38	7894.69	10.72
Investments	4797.10	4441.08	-7.42
Profit (Gross before Tax)	144.66	204.06	41.06
Profit Net after Tax	108.64	152.71	40.57
Gross NPAs (%)	6.62	5.90	-10.88
Net NPA (%)	0.27	0.00	-100.00
CRAR (%)	15.02	15.13	0.73

(₹Crore)

(Source: NABARD)

D. Small Finance Banks

There were 04 small finance banks operational in Punjab as on 31.03.2023, viz AU Small Finance Bank, CAPITAL Small Finance Bank, Ujjivan Small Finance Bank and Jana Small Finance Bank having 230 branches in the State (SLBC, Punjab). The objective of these SFBs is to increase financial inclusion by providing saving vehicles to underserved and unserved sections of the population, supply of credit to small farmers, micro and small industries and other unorganized sectoral entities through use of hi-tech technology and low operational costs.

E. Non-banking Financial Companies (NBFCs) and Micro-Finance Institutions (mFIs)

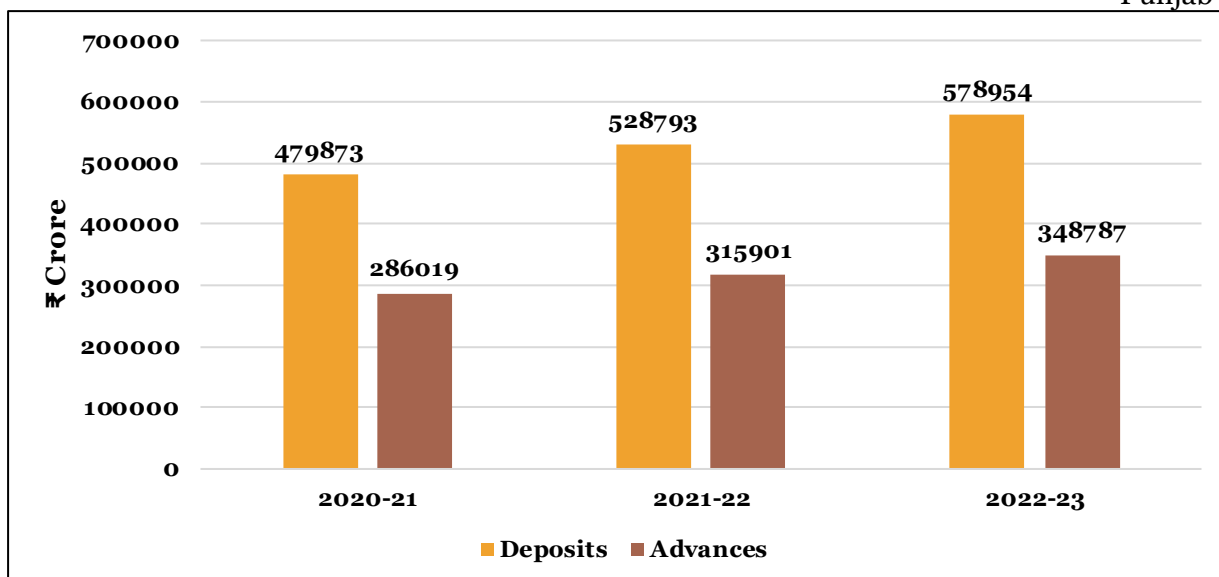
NABARD has been supporting NBFC-mFIs registered with RBI through its refinance facility. In Punjab, an NBFC-mFI namely Midland Microfinance Ltd. has been provided refinance facility.

Deposit Growth

The aggregate deposits of all the Banks in Punjab increased by 9.49% from ₹528793 crores as on 31st March 2022 to ₹578954 crores as on 31 March 2023.

Credit Growth

Gross credit in the State increased from ₹315900 crore as on 31st March 2022 to ₹348787 crores as on March 2023, thus exhibiting a growth of 10.41% on Y-o-Y basis.



CD Ratio

There was a slight improvement in the CD ratio from 59.74% as on 31.03.2022 to 60.24% as on 31.03.2023. The CD ratio of the State is higher than the national goal of 60%. The commercial banks have to make efforts for increasing their loans & Advances portfolio commensurate with corresponding growth in Deposit portfolio.

Table 2.4: Bank - wise CD Ratio of the State (31.03.2023)

Agency	Advances	Deposits	Overall CD Ratio
Commercial Banks	32743167	54699314	59.86
RRB	971393	1339129	72.54
Coop. Banks	1164145	1856976	62.69
Grand Total	34878705	57895419	60.24

(₹ crore)

(Source: SLBC Punjab)

Districts with less than 40% CD Ratio in the State:

Table 2.5: Districts with CD Ratio less than 40%

District	March 2022	March 2023	% Growth
Jalandhar	32.28	31.32	-0.96
Kapurthala	26.05	26.88	0.83
SBS Nagar	20.43	22.04	1.61
Hoshiarpur	28.12	28.13	0.01
Pathankot	38.39	38.60	0.21

(Source: SLBC, Punjab)

Financial Inclusion

The number of Pradhan Mantri Jan Dhan Yojana (PMJDY) accounts had increased from 74,46,800 as on 31 March 2021 to 88,16,034 as on 29th November 2023. A total of 61,62,441 RuPay cards issued as on 29th November 2023 under the scheme. The number of RuPay cards issued is much less in comparison to the no. of active PMJDY accounts in the State.

Stand up India and Pradhan Mantri Mudra Yojana (PMMY)

As on 20.12.2023 total beneficiaries under Pradhan Mantri Mudra Yojana has reached to 8,858,203 of which 57.40 % beneficiaries are at rural/semi-urban centres. Total 6,216,915 beneficiaries have been issued RuPay cards in the state.

Social Security Schemes of the Govt. of India (PMSBY, PMJJBY, APY, PMKISAN)

Two insurance schemes namely Pradhan Mantri Suraksha Bima Yojana (PMSBY) and Pradhan Mantri Jeevan Jyoti Bima Yojana (PMJJBY) were launched in 2015 in a move towards creating a universal social security system for all Indians especially the poor and the under privileged. 86.44 lakh persons have been covered under the PMSBY and 26.66 lakh persons under PMJJBY as on 31 March 2023, 3.66 lakh accounts have been opened under Atal Pension Yojana during FY 2021-22.

As on 10th August 2023 total number of eligible beneficiaries under PM Kissan Samman Nidhi Scheme are 8.57 lakhs of which funds has been transferred to 8.56 lakh unique beneficiaries.

Core Banking Solution for Cooperative Banks

All the District Central Cooperative Banks and the State Cooperative Bank are on the CBS platform. However, there is a need for launch of the CBS at Primary Agricultural Credit Societies (PACS) level through its computerization. As part of operationalization of the Centrally Sponsored Project for Computerization of Primary Agricultural Credit Societies (PACS) launched by GoI on 29 June, 2022 aimed at computerization of 63,000 PACS over a period of 03 years with an overall project outlay of ₹2516 crore. In Punjab, the budgetary provision of ₹ 72.94 Crore has been made for the project. As on 20.12.2023, 3482 out of 3523 PACS have identified by the state for computerization in the first phase. Remaining 41 PACS will be taken up in second phase.

Chapter III**NABARD's Perception on the Development Perspective of the State****Introduction**

Punjab continues to be an agrarian economy and has historically has an important role in bolstering India's agriculture production and food security. Even today, it enjoys the status of being 'India's granary' – contributing towards 12.18% of the country's rice production, and 17.14% of wheat production (Data for 2020-21, available in Agriculture Statistics at a Glance, 2021). The growth in the economy of the State continues to be driven by Agriculture with its contribution of 28.94% to the GSDP in 2022-23. Agricultural yield in Punjab was the highest across India for rice and wheat in 2018-19. NABARD's All India Rural Financial Inclusion Survey (NAFIS) –FY 2016-17 had shown that average monthly income of the agricultural households (AHH) in Punjab was the highest in the country at ₹23133/month in comparison to the All-India figure of ₹8931/month.

The Agriculture and Allied Sector is a source of livelihood for 25.50% of the working population, slightly less than the sector's share in Punjab's Gross State Value Added (GSVA) at 29.00% in 2022-23. Use of advanced farm technologies, farm equipment and relatively expensive HYV seeds and fertilisers in the State has resulted in relatively much more balanced composition of output and employment across the three sectors in contrast to the National trend of labour intensive agriculture sector and low per-labour output.

3.1 Capital Formation in Agriculture

Capital formation in agriculture means increase in the assets for agriculture which are not recurring in nature and directly related to production but help in increasing the production and productivity of crops on a sustainable basis. The capital formation in agriculture includes investment in land improvement, irrigation structures (Tubewells and Canals) machinery for doing labour work, storage and warehouse, livestock and animal husbandry, research and development in technology for increasing the production and productivity of agriculture.

Given its importance, NABARD has been extending long-term refinance support to banks and MFIs/NBFCs for asset creation of farm, farm related and non-farm activities with repayment periods ranging from 3 to 15 years. The major purposes include farm investments, allied activities, micro, small and medium enterprises (MSMEs), agro processing, organic farming, renewable energy, Self-Help Groups, Joint Liability Groups and rural housing. Further, medium-term refinance product for 18 months to 3 years was introduced during 2014-15. All investment activities under medium-term relating to agriculture and allied activities are eligible under the scheme. To give a boost to long-term investment credit in agriculture, the GoI has set up a 'Long-Term Rural Credit Fund' with NABARD, to provide long-term refinance support exclusively to Cooperative Banks and RRBs for investment credit in agricultural activities. In Punjab, to facilitate capital formation in agriculture and related sectors term loan refinance of ₹3979.27 crore was disbursed during 2022-23.

As per the estimates the per capita income of Punjab State is ₹173873/- which is slightly higher than the national average of ₹170620/- while in case of agriculture households Punjab has a monthly income of ₹23133/- which is much higher than the national average. Average land holding in the State is 3.62 ha which is also much higher than the national average of 1.08 ha. Per acre production is also higher in the State in comparison to the national average.

The positive features of the State agriculture are:

1. The production and productivity of agricultural crops is higher than the national average
2. Cropping intensity in agriculture is approximately 200%.
3. Irrigation facilities are available in 99% area.
4. The State is contributing the maximum amount of foodgrains to the central pool.
5. The size of land holding is much higher than the national average.

6. The availability of the tractors in relation to area irrigated is also higher as per norms
7. Per capita milk consumption in the State is highest in the country.

Challenges

1. The practice of mono cropping of wheat and paddy has produced a large number of challenges for the State infrastructure:
2. The water table in the State has gone down to a great extent and most of the area of the State is under over-exploited category.
3. The soil of the State has become alkaline
4. Paddy straw burning has become a big problem for the environment.
5. Availability of farm labour has become a big problem
6. The ratio of NPK is adverse.

Policy and Administrative Interventions by the State Government and other stakeholders as suggested below may create a positive impact in combating the above crisis:

- Creating infrastructure for combating paddy straw burning so that it not only saves environment but also adds to the income of the farmer.
- Incentivising shifting from 'mono agriculture' to agriculture allied activities viz. horticulture, floriculture, agro-forestry, dairy, animal husbandry, fisheries, integrated farming and agro- processing and crop diversification.
- Rationalizing use of water and power. Less water consuming varieties of crops should be promoted. Use of canal water may be increased in comparison to ground water. State Government may consider adopting the pilot project on Direct Benefit Transfer for Electricity for agriculture consumers.
- Enhancing usage of solar pumps through incentivizing installation of solar panels.
- Enhancing promotion of Custom Hiring Centres (CHC) for Farm Machinery so that farm mechanisation is economically capitalised.
- Licencing Policy for linking FPOs with the e-NAM system to allow for benefits of price discovery.
- Infrastructure can be created for fisheries cultivation.
- There is a great scope for floriculture (poly houses), commercial diary, storage (cold storage as well as foodgrains storage) in the State.
- Policy on Linking of fertilizer subsidy with Soil Health Cards to discourage excess use of fertilisers and pesticides.
- There is also scope for adoption of drain technology for agriculture for doing all sorts of farming activities.
- Food processing in all the fields and particularly in piggery activity has a big scope.

3.2 Financing SF/MF, Oral Lessees, Tenant Farmers, Share Croppers

Table 3.2: Distribution of Land Holdings in Punjab

Holding by size	Holding (No)	% age	Area (ha.)	% age
<= 1 ha	154000	14	93000	2
>1 to <=2 ha	207000	19	290000	7
>2 to <=4 ha	368000	34	983000	25
>4 to <=10 ha	305000	28	1730000	44
>10 ha	58000	5	857000	22
Total	1092000	100	3953000	100

(Source: Agricultural Census 2015-16)

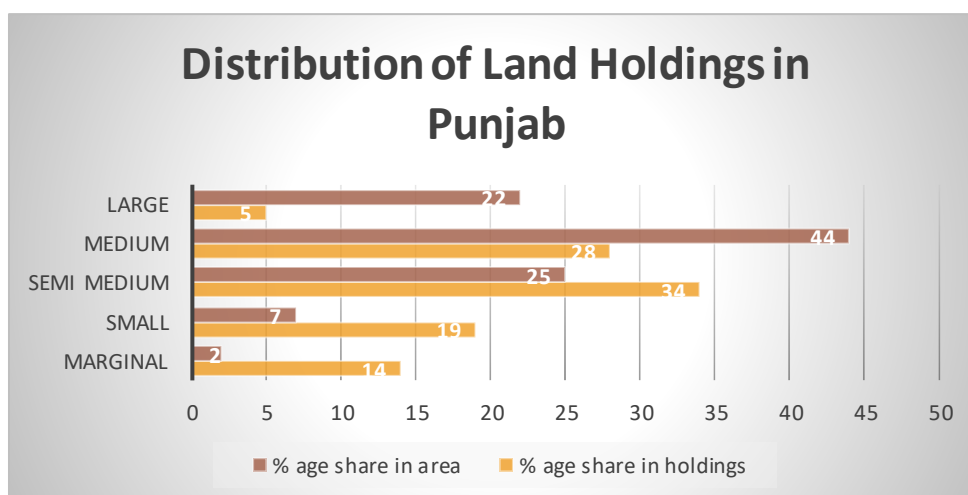


Table 3.2 shows that SF/MF constitute around 33% of the land holdings with a little 9% of operational farming land. In respect of Punjab, Findings of a Field Survey titled “Indebtedness among Farmers and Agricultural Labourers-a field survey 2016-17” by Punjab University indicated that more than 86% of Punjab’s farmers were under debt with an average debt of ₹4.74 lakh per farming household. The average amount of debt per indebted agricultural labour household in rural Punjab is ₹68,329/-. It also states that more than a third of Marginal Farmers and 15% of Small Farmers in the State are living below poverty line. Thus, development of suitable credit support system for financing the needs of MF/SF becomes all the more important.

Table 3.3 below indicates loans and advances to MF/ SF as 44.68% of total Agri. Loans and Advances catered mostly by RRBs and Coop Banks.

Table 3.3: Advances to Small and Marginal Farmers (31 March 2023)

Agency	Agriculture Advance	Advances to SF & MF	%age to total advances
Commercial Bank	7321518	2884092	39.39
RRBs	789659	554507	70.22
Coop. Bank	889136	583027	65.57
Total	9000313	4021626	44.68

(Source: SLBC, Punjab)

NABPARIKSHAN App has been developed by NABARD to ensure effective end use monitoring and supervision for proper usage of refinance availed and asset created through Banks at the ground level. NABARD has also introduced a system for RRBs and Cooperative Banks to submit monthly Ground Level Credit (GLC) flow returns through On-line ENSURE platform on disbursement of Crop Loan and Agricultural Term Loan in general and that targeted towards SF/MF in particular.

The Report of the Committee on “State Agrarian Relations and the unfinished task in Land Reforms”, Dept. of Land Resources, MoRD, GoI has brought out the restrictive nature of tenancy laws in the State of Punjab where leasing out of agricultural land is not specifically banned but the tenant acquires the right to purchase the land after a specific period of creation of tenancy except if land owner is disabled. However, of late with the increase of input cost in agriculture, the big farmers (owning >10 ha) are leasing out the land to the SF/MF. It is in this perspective that we find a sudden increase in land leasing percentage from 2012-13 onwards i.e. 70th round of NSSO and then, slightly decrease in 77th Round of NSSO in 2019.

Table 3.4: Share of land leasing as per NSSO data (%age)

NSSO Report	37 th Round (1981-82)	48 th Round (1992)	59 th Round (2003)	70 th Round (2013)	77 th Round (2019)
Punjab	16.10	18.80	17.84	29.10	27.8
All India	7.20	8.30	6.60	11.62	13.0

To bring the distressed small and marginal farmers in the fold of institutional credit, GoI, NABARD and RBI have stressed on the promotion of Joint Liability Groups (JLGs). The mutual guarantee /Joint liability deed signed by each of the borrowing member forms the basis for financing of Oral Lessee/ tenants who may not have proper land title deeds for availing mortgage based lending support from the financial institutions. RBI has also simplified the procedures and processes for obtaining agricultural loans by Marginal Farmers/Small Farmers/ Oral Lessee/ Tenant Farmers and Scheduled Castes by advising banks to dispense with the requirement of 'No Due Certificate'.

Further, with respect to lessee cultivators (tenant farmers), since leases are informal and may not constitute appropriate legal documents for the purpose of loan from institutional sources, NITI Aayog has formulated Model Agricultural Land Leasing Act 2016 to provide a legal and an institutional framework for legalization of agricultural land leasing. The Act gives legitimacy to all land tenants, including sharecroppers. Hence, they will be able to access insurance and bank credit against pledging of expected output. The State Government may consider adopting Agriculture land leasing act in the state.

3.3. KCC / RuPay KCC, Crop Insurance, Land Records – Digitisation and Creation of Charge

Financing of Farmers through KCC was introduced to rationalise the crop loan requirements of farmers based on Land usage alongwith ghar requirement for consumption needs has since been adopted by all Banks. As on 31 March 2023, number of outstanding active KCCs in the State stood at 24.92 lakhs against the total number of operational land holdings of 10.92 lakh and agricultural households of 14.67 lakhs per the NSSO 77th Round (July 2018-June 2019). This shows that farmers are availing crop loans from multiple sources leading to debt burden on the farmers and misutilisation of finances.

Digitisation of land records and creation of charge gains significance in this context. In Punjab, the Digital India Land Records Modernization Programme (DILRMP) is being implemented on a Mission Management Mode by the Revenue Department, Punjab Government with the help of Punjab Land Records Society. The primary objective of the Punjab Land Records Society (PLRS) is to oversee and monitor the implementation of computerization of Land Records and to provide Land Records related services.

KCC for AH and Fisheries has been implemented in the State and Banks need to promote the scheme. With an aim to provide Kisan Credit Card facility to all eligible Fishery and Animal Husbandry Farmers, Nationwide campaign is ongoing from 01.04.2023 to 31st March 2024.

Ghar Ghar KCC Abhiyan:

The program launched to saturate the remaining PM Kisan Beneficiaries with Short Term Agriculture Loans through KCC. The overall execution and monitoring responsibility for the "Ghar Ghar KCC Abhiyan" has been given to NABARD. As on 31.12.2023, the status of progress under the Abhiyan is given here under:

Sr. No	Bank Type	Saturated Beneficiaries	Pending Beneficiaries	Total Beneficiaries	Saturation Completed (%)
1	Commercial Banks	457270	775655	1232925	37.08%
2	Cooperative Bank	81435	20103	101538	80.20%

3	RRB	143252	354	143606	99.75%
	Total	681957	796112	1478069	46.13%

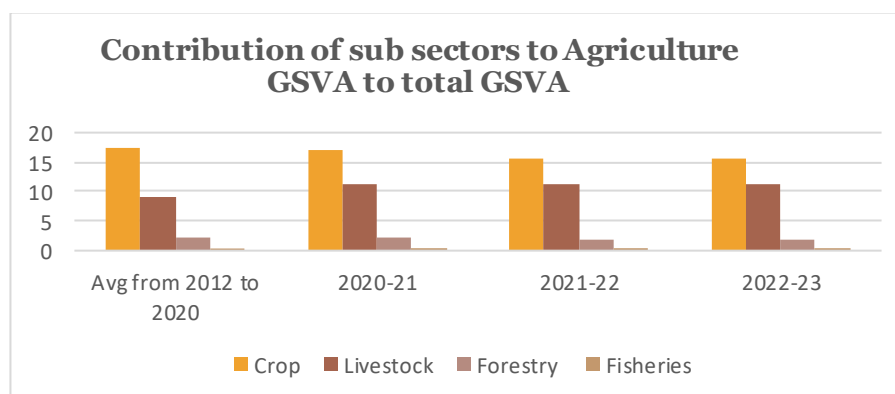
Furthermore, 262 awareness camps have been conducted in the state till date, covering a total of 21 districts, 101 blocks, and 255 villages.

Crop Insurance

In order to provide insurance coverage and financial support to the farmers in the event of failure of any of the notified crop, Government may expedite the Policy on the Issue of a holistic crop insurance covering all eligible farmers.

3.4 Agriculture and Allied Activities – Prospects and Performance

As is well documented, during COVID-19, agriculture and allied sector in the country in general and Punjab in particular witnessed a positive growth while as the other sectors registered a negative growth. This indicates that the scope of the sector in promoting the overall growth of the economy is still significant. However, percentage share of agriculture and allied sector in the total GSDP of Punjab has declined from 29.4% in 2021-22 to 29% in 2022-23. Keeping the share high is rather challenging and requires a paradigm shift from a foodgrain production-oriented system to commercial agriculture.



Animal Husbandry

Livestock sector has been a source of promise, largely on the back of robust growth in recent years. This sector is also less vulnerable to the vagaries of climate. The share of allied activities has also been increasing in the agriculture and allied activities GSA. Growing from a share of 26.03% in agriculture and allied activities in 2011-12, the livestock sector has contributed a share of 38.44% of GSA of Punjab's Agriculture and Allied sectors in 2022-23.

In 2021-22, milk production in Punjab increased by 5.1% in comparison to the growth of 0.3% in 2020-21, Egg production increased by 7.3% in comparison to the growth of 0.2% in previous year. Interestingly the meat production registered growth of 1.9% in 2021-22 in comparison to the negative growth of 9.9% in the previous year. Over the period of 14 years ranging from 2007-08 to 2021-22, the milk, egg, meat and wool production in Punjab registered an average growth of 51.6%, 60%, 109% and 3.24% respectively.

Dairy Development

Punjab is one of the leading producers of milk. The milk production in Punjab in 2021-22 was 14076.8 thousand tonnes. In 2021-22, milk production in Punjab increased by 5.1% in comparison to the growth of 0.3% in 2020-21.

Punjab has lakhs of dairy farmers and of them around 7,000 have big farms. The small farmers give milk either to cooperative societies or private dairy farmers. Punjab farmers produce 3 lakh litres milk per day of which 1.25 lakh litres is marketed and rest is consumed in villages.

Government of India has created a Dairy Processing and Infrastructure Development Fund (DIDF) in NABARD. The objectives of the scheme are modernisation and infrastructure

augmentation for milk processing and value addition and to ensure optimum price realisation by the primary producers.

As per the operational guidelines of Animal Husbandry Infrastructure Development Fund (AHIDF) scheme, the scheduled banks may provide financial assistance to individuals/ FPOs for establishment of infrastructure for dairy processing and value addition infrastructure and establishment of animal feed plant in the private sector.

In Punjab, NABARD has promoted 51 FPOs in dairy activities as on 15th December 2023.

Animal husbandry (Poultry, Sheep, Goat, Piggery)

State Government has identified animal husbandry sector as a thrust area for rural development. Suitable agro-climate conditions, high-yielding breeds, availability of inputs, infrastructural facilities for health care, processing, and marketing facilities for meat and eggs as also entrepreneurship of the farmers are the key factors which are auguring growth of this sector in the state.

Fisheries

Fisheries sector has emerged as a sun rise sector in Punjab. Popularization of activities like shrimp farming, re-circulatory aquaculture system, bio-floc systems, fish feed mills, etc. in private sector are strengthening Fisheries Sector in Punjab. Contribution of the Fisheries sector to overall agriculture and allied activities GSVA of Fisheries is 1.47% in the year 2022-23. Despite adverse conditions of pandemic this sector grew at the rate of 11.78% in the year 2022-23, vis-à-vis an average annual growth rate of 7.28% between 2012-13 and 2021-22.

During the year 2021-22, 1293.70 lac fish seed have been produced at Govt. Fish Seed Farms 3179.40 acres new area has been brought under fish culture and 40511.29 acres old area has been maintained under fish culture. During the year 2021-22, total fish production of 189646.9 tonnes has been achieved. 8497 aspirants have been given free 5-days trainings in Fish Farming, Further an amount of ₹516.37 lac was provided to the fish farmers as bank loan, in an effort to promote self-employment in the sector.

With the objective of utilization of salt affected land and enhancing income of farmers, special efforts are being made to bring saline affected water logged wasteland of south western district of Sri Muktsar Sahib, Ferozepur, Mansa, Fazilka, Bathinda and Faridkot under fish culture. The shrimp farming is popularizing very fast in these areas. Shrimp is a meat commodity which has a very high export value. Shrimp farming is helping farmers to earn handsome income of ₹3.00 lakh to ₹4.00 lakh per acre from land practically unfit for agriculture.

Starting from 1 acre area in 2016, shrimp farming has expanded to 830 acres area in the year 2021-22. Shrimp production almost doubled to 1500 tonnes in comparison to 788 tonnes last year.

Fish farming is very good activity for farmers for diversification from agriculture. During 2021-22, to encourage fish farming, 41 beneficiaries have been provided subsidy amounting to ₹153.78 lacs for bringing new area under fish culture.

To expand the current 1,212 acres area under shrimp cultivation to 5,000 acres in next 5 years-initial allocation of ₹ 10 crore has been allocated under Budget 2023-24 by Government of Punjab.

As on 15th December 2023 NABARD has promoted total 03 FPOs in fisheries and shrimp farming activities.

Horticulture

Presently, area under Horticultural crops in Punjab State is 477000 ha out of which 109880 ha is under Fruits, 316580 ha is under Vegetables, 2320 ha is under Flowers and 34860 ha is under Spices and Aromatic crops (Horticulture Statistics of India, 2nd Advance estimate, 2022-23).

Hi-tech protected cultivation holds a good potential especially in the light of the fact that area expansion is a constraint in the State. Efforts should be made to bring more and more areas under polyhouse and net house farming in combination with drip/sprinkler irrigation. This would not only enhance income from land but also lead to a shift in cropping pattern from paddy-wheat. Farmers taking up vegetable and exotic crops under protected cultivation need to be promoted through Producer Organizations (POs) for easy access to extension, marketing and other backward and forward linkages.

Another activity with great potential under horticulture is Apiculture which is an exclusively non-land based activity. The inputs required are simple and locally available. It also enhances productivity of agriculture and horticulture through cross-pollination of crops.

Punjab contributes 25% of the total honey produced in the country and its 23,000 beekeepers export nearly 3,000 tonnes of honey annually, worth ₹ 15 crore. There is a need for propagation of integrated farming of crops, horticulture and apiculture with suitable models.

There is good potential for establishment of agro-processing units in Punjab due to the higher level of agricultural productivity and production of the State. As per the Annual Survey of Industries, 2019-20, share of agro-processing units (food, beverages, wood and wood products, leather and related products etc.) was 36.98% of the total gross value added of the manufacturing sector and about 44.37% of the total workers were employed by registered factories.

According to the Annual Survey of Industries 2019-20, the food processing industry (food and beverages manufacturing put together) contributed 45.6% of the GVA in the registered manufacturing sector of Punjab in the year 2019-20. Within food processing, 'grain mill products, starches and starch products' were the highest contributor, linked to Punjab's abundant production of paddy and wheat.

3.5 Climate Change – Adaptation and Mitigation

Challenge

Indian Meteorological Department in its studies has observed that the temperatures over Punjab have been rising over the years as elsewhere in India and the world, and in 2010 the maximum and minimum temperatures in the Punjab region increased by 0.50-1.00C with respect to the base line 1971-2000 and there have been variations in precipitations across the years. It has been estimated that the productivity of rice is likely to decline by 0.16% to 9.6% as the temperature rises from 0.50-2.00 C in the future. For similar rise in temperature, the wheat yields are likely to decline further by 4.6% to 32% with respect to current level of yields.

Achievement of 100% irrigation in the State has come with a cost. The state is heavily dependent on ground water resources for irrigation. A report by Central Ground Water Board, on the "National Compilation on Dynamic Ground Water Resources of India, 2022", highlights that over 95% of extracted water in Punjab is for irrigation purposes, the highest across all states. The heavy exploitation of ground water resources has put Punjab in a crisis with indications that the State may soon run out of ground water.

Another important challenge faced is the issue of Paddy stubble burning. It is estimated that around 20 million tonnes of paddy straw is generated annually in the State and about 75-80% of it is burnt in fields leading to pollution, soil nutrient loss, increment in CO₂ emission and suspended particulate matter in atmosphere, thereby affecting environment and human health.

To mitigate the effects of climate change, it is necessary to adopt climate-resilient crop choices and irrigation practices and technologies. Promoting crop diversification as per the suitability of production in its different agro-climatic zones and sustainably managing agriculture crop residue to avoid the ill effects of on farm burning of crop residue and provision of insurance are some of the compelling requirements.

The State government is striving to overcome the environmental challenges by putting in place various policies and acts. The State is also cognizant of environmental implication of wheat-paddy monocyclic farming in terms of depletion of water resources. The scheme, "Pani Bachao Paise Kamao" aims to incentivize farmers to save ground water resources.

State Action Plan for Climate Change 2.0 has been formulated for the period 2021-2030, proposed sectoral strategies, anticipated budget for implementation of the proposed activities, likely source of funding through integration with ongoing programs & schemes of respective departments.

NABARD as National Implementing Entity (NIE) for GCF, NAFCC & AF

NABARD is the NIE for two important funding arrangements i.e. Adaptation Fund (AF) and National Adaptation Fund for Climate Change (NAFCC). It is also acting as Direct Access Entity (DAE) for operationalization of Green Climate Fund (GCF). Through these NABARD aims at channelizing national, international and private finances towards climate change adaptation and mitigation interventions in India.

NAFCC project on Climate Resilient Building through Crop Residue Management

Under the above Project implemented for a period of three years from 2018-2021, 15000 hectares was covered under diversification component (replacing paddy with maize), by Department of Agriculture, Punjab. Under the awareness component, NABARD conducted more than 8,000 village level camps covering over 12,000 villages of Punjab in 2018-19 and 2019-20. In 2020-21, Covid-19 led disruptions prompted NABARD to adopt innovative ways involving lesser physical interactions, including wall paintings, printed masks, AV fitted vans, a unique radio based URL linked messaging project for spreading awareness to a target audience of more than 25,000 farmers, besides messages broadcast over TV and radio.

3.6 Farmer Producer Organisation and Credit Guarantee

FPO is a body of Primary Producers coming together primarily for agriculture activities and marketing purposes, sharing costs and profits. The body is registered, under either Companies Act, Cooperatives Act, Multi-State Cooperatives Act, Trust Act etc., giving it a legal entity by virtue of which it can enter into agreements and contracts with outside parties. An essential component of FPO is shared equity of members, giving ownership of the FPO to the farmers themselves. The pooled finances are used to finance collective activities of the FPO, right from buying inputs, machinery or facilities, to accessing training and technology which would have been difficult for a farmer acting alone.

NABARD has so far promoted 119 FPOs in the State. Out of these, 67 FPOs have been promoted under the PRODUCE fund, 41 FPOs under NABARD's own promotional fund i.e. (FSPF) and newly launched PODF-ID and 11 FPOs are being promoted under Central Sector Scheme of 10,000 FPOs. All 67 FPOs promoted under PRODUCE are registered viz. 15 as companies, 20 as societies and 32 as co-operative societies. The activities being handled by them range from grain procurement, honey, animal husbandry, food processing (achaar, paapad, squashes), dairy, bee keeping, vegetable cultivation, custom hiring centre, primary processing, spices, basmati rice, organic products, etc. Through FPO, the access to agri-inputs, extension services, market, etc, has become easy and economy of scale is being reflected in their operations. 05 FPOs promoted under PRODUCE Fund have been credit linked and a cumulative loan of ₹41.83 lakh has been disbursed so far to these 05 FPOs.

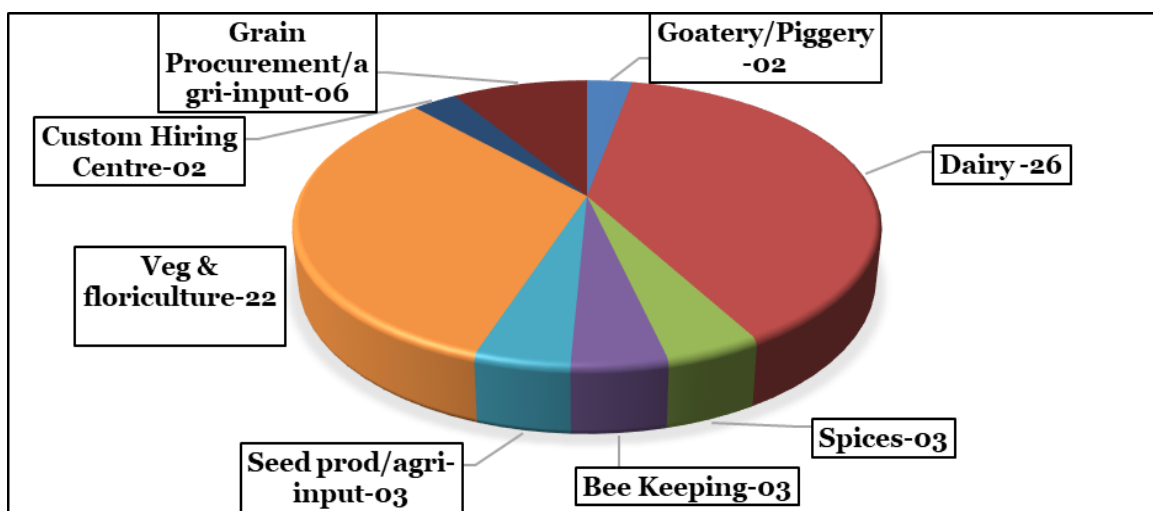
Eight FPOs have obtained various licenses such as Mandi license, FSSAI certification, licenses for the sale and purchase of pesticides, fertilizers, and seeds, as well as IFFCO certification for cattle feed.

Six FPOs are actively involved in organic farming, while three are engaged in millet cultivation and related processing activities.

Table- Status of Registration and Funds mobilized by FPOs in Punjab

(31 October 2023)

Particulars	PRODUCE Fund, GoI	NABARD's FSPF fund	NABARD's PODF-ID	Central Sector Scheme	Total
FPOs promoted	67	05	36	11	119
Registered Producer Company	15	01	21	11	48
Registered as Cooperative Societies	32	0	7	0	39
Registered as Societies/ Trusts	20	0	0	0	20
No of POPIs/ CBBO involved	9	1	12	2	-
No of Farmers covered	12691	117	5249	966	19,023
Equity mobilized by FPOs (₹ lakh)	101.68	-	59.84	6.00	167.52



Sector wise activities of FPOs under PRODUCE

Ecosystem support needed/ action points and suggestions

- Awareness creation among farmers / promoting institutions
- Handholding support, Interest subvention to FPOs and capacity building for farmers including Financial Literacy for transition into the e-NAM.
- Developing proper storage infrastructures – at farm level, godown and cold storages as well as smaller units for marketing and transport of produce and logistic support.
- Development of shorter, localised value chains on the supply side
- Aggregation services conjoining local value chains
- Research and innovation
- Single Window facility for granting various types of clearances/ licenses
- Interest subvention to FPOs

Challenges faced by FPOs in Credit linkage

- Low membership base and non-active participation by members and board of directors
- Low capital base of FPOs
- Absence of credit history of FPOs
- Poor capacity building of BODs and CEOs
- Statutory compliance and hefty penalty for non-compliances are some of the challenges faced by FPOs in their credit linkage in India.

NABKISAN

NABKISAN, incorporated in 1997, is one of 07 NABARD Subsidiaries notified as Non-Banking Finance Company. It provides collateral free loans to FPOs on simple terms at competitive rates and is largest lender in the FPO sector. NABKISAN also rates the FPOs on various aspects such as age, governance management, share capital, accounts, financial aspects and services provided by FPO. As on 31.10.2023, 03 FPOs in Punjab have been credit linked with NABKISAN.

Credit Guarantee Fund (CGF)

A dedicated fund of up to ₹1000.00 crore has been created and is being maintained and managed by NABARD through NABSANRAKSHAN and ₹500.00 crore by NCDC to provide suitable credit guarantee cover to accelerate flow of institutional credit to FPOs by minimizing the risk of financial institutions for granting loan to FPOs so as to improve their financial ability to execute better business plans leading to increased profits. The FPOs promoted and registered under Cooperative Societies act will have option to avail CGF either from NABARD or NCDC. The FPOs promoted and registered under Companies act can avail CGF maintained and managed by NABARD.

3.7 Convergence of FPOs with GOI /State Govt. schemes

- FPOs can develop post-harvest infrastructure and eligible processing facilities under the Agriculture Infrastructure Fund (AIF), where loans up to 07 years, availability of interest subvention of 3% p.a, for loans of up to ₹2 crore as well as Credit guarantee support under CGTMSE.
- The Prime Minister Formalisation of Micro Food Enterprises (PMFME) is focussed at supporting FPOs. A credit linked grant of 35% towards capital investment, support for handholding and common infrastructure, branding and marketing is also available under the scheme. NABARD provides a special refinance scheme to eligible lending agencies @4% under a 05-year repayment period, with a caveat that the ultimate lending rate should not exceed 06 months' MCLR (Marginal Cost based Lending Rate) +1% or EBLR (External Benchmark based Lending Rate) +2.5%. Free training & handholding support and ₹ 50,000/- for preparation of DPR is also provided to FPOs under the scheme.
- Schemes such as Pradhan Mantri Matsya Sampada Yojana (**PMMSY**), Animal Husbandry Infrastructure Fund (AHIF), schemes for development of bee keeping, herbal cultivation and Operations Green for vegetables can also be tapped by farmers under the FPO model for developing their chosen area of activity.

3.8 Micro, Small and Medium Enterprises (MSME) in Punjab

Punjab has a strong base of 3.50 lakh MSME units. Overall, 21.46 lakh people are employed in small-scale industries. Most of the small-scale industries are concentrated in Ludhiana, with a value output of ₹81255.33 crores followed by Sangrur (₹11802.39 crores), Amritsar (₹7684.52 crores) and Faridkot (₹3857.98 crores). The Textile industry accounts for 19% of the total industrial production of Punjab and contributes about 38% of the total exports from the State.

Keeping in view the location of the State, its share in agricultural production, level of investment and human resources, following areas can prove as potential areas:

- Food Processing
- Petro product units in Southern Punjab from by-products of the refinery at Bathinda
- IT and Electronics Sector
- The South Western region of the State, comprising of Mansa, Muktsar, Bathinda and Faridkot is the main cotton producing area in Punjab. Punjab has a large base of apparel and design professionals due to the presence of leading design institutes such as the Northern India Institute of Fashion Technology (NIIFT), Mohali. Textile Units have a great potential in the State.
- In order to address a myriad of challenges being faced by the MSMEs in the State and to make it a more vibrant and dynamic sector, the State would re-organize Controller Stores as 'MSME Punjab', as a dedicated wing of Department of Industries & Commerce, Punjab for the focused development of MSMEs.
- MSME Punjab will have dedicated divisions and requisite competencies to provide necessary assistance to MSME units in Access to Finance/Credit, Access to Technology, Access to Market, Access to Skills and other needs of the Sector. The organization will be assisted by professional agencies in delivering various services to its stakeholders.

NABARD Support

NABARD has been promoting rural Off-Farm Sector by providing support for skill upgradation, marketing, etc. Skill upgradation would continue to be priority especially in the context of 'Skill India Mission' launched by GoI. Rural Mart scheme provides a retail outlet to the SHG and FPO members where they can sell their produce. To make the SHG/ FPO members capable of taking risk in the initial stages of the business set-up, the assistance is in the form of grant support to meet the cost of establishment during the initial period of 03 years in a tapering manner.

The Rural Non-Farm Sector consisting of both the MSMEs as well as the services enterprises has a sizable contribution to the GSVA in Punjab perspective. There has been massive disruption in the value chain system especially in the Rural Non-Farm Sector leading to loss of livelihoods and employment opportunities due to Covid-19 during the past 02 FYs. Thus in order to regalanize the economic order post the unlocking of the economy, it becomes pertinent to support this vital sector of the economy.

Promotion of OFPOs

The first Off Farm producers' organization (OFPO) of the State was sanctioned by NABARD, Punjab on Phulkari making activities during FY 2020-21. The OFPO had mobilised 368 women members engaged in Phulkari activities who have contributed close to ₹5.00 lakh share capital for the company. The OFPO achieved total sales of ₹14.44 lakh in FY21-22. OFPO has developed its own website i.e. www.kaseedaarts.com. Also tied-up with Amazon & Flipkart for e-marketing of phulkari products. 166 artisans have received the Bunkar cards from Handicraft Departments, Hoshiarpur and 80 more artisans have applied for the same.

3.9 Micro credit

As on 31.3.2023, cumulatively 64560 SHGs have been saving linked and 4581 SHGs have been credit linked in the State. Punjab State has been one of the low performing States in terms of SHG programme due to absence of good NGOs and lack of interest at the ground level. There is need for stepping up efforts for intensifying promotion of SHGs in coordination with NABARD, SRLM and Banks.

Joint Liability Groups (JLGs)–Bank Linkage Programme

Cumulative number of JLGs credit linked in Punjab stood at ₹4.25 lakh as on 31 March 2023 with cumulative loan disbursed at ₹710691.11 lakhs. During 2022-23, grant assistance amounting ₹5.04 crore to various DCCBs, RRB and Commercial Banks was sanctioned by NABARD for promotion and credit linkage of 13,100 JLGs.

Modified Interest Subvention Scheme:

Government of India is administering the Modified Interest Subvention Scheme (MISS) with an objective of providing subsidy on agricultural credit to the farmers to facilitate short-term agricultural loan at concessional rate of interest and incentivize them for prompt repayment of loan through various components as per scheme guidelines. The subsidy on agriculture credit and incentive for prompt repayment are offered to farmers who take loans from eligible Scheduled Banks and other Cooperative Institutions.

3.10 Rural Infrastructure and Linkage support

The role of infrastructure is critical in improving farm productivity, providing market linkages and consequent raising of standard of living of the rural population. NABARD has been supporting projects for building infrastructure and other promotional activities for development of agriculture, allied and rural non-farm sector activities. Special funds like RIDF, NIDA, WIF, MIF, DIDF, Food Processing Fund, etc. are deployed for the development of infrastructure in rural areas. NABARD is also supporting creation of rural infrastructure under NIDA by providing funds to state and state owned agencies.

Projects are sanctioned to the State Government for development of infrastructure in sectors like irrigation, animal husbandry, drinking water supply including Reverse Osmosis Plants, education, public health, godowns, etc. In Punjab, 8660 projects have been sanctioned with RIDF assistance of ₹12828.70 crores upto tranche XXIX (30 September 2023).

NABARD Infrastructure Development Fund (NIDA) provides assistance to State Government Corporations and other state-owned organizations outside borrowing power of States under Article 293 (3). In Punjab, an amount of ₹317.37 crores has been sanctioned to Punjab State Transmission Corporation Ltd. (PSTCL) for creating additional transmission capacity.

In Punjab, NABARD has supported the dairy sector by financing 04 Milk Unions viz. Ropar Milk Union, Doaba (Jalandhar) Milk Union, Ludhiana Milk and Patiala Milk Union through Dairy Infrastructure Development Fund (DIDF) for expansion and modernisation of milk plants.

In addition to above, direct loan of ₹679.51 lakh was sanctioned to Punjab State Warehousing Corporation (PSWC) under Warehouse Infrastructure Fund by NABARD for construction of conventional godowns of 19800 MT capacity in Kapurthala and ₹210 crores to PUNGRAIN for creation of 5 lakh MT capacity (Silos) at 11 locations. As on 30 October 2023, 3 silo complexes have been set up at Sangrur, Sunam and Ahmedgarh.

PSWC has also been sanctioned a term loan of ₹206.66 cr for modernisation and improvisation of 133 existing warehouses and construction of 20 District Offices in Punjab. For promotion of Food Parks and Food Processing Units in Designated Food Parks (DFPs), a special fund Food Processing Fund of ₹2000 crores was created with NABARD by GoI in 2014. In Punjab, an amount of ₹27.13 crores has been sanctioned to Punjab Agro Industries Corporation (PAIC) for setting up of Mega Food Park at Ladowal in Ludhiana.

3.10.1 Viksit Bharat Sankalp Yatra (VBSY):

A nationwide campaign to raise awareness through outreach activities to achieve saturation of schemes of Govt. of India across the country covering all Gram Panchayats, Nagar Panchayats and Urban Local Bodies with the objectives of:

1. Reaching the unreached - reach out to the vulnerable who are eligible under various schemes but have not availed benefit so far
2. Dissemination of information and generating awareness about schemes
3. Learning from the citizens - Interaction with beneficiaries of government schemes through their personal stories/ experience sharing
4. Enrolment of potential beneficiaries through details ascertained during the Yatra.

NABARD through its District Development Managers (DDMs) playing a pivotal role in mobilising masses to participate in the programmes at district level across the country. As on 27.12.2023, total 5043 Gram Panchayats (GPs) have been covered with cumulative participation of 8,59,989 members and average 170 participation in the state.

3.11 Financial Inclusion

Financial Inclusion is an important agenda of the GoI, RBI and NABARD, the objective of which is to extend financial services at an affordable cost to the large hitherto un-served and under-served population in the country to unlock its growth potential. Under Pradhan Mantri Jan Dhan Yojna (PMJDY) the total number of beneficiaries has been reached to the level of 88,32,306 as on 12th December 2023. Initiatives by NABARD for promoting financial inclusion in the state so far include:

- Support to all Cooperative Banks to adopt Core Banking Solution (CBS) platform.
- Grant assistance is available for RRBs and DCCBs for deploying micro-ATMs at branches and other vendor locations
- Sanctioning Financial Literacy Centres to RRBs and CCBs
- Digital Financial Literacy Camps based on differentiated approach with special focus towards financially excluded areas.
- NABARD grant assistance for reimbursement of BC/BF exam fee
- Mobile Van to demonstrate banking technology in remote rural areas
- Capital Expenditure of RSETIs/RUDSETIs- Purchase of Training Equipment's and Maintenance thereof 2.0
- Grant assistance to banks for regulatory infrastructure support schemes like AUA/KUA membership and on boarding CKYC
- Grant assistance to banks for boarding of BHIM/ UPI, Bharat Bill Payment System (BBPS), Positive Pay System (PPS) platforms etc.
- Ensure DBT facility from GoI to customers of Cooperative Banks by enabling these Banks to on-board Public Financial Management System (PFMS) platform.
- Govt. Social Security Schemes

NABARD's Initiatives for promoting Financial Inclusion Core Banking Solution (CBS)

CBS in cooperative banks has become quintessential for banking operations throughout the country. NABARD emphasised on need for rapid implementation of new technologies for the survival and growth of Rural Cooperative Banks. NABARD has earlier played the role of facilitator and advisor in successful implementation of CBS project. In the second phase, NABARD has also initiated the project as facilitator for current CBS system upgraded to Finacle software version 10.2.25 for all cooperative banks in Punjab.

Financial Literacy Centres (FLCs)

With NABARD's financial assistance, a total 19 Financial Literacy Centres (FLCs) to RRBs and 88 FLCs to CCBs have been setup in the State to impart financial knowledge, digital banking technology and credit counselling to the rural masses.

Digital Financial Literacy Camps (DFLCs)

With a view to creating financial literacy, awareness programmes have been conducted in all the districts. Varying degree of Grant amounts have been sanctioned to Schedule Commercial banks, RRBs, and CCBs for conducting these financial literacy camps. In order to promote inclusive growth of Financial Inclusion efforts and to cover all excluded areas, special emphasis has been given to aspirational districts in Punjab through increased focus and enhanced assistance to all implementing agencies. During FY 2022-23, NABARD Punjab has sanctioned 7997 camps to various Commercial Banks, Small Finance Banks, CCBs and RRBs with grant assistance support of ₹3.94 cr. The objective of these camps is to provide hands-on experience and awareness about digital technologies like digital banking, PoS, micro-ATMs, wallets etc.

Deployment of Point of Sale (PoS) devices

The deployment of Point of Sale (PoS) terminals will ensure cashless transactions and allow the customers to withdraw small amounts of cash in rural areas especially in Tier 3 to 6 centres. During the year 2022-23, 989 PoS /mPoS devices have been deployed in Tier 3 to Tier 6 cities in the State by Paytm Payment Bank with the total grant assistance of ₹34.64 lakh.

Deployment of Micro ATMs

Grant assistance is available for SCBs (including SFBs and PBs), RRBs and CCBs for deploying micro-ATMs at branches and other vendor locations subject to a cap of ₹ 22,500 per device. This will stipulate these banks to move to a platform where the cards can be used in the form of ICT/Smart/Debit Cards, allowing rural clients to enjoy banking services at their doorsteps. During 2021-22, NABARD sanctioned a project to Punjab State Cooperative Bank for deploying 1857 Micro ATMs, 01 in each Branch/ PACS with the total grant assistance of ₹4.17 Cr.

Reimbursement of examination fees of BC/BF

Grant assistance support is extended towards reimbursement fees incurred by banks for getting their BCs/BFs certified through Indian Institute of Banking & Finance (IIBF). During the FY 2022-23, NABARD Punjab has sanctioned a grant assistance of ₹26.25 lakh to various banks for their 5603 BCs getting certification course on FI.

Demonstration of banking technology with mobile van

In order to promote digital financial literacy, support is being provided for the demonstration of banking technology through mobile van to CCBs and RRB. During the year 2022-23, NABARD Punjab has sanctioned a grant assistance of ₹30.00 lakh for purchase of two Demonstration Mobile vans to two CCBs. Punjab Gramin Bank have operationalized the two demo mobile vans under the scheme in Punjab.

Boarding of BHIM/ UPI platform

In order to facilitate rural population possessing mobile phones for conduct of Banking transactions like transfer of money, payment to various services and products through BHIM/UPI application. In the state, Punjab Gramin Bank has completed the boarding of BHIM/ UPI platform with grant support.

Govt. Social Security Schemes

Three social security schemes Pradhan Mantri Jeevan Jyoti Bima Yojana (PMJJBY), Pradhan Mantri Suraksha Bima Yojna (PMSBY) and Atal Pension Yojna (APY) were launched by Hon'ble Prime Minister on 09 May 2015. Implementation of these schemes by cooperative banks and RRBs is being monitored by NABARD. As on 31.03.2023 a total of 86.44 lakh population has subscribed for PMSBY and 26.66 lakhs for PMJJY.

Compliance to Regulatory requirements

To comply with the various regulatory requirement by banks such as onboarding on Public Financial Management System (PFMS) portal, the establishment of Central KYC Registry, the acquisition of AUA/KUALicense from UIDAI, operationalization of Aadhaar Enrolments and Update Centres in the bank branches, etc. In addition, these regulatory compliances also enable these Banks to provide efficient service delivery and participate in Govt Social Security Schemes.

- All District Central Cooperative Banks and State Cooperative Banks in the state have been on-boarded to PFMS platform with NABARD assistance.
- Support extended to Punjab Gramin Bank to setup 09 Aadhaar Enrolment and Update Centres.

Critical Issues

Banking outreach is widely regarded as a critical factor in making financial products and services available to a wider segment of the population. This assumes even more relevance in emerging economies, where efforts are being made to bring all households of the state under the ambit of banking services.

Some of the critical issues related to outreach in the banking sector in Punjab are as under: -

- Digital & Financial literacy camps, emphasizing on digital literacy and awareness, need to be regularly conducted by rural branches of banks & FLCs. In such camps, issue of KCC, water conservation and stubble burning may also be taken up.
- Usage of RuPay KCC/debit card is less due to misapprehension among the farmers. Hence the greater need for awareness creation.
- Cooperative banks are yet to adopt Internet banking and Mobile Banking license from RBI.
- Cooperative Banks are yet to adopt Merchant acquirer license from RBI for deploying PoS/mPoS machines under ownership model.
- Banking in Punjab is fairly mature in terms of supply, product range and reach. However, for the private sector and foreign banks, outreach to rural Punjab is still wanting.
- All the cooperative banks need to ensure strict implementation of KYC norms issued by RBI.
- Cooperative Banks are yet to on-board to C-KYC and AUA/KUA membership platform which is a regulatory mandate by RBI.
- Adoption of BHIM UPI in Panchayati Raj Institutions (PRIs)
- Promotion of digital payments in APMCs/Mandis (pilot project)

3.12 RAG- Regional Advisory Group constituted and meeting held.**3.13 Past Trend in credit flow****A. Ground level credit in the State****Broad Sector-wise GLC flow to the Agriculture Sector during the last three years (₹crore)**

Sector	2020-21			2021-22			2022-23		
	GLC	Share (%)	Growth (%)	GLC	Share (%)	Growth (%)	GLC	Share (%)	Growth (%)
Crop Loan	72339.49	80.65	4.96	74567.68	81.71	3.08	69418.35	69.40	-6.90
Agri. Term Loans	17351.21	19.35	-13.59	16690.24	18.29	-3.81	30615.77	30.60	83.43
Total Agri. Credit	89690.67	100.00	0.78	91257.92	100.00	1.75	100034.12	100.00	9.61

(SLBC, Punjab)

Broad sector - wise GLC flow towards Priority Sector Lending Operations

(₹crore)

Sector	2020-21			2021-22			2022-23		
	GLC	Share (%)	Growth (%)	GLC	Share (%)	Growth (%)	GLC	Share (%)	Growth (%)
Agri.	89690.67	59.38	0.78	91257.92	53.26	1.75	100034.12	50.72	9.6
NFS	44285.00	29.32	6.42	53463.87	31.20	20.73	74729.00	37.89	39.77
OPS	17136.00	11.35	20.94	26629.07	15.54	55.40	22461.00	11.38	-15.65
PSL	151035.00	100.00	4.32	171351.03	100.00	13.45	197224.00	100.00	36.25

Agency wise flow of GLC towards Priority Sector lending Operations**(₹ Crore)**

Agency	2020-21			2021-22			2022-23		
	GLC	Share %	Growth %	GLC	Share %	Growth %	GLC	Share %	Growth %
Commercial Banks	127253.00	84.25	5.73	146987.00	85.78	15.51	176758.00	89.62	20.25
StCB/ CCBs	15169.00	10.04	-13.49	15047.00	8.78	-0.80	11835.00	6.00	-21.34
RRBs	8387.00	5.55	12.58	9062.00	5.29	8.05	8524.00	4.32	5.93
PSCADB	227.00	0.15	-17.77	255.00	0.15	12.33	106.00	0.05	-58.43
Total	151035.00	100.00	4.14	171351.00	100.00	13.45	197224.00	100.00	15.09

(SLBC Punjab)**Analysis**

- There has been a nominal growth in GLC flow to the Agriculture sector i.e. a meagre growth of ₹10343.45 crores between FY 2020-21 and FY 2022-23.
- Crop Loans accounted for 69.40 % of the GLC for agriculture and allied activities and 46.78% of the total institutional credit flow to Priority Sector during 2022-23.
- The investment credit for agriculture and other allied activities accounted for 30.60% of the GLC for agriculture sector during FY 2021-22. The slow down in GLC flow towards Crop Loan corroborated with a “-ve” 6.90% Y-o-Y growth between FY 2022-23 vis-à-vis FY 2021-22 is a matter of grave concern.
- The credit flow for Non-Farm activities accounted for 37.89 % of the GLC flow towards PSL operations during FY 2022-23 and the same has shown a Y-o-Y growth of 39.77% in FY 2022-23 vis-à-vis FY 2021-22.
- The credit flow towards ‘Other Priority Sector’ during FY 2021-22 accounted for 11.38 % of GLC flow towards PSL operations. The sector recorded Y-o-Y negative growth of 15.65% between FY 2021-22 and FY 2022-23 respectively.
- The Commercial Banks accounted for 89.62% of GLC flow towards PSL Operations during FY 2022-23 and accounted for the majority share.
- The share of the State Coop. Banks/ DCCBs in GLC Flow stood at 6.00% during FY 2022-23.
- The share of PSCADB and others in GLC flow towards PSL operations was 0.05% during FY 2022-23.
- The share of RRB in GLC flow towards PSL operations has delined to 4.32% in FY 2022-23.

Agency wise flow of GLC towards Agriculture Sector during FY 2022-23
(₹ crore)

Agency	Crop Loan			Term Loan			Total Agriculture		
	Target	Achv.	Share (%)	Target	Achv.	Share (%)	Target	Achv.	Share (%)
CBs	63595.96	53342.58	76.85	39240.05	28495.63	93.07	102836.01	81838.21	81.82
PGB	6201.52	6229.61	8.97	2754.96	1111.55	3.63	8956.48	7341.16	7.34
PStCB	20288.08	9846.16	14.18	7000.46	953.30	3.11	27288.54	10799.46	10.79
PSCAD B and others	0.00	0.00	0.00	909.33	55.30	0.19	909.33	55.30	0.05
Total	90085.56	69418.35	100.00	49904.80	30615.78	100.00	139990.36	100034.12	100.00

(Source: SLBC, Punjab)

As observed from above table maximum share in pureyance of agriculture credit has been that of commercial banks followed by cooperatives and RRBs. The share of PSCADB was meager and insignificant. Bank should put initial special policy measures for increasing its share in agricultural lending operations in the State especially RCBs and PGBs.

3.14 Doubling of Farmers' Income

Government of India has a target to reorient its interventions in the farm and non-farm sectors to “double the income of farmers”. The need for the same had arisen from the fact that past strategy for development of the agriculture sector had primarily focussed on raising agricultural output and improving food security, while now importance is being given to the need for farmers' welfare measures, increasing farmers' real income, ensuring income security and income parity vis-a-vis workers working in the non-farm sector. Therefore, to address the anomalies there is renewed focus through unveiling of plethora of policy initiatives, budgetary allocation and programme implementation measures for doubling farmers' real income within the stipulated period.

With a view to achieving this ambitious goal, the focus on agriculture sector is being put on income-centeredness, which goes beyond achieving merely the targeted production. It focuses on achieving high productivity, reducing cost of cultivation and remunerative price of the produce as well as channelizing a large portion of the farm workers towards the Non-Farm Sector especially Agro Processing and Value Addition propositions of the Agricultural Commodities with a view to earning higher profits from farming. At present, the Government is implementing various schemes and adopting policy measures to synchronize with higher gains for the farmers.

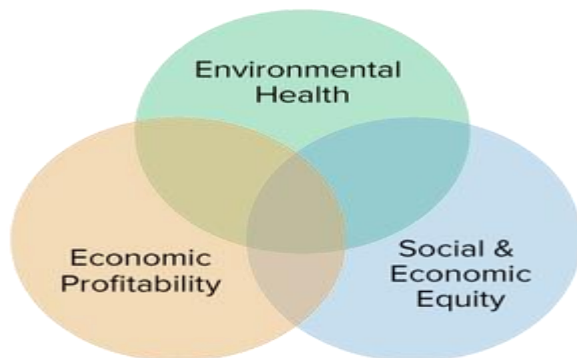
Suggested Action points for raising the income of farmers

- Crop Diversification and Promotion of Allied Activities
- Enhanced use of in-situ crop residue management farm machines and equipment
- Market Reforms including Insurance and Price Hedging Mechanism and Price Advisory
- Infrastructure Availability
- Farmer Producer Organisations
- Micro-irrigation techniques
- Provision of Timely Extension Services

3.15 Sustainable Agriculture Practices

Sustainable agriculture is the use of farming systems and practices, which maintain or enhance

1. The economic viability of agricultural production;
2. The natural resource base; and
3. Other ecosystems, which are influenced by agricultural activities.



Sustainable agriculture Practices:-

1. Organic Farming:-

Organic farming is an approach which relies on economic viability, social acceptability and environmental sustainability. Punjab, since green revolution evolved as inorganic state with heavy use of pesticides and fertilizers which initially provided significant results in terms of crop production and productivity

2. Integrated Farming

Integrated Farming can be defined as “a judicious combination of two or more components using cardinal principles of minimum competition and maximum complementarity with advanced agronomic management tools aiming for sustainable and environment friendly improvement of farm income, family nutrition and ecosystem services”. The Integrated Farming System (IFS) is an economically viable option for enhancing farm productivity and profitability, reducing environmental degradation, improving the quality of life of resource poor farmers and maintaining agricultural sustainability.

IFS Models for Northern and Central India:

This region consists of Punjab, Haryana, Uttarakhand, Uttar Pradesh, Bihar, Madhya Pradesh, and Chhattisgarh.

Following models are suitable for this region:

- Agriculture + livestock
- Agriculture + livestock + poultry
- Horticulture + fish culture + poultry
- Pig cum fish culture
- Agricultural + silvipasture
- Sericulture + fish culture
- fish culture + sericulture
- Agricultural(rice) + fish+ mushroom cultivation
- Agricultural + duckery + poultry
- Poultry + fish culture

PAU model of IFS:

PAU has developed an Integrated Farming System model under “All India Coordinated Research Project (AICRP) on Integrated Farming Systems” which is very promising. The model has been developed based on field trials conducted at PAU, Ludhiana.

The model envisages to standardize the net returns for a 1.0 ha model (10,000 m² area) comprising crops+horticulture+aquaculture+dairy+agroforestry components. The model prescribes growing crops viz. paddy, maize and turmeric during kharif season. Similarly,

during Rabi and summer season potato, berseem, wheat, gobhi sarson, onion, pearl millet and spring maize are prescribed to be grown.

PAU Model of IFS for 01 hectare area

S.No.	Component	Area allocated in 01 ha (10,000 sq. m.) model farm	% area allocated for the model farm
1	Crops	6,400	64%
2	Horticulture	1,900	19%
3	Boundary Plantation	-	0%
4	Agro-forestry	300	3%
5	Kitchen Gardening	200	2%
6	Fishery	1,000	10%
7	Dairy	200	2%
	Total	10,000	100%

3. Conservation Agriculture:

- Conservation agriculture—consisting of three components including permanent soil cover, minimum soil disturbance, and diversified crop rotations—is considered the principal pathway to sustainable agriculture and the conservation of natural resources and the environment.
- CA practices such as zero or minimal tillage, residue management, and crop rotation are being implemented to reduce soil erosion, improve soil health, and preserve water. These practices aid in moisture retention, increase soil organic matter, and lessen the requirement for chemical inputs.

4. System of Rice Intensification (SRI):

A comparison of SRI and conventional method of rice cultivation is as follows

Particulars	Conventional Method	SRI
Spacing	15x10 cm	25x25 cm
No of plants per sq.m	66	16
No. of seedlings per hill	3	1
No. of plants per acre	792000	64000
Seed requirement per acre	20 kg	2 kg

5. Precision farming tools:

- Remote sensing, GIS mapping, and GPS-based variable rate technologies, are being embraced to optimize resource utilization, improve crop management, and minimize environmental consequences.

6. Integrated Pest Management (IPM):

- IPM practices are advocated to reduce the usage of chemical pesticides and promote environmentally friendly pest control solutions. Biological control, cultural practices, resistant crop types, pheromone traps, and pest monitoring systems are part of this.

3.16 Agroforestry

The Food and Agricultural Organisation describes agroforestry as a dynamic, ecologically based, natural resource management system that, through the integration of trees on farms

and in the agricultural landscape, diversifies and sustains production for increased social, economic and environmental benefits for land users at all levels. FAO has identified agroforestry as a part of climate smart agricultural strategies, due to the ability of these systems to prevent soil erosion, improve water infiltration, and diversify sources of farm income. Moreover, by practising boundary plantation, even small farmers can diversify without need for sacrificing land. The implementation of agroforestry at a large scale will also support in meeting forestry target under the nationally determined contribution (NDC) of the Paris Climate agreement and several of the Sustainable Development Goal Targets.

India became the first country in the world to adopt a National Agroforestry Policy in 2014. The policy is a comprehensive framework designed to improve agricultural livelihoods by maximizing agricultural productivity. Farmers of Punjab have been practicing agroforestry with boundary plantations, row plantations as well as block plantations of fast growing trees having commercial value. The main species being Poplar, Eucalyptus, which are being absorbed as raw material for paper and pulp industries in and around the state. As per the State of Forest Report 2021, the tree cover, other than forest area, in Punjab has been estimated to be 1138 Sq.km.

There is a need for concerted efforts to promote agroforestry models in the State. Potential species for agroforestry include *Casuarina*, *melia dubia*, *clonal bamboo*, *Sohanjn (Moringa oleifera)*, *Sandalwood*, *neem*, *shisham*, etc. Details of the above are indicated in Chapter IV under Forestry and Wasteland development.

3.17 Watershed Initiatives in the State - Banking Plan and Increase in Credit Flow

In Punjab, Full Implementation Phase under watershed development fund was sanctioned in March 2023 in Bari village of Rupnagar District covering 1000 ha area with grant support of 196.83 lakhs for a duration of 04 years. The interventions proposed in the watershed are broadly divided into four parts, viz., (A) Soil and water conservation measures, (B) Climate Proofing activities, (C) Women and livelihood development and (D), Knowledge management, capacity building, exposure visit and documentation. Capacity Building Phase has been completed and following structures have been constructed viz. 4 percolation tanks, 12 gully plugs, 5 loose boulder check dams and 12 Gabion Structures.

Integrated Water Management Scheme was sanctioned in 05 villages of Moga district. Abhivyakti Foundation is the implementing agency for the projects.

Pilot project on reclamation of alkaline soils in Punjab: Southern districts of Punjab are affected by waterlogging problem. As per ICAR-CSSRI, Karnal, nearly 1.5 lakh hectares of land of Punjab is affected by problem of alkaline soils. To address this issue, NABARD signed an agreement with CSSRI – ICAR, Karnal on 26 December 2019, to start a pilot project in 1000 hectares to reclaim alkaline soil With cost of ₹3.87 crore, to be implemented in phased manner in 3-4 years. Two districts viz. Patiala and Sangrur were identified for the pilot project with 500 hectare identified in each district for the proposed intervention. 5992.64 MT (@₹ 4148 /MT) gypsum of 70% purity was supplied by FAGMIL, Jodhpur for both the districts as per recommendations of ICAR-CSSRI, Karnal. The gypsum was provided to beneficiaries Capacity building and training programmes were envisaged under the project for the scientific application of gypsum. Preliminary results indicates there is increase in yield of around 4.50 qt/ acre (25 % increase) in wheat & yield enhancement ranging from 4.50 to 6.50 qt/acre (18-24 % increase) in paddy.

3.17 PACS as Multi Service Centres (MSC)

The objective in transforming the Primary Agriculture Cooperative Society (PACS) as Multi-Service Centres (MSC) is to establish the supremacy of cooperatives as a grass root member driven business organisation, providing both financial and non-financial services to enhance the benefits of mutual interest. To provide opportunity to leverage the changing landscape of Agriculture and recent reforms to build a strong and modern business entity in rural areas.

The ultimate objective is to convert the PACS into 'One Stop Centre' so that it can cater to all the needs of its members at local level and work as viable unit.

In the above context, it has been decided to cover potential PACS in the State for conversion as MSC over a period of three years commencing from the year 2020-21 by providing special long term refinance facility through StCBs at 3%. NABARD refinance support aims at enabling PACS to create required infrastructure (capital assets) and increase their business portfolio in tune with needs of members. The Special Refinance Scheme-PACS as MSC has been operational since the last 3 years and StCBs/DCCBs have gained experience and competency in appraising the projects. Further, various training programmes and sensitisation workshops have been conducted from time to time with participation of StCBs/DCCBs for capacity building. It has therefore, been decided to introduce Automatic Refinance Facility mode of refinance under SRS-PACS as MSC scheme.

Under ARF mode, StCBs/DCCBs are expected to appraise and finance the project under PACS as MSC scheme at their level. StCBs/DCCBs can then claim the refinance from NABARD based on a declaration (Drawal Application) indicating the details of the project financed and amount disbursed to the PACS.

PACS can be supported for setting up of agro-storage centre, cold storage, agro service centres, agro processing centres, agri-information centres, agri transportation & marketing facilities, consumer store & other misc. activities.

3.18 Skill Development Schemes related to agriculture and non-agriculture

• Programmes under Punjab Skill Development Mission (PSDM)

The Punjab Skill Development Mission was constituted in September 2014 by the State Government in line with the National Skill Development Policy. PSDM acts as an integrated mission which combines the efforts of various State Departments in achieving the skill development target of the State.

The primary objective of Punjab Skill Development Mission is to enable a large number of youth to take up industry-relevant skill training that will improve their theoretical as well as practical knowledge and help them in securing a better livelihood. Under PSDM, 21700 candidates have been trained and 7500 candidates have been facilitated for placement.

State is also implementing the following Central Government Sponsored Schemes for skill Development:

- **Deen Dayal Upadhyaya Gramin Kaushal Yojana (DDU-GKY)**-4835 candidates have been trained under the scheme and 1212 candidates have been appointed/ placed.
- **National Urban Livelihood Mission** -currently 45 Training Centres are operational across the state, mostly located in urban/ semi urban areas and catering to the urban poor. More than 10000 candidates have been trained and around 2500 candidates placed in wage or self-employment.
- **Pradhan Mantri Kaushal Vikas Yojana – II**
- **Asian Development Bank assisted Skill Development Programme** - Punjab Skill Development Mission has collaborated with Punjab Heritage and Tourism Development Board to start train candidates in trades like Phulkari, Punjabi Jutti, Dari/ Khes making, Wood Inlay, Crochet, Fabric Painting and Terracotta in different districts of Punjab.
- **Capacity Building under the Border Area Development Programme** - PSDM has taken up administration of capacity building component in the six districts of Punjab adjoining the International Border, viz. Ferozepur, Tarn Taran, Fazilka, Gurdaspur, Amritsar and Pathankot.

Major Skill Development Centres in Punjab

- The Punjab Government has set up 05 Multipurpose Skill Development Centers (MSDCs) at Ludhiana, Jalandhar, Amritsar, Bathinda and Hoshiarpur, which have capacity to train 12000-15000 students annually. The Multi Skill Development Centres will provide

training in various trades such as Apparel, electrical, automotive & engineering, telecom, banking & financial services, healthcare, transport logistics and warehousing, hospitality, food processing and retail. A further 22 Multipurpose Skill Development Centers (one in each district) are planned to be established with the help of National Skill Development Corporation (NSDC).

- 03 Health Sector Skill Development Centres (HSDCs) have also been set up at Patiala, Amritsar and Faridkot, The Health Sector Skill Development Centres will provide training in various trades such as General Duty assistant, Home Health aide, Dental Assistant, Emergency Medical Technician, vision technician, diabetes educator and dietician assistant. The objective is to provide professionals at regional as well as international level catering to the health sector.
- The State Government has also taken the initiative of setting up of 200 Rural Skill Centres to provide skill training at the doorsteps of rural youth, with at least one Centre in each Block.
- The State Govt has established Punjab Ghar Ghar Rozgar and Karobar Mission (PGRKAM) to enhance the employability of youth through skill training, counselling and vocational guidance. The Punjab Ghar Ghar Rozgar Portal is a platform for both job seekers and employers.

NABARD initiatives on Skill Development

- NABARD extended support for skill development programmes to NSIC, RSETI, RUDSETI & other eligible agencies as per NABARD guidelines.
- As on 10th December 2023 total of 02 nos. of Skill Development Programs (SDPs) have been sanctioned by NABARD during current fiscal thus extending cumulative sanction to 55 batches in past 03 years
- NABARD has included new age training programmes on ICT, IoT, heavy vehicle repairing, logistic skills, engineering technology, creative art & fashion, etc. under the revised guidelines.
- NABASKILL - digital platform - end-to-end solution for Skill Initiatives of NABARD- submission of applications, settlement of claims, monitoring/tracking, placement and building candidate wise data- Transparency- NABASKILL 2.0 launched.
- **Micro Enterprise Development Programme (MEDP):** NABARD has been supporting MEDP since 2006, to provide skill training to the members of matured SHGs to enable them to take up income generating livelihood activities. The main objective of the programme is to enhance the capabilities of participants through appropriate skill up-gradation in existing or new livelihood activities in farm or non-farm activities and enrich knowledge of participants on enterprise management, business dynamics and rural markets. Cumulatively, 5.85 lakh SHG members have received training countrywide through 20,174 MEDPs with total grant support of 52.39 crore as on March 31, 2023. In Punjab, 22 trainings conducted during 2022-23 with financial support of ₹ 21.91 lakhs.
- **Livelihood and Enterprise Development Programme (LEDP):** The programme was initiated on pilot basis in 2015 with a view to create sustainable livelihood among matured SHG members and to obtain optimum benefit from skill up-gradation. LEDP is a holistic intervention mechanism conceived to take care of the entire ecosystem required for livelihood promotion in both farm and off-farm activities under project mode in clusters within contiguous villages. Cumulatively, 2.67 lakh SHG members have been supported countrywide through 2149 LEDPs as on March 31, 2023 with grant support of 106.10 crores. In Punjab, 05 trainings conducted during 2022-23 with financial support of ₹ 39.065 lakhs.
- **Skill Development Programmes:** NABARD has developed a digital platform “NABASKILL” (www.nabskillnabard.org) enabling complete digitisation of skill interventions. In Punjab, during 2022-23 total of 8 trainings conducted, cumulating to 24 for the past three years with a total number of 1385 participants trained.

3.19.1 Scope for promotion of Organic Farming:

Today, after around 60 years of intensive agriculture, Punjab has grown economically, but stares at an agro-ecological crisis. There is excessive use of agro-chemicals causing environmental toxicity, high dependence on wheat-rice crop cycle impacting biodiversity and soil health, and costly machinery which made farming easier but also led to high indebtedness. Overemphasis on wheat-rice rotation has made the ecosystem unstable not only in terms of groundwater depletion. Diseases and pests can also spread easily through swathes of mono cropped fields with no biological controls.

Punjab accounts for 4% of the country's cropped area but for 8% of all chemical pesticides used. Punjab also has one of the highest chemical fertiliser consumption rates in India at 213 kg per hectare, compared to the national average of 128 kg per hectare. Further, there is an imbalance in fertiliser use. Against the desirable ratio of 4:2:1 of nitrogen, phosphorus and potassium, Punjab's ratio is as high as 31:8:1. Excessive use of nitrogenous fertilisers in Punjab also lead to higher levels of nitrates in the state's groundwater. Therefore, Punjab needs to move away from chemicals in farming.

Status

As per the data reported by APEDA as during 2022-23 total area under organic certification process (cultivated area+ Wild collection) is 73,772.38 ha (2022-23). Most of the organic farmers are in selected districts of Punjab such as Ludhiana, Patiala, Bathinda, and Muktsar.

India produced around 2.95 million tons of certified organic products in which Punjab has contributed 6423.70 MT.

Initiatives by State Government

- To promote organic farming in the state, the Punjab government has undertaken a pilot project under which residue-free basmati with minimal or no usage of chemicals has been cultivated in Chogawan block of Amritsar district
- To cater to the needs of organic farmers, Punjab Government is implementing various schemes viz; National Project on Organic Farming (NPOF), Parampargat Krishi Vikas Yojna (PKVY), National Mission for Sustainable Agriculture (NMSA) have been formulated for enhancing agricultural productivity especially in rainfed. Government of Punjab through Punjab Agri Export Corporation Limited (PAGREXCO) is implementing the Organic Program by providing institutional support to the organic farmers of the State.
- PAGREXCO also buys organic produce directly from its certified organic farmers at remunerative prices and markets the produce for the domestic and foreign market. They also help farmers in getting a "dedicated space allocated in government marketing yards/offices in cities for organic produce". PAGREXCO is running an 'Organic Hut' in Chandigarh.

Challenges

- There is output-marketing problems.
- Inadequate supporting infrastructure.
- High input costs. Farm households in Punjab are among the most heavily indebted in India.
- Organic (and natural) farmers do not get assistance, which chemical farms get in the form of indirect subsidy on fertilisers and farm machines or research and extension services.
- Greater need for manual labour and the work is also very intensive. From treatment of seeds to preparation of green manure, optimum selection of crop pattern, regular monitoring, de-weeding, mulching, composting and careful harvesting are just some of the basic requirements for chemical-free farming. This [labour-intensive process] makes it difficult to find people who are willing to work in these fields.
- Big machinery does not suit organic farms because these usually grow mixed crops while most machines are designed for mono-cropped wheat and rice fields. There is also a chance of contamination

In Punjab, NABARD is also implementing following projects for promotion of organic farming:

- Local Organic Farmers Group (LOFG) in Gurdaspur and Pathankot districts.
- Project sanctioned to Punjab Agricultural University for promotion of Organic kitchen gardening in SAS Nagar and Rupnagar.
- FPOs viz. Bhogpur FPCL and Agrizone FPCL supported under various NABARD funds are involved in organic farming.
- Projects on Integrated pest management sanctioned to PAU and GADVASU for reduction of pesticide use in sugarcane, basmati rice, and cucurbits.

3.19.2 Promotion of digital technological innovations in Agriculture

Introduction: Digital agriculture is the integration of digital technology into livestock and crop management and other processes related to cultivating and managing food resources. The term is often used to describe the different uses for the variety of data collected in this sector. It helps in technological integration and works throughout the supply chain, from seeds or farm animals to the consumer.

Status of adoption of Digital farming Technologies in Punjab

- The various digital agricultural technologies are currently in a demonstrative stage as far as their adoption by the farming community at large in the state is concerned. The same is at present restricted to demonstrative plots of the SAUs, KVKs, Research Stations, pilot projects of multilateral funding agencies, small pockets of individual agri-entrepreneurs who have deep pockets and have access to these capital intensive technologies at individual capacities level.
- Large scale commercial application through an enabling ecosystem/ framework through agri startups is yet to set in. The absence of large-scale governmental support system and for that matter that the banks in the state are at an infantile state regarding financing of digital technological systems.

Prospects in Punjab

- Need for initiation of precision farming technologies for resource conservation and attending to climate risk mitigation and adaptation principles. The adoption of digital agricultural practices viz. IoT, AI, ML etc. can help in reduction of the usage of the costly agricultural inputs viz. hybrid seeds, fertilizers, weedicides, insecticides and thereby conserved the soil fertility, use of irrigation water resources. Use of the stochastic modelling and climate risk sensitivity analysis can help in attending to the problems of climate change viz. weather and crop advisory as well as development of insurance products for enhancing the efficacy of climate adaptation and mitigation measures at grassroot level.
- Help in achieving the SDG goals-12 and 13 i.e. responsible production and consumption as well as climate action.
- Use of AI technologies in effective management of animal health and economic outputs. The use of AI and sensor technology can help capturing the entire ecosystem of animal health and thereby take precise decision for maximization of returns.
- Use of AI, ML data analytics in price discovery of agricultural commodities at the commodity exchanges. The concept of deep dive and data analytics can help the farmers to take informed decision regarding crop planting based on export prospects, market intelligence report, market prices based on futures trading / options etc. thereby enhancing the prospect of higher returns. The same can also help in market linkage of the SF/ MF and help them move up the agri value chain. The same can also help in ushering in the state led initiative for agri exports and import substitution.
- The technology firms such as AGnext technology, A2P and MOOOFARM are venturing into agriculture landscape using newer business models. The AGnext brought digital agriculture solution for farming community for improving quality, yield cost optimisation, and ensuring food traceability.

Way Ahead

- Financing of Agristartups upto an input cost of ₹50 crores by Banks and FIs have been now permitted by RBI to be considered as part of Priority Sector Lending.
- Promotion of Drone technology for seeding, spraying, dusting, Ariel surveillance of crop losses/ damages, mapping etc. These krishi drones may be made available to the FPOs/ SF/MFs through the CHCs or the agri startups working at the grassroot level. Dept. of Agriculture, Dept. of Agril. Extension of GoP have to incentivize the schemes by adopting suitable policy guidelines.

3.19.4 Promotion of Fintech companies and NBFCs/MFIs in Punjab

Introduction: In FY 2023, India achieved ₹21.7 lakh crore in Ground Level Credit to Agriculture, which exceeded the ₹ 18.5 lakh crore target by 17%. Even so, the present level of formal credit dispensation hardly touches one-fourth of the rural household indicating yawning gap in credit outreach (exclusion) which needs to be bridged. It is this gap that the agriculture fintech startups, MFIs and NBFCs are trying to fill.

Agri-Fintech Startups: Agri Fintech Startups at the intersection of the agriculture and financial technology provide banking, finance, insurance, logistics, retail, telecommunication and marketing services to the rural agriculture household. They use the technology to improve the farm and farmer economics through value chain financing. Owing to the enormous size and potential, the agri-fintech startups attracted funding of USD 66 million in FY21 as per Venture Intelligence.

Agri-Fintech startups use smart data interventions, market linkages, partnership and phygital strategies to scale up lending to farmers, FPOs and value chain participants. Startups such as Agrifi, Gray Matter Technologies, Arborerum, IBISA etc. use unique models and algorithms to finance agriculture credit and agriculture insurance products.

Agri-Fintech in post-harvest management: Post-harvest agri tech startups such as Arya.org, Origo, Star Agri, NCML, NBHC and Ergos provide warehousing facilities along with credit. They also add digital layer to their physical infrastructure to digitize process of stock arrival, weighing, storage, warehouse receipts etc.

Started in 2013, Arya.org is one such startup, which prevent the farmer from distress sale during glut in the market and help them reap higher returns a few months later. Arya.org provides warehousing facilities close to farm gate. They have built approximately 10,000 warehouses across 25 states. Farmer can search for the nearest warehouse using their mobile application and apply for loan. The ticket size for loan is ₹3-5 lakh for individual farmer and ₹25-27 lakh per FPO. The loan is secured against collateral of commodity. They also help farmer connect with sellers to whom the farmer can also sell the grain. The startup has been registered as an NBFC.

Agri-Fintech Supported by NABVENTURES:

Jai Kisan Agri Fintech: Jai Kisan is one of such startups, which has been funded by NABVENTURES, a subsidiary of NABARD. It enables the individual farmer and farming enterprises to purchase farming equipment at an interest rate of 8% to 24%. Loan is given only against productive assets, which can be repossessed in case of default. The data collected helps build credit score of the farmer or farming enterprise. Jai Kisan has successfully crossed \$1Billion commercial transactions and has NPA of less than 1 percent.

Unnati agri-Fintech: Unnati is an agri-fintech startup operational in Punjab state since 2017. It addresses the gap in credit, marketing, quality input and guidance needed to farmers through data driven decision making, easy access to credit and providing better market linkages through its more than 20,000 uStores in all the major stores. It is the one stop solution for farmers, has associations with prominent brands to ensure steady supply of high quality inputs. The startup is also funded by NABVENTURES.

NBFC-MFIs: As per Internal Working Group on Agriculture Credit chaired by Sh. M K Jain, MFIs have evolved as a significant segment for the rural credit market exhibiting a variety of business models in recent years. Post unified Andhra Pradesh crisis in 2010, the Reserve Bank of India issued guidelines for the lending operations of MFIs based on the Malegam

Committee recommendations. A new category of NBFC–MFIs was introduced subject to satisfying conditions, viz., the capital to be employed, lending to members, cap on interest rate to be charged and margin to be retained, etc. As the loan extended to the MFIs by banks qualify for priority sector lending, subject to fulfilment of conditions, other MFIs also strove to follow these guidelines. The regulatory guidelines on NBFC-MFIs and inclusion of loans to MFIs by banks under priority sector lending guidelines resulted in phenomenal growth of MFIs during the period 2013 -2019.

Midland Microfin Limited (MML) is the first Punjab based Microfinance Institution (MFI), having its Head Office at Jalandhar, which commenced operations in the microfinance segment in 2011, and has been working towards financial & social empowerment of women by way of extending small business loans to progressive poor women entrepreneurs through its branches in Punjab & Chandigarh. MML is providing finance to progressive rural women with low income through JLG mode to promote sustainable source of livelihood.

Conclusion: Both Fintech and NBFC-MFIs have witnessed increase in their share of credit disbursement in the recent years. This increase corresponds to filling of the gap in the formal credit disbursement for agriculture and rural sector. Use of technology and new models of disbursement is very critical for further growth in the sector.

Any other state specific relevant issues of importance

Issue: Stagnant GLC flow to the Priority Sector and declining trend in investment credit operations by banks in the state

There is declining trend of investment credit for Agriculture in Punjab. This can be corroborated from the fact that GLC flow for ATL operations in the State has decreased from ₹17351 crore during FY 2020-21 to ₹16690 crore during FY 2021-22 thereby recording a Y-o-Y decrease of ₹360 crore (-2.07%).

Low GLC under Investment Credit by Cooperative Banks and PGB: Punjab has well established infrastructure in agriculture and high level of farm mechanization. Therefore, scope for farm mechanisation in the state is limited. DEDS and NLM subsidies are not available from Govt. of India, which restricts credit flow under animal husbandry activities. These factors ultimately lower the investment credit uptake in the state especially by DCCBs and RRB.

Issue: Reduction of Post-Harvest Losses– Need for Support for PHM infrastructure facilities

Punjab being a major contributor of paddy and wheat (31% and 21% of the total procurement of wheat and paddy during 2021-22) to the Central pool, therefore there is an additional requirement for scientific storage of food-grains for preservation of its nutritional qualities as in the absence of the same there is approx. 30-40% wastage of food grains. Accordingly, NABARD has partnered with the State Govt. Agencies for effective PHM and Warehousing construction activities. Incidentally, the Govt. of Punjab in its State Budget for FY 2022-23 has made a budgetary allocation of ₹56 crore for setting up godowns by MARKFED in 13 locations under NABARD assisted new project for storage of central pool wheat stocks. Similarly budgetary provisions worth ₹400 crore had also been made by the State Govt. to provide Govt. Guarantee support worth ₹400 crore to MARKFED for raising loan from the Capital Markets for Moong procurement during KMS –FY 22.

NABARD, Punjab RO had also sanctioned a TL worth ₹206.63 crore to PSWC under WIF for Project for Modernization and upgradation of 133 warehouses at 104 locations in Punjab during FY 2021-22.

Issue: Support for Value Addition in Agriculture-Food Processing Sector

Value addition in agricultural commodities has a cascading effect on income realization by the farmer producer. Accordingly, NABARD had supported the State controlled entity i.e. Punjab Agro Industries Corporation for setting up a Mega Food Park at Ladowal in Ludhiana District with term loan of ₹27.10 crore. The food park spread over 1000 acre has common facilities which can be accessed by the minor food processing units in the form of plug-and-play-infrastructure mode.

The Mega Food Park has provided backward as well as forward linkages to the food growers across 12 districts of Punjab and has created direct as well as indirect employment to 12,000 persons.

Issue: Weak Financial Health of PSCADB:

The weakness of the grassroots level institutions of the LT Coop. Credit Structure i.e. PADB in terms of weak recovery of outstanding loan, rising NPA, poor Internal Checks and Control System (ICCS) and supervision by the PSCADB has now transgressed to PSCADB. There is a declining trend in monthly recovery which had increased the probability of credit default risk of the bank. This can be corroborated from the fact that the monthly recovery %age at PADB level on a Y-o-Y basis had shown a decreasing trend and the same had decreased from 18.48% (Aug-2021-Sept 2021) to mere 1.42% (August 2022 –Sept 2022) period. The bank has had to resort to seek “Grant in Aid” from Govt. of Punjab worth ₹ 625.00 crore since January 2022 to repay its dues to NABARD till 31.07.2022. The agency had also resorted to borrowings from other higher ranked FIs/agencies in order to meet its liabilities.

Issue: Dwindling Ground Water Table due to over exploitation of Ground Water (GW) Resources-need adoption of micro irrigation techniques and adoption of crop diversification practices

Against an annual Ground Water draft of 31.16 BCM, the annual ground water availability is only 21.44 BCM leading to negative draft of 10.22 BCM annually. Moreover, as per the latest CGWB report 103 out of 138 blocks in the State are over-exploited, thereby limiting further development of GW resources. The indiscriminate use of water especially for cultivation of water guzzling paddy crop further exacerbates the situation as the Ground Water Table (GWT) is decreasing @ more than 1.00 meter annually.

NABARD Punjab has impressed upon the State Govt. To promote Micro Irrigation techniques and principles in a big way to improve water conveyance as well as water use efficiency. NABARD has sanctioned loan of ₹150.00 crores under Micro Irrigation Fund (MIF) to Govt. of Punjab for adoption of micro-irrigation technique in over 25000 ha. of cultivable land. An amount of ₹13.04 crore has been released to the State Govt till 30th September, 2022.

NABARD had provided financial assistance worth ₹51.30 crore from RIDF to the GoP under the project for “Reclamation of water logged areas in 03 districts of Punjab” for rejuvenating agricultural production systems by reclaiming seasonally or perennially waterlogged areas. The project has helped in reclamation of 7,551 ha of cultivated land cultivated by 6,090 farmers. It has also resulted in increase in crop productivity (approx. 18% for paddy and 52% in wheat). The project has been acknowledged by UNDP’s Sustainable Development Goal Coordination Centre (SDGCC) by “Sustainable Development Goals Action Award” under the category ‘Integration, Convergence, joint Action and Holistic Solutions Approach’.

NABARD has also piloted projects for crop diversification in collaboration with KVKs and NGOs. Some of the important projects areas under:

Project on Crop Diversification through vegetable, fodder and oilseed crops in Abohar, Fazilka District: The project sanctioned in December 2022 with grant support of ₹23.09 lakh for a period of 02 years. Diversification of crops in 720 acres involving around 360 farmers spread over 20 villages where vegetables viz. Carrot, Onion, Garlic and cauliflower, mustard, Fodder (maize, jowar etc.), will be grown. Around 1200 farmers will be getting the benefit of extension services and trainings under the project. The implementation of project is likely to provide income of about 0.75 lakh to 1.00 lakh per acre to the farmers.

Project Direct Seeding of Rice using Tar Wattar technology to PAU, Ludhiana: With an outlay of ₹ 24.73lakh, spanning 02 years, the project is covering demonstration, farmer training and impact assessment in 200 acres each year in a total 12 districts. Besides demonstration, the project involves purchasing of 03 lucky seed drills (needed for DSR). The Tar wattar DSR technology is different from normal DSR (dry sowing). In this technique, pre-sowing irrigation is applied in a levelled field, field is prepared in tar wattar condition (good soil moisture when it is feasible to run tractor but soil does not stick to tyres) and seed sown immediately. Further, irrigation is applied at about 21 days of sowing. Weedicides are applied along with the direct seeding of rice. The DSR technique is becoming popular and an area of 6 lakh hectares was reported to have been covered during the kharif season (2021) in Punjab. Punjab Government has also announced ₹1500 per acre incentive to farmers for adopting DSR method.

Impacts observed: (Kharif 2022)

- Water saving of around 10-20%
- Yield of Tar wattar DSR paddy crop was at par with puddled transplanted rice
- **Avg. yield of Tar-wattar DSR: (parmal rice 29.6 qtl/acre) & (basmati rice: 24.8 qtl/acre)**

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Zn and Fe bio fortified aromatic rice: potential contribution for dietary mineral and human health by Punjab Agricultural University, Regional Research station, Gurdaspur. NABARD, Punjab RO has sanctioned a 02-year project with grant support of ₹09.36 lakhs to the Regional Research station, Gurdaspur in August, 2022. The project aims to promote agronomic bio-fortification of aromatic rice with foliar application of Zn and Fe. The impact of foliar application on the nutritional quality of aromatic rice through aromatic bio-fortification will be accessed. Capacity building programs to promote agronomic bio-fortification will be organised in the region. A total of 60 farmer will practice the foliar application in 0.5 acre each. Enhancement in the Zinc and Iron content of basmati rice by foliar applications of Zn and Fe has been observed from the 1st year report. Maximum grain yield was observed under treatment- (NPK+ 0.5% foliar spray of ZnSO₄.7H₂O at pre-anthesis stage + 0.5% foliar spray of ZnSO₄.7H₂O at post anthesis stage).

Agronomic evaluation & field demonstration of millets cultivation to enhance livelihood security and crop diversification in Punjab: An amount of ₹ 8.99 lakh sanctioned to Regional Research Station (PAU), Gurdaspur for the project of two and half years duration. The project envisages the agronomic evaluation of 04 different millets to find best fit into existing cropping system or for low fertility soils of region (estimation of production potential of millets in marginal land of Majha region of Punjab (Pathankot, Gurdaspur, Amritsar & Tarn Taran). Further, popularization of millets through field demonstration & capacity building is also part of the project. A total of 120 farmers with an area coverage of 0.5 acre per farmer are being covered under the project.

Issue: Ill effects of Climate Change–need adoption of Natural Resource Management techniques.

Against the abovementioned backdrop, NABARD as NIE of NAFCC has partnered with institutions of State Govt. Of Punjab for implementation of projects for Climate Change and Adoption and Mitigation measures. Some of the important steps undertaken are as under:

Natural Resource Management using Watershed Approach: Punjab's first Watershed Development Project was sanctioned in November 2020 in Bari Village of Rupnagar District. Under drainage line treatment, construction of gully plugs, Loose Boulder Check Dams (LBCDs), gabion structures, staggered trenches etc. and Area treatment intervention involving plantation of 2,000 saplings, percolation tanks, etc is being done over an area of 1000 hectare under Full Implementation Phase (FIP) of the project which was sanctioned in March 2023.

Integrated Water Management Scheme (IWMS) project was sanctioned in 5 villages of Moga district for reclamation of village ponds. The IWM works has been completed in two villages and the same has been initiated in the remaining 03 villages. The Soil and Water Conservation Department informed that water quality in rejuvenated ponds has improved to irrigation levels in the 02 ponds. Accordingly, farmers' consent is being explored for convergence of the project with RKVY through the help of Soil and Water Conservation Department, Moga.

Amelioration of Barren undulated land to cotton-wheat crop systems through micro irrigation using saline water in semi-arid region of Punjab: Experiments on cotton-wheat cropping system to develop suitable agronomic practices under undulated barren land through micro irrigation. The pilot project is being implemented to bring lands that have turned barren, either due to lack of irrigation facilities or due to undulated sandy soils, in south-western region of Punjab under cotton & wheat cultivation.

Deciphering the role of Artificial Intelligence (AI) in dairy farms at border area of district Tarn Taran, Punjab, India by KVK, Tarn Taran, GADVASU, Ludhiana: The project has been provided with grant support of ₹ 24.99 lakhs. Under the project 250 AI Neck Belt systems will be purchased by KVK, Booh, Tarn Taran from IIT Ropar. The AI system will help provide complete profile of animal data in terms of eating, rumination, activity, inactivity period and individual eating time. The beneficiary farmers can harness the benefits viz. monitoring the activities of the dairy animals, detection of mastitis, other disease and disability, accurate and on time heat detection and developing the smart cow houses by using AI empowered neck-belt. 50 neck belts have been deployed in 01 dairy farm, remaining are expected to be completed by December 2023.

Issue: Need for skill development of the rural youth for providing sustainable livelihood and employment opportunities and reaping the demographic dividend

NABARD's Developmental Intervention Measures in the Rural Non-Farm Sector Skill Development Programmes:

Under Skill Development Programmes Punjab Regional Office sanctioned 8 training programmes with cumulative sanction of 48.13 lakhs in FY 2022-23. For the benefit of youth from border area, a Skill Development training programme sanctioned to CIPET, Amritsar. The programme is a certification course on plastic injection moulding for a period of 03 months benefitting 30 participants.

Chapter IV**Potential Credit Outlay****4.1 Credit Potential for Farm Sector****4.1.1. Crop Production, Maintenance and Marketing**

Punjab has played a dynamic role to ensure food security and self-sufficiency in food grains across the Nation. Its share in the central pool of rice and wheat was 21.18% and 30.50%, respectively in 2021-22. State's GSDP is expected to grow at 6.08% in 2022-23, and the agriculture sector in Punjab is likely to register a growth rate of 3.70%. Although Agriculture sector's share in Gross State Value Added (GSVA) has declined over the years, the sector accounts for 28.94% of the total GSVA (AE 2022-23) and offers employment to 25.54% of its workforce (2020-21).

Area under Food grain production:

The acreage under major crops in Punjab (000 ha):

Table 4.1: Area under major crops in Punjab ('000ha)

Crop	2018-19	2019-20	2020-21	2021-22
Paddy	3103	2920	2928	2969
Wheat	3520	3521	3530	3525
Other cereals	117	121	114	111
Pulses	30	34	32	63
Total Food grains	6769	6596	6604	6668
Oil seeds	40	40	38	49.5
Sugarcane	95	91	89	86.8
Cotton	268	248	252	256

(Source: CMIE, States of India)

Food grains production:

The production of food grains in Punjab has increased marginally over the last few years as summarised below:

Table 4.2: Crop production in Punjab

(‘000 tonnes)

Crop	2018-19	2019-20	2020-21	2021-22
Paddy	12821	11779	12783	12885
Wheat	18261	17615	17186	14871
Food grain	31532	29857	30418	28252
Pulses	28	29	31.1	76
Sugarcane	7774	7302	7487	7131
Cotton	1222	1206	1023	1120

Despite the total cultivable area of the State being only 3% of the net area sown in the country, Punjab ranks 7th as gross producer of wheat in the world and it generates third largest marketable surplus after Canada and Australia, which is about one tenth of the global trade in wheat. In case of rice, its market surplus is 2nd only to Thailand at the global level. The State, alongwith Haryana, continues to stand apart from other States in terms of foodgrain production. The State produced 205.24 lakh MT of rice and 165.67 lakh MT of wheat during 2022-23.

Productivity of Foodgrains

The expansion of irrigation facilities, use of chemical fertilizer, pesticide, high yielding varieties, mechanization, etc, in Punjab over the years has given the highest ranking to the State in the country in terms of productivity of major crops. The decadal crop-wise yield fluctuation trend in the State, as shown below, indicates that the productivity of major crops like wheat and rice has stagnated leading to increase in cost of production resulting in reduced profitability:

Table 4.3: Yield of major crops in Punjab

Crops	(kg/ha)				
	2017-18	2018-19	2019-20	2020-21	2021-22
Wheat	5077	5188	5003	4868	4216
Paddy	4366	4132	4034	4366	4340
Maize	3708	3625	3581	3665	3930
Pulses	876	938	872	971	1213
Sugarcane	83580	81828	80242	83841	82153
Cotton	749	775	827	691	437

(Source: CMIE, States of India)

Ground Level Credit Flow in Agriculture:

(In Crore ₹)

Sector	2020-21			2021-22			2022-23		
	GLC	Share (%)	Growth (%)	GLC	Share (%)	Growth (%)	GLC	Share (%)	Growth (%)
Crop Loan	72339.49	80.65	4.96	74567.68	81.71	3.08	69418.35	69.40	-6.90
Agri. Term Loans	17351.21	19.35	-13.59	16690.24	18.29	-3.81	30615.77	30.60	83.43
Total Agri. Credit	89690.67	100.00	0.78	91257.92	100.00	1.75	100034.12	100.00	9.61

Challenges in Agriculture in the State

It is important to note that the growth in recent past as well as during the last three decades may be attributed to adoption of innovative technologies. The impact of technology has slowed down mainly because of soil fatigue resulting in decline in fertilizer use efficiency.

The state, which was torchbearer of Agriculture Revolution in the Country, is today facing one of the tough challenges mainly because of the following factors:

- **Mono-cropping:** The dominance of double mono-cropping of wheat and paddy cultivation has led to unsustainable water use over the years due to increasing demand for irrigation, environmental degradation due to excessive use of fertilizers & chemicals and deficiency of micronutrients in the soil in a span of 45 years due to intensive agriculture and resultant stagnating productivity.
- **Pricing and Procurement of Agricultural Produce:** Punjab contributes considerably to the central pool of Wheat and Rice. Around 92.5% of Rice and 88.9% of the wheat produced in the state were procured by government agencies in Punjab in 2021-22. Assured market coupled with MSP for most of the farmers' produce works as an incentive for the production of just wheat and paddy. The Food Procurement Policy that worked as a catalyst for growth of agriculture in Punjab has now become detrimental to the sustainability of its agriculture. Heavy commission/levies/cess on the purchase of wheat and rice, approx. 14.5%,

makes the food processing industry reluctant to buy the raw material from Punjab. There have been instances of flour millers from Punjab buying wheat from other states. Revenue from these taxes/levies accrues to state government. There is an urgent need to rationalise the structure of taxes and levies so that the private sector procurement may increase competition in the market for the benefit of farmers.

- **Power for Agriculture:** Power-pricing policies played an important role in augmenting production during the green revolution. The supply of electricity for agriculture is free and its share in total electricity consumed in the State has remained high consistently. This free power has increased the subsidy burden and led to inefficient use of power. The increased subsidy burden has adversely affected the financial health of the state on one hand and flood irrigation using free power has depleted the groundwater on the other.
- **Fertilizer Consumption:** The Government has encouraged use of chemical fertilisers by heavily subsidising them. Fertiliser consumption has steadily increased in Punjab and stood at 231 kg/ha of GCA in 2016–17, which is very high compared to all-India fertiliser consumption of 130.8 kg per ha of GCA in the same year. It initially contributed to an increase in productivity in Punjab. But now, it has become a vicious cycle of higher use of fertilisers and decreasing soil fertility. The extremely low price of urea has resulted in the imbalanced use of fertilisers, which has affected the fertility of land. The NPK ratio in Punjab is 31.4:8:1 against the generally recommended ratio of 4:2:1 (and a national average of 7:3:1), which has negatively affected crop productivity. In order to improve yield, farmers are pumping more nitrogen into the soil, thus degrading the soil.
- **Higher Cost of Production:** The above factors lead to higher input cost of rice and wheat to maintain current levels of production. Higher energy is required to lift ground water (as water tables are going down) and higher doses of fertilizers and pesticides are needed to counter the impacts of declining soil fertility, pests and diseases, respectively. Larger investments in irrigation are required by the farmers on account of deepening of tube wells and replacement of centrifugal pumps with submersible pumps.
- **High Incidence of indebtedness of Farmers:** As on 31st March 2023, number of KCCs were 24.92 lakhs and the corresponding amount outstanding was ₹6.27 lakh crores. The total number of operational landholdings in the State was 13.99 lakh as per the NSSO 77th Round (July 2018-June 2019), the estimated number of agricultural households are 14.67 lakh. Further, the total numbers of cultivators in the State is approx. 19.35 lakh. As on 31.03.2023 total number of outstanding KCC accounts are 24.92 lakhs. Thus, the total number of outstanding KCC accounts are 28% more than the total no of cultivators in the state, which indicates multiple financing by the banks. In Punjab KCC disbursement is around ₹85,000 per ha and at the same time KCC outstanding at All India Level is ₹22,000 per ha.
- **Risk Mitigation for Crop Failure:** In absence of any Policy of Insurance for the Farmers for Crop failure, farmers are left to fend for themselves. There is an urgent need for a crop insurance policy for farmers in the state.

NABARD Support to the State

Support under Production Credit: Concessional refinance is provided by NABARD to State Cooperative Banks (StCBs) and Regional Rural Banks (RRBs) against crop loans given by them to the farmers at 7% for crop loans upto ₹3.00 lakh. Further, a new window called Additional ST-SAO was started in FY 2016-17 for StCBs & RRBs by NABARD to overcome liquidity constraint by these banks for uninterrupted credit availability to the farmers. During 2022-23, NABARD had disbursed/refinance of ₹6786.44 crores to Punjab State Cooperative Bank and Punjab Gramin Bank in the State for production credit.

Following action points are suggested for crop production and marketing

- **Promotion of Sustainable Production Systems:** Application of integrated farm principles, implementation of sustainable practices, organic farming, green farming and environmental friendly techniques.
- **Diversification of Agriculture:** Apart from cultivation of wheat and rice, crops like vegetables, fruits, herbs, mushroom, fibre crops, oilseeds, fodder crops, medicinal, aromatic, and spice crops may be cultivated. Farmers can also diversify to floriculture, horticulture, aquaculture, animal husbandry, apiculture, and silviculture. These will provide rural employment as also supplementary income to farm household.
- Creation of adequate infrastructure for harvesting, post-harvest handling, processing, storage, quality control and assured marketing.
- Promotion of Contract Farming for better price discovery.
- Promotion of Producers' Organizations (POs) for Economies of Scale, better bargaining power and price realisation.
- Introduction of crop insurance.
- Banks to finance as per Scal of Finance.
- Banks may encourage pledge financing to avoid distress sale by farmers.

Tapping of the agri. export market by remodelling the present production system to the needs and demands of the international market.

The credit potential projection for crop loan for 2024-25 has been estimated at ₹69393.35 crore.

4.1.2 Water Resources

Though a major riparian State, having a limited share in three perennial rivers (Sutlej, Ravi and Beas), the state has successfully brought 99% of gross cropped area under irrigation mainly through groundwater exploitation. The net irrigated area during the year 2021-22 (P) is 40.95 lakh ha which accounts for 98.90% of the net sown area (Punjab - Statistical Abstract 2022).

Present Scenario and Challenges: In Punjab, Tube wells are main source of irrigation followed by canals. The net area irrigated by tube wells (more than 14 lakh in no.) was 29.36 lakh hectares during 2021-22 (P) which is around 72% of net irrigated area. High dependence on tube wells for irrigation has led to rapid depletion of groundwater in the State.

Out of total 153 assessed blocks and 03 Urban area taken for study, 114 blocks and 03 Urban Areas have been categorized as 'Over-exploited', 04 blocks as 'Critical', 15 blocks as 'Semi Critical' and 17 blocks as 'Safe'. Similarly out of 50344.68 sq. km recharge worthy area of the State, 36939.63 sq km (73.37 %) area are under 'Over-Exploited', 1742.88 sq. km (3.46 %) under 'Critical', 4599.2 sq km 9.14 %) under 'Semi-critical' and 7062.97sq km (14.03 %) under 'Safe'. Out of total 17072.71 mcm annual extractable ground water resources of the State, 13034.92 mcm (76.35 %) are under 'Over-exploited', 672.65 mcm (3.94 %) under 'Critical', 1327.68 mcm (7.78 %) under 'Semi-critical' and 2037.46 mcm (11.93 %) are under 'Safe' categories of assessment units.

As compared to 2020 estimates, the Annual Ground Water Recharge has decreased from 22.79 to 18.94 BCM and similarly, Annual Extractable Ground Water Resource decreased from 20.59 to 17.07 BCM and total current annual ground water extraction decreased 33.85 to 28.02 BCM (excluding Poor Quality 1.23 BCM). The stage of ground water extraction has increased from 164.42% to 165.99 %. The reduction in recharge is due to less rainfall, lining of unlined canals, reduced recharge from ponds & tanks and decreased extraction is due to decrease in irrigation draft and poor quality areas are not being calculated by INGRES for extraction.

The comparison of GW extraction and block categorization between 2020 & 2022 is mentioned below:



It has been observed that decreasing rainfall over the years has adversely affected the flow of water in major rivers and natural recharge to the ground water. It has reduced the availability of water in the State. Nearly 30% of the ground water is saline/alkaline (marginal to moderate) in the districts of Patiala, Moga, Ferozepur and Mansa and nearly 10% in districts of Faridkot, Muktsar, Bathinda and Sangrur, which is unsafe for cultivation and other purpose.

In the past, the stress was on exploiting the ground water resources to the maximum extent, while the current focus is on conservation and efficient use of water.

Government supported/ subsidy linked programmes: At present, the following government supported/ subsidy linked programmes are in operation in the state:

- Mission for Integrated Development of Horticulture (MIDH), with total sanctioned amount of 4976.70 for State of Punjab for FY2023-24. The scheme is being implemented through Department of Horticulture, GoP, wherein subsidy for Water Harvesting System for individual for storage of water is available.
- LTIF (Long Term Irrigation Fund) instituted in NABARD as a part of Pradhan Mantri Krishi Sinchayee Yojana (PMKSY)/ Accelerated Irrigation Benefit Programme (AIBP)/ Command Area Development (CADA), etc. The loan sanctioned as on 31 December 2022 for Punjab was 149.65 lakhs and disbursement amount was 18.09 lakhs.
- For promoting solar photovoltaic water pumping system, State Government provides subsidy through Soil and Water Conservation department.
- State Government also implements projects for Under Ground Pipe Line (UGPL), rainwater recharging, etc, through NABARD funding and individual contribution.
- In addition to these, Government Programme 'Pradhan Mantri Krishi Sinchayee Yojana' with the motto of 'Har Khet Ko Paani' has been launched. The overarching vision of Pradhan Mantri Krishi Sinchayee Yojana (PMKSY) is to ensure access to protective irrigation to all agricultural farms in the country, to produce 'per drop more crop', for bringing much desired rural prosperity.

GLC Flow to Water Resources:

(In Crore ₹)

Sector	2020-21	2021-22	2022-23
Water Resources	147.91	155.14	214.04

Potential for financing under Water Resources has been estimated at ₹1826.75 crore for financial year 2024-25 based on the emerging needs of minor irrigation activities such as drip and sprinkler irrigation systems, shallow tube wells, UGPL, rain water harvesting, etc. in the state.

Suggested Action Points:

- Solar Pumps may be promoted in groundwater “Safe” areas along with suitable borewell recharge structures to promote sustainable exploitation of groundwater and promote recharge of groundwater.
- Suitable Climate Mitigation and Adaptation measures as envisaged in State Action Plan on Climate Change may be taken up through regular funding or National /International Climate Funding options. State Govt. Departments may also prepare suitable proposals for consideration under National Adaptation Fund on Climate Change/Adaptation Fund/Green Climate Fund.

3.1.3 Farm Mechanisation

Farm Mechanization is one of the most important elements of modernizing agriculture. It leads to increased production and productivity, reduction in drudgery, reduced losses during harvest, etc. The level and appropriate selection of agricultural machinery have a direct impact on land and labour productivity, farm output and income, environmental safety and quality of life of farmers. Studies show that the use of improved implements has the potential to increase productivity by up to 30% and reduce the cost of cultivation by up to 20%.

Farm Mechanization and Agriculture production has a strong and mostly positive correlation. The following activities are presently considered for financing: (1) Tractors - New as well as second hand, (2) Power Tillers and (3) Other agriculture Implements like sprayers, threshers, laser land levellers, seed planter, combine harvester, boom sprayer and primary & secondary tillage implements etc.

Present Scenario

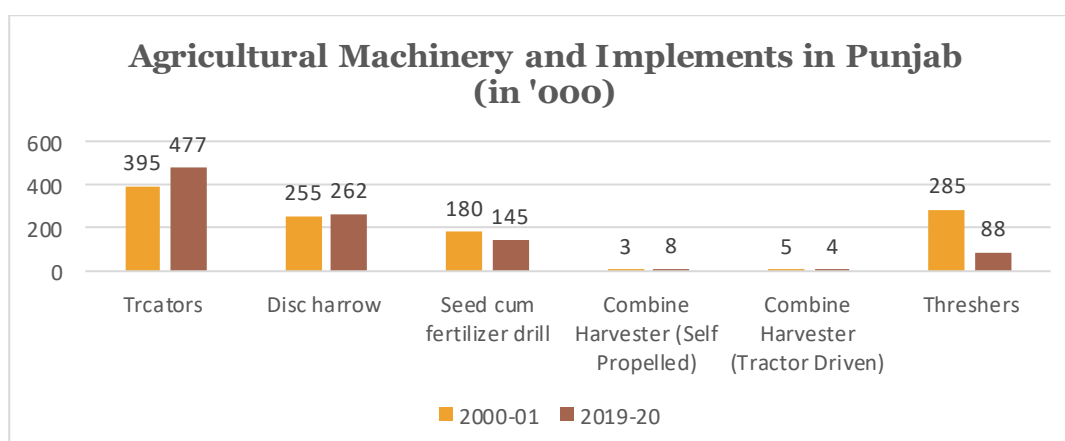
Punjab is one of the highest mechanized States in the country. The state has the highest farm power availability (3.50 kw/ha) in India compared to a national average of (2.49 kw/ha). Progress of Farm Mechanization (FM) in the State of Punjab is as follows:

Table 4.4 Agricultural Machinery and Implements in Punjab

(Number in '000')

Type of farm machine/equipment	2000-01	2019-20
Tractors	395	477
Disc harrow	255	262
Seed cum fertilizer drill	180	145
Combine Harvester (Self Propelled)	3	8
Combine Harvester (Tractor Driven)	5	4
Threshers	285	88

(Directorate of Agriculture and Farmers' Welfare, Punjab)



State Government initiatives in Farm Mechanisation:

State Government has allocated ₹350.00 Crore for Sub Mechanisation on Agriculture Mechanism for checking Stubble Burning Practices and to provide equipment and machinery. To promote agro-diversification and mechanisation to increase farmers' income, Department of Agriculture and Farmers Welfare is working on a strategy to boost the initiative of providing state-of-the-art machinery to the farmers at subsidised rates.

Subsidy is being provided on the purchase of paddy transplanters, D S R drill, potato planter (automatic/semi-automatic), tractor-operated boom sprayer, oil mill, mini processing plant and nursery seeder.

Department of Agriculture and Farmers Welfare is also providing subsidy on machinery for Crop Residue management (CRM) to individual as well as registered group of farmers. The details are mentioned below:

- Individual farmer- 50% of the cost of machinery or subsidy as determined by the department, whichever is less.
- The registered farmer group- 80% of the cost of machinery or subsidy as determined by the department, whichever is less.

Areas of Concerns for the State of Punjab:**Overcapitalization, underutilization and environmental concerns –**

- Presently one tractor for every 09 ha. of net cultivated land of the state compared to a national avg. of 01 tractor per 62 ha.
- Nearly 16% of the total tractors of India are operating in the State.
- The per annum avg. use of 450 hrs. of tractors in Punjab is much lower than minimum 1000 hrs. of productive use prescribed as per Standard Operating Procedures.
- There is over capitalization in farm mechanization and its under utilization due to decrease in farm size.
- This has led to higher cost of production and lower net income making tractors economically unviable to small and marginal farmers.
- The Massive increase in use of diesel also leads to generation of gaseous emissions (735.8116 TMT of HSD consumed by Agri Sect in 2018-19). Last but not the least, the excessive use leads to soil compaction and causes damage to physico –chemical characteristics of soils especially during puddling.

Suggested Action Points:

- State Government may consider availing support under RIDF for Mechanization of Farm Operations & Related Services.
- Bank may support custom hiring service centres (CHSC) promoted by farmers producer organizations and subsidy, if any from State and GOI may be credit linked.
- State Govt. Departments, KVKs etc may look into providing training to agri entrepreneurs on repair and maintenance of farm machinery.
- Extension Agencies may advise farmers on the suitability of various makes, models and horsepower for different sizes of operational holdings.
- Banks may develop credit products for financing handheld and power-operated farm equipment suitable for small landholders.
- Banks may encourage agri-business centres by Agri. Graduates under the ACABC scheme to provide custom hire services to small and marginal farmers at affordable rates.

GLC Flow to Farm Mechanisation:

(In Crore ₹)

Sector	2020-21	2021-22	2022-23
Farm Mechanisation	921.54	1157.00	691.35

The total credit potential under Farm Mechanization for the State during FY 2024 - 25 has been estimated at ₹5783.62 crores.

4.1.4 Plantation and Horticulture

Present Scenario

Horticulture sector contributes to 12.5% of state's gross domestic product (GDP) and has been able to capture only 4.6% of total cropped area, has the potential to move farmers towards diversification of crops.

Total Horticulture production in the state stands at 9.09 million tonnes from an area of 4,77,010 ha of land out of which fruits contributes about 2.41 million tonnes of production from 1,09,880 ha of land and vegetable sector adds around 6.51 million tonnes of production from an acreage of 3,16,580 ha. The production share of other horticulture components viz. Flowers and Spices is 14450 tonnes, 1,33,420 tonnes respectively (Horticulture Statistics of India, 2nd Advance estimate, 2022-23).

Punjab has diverse agro-climatic zones, which are favourable to production of various fruits such as Kinnow, Sweet Orange, Guava, Pear, Litchi, Mango and Peach. Horticulture sector can provide good opportunities to diversify the cropping pattern in agriculture away from the current cereal-centric focus to high value and commercial horticultural crops, as income derived from horticulture per hectare of land is generally higher than in cereals and pulses.

Top three fruits with the highest production recorded in 2021-22 were Kinnow, Guava and Mangoes. The highest yield was seen in Bananas (61,448 Kg/ha), Grapes (30,963 Kg/ha) and Kinnow (26,784 Kg/ha). However, the production of amla recorded the highest growth of 52.7% followed by 45.7% growth in the production of peach and 37.6% growth in the production of sweet orange.

Area, Production and Yield of Major Horticultural Crops

Crop	Area (ha)			Production (MT)			Yields (Kg/ha)		
	2020-21	2021-22	% change	2020-21	2021-22	% change	2020-21	2021-22	% change
Kinnow	44752	46841	4.67	1177544	1254598	6.54	26313	26784	1.79
Sweet Orange	2788	3800	36.3	24179	33281	37.64	8672	8758	0.99
Guava	9730	12173	25.11	219850	276685	25.85	22596	22729	0.59
Peach	1801	2623	45.64	32232	46979	45.75	17900	17910	0.06
Grapes	230	224	-2.61	6980	6921	-0.85	30371	30963	1.95
Amla	640	936	46.25	9540	14571	52.74	14916	15571	4.59
Banana	147	185	25.85	9053	11363	25.52	61376	61448	0.12
Mango	7987	8897	11.39	137281	156202	13.78	15637	17557	12.28

(Punjab Economic Survey 2022-23)

Bee keeping (apiculture), litchi cultivation, guava cultivation, protected cultivation, organic farming and even grape cultivation have immense potential in the State to expand. Kandi area is better suited for dry land horticulture crops like amla, ber etc. citrus fruits like kinnow and malta have adequate market linkages and can be grown in the State in southern districts like Ferozepur, Hoshiarpur, Bathinda and Shri Muktsar Sahib.

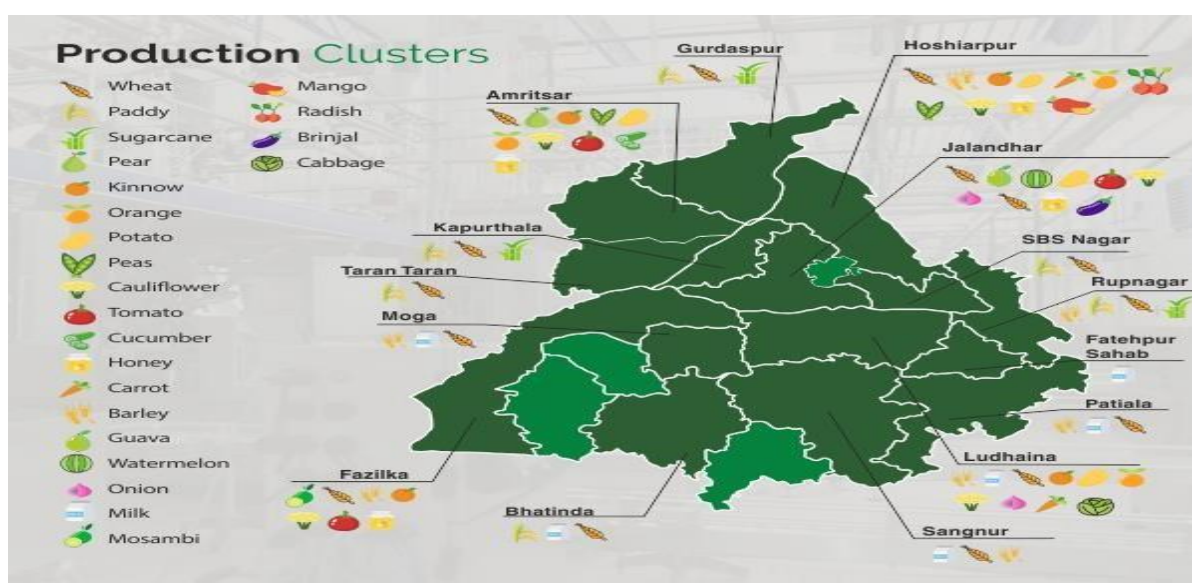
Initiatives by the Government

- Five citrus estates in Abohar, Tahliwala Jattan (Ferozepur), Badal (Sri Muktsar Sahib), Hoshiarpur and Bhunga (Hoshiarpur) have been established to improve the quality and productivity of citrus fruits. Abohar region has emerged as the marketing hub for *Kinnow* throughout the country as also for export to SAARC countries.

- For promotion of technology and capacity building of the farmers, the State Department of Horticulture has established a Centre of Excellence in Citrus at Khanaura (Hoshiarpur), a Centre of Excellence in Vegetables at Kartarpur (Jalandhar) and a Centre of Excellence in Potatoes at Dugri (Jalandhar).
- Subsidy to the extent of 30%-90% of eligible unit cost is available for various horticulture activities through National Horticulture Board and Mission for Integrated Development of Horticulture (MIDH). MIDH covers entire horticulture sector including protected cultivation (poly house, shade house etc.), Cold storages & Cold chain, nurseries, orchards (area expansion and rejuvenation), horticulture mechanization, tissue culture & biotechnology, processing & marketing, support for FPOs and micro irrigation.
- Recognizing the importance of Horticulture Sector, Horticulture Department of Punjab identified a 100-Acre land at Attari for the establishment of Post Graduate Institute of Horticulture Research and Education in Amritsar.
- Considering the need to promote horticulture, Centres of Excellence (CoE) have been set up for various horticultural crops for demonstrative effect for promoting horticulture.

Crop	Location	Technology demonstrated
Vegetables	Kartarpur (Jalandhar)	Hi tech nursery, open filed mulching, walking tunnels, drip Irrigation, fertigation, net houses, poly houses cultivation
Fruits (Citrus)	Khanaura (Hoshiarpur)	Hi tech nursery, planting on ridges, spacing, grafting, pruning, drip irrigation, fertigation, plant protection
Floriculture	Doraha, Punjab	To promote floriculture and trained farmers for high tech floriculture

- Fruits and Vegetables Production clusters have been identified by MoFPI, GOI for support



Action Points

- **Promotion of Protected Cultivation:** In the absence of crop diversification in Punjab and deteriorating ecology and soil health, there is need for adoption of protected

cultivation. Although the initial investment under protected cultivation is higher than that of open field cultivation, the per unit area benefit is more. Banks may step-up financing of protected cultivation of horticulture crops in convergence with the subsidy scheme.

- There is a good potential to promote floriculture, mushroom cultivation, apiculture, mentha and other horticulture crops such as melons, guava, coloured capsicum etc. Department/ Agriculture Universities/ KVKs may make efforts to bring awareness about the same among the farmers.
- As of now only 07 commodities, including potato, Kinnow and peas amongst horticulture crops are listed in e-NAM in the State. Punjab may include other potential horticulture crops under the same to give a fillip to the sector.
- Institutional engineering may be done on lines of milk-model that would eliminate the need for intermediaries by aggregating the vegetable and fruit vendors. Contract farming with suitable policy framework may also be useful.
- Agro-processing industry may be promoted as it could help avoid market glut. The Megafood parks in three districts are a big opportunity for bankers to finance diverse food processing units.
- Non-traditional crops like Pomegranate (varieties like Arakta, Mridula) may be encouraged as they have large market demand and may fetch better price.
- As availability of quality planting material is vital, small nurseries covering an area of 1.0 hectare with infrastructure facilities to hold 60000 to 80000 plants and a net house of 2000 sqm should be encouraged. The nurseries could be multi-crop or crop specific depending on the planting material required in the locality.
- Vegetable seed production under green house with insect nets on the sides and rolling poly sheets with approx. cost of ₹50000 /ha needs encouragement. The plants will be propagated in plastic trays having small plugs.
- Bio control labs, Plant health clinics, Leaf / tissue analysis labs as a part of Integrated Pest & Nutrient Management to be encouraged.

GLC Flow to Plantation and Horticulture:

(In Crore ₹)

Sector	2020-21	2021-22	2022-23
Plantation and Horticulture	43794	16646	1011.01

The total credit potential of ₹1622.54 crores has been estimated for the year 2024-25 under Plantation and Horticulture sector in the State.

4.1.5 Forestry and Wasteland Development

Present Scenario

Forest & tree cover occupies only 5.03 % of the geographical area of the State (State of Forest Report 2021). Despite an improvement since 2015, this is much lower than the all India average of 21.71%, and substantially lower than the national target of 33%. Moreover, more than half of the forest cover (56%) amounts to open forests, implying a canopy density between 10% to 40%. Continued deforestation for industrial projects is a big concern.

Initiatives by the Government

- The State has liberalized policy to encourage agroforestry, wherein no felling and transit permits are required for trees grown in farmers' land. As such, agro forestry species such as populus spp., Eucalyptus spp. drek, mulberry, subabul, silver oak, malabar neem, khejri, indian willow, gamari and bamboo are being exempted from the purview of Timber Transit regime.

- The Cabinet has also cleared ‘The Punjab Regulation of Wood Based Industries Rules, 2019’ to give impetus to agro-forestry. Under the new rules, wood based units using agro-forestry species do not require license but only require registration with Forest Department.
- The State has also established a State Forest Research Institute at Laddowal, Ludhiana to give a flip to research and extension in agroforestry.
- The state has several private nurseries providing quality clonal planting material for eucalyptus and poplar – the most popular agroforestry species of the State. Timber falls within the purview of the contract farming law in Punjab.
- Markets are well established with several paper and pulp industries in and around the State.

Opportunities

- Agroforestry not only has an opportunity to provide additional income to the farmers, it also promotes climate resilient agriculture. Various agroforestry systems including - agri-silvi (agriculture + trees); agri-horti (horticulture + trees); agri-silvi - pastoral (agriculture + animal husbandry + trees); etc, may be adopted to add to the income of the farmers.
- With good planting material, gestation period of forestry plants such as poplar, eucalyptus, bamboo is only 5 years. *Casuarina* as energy plantation can be harvested every 2 years. *Melia Dubia*, used in plywood industry has a rotation period for 3 years. With intensive cultivation, the gestation period of clonal bamboo can be reduced to 3-4 years, which can be harvested every year thereafter for several years.
- As per the reports, sandalwood tree is also suitable for cultivation in Punjab, with about 3% oil and 12-15 kgs of heartwood per tree after about 12-15 years. The Forest Department also plans to promote sandalwood cultivation by providing sandalwood seedlings to farmers at subsidized rate.
- There is also good potential for cultivation of sohanja (*Moringa oleifera*) as medicinal tree. Harvesting of fruits can begin from the 1st year itself. *Salix* species has good potential to be raised as plywood species under paddy agroforestry system. *Salix* also is the cultivation material for raising shiitake mushroom – a medicinal mushroom having huge export potential. The fresh Shiitake mushroom fetches about ₹200-500/kg in local market. The dried mushroom sells at about ₹2000/kg.
- Trees such as bamboo and *casuarina* have high calorific value and can be used for creating green energy through gasifiers. Activated charcoal, a by-product of bamboo gasification has export potential. Bamboo can also be used as bio-drainage plantations in the waterlogged areas while giving good returns to the farmers.

Action Points

- The State Research Organizations/ Agriculture Universities to develop and promote revenue models for species like clonal *bamboo*, *melia dubia*, *casuarina*, etc., which start giving yield within 3 years.
- Suitable species of bamboo may be promoted as a bio-drainage species, in addition to *Eucalyptus*. The State Govt. may encourage commercial plantation of clonal bamboo through a holistic plan including farmers’ awareness & exposure visits, marketing tie-ups/ contract farming etc.
- The State Govt. may promote commercial cultivation of *Salix* through subsidized planting material and awareness workshop.
- GoI may consider assigning Fair and Remunerative Price (FRP) for select commercial wood species on the lines of sugarcane.

GLC Flow to Agroforestry:

(In Crore ₹)

Sector	2020-21	2021-22	2022-23
Agroforestry	110.43	136.02	172.77

Potential underfarm/agroforestry activities involving plantation of poplar, eucalyptus, bamboo, etc. for the year 2024 - 25 has been estimated at ₹367.27 crores for the State.

4.1.6 Animal Husbandry

Present Scenario

In Punjab, Livestock rearing is an important sub-sector under agriculture and allied activities. It contributes over one-third GVA to agriculture and is the second largest contributor to agricultural GVA. The livestock sector grew at a rate of 5% during 2012-13 to 2021-22(Q) at constant prices, as compared to 0.43% in the crop husbandry sector and its contribution to total Agriculture GSVA at current prices increased from 7.9% in 2012-13 to 11.1% in 2022-23. As compared to crop husbandry, the low dependence of this sub-sector on natural factors like rainfall, soil type and climatic conditions, makes it a more sustainable source of income generation. This sub-sector plays a significant role to generate alternative source of income and full/part-time employment for rural households of Punjab. As per the NSSO report on Income, Expenditure, Productive Assets and Indebtedness of Agricultural Households in India (2012-13), Punjab reported the second highest average monthly income of ₹ 5,303 from farming of animals, surpassed only by Haryana (₹ 6,089). Milk production was highest source of income generation which contributed 91.6% to the total average monthly receipt from farming of animals.

In 2021-22, milk production in Punjab increased by 5.1% in comparison to the growth of 0.3% in 2020-21, Egg production increased by 7.3% in comparison to the growth of 0.2% in previous year. Interestingly the meat production registered growth of 1.9% in 2021-22 in comparison to the negative growth of 9.9% in the previous year. Over the period of 14 years ranging from 2007-08 to 2021-22, the milk, egg, meat and wool production in Punjab registered an average growth of 51.6%, 60%, 109% and 3.24% respectively.

Dairy Development

The per capita milk consumption in the State is the highest in India at 1271 gm per capita per day against the national average of 444 gm per capita per day. Punjab is 6th highest milk producing state in India contributing around 6.37% to the total milk production. The State produced 14.31 million tonnes of milk during 2021-22. Punjab has 1.3% share of India's total livestock population as per the Livestock Census 2019. The share of crossbred cattle has increased to 29.43 % in 2019, in comparison to 25.4% in 2012. Share of buffaloes was largest (57.4%) in total livestock population, followed by cross-bred cattle and indigenous cattle.

The state has an extensive network of veterinary infrastructure to provide the best animal health care and breed improvement facilities to the livestock owner. The state has 1367 Veterinary Hospitals, 1489 Veterinary Dispensaries and 22 Veterinary Polyclinics. As far as Manpower is concerned, the State has 1504 sanctioned posts of Veterinary Officers and 2010 posts of Veterinary Inspectors. On average, every Veterinary Institute provides Animal Healthcare and breed improvement facilities to 2470 livestock units, 2.5 villages and around 4.5 km radius, which is the best in the country.

Initiatives by the Government

The Punjab government is making special efforts to develop Punjab as a "Model dairy state of India". To be a model state, the state has following vital cardinals:-

1. The state has restructured its Animal Husbandry Department's manpower infrastructure to meet the current challenges. The state has appointed 653 Veterinary Inspectors and in the process of employing 418 Veterinary Officers and 254 Veterinary Inspectors. People of

the state are always committed to keeping the best genetic potential and high-yielding breeds of animals.

2. State Animal Husbandry Department performed 21.37 lakh artificial inseminations in the State during 2021-22 for improving Genetic Potential of Cow and Buffalo.
3. Under Rashtriya Gokul Mission (RGM), 2 Progeny Testing & 1 Pedigree Selection projects are ongoing project in the state funded by GOI implemented by PLDB under the supervision of NDDB. Purpose of the projects is to procure high genetic merit bulls of different breeds/species for regular supply to the semen banks.
4. The state has Northern Region Disease Diagnostic Laboratory (NRDDL) at Jalandhar which provides Disease Diagnostic services to 8 states/ UTs (Punjab, Haryana, Jammu, Himachal Pradesh, Rajasthan, Chandigarh & Kashmir, Ladakh and Delhi (NCT)). In the recent past, the Covid-19 testing laboratory was also established for Covid-19 testing procedures. Till now, laboratory has analysed 451 samples of Lumpy Skin Disease and 204 samples of African Swine Fever under Standard Disease Investigation and Surveillance Protocol. Funds of ₹ 1.60 crore during 2022-23 have been allocated under RKVY project for “Up gradation and modernization of Regional Disease Diagnostic Laboratory, Jalandhar”.
5. The state has Guru Angad Dev Veterinary and Animal Sciences University at Ludhiana, which is providing research and Animal Health care services in the State. In the recent past, the Covid-19 testing laboratory was also established for the Covid-19 testing procedures. University’s Laboratory has been authorized as primary testing laboratory by Government for African Swine Fever (ASF).
6. The state has Punjab Veterinary Vaccine Institute at Ludhiana, which produces around 12 Vaccines/Antigens. It is now being upgraded to good manufacturing practice (GMP) norms as per WHO guidelines with funds to the tune of ₹ 32.00 crore under the RKVY scheme. This will enable state to produce different types of vaccines as per the best available norms to prevent prevalent animal diseases in the state.
7. A Multi-Speciality Veterinary Hospital and Regional Research Centre is being set up in the village of Sappanwali in Fazilka district at the cost of ₹ 62.14 crore with a view to providing specialized veterinary care of animals in the region. During 2022-23 budgetary allocation of ₹ 5.75 crore has been made for utilization in this project. The project to be completed by 2026-27.
8. A Regional Research and Training centre for Buffaloes is being established in the village of Booh, Tarn Taran with a view to improving the buffalo breeds through genetic improvement and to establishing an elite herd of Buffalo. The expected cost of the project is Rs 20 Crores. During 2022-23, budgetary allocation of ₹ 2.93 crore has been made for utilization in this project.
9. During the current year, the livestock population of the state was struck by a major outbreak, namely Lumpy Skin Disease: To control Lumpy Skin Disease, the state purchased around 11.64 lakh doses of Goat Pox Vaccine at the cost of rupees 1.54 crore. Out of these, 9.54 lakh doses were injected to the eligible Cattle population of the state. The state also allocated emergency package of ₹ 1.61 crore for medicine to the treatment of animals affected by Lumpy Skin Disease. To prevent the spread of disease in future, the state has planned a mass vaccination campaign to vaccinate the entire eligible cattle population of the state from 15 February 2023. For this purpose, the state is in the process of purchasing 25 lakh doses of Goat Pox Vaccine at the cost of ₹ 78.75 lakh.

Piggery Development

The growing demand for pork resulting from the growth of the hotel industry and the proliferation of fast food chains in the country has prompted farmers in Punjab to go in for pig farming in a big way. Small producers have to sell in the local market at a very low price, while big farmers who meet the norms of the food chains can earn significantly higher than the local market. Piggery is an emerging activity with a potential to supply to NE states and export.

Initiatives by the Government

- For bringing genetic improvement in indigenous breed of pigs, cross breeding programme in pigs has been taken up in the State. Main exotic breed of pigs namely Large White Yorkshire is used for cross breeding. Six Govt. Pig Breeding Farms have been set up in the State. The exotic piglets of superior germ plasm are supplied to pig breeders from these farms for cross breeding. The Punjab Government provides a subsidy of ₹1,50,000 (General Category)/₹1,99,980 (SC Category) against Total project outlay of ₹6 lakhs for establishing Pig Breeding Farm to small pig farmers.
- Under PMFME, Individual micro food processing units are provided credit-linked capital subsidy @35% of the eligible project cost with a maximum ceiling of ₹10,00,000 per unit. The beneficiary contribution should be a minimum of 10% of the project cost with the balance financing from the Bank. This is a big incentive for the meat processing industry.
- African swine fever, a dreaded disease affected pig population of the state recently. To provide relief to the piggery farmers, all the affected pigs farmers whose pigs were culled to prevent the spread of disease, were provided compensation of ₹70 lakh under Assistance to States for Control of Animal Diseases (ASCAD) Scheme and 91 pig farmers were compensated in the said scheme.

Sheep and Wool Development

The total wool production in the country is 33.13 million kgs. The Wool production has decreased by 10.30% as compared to previous year at national level. At national level 51.44% of meat production is contributed by Poultry. Buffalo, Goat, Sheep, Pig, and Cattle contributes nearly 17.49%, 13.63%, 10.33%, 3.93% and 3.18% of meat production respectively to the total meat production of the country. Punjab contributes 1.36% to the total wool production of India as per BAHS 2022, GoI. In order to increase the wool yield of local sheep and to improve the mutton type sheep, the GoP has been running cross breeding programme for sheep. The exotic breeds i.e. Corriedale, Polled Dorset and Rambouillet are used for cross breeding. For the production of purebred rams, a Sheep Breeding farm is functioning at Mattewara, District Ludhiana.

Poultry

The total egg production in the country is 129.60 billion numbers. India ranks 3rd in the world in terms of total egg production. The egg production has increased by 6.19% as compared to previous year. The per-capita availability of egg is 95 eggs per annum. Punjab shares 4.68% of the total egg production in the country. Per-capita availability of egg during 2021-22 in Punjab is 200 nos per annum, which is more than the national average of 95. Punjab has shown significant growth of 7.35% in the egg production, which is higher than the national annual growth of 6.19% during 2021-22.

The total meat production in the country is 9.29 million tonnes. India ranks 8th in the world in terms of total meat production. The meat production has increased by 5.62% as compared to previous year. The meat production from poultry is 4.78 million tonnes, contributing about 51.44% of total meat production. The growth of poultry meat production has increased by 6.86% over previous year. Share of meat production in Punjab is 2.45 % vis-a-vis total meat production in the country. The poultry industry is a source of direct and indirect employment which covers over six million people in the country.

Opportunities

- Small & commercial Dairy units
- Captive indigenous milk processing units
- Densified fodder unit
- Fodder Banks
- Transport vehicles
- BMCU and AMCU
- Refrigerated Vans
- Contract farming of Broilers

- Goat farming for meat production
- Milk ATMs and Mobile Automatic milk dispensing units
- Total Mixed Ration units
- Fodder harvester
- Self-Propelled Forage Cutter

NABARD's Support

- NABARD is playing an active role in promotion of Dairy sector in the State by implementing a number of GOI schemes as also providing 100% refinance facilities to the banks for loaning under Dairy sector.
- Out of 111 FPOs formed by NABARD in the State under various funds, about 26 FPOs are for milk procurement and primary processing of milk. These FPOs have been promoted by NABARD through MILKFED and other POPIs (Producer Organisation Promoting Institutions) under PRODUCE, FSPF and PODF-ID funds.
- ₹15000 crores Animal Husbandry Infrastructure Development Fund (AHIDF) has been setup for incentivizing investments by individual entrepreneurs, private companies, Farmers producers' organizations (FPOs) and section 8 companies to establish dairy processing and product diversification infrastructure, Meat processing and product diversification infrastructure and Animal feed plant byGOI. NABARD extends credit guarantee to FPOs for availing credit.
- NABARD has implemented the Climate Resilient Livestock building under NAFCC (National Adaptation Fund for Climate Change).
- The facilities of Kisan Credit Card (KCC) have been extended to Animal Husbandry farmers and Fisheries (AH & F) to help them meet their working capital requirements. Refinance and interest subvention is available through NABARD.
- NABARD Punjab Regional Office has sanctioned a project cost ₹ 24.99 lakhs to KVK Tarn Taran, to decipher the role of Artificial Intelligence in dairy sector, wherein the AI enabled neck belts will provide complete profile of animal data in terms of eating, rumination, activity, inactivity period and individual eating time.

Action Points

- Investment in the area of value-addition in livestock products and processing which is crucial for 'Doubling the farmer's income'.
- Promoting and motivating FPOs to practice Organic Animal Husbandry and create strong marketing links for organic dairy products and taking steps to get the organic products certified.
- Policy on Scientific Breeding to promote productivity of livestock especially among small farmers. Adoption of climate adapted cattle sheds, precision dairy farming promoted by GADVASU need to be promoted and funded by Banks.
- Piggery as an emerging area, requires value chain funding.
- Investment in functional livestock products (those products which provide extra health benefits besides nutrition) like nutraceuticals.
- Adoption of smart supplements-The productivity of ruminant animals can often be boosted with supplements, some of which encourage microbes in the rumen to grow quickly and to provide better nutrition. In India, a water fern (*Azolla caroliniana*) cultivated in local ponds provides extra protein to cattle and goats fed on protein-deficient elephant grass (*Pennisetum purpureum*).
- Banks need to provide funding under KCC (Animal Husbandry) to meet the credit requirement of the sector.
- Increase awareness of veterinary services at farmers doorstep by mobile veterinary units (MVU).
- Setting up call centers which will function as pivot while rendering the mobile veterinary services.

GLC Flow to Animal husbandry:

(In Crore ₹)

Sector	2020-21	2021-22	2022-23
Animal husbandry	1618.90	2258.87	6266.59

Potential under Animal husbandry activities involving dairy, poultry, piggery etc. for the year 2024-25 has been estimated at ₹10744.76 crore for the State.

4.1.7. Fisheries-Inland, Marine and Brackish etc.

- Punjab is a landlocked and agriculture dominant state. However, in the recent past, Fisheries sector has emerged as a sun rise sector in Punjab. In terms of fish production, although coastal states like Andhra Pradesh, West Bengal, Gujarat, etc. are ahead of Punjab; popularization of activities like shrimp farming, re-circulatory aquaculture system, bio-floc systems, fish feed mills, etc. in private sector are strengthening Fisheries Sector in the State. There are 15 Government fish seed farms, 11 fish feed mills and 7 salt water testing labs for the farmers. Contribution of the Fisheries sector to overall agriculture and allied activities GSA of Fisheries is 1.47% in the year 2022-23(A). Despite adverse conditions of pandemic this sector grew at the rate of 11.78% in the year 2022-23(A), vis-à-vis an average annual growth rate of 7.28% between 2012-13 and 2021-22. During the year 2021-22, 1293.70 lac fish seed has been produced at Govt. Fish Seed Farms 3179.40 acres new area has been brought under fish culture and 40511.29 acres old area has been maintained under fish culture. During the year 2021-22, total fish production of 189646.9 tonnes has been achieved. 8497 aspirants have been given free 5-days trainings in Fish Farming, Further an amount of ₹516.37 lac was provided to the fish farmers as bank loan, in an effort to promote self-employment in the sector. State govt plans to increase area to 2000 ha and production to 2 lakh tonnes.

Government Initiatives

- The government of Punjab has been taking many initiatives to increase fish production in the State. With the twin objective of using affected land and enhancing income of farmers, special efforts are being made to bring saline affected water-logged areas of south western districts of Shri Muktsar Sahib, Ferozpur, Mansa, Fazilka, Bathinda and Faridkot under fish culture.
- During 2022-23, to encourage fish farming, 366 beneficiaries have been provided subsidy amounting to ₹20 crore for bringing new area under fish culture under PMMSY.
- Six feed mills have been set up at various Government fish seed farms located at Amritsar, Rupnagar, Faridkot, Fatehgarh Sahib, Bathinda and Patiala under Centrally sponsored schemes on Blue Revolution for production of balanced feed. Establishment of similar five more feed mills is under progress at Hoshiarpur, Shaheed Bhagat Singh Nagar, Ludhiana, Sangrur and Ferozpur under the RKVY scheme.
- An innovative high- density fish production technology of Bio-Floc Fish Culture has been introduced for the first time in the State.
- Incentive is being provided to the State under the Component- Animal husbandry and Fisheries development activities under Rashtriya Krishi Vikas Yojana (RKVY).
- NFDB is implementing various production-oriented schemes in the State.
- Ministry of Fisheries, Animal Husbandry and Dairying, GOI, has granted an administrative approval of projects for 2020-21 to Punjab with a project cost of ₹ 45.82 cr under Pradhan Mantri Matsya Sampada Yojana (PMMSY).
- For the first time in Punjab, subsidy is being provided on fish transport vehicles like cycles, motorcycles, auto-rickshaws, refrigerated vans and insulated vans and to establish Mini Fish Feed Mills to farmers.

- Starting from 1 acre area in 2016, shrimp farming has expanded to 1200 acres area so far. The state Government plans to increase the area over 5000 acres. Pilot Projects had been launched by GADVASU, Ludhiana in the district of Fazilka for promotion of inland saline aquaculture and its further diversification to cover nearly 200 ha in the saline soil affected regions of Bathinda, Ferozepur, Muktsar and Mansa. Shrimp production is expected to reach at around 1500 tonnes in comparison to 788 tonnes last year.

Vision Document by Punjab Fisheries Development Board (PFDB)

PFDB has come out with a **Vision Document 2030** to guide the development of fisheries sector in Punjab State. The salient features of the vision document are given below:

- 1. Fish Production:** Fish production is to be increased to 250,000 tons by 2030. To achieve this target, minimum 200 acres' area need to be brought under fish cultivation in each district each year apart from increasing the productivity with the help of technology as well as by diversification for high production species.
- 2. Fish Seed Production:** The total fish seed requirement by 2030 for intensive fish farming will be more than 100-120 crores. With the addition of 10 more fish seed farms, seed production is to be increased in dept. seed farms.
- 3. Fish Feed availability in Punjab:** By 2030, Punjab would require about 150,000-200,000 tons of fish feed. To supply the same, at least 8-10 big fish feed mills in private sector in the State would be required.

Challenges

- High initial capital investment
- Availability of low cost fish feed mixtures to reduce input cost.
- High post-harvest losses
- Absence of suitable marketing linkages
- Absence of timely extension services

Suggested action points growth of fisheries sector

- Increase the coverage and reach of support services to the remotest part of the State.
- Sensitization of farmers to adopt various integrated fish farming along with poultry models.
- Providing farm-to-fork solutions to fish farmers ranging from extension services to marketing opportunities
- Establishment of mobile labs/fish diagnostic centres
- Modernization & Upgradation of Fish Seed Farms
- Providing accessible and modernized marketing facilities
- Need for modernization of the wet markets with integrated storage and retail sale units with display of live fish stock.

GLC Flow to Fisheries:

(In Crore ₹)

Sector	2020-21	2021-22	2022-23
Fisheries	154.56	71.01	1146.53

Credit potential for the year 2024-25 for Fisheries development has been estimated at ₹427.69 crores for the State.

4.1.9. Farm Credit – Others

With the increased demand of old tractors and small tractors, the demand for bullocks and draught animals has decreased over the years. However, people belonging to weaker sections still use bullock/horse carts for transportation purpose in semi-urban and rural areas. India had the largest population of draught animals in the world (Approx. 88Million). This localized resource is exhaustible and available resource with farmers, yet to be optimized properly. The efficiency of using bullocks depends on the feeding, maintenance, manner of yoking and

training. Bullock driven implements are useful like tractor driven ones in reducing drudgery, improving productivity of land and labour. To support the sector there is need to step up finance to the sector to meet the demand for such investment from the poorer sections, particularly small and marginal farmers for their livelihood. Small / Marginal farmers and landless labourers may be encouraged to take up this activity and quality draught animals may be made available to these segments of farmers.

The potential for the year 2024-25 has been assessed as ₹3753.94 crore for the State.

4.2 Agriculture Infrastructure

4.2.1 Construction of Warehouse Storage Infrastructure

Construction of storage facilities, warehouses, market yards, including cold storage units – cold storage chains

Punjab has the highest storage capacity in India. As per Economic Survey of Punjab (2022-23) the State has a storage capacity of 213.95 lakh metric tonnes (LMT) for food grains in its godowns and open plinths. The cold storage capacity in the state as of March 2022 was 24.46 lakh metric tonnes with a total of 725 cold storage projects. This was 6.42% of the country's cold storage capacity.

Punjab has well connected and adequate marketing infrastructure. As of 2022, there were 156 Primary Agricultural Markets in Punjab, out of which, 152 were regulated markets and 280 were submarket yards. This amounts to a catchment area of 80 sq. km for every market. Punjab also has 1390 rural primary markets and 488 farmers' markets called Apni Mandis where farmers directly sale to retail consumers.

As indicated elsewhere in the Chapter, the production of foodgrains in Punjab has already reached its maximum productivity. This stagnation also seems to hold true for wheat and paddy. Moreover the changing consumption pattern of households towards high value horticulture product like vegetables & fruits, dairy products and animal products, are new profitable alternatives to farmers. Thus, the total storage requirement for paddy & wheat is not likely to increase significantly in the coming years. However, the open storage space of 75.59 lakh MT needs to be urgently converted to scientific storage to prevent associated consequential losses. Most of the cold storage facility in Punjab is used for potato only.

Government Initiatives

- Punjab needs more cold chain facilities in the form of cold storages as well as IQF facilities. APEDA has identified Fatehgarh Sahib, Patiala, Sangrur, Ludhiana, Amritsar and Hoshiarpur districts as potential clusters for fresh/IQF/dehydrated vegetables.
- Ministry of Food Processing Industries is implementing the Scheme for Integrated Cold Chain and Value Addition Infrastructure as one of the component of Pradhan Mantri Kisan Sampada Yojana (PMKSY) with the objective of reducing post-harvest losses of horticulture & non-horticulture produce and providing remunerative price to farmers for their produce.
- In order to provide farmers, particularly small and marginal ones with proper marketing facilities nearer to farm-gate and improve farmer- market linkages, an Agri-Market Infrastructure Fund (AMIF) with a corpus of ₹2000 crore has also been set up for developing and upgrading agricultural marketing infrastructure in the 22,000 Gramin Agricultural Markets (GrAMs) and 585 Agriculture Produce Market Committee (APMC) Markets with NABARD. The GrAMs are to be linked to electronic National Agricultural Market (e-NAM).

- Individual farmers, FPOs, SHGs are eligible for interest subvention of 3% p.a. limited to 2 crore per project in one location and credit guarantee for loans up to ₹2 crore is available under Agriculture Infrastructure Fund (AIF) Scheme launched by GoI in FY2020-21. Moratorium for repayment under this financing facility may be subject to minimum of 6 months and maximum of 2 years.
- NABARD provides financial assistance to the State Govt. and State Owned Agencies for construction of Rural Godowns, Cold Storages and agriculture marketing infrastructure under Rural Infrastructure Development Fund (RIDF), Warehouse Infrastructure Fund (WIF) and NABARD Infrastructure Development Assistance (NIDA). Government of India has various credit linked subsidy schemes like Integrated Scheme for Agriculture Marketing (ISAM) through which creation of agri marketing infrastructure and storage facilities in public and private sector are encouraged.
- NABCONS, a subsidiary of NABARD, has undertaken the exercise of geo-tagging of agri storage infrastructure and developed a web-based information system which enables efficient use of existing warehousing capacity, integration of small farmers with the commodity value chain, reduction in post-harvest losses in agriculture and allied commodities and uberisation of warehousing given the scalability of the platform.

GLC Flow to Agriculture Infrastructure:

(In Crore ₹)

Sector	2020-21	2021-22	2022-23
Agriculture Infrastructure	1693.21	2504.56	4167.63

Credit potential for the year 2024-25 for Agri-Infrastructure (Construction of storage facilities - Warehouse Storage infrastructure) has been estimated at ₹4538.06 crores for the State.

4.2.2 Land Development, Soil Conservation and Watershed Development**Present scenario**

The major area in Punjab, barring Siwalik hills, form a part of Indo-Gangetic alluvial plain in which low lying pockets are having the problems of water logging, soil salinity and/or alkalinity etc. The state of Punjab is one of the most advanced agrarian states in India. Nearly 83% of total geographical area of the state is cultivated and any further increase in the area may only be possible by reclaiming various categories of degraded lands which have been rendered as wastelands.

Wasteland is the land which is degraded and is presently lying un-utilised (except follow) due to inherent or imposed disabilities related to location, environment, soil as well as current financial and management constraints. As per the wasteland Map 2005-06, the total wasteland area of Punjab is 1019.50 Sq.km, which is 2.02 % of the total geographical area of Punjab.

As per the Report of the Central Saline Soil Research Institute, Karnal, an area measuring 151717 ha. is affected under alkaline soil in Punjab State.

About 2 lakh hectares (ha) of fertile agricultural land in Punjab is water logged and there are certain patches where not even a single crop has been grown for more than a decade.

Soils of Punjab are naturally alkaline with southern part being more alkaline than the rest. Further, the issue has aggravated due to unsustainable agricultural practices like intensive use

of fertilizers and pesticides, monocropping, extensive land use etc leading to deterioration of the macronutrients like nitrogen, phosphorous, potash and other micronutrients like zinc, iron and manganese. Currently there is a soil micronutrients imbalance of around 70% of the overall geographical place. The same is tabulated below:

Soil Nutrient Health Status in Punjab			
Nutrient	Deficient soils (%)	Nutrient	Deficient soils (%)
N	43.20	Zn	16
P	27.00	Mg	-
K	7.90	Mn	25

Source: Statistical Abstract of Punjab -2020-21

Government Initiatives

- Conservation and Management of Harike, Rupnagar and Nangal wetlands with funding from Ministry of Environment, Forest and Climate Change (MoEF&CC).
- Pilot Project on Reclamation of Ravenous and Gullied Land under Technology Development, Extension and Training (TDET).
- Soil Health Card Scheme for ensuring judicious use of fertilizers and agri. inputs as per the soil fertility and physio-chemical characteristics (health) of soil samples.
- PMKSY (Watershed Development) - To focus on ridge area treatment, drainage line treatment, soil and moisture conservation, water harvesting structure, livelihood support activities and other watershed works being implemented by Dept. of Land Resources.

NABARD Initiatives

- Schemes for Wet Land Improvement by Punjab State Council for Sc. & Tech. (PSCST).
- Integrated Watershed Management Scheme (IWMS) was sanctioned to Abhivyakti Foundation in 05 villages of Moga district for treating 500 ha and is to be implemented till January 2023.
- For the first time in Punjab, NABARD sanctioned a watershed project for treating 1000 ha. of degraded land in Rupnagar Distt.
- During FY 2019-20, 02 projects on Reclamation of Alkali Soil using Watershed Management Approach/ Land scalping had been sanctioned in the districts of Patiala and Sangrur for reclamation of 1000 ha of degraded soil.

Action Points

- Reclamation of waterlogged and salinity affected areas in the State through adoption of various land development activities and adoption of salinity resistant varieties in these areas.
- Facilitating production of organic inputs like vermi-compost, compost from fruit and vegetable waste and bio-fertilizers/bio-pesticides on a commercial scale for adoption of organic and natural farming on a wider scale.
- Sensitisation of farmers on judicious and need-based application of fertilisers and pesticides as well as on the importance of following precision farming and integrated water and nutrient management and crop protection practices.
- Informing farmers about the long term effects of over exploitation of land, stubble burning and excessive land preparation using heavy machinery.
- Promoting use of in-situ manuring, green manuring, multiple cropping, use of local varieties and growing less exhaustive, short growing crops.

GLC Flow to Land Development:

(In Crore ₹)

Sector	2020-21	2021-22	2022-23
Land Development	357.51	653.06	1112.65

Credit potential for the year 2024-25 for Land Development, Soil Conservation and Watershed Development has been estimated at ₹3438.09 crores for the State.

4.2.3 Others– e-NAM, Tissue Culture, Agri-bio-Technology, Vermicomposting, etc.

In digital era, the online market helps the farmers in selling their produce more efficiently. The online access of markets makes it easy to integrate agriculture markets at national level. These online markets also known as ‘e-markets’ act as virtual markets along with physical markets at the back end which create a national network of physical mandis and could be accessed online.

Present Scenario

So far, 79 mandis in Punjab have been onboarded to e-NAM Portal and 15 more mandis to be onboarded during the year. The State has permitted sale of seven commodities viz., Basmati, Maize, Potato, Kinnow, Cotton, Peas and Moong on the Portal. As on, 31.01.2022, 2427 traders, 8703 commission agents and 217246 farmers were registered on the Portal. About 28.10 lakh tonnes agri commodities such as potatoes, basmati, maize, kinnow, moong, cotton, green peas, capsicum, etc. have been traded. The highest quantity and value of commodities was traded from Amritsar e-NAM market. Basmati was on the top with highest traded quantity as well as value among all the commodities traded under e-NAM.

Punjab is the first State in the Country to have Tissue-Culture based Certification. Jalandhar-Kapurthala belt is being developed as Export Hub of Potatoes. Agrobiotechnology, besides contributing to academics, research and economy, has immense potential to directly improve the lives of socially and economically weaker sections of the society. The fruits of biotechnology based research and innovation can be utilized to provide platforms for self-employment generation among the target population by diffusion of proven and field-tested technologies in a plethora of fields ranging from agriculture, secondary products of agriculture, food processing, animal husbandry and many others.

Support available for the Farmers:

- Financial assistance is available under GoI’s ‘Mission of Integrated Development of Horticulture’ for strengthening of existing tissue culture unit upto an outlay of ₹20 lakh/unit with a provision of 100% assistance for public sector units and in case of private sector, credit linked back-ended subsidy @ 50% of the cost.
- **Biotech- KISAN (Biotech Agriculture Innovation Science Application Network):** This is a unique programme for the farmers of India and especially for the women farmers. The programme is designed to provide the latest innovation to the agriculture. Biotech-KISAN is a scientist-farmer partnership scheme launched in 2017 for agriculture innovation with an objective to connect science laboratories with the farmers to find out innovative solutions and technologies to be applied at farm level. The scheme has benefitted over two lakhs farmers so far by increasing their agriculture output and income. Over 200 entrepreneurship have also been developed in rural areas.

Challenges

- Low Seed Replacement Rate (SRR) is major constraint in increasing the agriculture production. Agriculture Department has planned to cover 20% sowing area of major crops under certified seeds every year in next five years.

- Integrated Pest Management (IPM) and Integrated Nutrient Management (INM) are the best options to improve pesticides and fertilizer use efficiency. Since, improper input management is another hurdle to increase the productivity of agriculture.
- It is very essential to impart the hands on training on use of bio-fertilizers and vermicomposting.

Action Points:

- State Government may promote diversification from the traditional cultivation practices by providing seeds of vegetables and coarse cereals/Millets.
- Dissemination of information about innovative schemes viz. bio fertiliser, vermi compost through KVK/Extension centres, NGOs.
- Need to popularize organic farming through extension agencies and encouraging land development on common lands / wasteland for appropriate land use system.
- With vermicomposting, an integrated project on dairy+vermi-composting can be developed. Projects like this will be instrumental to restore the deteriorating soils of the State through improved soil health, while providing income to the farmers through sale of milk.
- State Government may promote Bio-fertilizer production plants for supporting the growing demand of bio-fertilizers from farmers.
- Creation of awareness among farmers for setting up of vermi compost units and provision of training and facilitate for marketing of compost.

GLC Flow to Others:

(In Crore ₹)

Sector	2020-21	2021-22	2022-23
Others	560.94	1052.71	664.62

The aggregate credit potential for 2024 - 25 for others has been assessed at ₹742.09 crores.

4.3. Ancillary Activities

4.3.1 Food and Agro-Processing

Present Scenario

Food & Beverages is the 5th largest industry in manufacturing and all major segments are growing more than double the global average (5%). During the last five years ending FY21, the food processing industries sector has been growing at an average annual growth rate of around 8.3 per cent. The Export of Agri-Food products has increased from USD 36.17 in 2014-15 to USD 51.05 billion in 2022-23. The Export of Processed-Food products has increased from USD 4.96 in 2014-15 to USD 13.07 billion in 2022-23. Thus, the share of the processed-food products in overall agri-food products export has increased from 13.70% in 2014-15 to 25.60 % in 2022-23.

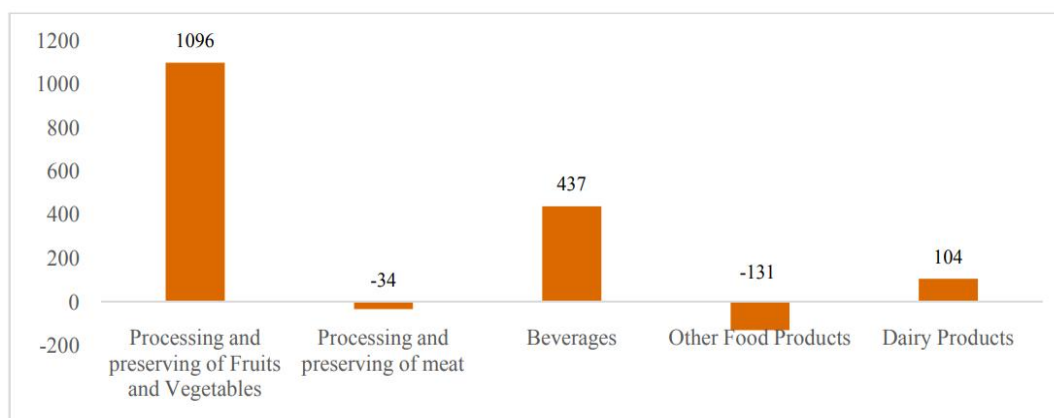
As per the latest Annual Survey of Industries (ASI) 2019-20, 12.2 per cent of persons in the registered manufacturing sector were employed in the food processing sector. By 2024, the Food Processing Industry will potentially attract USD 33 billion (INR 2.3 lakh crore) investments and generate employment for 9 million people. Increasing Per Capita Income and resultant change in lifestyle has led to substantial growth in demand for processed and a shift towards convenient, ready to eat and functional foods is being witnessed.

With only 1.5% of India's geographical area, Punjab is a leading producer of several agro & food commodities. There is ample availability of milk and horticulture produce for Processing. Punjab is strategically located and well connected to the Northern States, it has

robust connectivity, availability of low-cost quality power and skilled manpower. State Government Silver Award for its digital initiative ('Punjab business first portal') in the Ease of Doing Business category at the 7th edition of the Digital India Awards 2022. The State is Graded as Achiever within the Landlocked cluster according to LEADS 2022 (Ministry of Commerce and Industries, GoI).

Punjab's total exports of agri processed food products Products in 2022-23 was USD 659 million (INR 5312.86 crore). About 7.67% of the total registered factories in Food Processing Industry (FPI) sector in the country are in Punjab. In this regard Punjab has 4th highest share, after only by Andhra Pradesh, Tamil Nadu and Telangana (MoFPI, 2022). According to the Annual Survey of Industries 2019-20, the food processing industry (food and beverages manufacturing put together) contributed 45.6% of the GVA in the registered manufacturing sector of Punjab in the year 2019-20. Within food processing, 'grain mill products, starches and starch products' were the highest contributor, linked to Punjab's abundant production of paddy and wheat.

There are 3114 registered food processing units in Punjab as per Annual Survey of Industries (ASI) 2018-19. Around 150 renowned business houses, including ITC, Pepsi, Mahindra, Godrej, Cargill, Nerolac and Reliance have invested ₹7,000 crores in Punjab in the agro and food processing sector.



Source: ASI, 2019-20

(Figure: Profit per unit (₹lacs) of top registered food and beverage processing industry, 2019-20)

Government Initiatives

- PM Kisan Sampada Scheme with components viz., Mega Food Parks, Integrated Cold Chain and Value Addition Infrastructure, Creation/ Expansion of Food Processing & Preservation Capacities, Infrastructure for Agro-processing Clusters, Creation of Backward and Forward Linkages, Food Safety & Quality Assurance Infrastructure is being implemented in the State.
- GoI has instituted a Special Fund for providing affordable credit to agro processing units in designated food parks with a corpus of ₹2000 Crore in NABARD. The fund is operational during the current year to the extent of the unutilised amount. Under this fund, loan is extended to individual entrepreneurs, cooperatives, farmers producer organizations, corporates, joint ventures, Special Purpose Vehicle and entities promoted by the Government for setting up, modernization, expansion of food processing units and development of infrastructure in designated food parks. Apart from Mega Food Parks of MoFPI, other designated Food Parks (DFPs) notified by the Ministry in different States have also been included.
- MoFPI is implementing PM- Formalization of Micro Food Processing Enterprises (PMFME) Scheme for providing financial, technical and business support for setting

up/ upgradation of two lakh existing micro food processing enterprises across the country on One District One Product (ODOP) approach.

- A new Production Linked Incentive scheme for Food Processing Industry (PLISFPI) with outlay of 10900 crore, is being implemented by GoI to support creation of global food manufacturing champions. Sectors with high growth potential, like marine products, processed fruits & vegetables, and 'Ready to Eat/ Ready to Cook' products, are covered for support.
- All food & agro-processing activities have been included as eligible under Priority Sector Lending by RBI. (Loans for Food and Agro-processing up to an aggregate sanctioned limit of ₹100 crore per borrower from the banking system).
- Stand Up India Scheme was launched by the GoI in 2016 to support SC/ST and Women entrepreneurs to set up greenfield enterprises and become job creators. Food Processing activities will get a major boost under the scheme.
- 100 % FDI is permitted under the automatic route in food processing industries. 100% FDI is also allowed through government approval route for retail trading, including through e-commerce in respect of food products manufactured and/or produced in India. To facilitate all investment interests, MoFPI has set up a dedicated NiveshBandhu Portal as well as an Investment Facilitation Cell with Invest India.
- A total of 18 Agro Production Clusters (APC) are identified under APC Sub-scheme under Pradhan Mantri Kisan Sampada Yojana (PMKSY), of the Government of India in the state. Some of the APC are mentioned below:

Sr. No	Agro Production Cluster (APC)	District
1.	Pickle and Murabba	Amritsar
2.	Honey base products	Bathinda
3.	Kinnow based products	Fazilka
4.	Chillies	Ferozpur
5.	Litchi based products	Faridkot, Mansa, Sri Muktasr Sahib
6.	Guava	Patiala
7.	Mushroom	Sangrur
8.	Pears	Ludhiana

- Punjab has 24 cold chain projects approved by Ministry of Food Processing Industries under the Scheme for Cold Chain, Value Addition and Preservation Infrastructure. Out of the 24 approved projects, 09 projects in districts Jalandhar, Patiala, Kapurthala, Sangrur, Fatehgarh Sahib, Ropar and Ludhiana have begun their commercial operations.
- The State Government has also been emphasizing on development of food processing sector in Punjab. Apart from providing capital subsidy, exemption in stamp duty and Registration Fee, exemption in electricity duty for 07 years, Freezing of Power Tariff @ ₹5 per unit for five years, State Govt. also gives facilities like:
- 100% reimbursement of all taxes and fees paid for purchase of raw material for food processing units upto 10 years.
- Land Related Concession/Exemption- 100% exemption from CLU/EDC, 100% exemption from Property Tax for 10 years.
- Skill Development/ Human Resource Development for anchor units
- State GST- 100% of net SGST/exemption for 10 years with a cap of 125% of Fixed Capital Investment (for anchor units – 15 years' subject to 200% of FCI).

- Agri Business Promotion Facility (ABPF) to provide project development support to the private sector entrepreneurs in leveraging assistance available under various Schemes like Cold Chain, Kisan Sampada Yojana, Agro Clusters etc. of Ministry of Food Processing Industries, Government. of India.
- The cutting and sorting treated as Green Industry.
- Development of commodity-based clusters. Facilitating setting up of new Food Parks with special focus on food processing industries in south-west Punjab.
- Some non-fiscal incentives are exemption from Punjab Apartment and Property Regulation Act (PAPRA) and Grant of CLU for anchor projects, 365 days operation without any weekly offs, Exemption from Consent Management for Green Category Units.
- An MoU has been signed between the government of Punjab and the PAU wherein the university will transfer the technique to the food industry for the growth of food processing sector. PAU will offer 50 percent rate discount on its existing facilities for the food industry.
- Government of Punjab has taken various steps to encourage the food processing sector. Indian Institute of Food Processing Technology (IIFPT) opened its liaison office at Bathinda.
- Agri Export Zones have been planned by state Government for potato, rice, honey and vegetables. The Govt. of India has notified Fatehgarh Sahib, Patiala, Sangrur, Ludhiana and Rupnagar districts as Agri Export Zone for vegetables.
- Agro Food Parks are being developed in the State to enable small and medium scale units to attain viability by defraying cost of major facilities such as R & D Lab, cold storage, warehousing facilities, pack-houses etc. At present, a project for construction of a Fruit & Vegetable Centre at Sirhind & Fatehgarh Sahib at a cost of ₹15 crores has been set up by PAGREXCO (Punjab Agro Export Corporation).

Achievements of MoFPI, Govt. of India schemes in Punjab (as on date 31.05.2023) are as under:

Sr. No.	Pradhan Mantri Kisan Sampada Yojana (PMKSY) scheme		
	Scheme Name	No. of projects approved	Total Project Cost (amt. in Cr.)
1.	Mega Food Park	3	355.82
2.	Cold Chain	24	531.53
3.	Agro Processing Clusters	3	70.50
4.	CEFPPC Unit	17	388.43
5.	Creation of Backward and Forward Linkages	4	52.25
6.	Food Testing Laboratories	9	37.56
7.	Operation Greens	1	45.29
Production Linked Incentive Scheme for food processing industry (PLISFPI)			
1.	Food Processing factories under PLI	7	134.93
Pradhan Mantri Formalization of Micro Food Processing Enterprise Scheme (PMFME)			
1.	Micro Enterprises approved under FME	1087	-
2.	Incubation Centres	1	-

(Source – MoFPI, GoI)

Mega Food Parks in Punjab

- **Gurukripa Mega Food Park** is located in Village Ladhawal, Distt. Ludhiana promoted by Punjab Agro Industries Corporation (PAIC). This state-of-the-art Mega Food Park is partially operational. Several MNCs such as Del Monte, Godrej-Tyson, Iscon Balaji, Meat Masters, etc have set up manufacturing facilities in the Food Park. Funds also provided by NABARD under Food Processing Fund.
- **International Mega Food Park** at Village Dabwala Kalan, Distt. Fazilka is operational.
- **Sukhjit Mega Food Park** at Distt. Kapurthala is operational.

Thrust Areas: Apart from the traditional areas of processing, the following can also be promoted in the state:

- Health Drink Manufacturing Units
- Medical Herbs Extraction Units
- Whey and Casein Products
- Cattle Feed Producing Units
- Home based Products like Pickles, Morabas, Vadi, etc.
- Food Preservation/ Storage and Packaging Units
- Food Safety/ Quality Certification Units

GLC Flow to Food and Agro-Processing: (In Crore ₹)

Sector	2020-21	2021-22	2022-23
Food and Agro-Processing	1400.91	3915.49	7198.41

Aggregate credit projections for the year 2024 - 25 in the Food and Agro processing sector in the State is estimated at ₹4331.84 crores.

4.3.2 Agri Ancillary Activities – Others

Agri-ancillary activities have the potential to enhance the livelihoods of farmers and rural population, when coupled with adequate access to affordable credit. The following support is available from Banks:

Loans for setting up of Agri-Clinics and Agri-Business Centres (ACABC) The scheme aims to provide quality extension services to the farmers through a qualified agri-entrepreneur. The scheme covers full financial support for training, handholding, provision of loan and credit-linked back-ended composite subsidy at 36% for general and 44% for SC/ST category. Ceiling of ₹ 20 lakh for individual project and ₹ 100 lakh for group projects. The scheme is being implemented by MoAFW, with NABARD acting as the subsidy channelising agency. At present, there are 02 Nodal Training Institutes (NTIs) approved by MANAGE, Hyderabad for the Scheme in Punjab, viz. ATMA, Faridkot and Amritsar Group of Colleges, Amritsar.

Loans to Custom Service Units

Loans to Custom Service Units managed by individuals, institutions or organizations, who maintain a fleet of tractors, bulldozers, well-boring equipment, threshers, combines, etc, and undertake farm work for farmers on contract basis, are eligible for categorisation as priority sector advance.

Loans to PACS/FSS/LAMPS

Loans are available to Farmers Service Societies (FSS) and Large-Sized Multi-Purpose Societies (LAMPS) cater to the credit needs and provide technical guidance in agriculture and marketing.

Loans to MFIs for on lending

Banks are allowed to extend credit to registered NBFC-MFIs and other MFIs for on-lending to individuals and also to members of SHGs / JLGs. The disbursed loans are eligible for categorisation as priority sector advance under respective categories.

GLC Flow to Other loans to Coop Sec. etc.):

(In Crore ₹)

Sector	2020-21	2021-22	2022-23
Other loans to Coop Sec. ACABC etc	3548.57	4059.58	5847.38

Aggregate credit projections for the year 2024-25 for others-loans to PACS, ACABC etc. in the State is estimated at ₹11475.79 crores.

4.3.3 Others - Miscellaneous

4.3.3.1 Loans to SHG/JLGs

Microfinance is an economic development tool whose objective is to assist the poor to work their way out of poverty. Based on the observations of various research studies and an action research project carried out by NABARD, the model of 'SHG-BLP' was evolved as a cost effective mechanism for providing financial services to the unreached and underserved poor households.

Financing of Joint Liability Groups

Besides the SHG-BLP, NABARD has been supporting formation of informal groups, viz., Joint Liability Groups (JLGs) with 4-10 members for taking up economic activities. These are livelihood groups who come together on the strength of the mutual guarantee to seek livelihood finance for pursuing an economic activity. JLGs are formed for tenant farmers and small farmers / women workers who do not have proper title of farmland or security to offer, but needed term credit or seasonal credit for pursuing their farm sector activities. NABARD, besides, extending financial support for awareness creation/capacity building of all stakeholders, also extends 100% refinance support to Banks for their lending to JLGs. To facilitate promotion of JLGs, group-promoting institutions including banks are eligible for incentive from NABARD. Cumulative number of JLGs credit linked in Punjab is 4.25 lakh with total cumulative loan disbursed ₹7106.91 crore as on 31 March 2023.

4.3.3.2 Loans to distressed persons to prepay non-institutional lenders: As per RBI Master Directions dated July 07, 2016 and updated on August 01, 2018, loans to distressed farmers indebted to non-institutional lenders have been classified under Priority Sector Lending. In addition, loans to distressed persons, other than farmers (not exceeding ₹1 lakh) are eligible for priority sector lending under the sub-classification of Weaker Sections.

4.3.3.3 Pradhan Mantri Jan-Dhan Yojana (PMJDY): In a bid to take the financial inclusion programme to the next level and ensure coverage of all the unbanked with a safety net, the GOI launched the Pradhan Mantri Jan-Dhan Yojana (PMJDY) on 15 August 2014. Every account holder under the scheme is entitled to get a RuPay Debit Card, accidental cover of ₹2 lakh besides an overdraft facility of ₹5000/- subject to satisfactory operation

of the SB account. In Punjab, as on 31.03.2023, total beneficiaries (both rural and urban) stood at 8774346. The number of Rupay Cards issued stood at 6542290 and Rupay Cards activated at 4747889.

4.3.3.4 Loans to state sponsored organisations for SC / ST: Government of Punjab through its Punjab Scheduled Castes Land Development and Finance Corporation is extending financial support to SC & ST under following schemes:

Direct lending Scheme: Any scheduled caste person between the ages of 18 years to 50 years residing in Punjab is eligible to avail loan under this scheme. Under this schemes income limit is ₹1.00 lakh but at time of considering the loan case of the applicant, his annual income from all sources would be taken into consideration. Maximum loan limit is ₹5.0 lakh, (2 exceptions exist: loan for higher education is ₹10.00 lakh while for land purchase, the maximum limit is ₹30.00 lakh).

Bank tie up Scheme: The Corporation is providing loans in collaboration with leading Banks for the economic upliftment of the members of the Scheduled Castes living below the poverty line in the State of Punjab. Apart from this, the Corporation provides schemes in collaboration with NSFDC, NSKFDC, NHFDC and also a self-employment scheme.

GLC Flow to Micro-Finance:

(In Crore ₹)

Sector	2020-21	2021-22	2022-23
Micro-Finance	9.29	9.99	10.39

The overall credit potential estimation for the micro –finance sector has been estimated at ₹ 3147.14 crore for FY 2024-25.

4.4 Micro, Small and Medium Enterprises (MSME): Working capital and Investment Credit

Present Scenario

The State is regarded as the manufacturing hub of North India - with 1.5% of India's geographical area, Punjab contributes 2.5 % to India's GDP, especially in electrical items, farm machinery and implements, sports goods, hosiery and woollens, garments making, etc., through MSMEs.

The challenge now is to consolidate its position and ensure sustained growth with new products and services.

Initiatives by Government

- To promote industrial growth, Punjab Government is focusing on MSME sector through its Industrial Policy and Budget. This is to increase the Share of Secondary sector in GSDP to 30% and Tertiary sector to 62%. Thrust sector of investment in manufacturing will be e-vehicles, medical equipment, apparel, footwear & accessories, food processing units, electronics, aerospace, biotechnology and pharmaceuticals. In the e-sector, thrust will be on IT, life sciences, health care, tourism, entertainment parks and logistics.
- To give further boost to industrial sector in the state, the State Government has issued the 'Industrial & Business Development Policy-2022, which is a part of the vision to put the State back on high trajectory of growth and prosperity.

- In pursuance of the resolve of the Government to provide for One-stop Clearance of the proposals of new investments in the State, the Government of Punjab has established the Punjab Bureau of Investment Promotion (PBIP).
- Punjab Skill Development Mission is working towards fulfilling a target of providing Skill Development training to one lakh youth every year. (Source: pib.nic.in).
- Start-up Cell has been created in Punjab InfoTech to provide necessary Secretarial and Technical support to the Start-up Coordination Committee. This Cell shall act as a single connect with Government Departments where the Start-up needs to implement his project.
- To give boost to Ease of Doing Business initiatives, the State has implemented the Business Reforms Action Plan released by Government of India (BRAP 2020) and notable reforms are:
 - ✓ Invest Punjab Business First Portal extended to Districts.
 - ✓ Online land allotment through e-Auction.
 - ✓ Dedicated Commercial Court at Ludhiana.
 - ✓ Online single window system for granting construction permits. Joint site inspection system for granting construction permits involving building plan approval, release of temporary power connection, water & sewerage connections and Fire NOC.
 - ✓ Central Inspection System, No surprise inspections without HoD approval in Labour, Boiler, PPCB.
 - ✓ Electricity Connection in 7 / 15 days in Industrial Focal Points.
 - ✓ Integrated land records containing searchable data of land transactions, property tax and Court Cases.
 - ✓ Shop/commercial establishment Registration in 1 day, renewal eliminated.
 - ✓ GIS based maps of all Industrial Focal Points.
 - ✓ Online availability of master plans and cadastral maps.
 - ✓ Setting up of District Level Single Window System for MSME units
 - ✓ MSME Cluster Identification

NABARD Initiatives

- NABARD in association with State Govt. and other agencies has been promoting rural Off-Farm Sector by providing support for skill upgradation, marketing support, etc. in the State.
- During FY 2022-23, grant assistance for providing skill upgradation to 1230 matured members of SHGs/JLGs was sanctioned in the State under 22 MEDPs and 05 LEDPs.

GLC Flow to MSME:

(In Crore ₹)

Sector	2020-21	2021-22	2022-23
MSME	44285	53464	74729

The credit Potential for MSME sector is estimated to be ₹ 80,724.34 for the year 2024-25 which includes ₹ 35,984.72 crores for working capital requirements.

4.5 Export Credit

Present Scenario

India is expected to achieve export target of US\$ 1 trillion by 2024-25. At the same time, Punjab has been working on various policy initiatives and incentives to improve the business environment of the State, as is also observed in its 'Industrial and Business

Development Policy, 2017'. Punjab has been ranked as at the 10th place in the export preparedness index (EPI), 2022, released by the Niti Aayog. It got a composite index score of 58.95 out of 100 points on the basis of its export readiness and achievements, according to the Report. As a result, Punjab should easily be able to achieve an export target between a range of US\$ 9.2 to US\$ 10.3 billion. Total merchandise exports from Punjab stood at US\$ 7.09 billion in FY22, and US\$ 2.86 billion in FY23 (until August 2022) which mainly includes cereals, automobiles and auto parts, cotton, organic chemicals and apparels and apparel accessories topping the list of commodities exported from the state.

Government Initiatives

- In the year 2021, the state had come up with the 'State Export Plan 2021-26' to implement 'district as export hub' and 'one district one product' schemes for a focused approach to improve ease of doing business, increase efficiency in supply chains and augment export infrastructure. The plan christened, "Export Analysis & Export Vision – Punjab 2021-26", was an innovative exercise done by the state in which district by district, product by product, and issue by issue were analysed thoroughly with respect to the export potential and hoped that it will help as a reference in formulating policy and schemes for export promotion in the state.
- Central Govt. Scheme for 'Assistance to States for Developing Export Infrastructure and Allied Activity' is being implemented by Punjab Small Industries and Export Corporation (PSIEC), the nodal agency for promotion of exports in the state.
- The Export Promotion Capital Goods (EPCG) scheme enables exporters to import capital goods at concessional rate of duty and suitable export obligation.
- The government has launched the very ambitious scheme of Special Economic Zones (SEZs) in order to reduce procedural hurdles in importing inputs for exports and exporting finished products from India.

Action Points

- Infrastructure development is a key element to produce and move goods. Weak infrastructure is a major impediment to trade, competitiveness and sustainable development, therefore, Govt. should invest more in creation of infrastructure like electricity, roads, etc.
- Trading across borders is complicated in India as compared to developed economies. The government had mooted a single-window clearance system for exporters, but that the same is yet to be fully operationalized.
- Lower FDI inflows in India is one of the major factors influencing export growth. FDI brings with it not only much-required capital, but also improved technology and management expertise, thereby leading to improved productivity.
- Lack of forex branches in the districts and the operation handling outside district boundaries makes the credit access difficult for the exporter.
- Diversification of Exports basket to agro-based industries including food products, beverages, cotton, wood as well as paper may be encouraged.
- In order to motivate entrepreneurs to export and earn foreign exchange, Government may offer incentives. These incentives help reduce the tax burden of the exporters and also achieve a competitive price- edge for their products in foreign markets.
- Micro, Small and Medium Exporters should be properly trained by MSME / export organizations with technical assistance from banks regarding correct filling up of forms.
- Exporters may be encouraged to avail the credit export insurance facilities extended by ECGC.

GLC Flow to Export Credit:

(Amount in ₹)

Sector	2020-21	2021-22	2022-23
Export Credit	4639460	47904043	9718471

The Export Credit Potential in Punjab for the year 2024-25 is pegged at ₹13,085.93 crores.

4.6 Education

India has the world's largest population of about 500 million in the age bracket of 5-24 years, which provides a great opportunity for the education sector. Considering this fact, it becomes important that we, as a nation, focus on the 3 "Es" of Education, Employment and Employability, lest the demographic dividend becomes a demographic burden. While the 3 Es are inextricably linked, the 'E' of Education is the foundational stone for the other two and, hence, assumes prime importance.

Education is undoubtedly a core sector and the long-term economic, social as well as personal gains from education are well proved for individuals, families, communities and the development of a nation. The scope of education has widened both in India and abroad covering new courses in diversified areas. Knowledge and information would be the driving force for economic growth in the coming years. Loans for education should be seen as an investment for economic development and prosperity. Banks have been slowly and steadily growing its loans portfolio and has focused on the education loan sector as well.

Government Initiatives:-

The state government spending on education in Punjab has continuously increased from ₹4,339.54 Crore in 2010-11 to ₹15,654.2 Crore in 2023-24. Good governance, school leadership and active community engagement are pillars that have strengthened school education in Punjab.

The Educational Loan Scheme aims at providing financial support from the banking system to deserving/ meritorious students for pursuing higher education in India and abroad.

Challenges

- Banks need to play an active role by extending education loans to poor/need/meritorious students to pursue higher/technical/professional education.
- There is a need for dissemination of knowledge and information about the scheme of education loan.
- Poor skill levels. The formal education sector provides little applicability to practical work-place situations.
- Investment in the education field is lacking.
- Issues such as no industry-institute linkages, negligible industrial research, lack of customized courses, training of faculty etc.

GLC Flow to Education:

(Amount in ₹)

Sector	2020-21	2021-22	2022-23
Education	6491842	12505305	11272253

The credit potential for Education sector in Punjab is pegged at ₹5,850.17 crores for the year 2024-25.

4.7 Housing

Population growth and increasing urbanization has a direct bearing on the requirements of housing in India. With the increase in the disposable income of the people especially the middle-income groups coupled with easy accessibility and availability of institutional

finance and tax sops attached to housing, a new dimension to housing sector as a viable investment proposition has emerged. As a result, there has been not only increase in the supply of new houses but also improvement in the conditions of the existing housing stock. As the largest single investment for most families, and the driver of demand in the economy, housing is an engine of economic growth.

From very low exposure to the housing sector initially, banks have gone very fast in extending credit to this sector which has witnessed unprecedented expansion. With urbanization and higher level of economic growth, it is quiet natural that the housing sector has received a fillip. With changes in the economic condition of families and their aspirations, there is a growing need for houses. In fact, housing continues to be an economic force long after the sale is closed through activities such as furnishing, decorating, remodelling rooms, repairs, extensions, property alterations etc. The housing has emerged as a crucial sector in the country's economy.

Few of the flagship programs are as follows:

Pradhan Mantri Awaas Yojana (Gramin): The (PMAY) Pradhan Mantri Awas Yojana(G) is an initiative of the Government of India which aims at providing affordable housing to the urban poor by the year 2024. Under PMAY, the cost of unit assistance is to be shared between Central and State Governments in the ratio 60:40 in plain areas and 90:10 for North Eastern and hilly states. The unit assistance given to beneficiaries under the programme is ₹1,20,000 in plain areas and to ₹1,30,000 in hilly states/difficult areas /Integrated Action Plan (IAP) for Selected Tribal and Backward Districts. The unit size is 25 sq.m including a dedicated area for hygienic cooking. The beneficiary is entitled to 90 days of unskilled labour from MGNREGA. The beneficiary would be facilitated to avail loan of up to ₹70,000/- for construction of the house, which is optional. Funds will be transferred electronically directly to the account of the beneficiary.

Pradhan Mantri Awas Yojana (Housing for All - Urban): The Pradhan Mantri Awas Yojana (Urban) Programme launched by the Ministry of Housing and Urban Poverty Alleviation (MoHUPA), in Mission mode envisions provision of Housing for All by the year 2022, when the Nation completes 75 years of its Independence. The Mission seeks to address the housing requirement of urban poor including slum dwellers through following programme verticals:

- Slum rehabilitation of Slum Dwellers with participation of private developers using land as a resource.
- Promotion of Affordable Housing for weaker section through credit linked subsidy.
- Affordable Housing in Partnership with Public & Private sectors.
- Subsidy for beneficiary-led individual house construction /enhancement.

Beneficiaries include Economically Weaker Section (EWS), low-income groups (LIGs) and Middle-Income Groups (MIGs). The annual income cap is upto ₹3 lakh for EWS, ₹3-6 lakh for LIG and ₹6 + -18 lakhs for MIG. EWS category of beneficiaries is eligible for assistance in all four verticals of the Mission whereas LIG and MIG categories are eligible under only Credit linked subsidy scheme (CLSS) component of the Mission.

Credit Linked Subsidy Scheme for EWS and LIG

Under Credit Linked Subsidy, beneficiaries of Economically Weaker section (EWS) and Low Income Group (LIG) can seek housing loans from Banks, Housing Finance Companies and other such institutions for new construction and enhancement to existing dwellings as incremental housing. The credit-linked subsidy will be available only for loan amount upto ₹12 lakhs and such loans would be eligible for an interest subsidy at the rate of 6.5 % for tenure of 20 years or during tenure of loan whichever is lower. Total interest subsidy available to each beneficiary under this component is ₹2.30 lakh. The carpet area of houses being constructed under this component should be up to 30 sq.m. for EWS category and upto 60 sq.m. for LIG category.

Credit Linked Subsidy Scheme for Middle Income Groups – CLSS (MIG)

Middle Income Groups (MIG) with annual incomes of above ₹6.00 lakhs and upto ₹18.00 lakhs per year are eligible for interest subsidy on housing loans under the new CLSS (MIG). Beneficiaries are eligible for an interest subsidy of 4% on housing loans of up to ₹9.00 lakhs of those with an income of ₹12.00 lakh per year and of 3% on housing loans of upto ₹12.00 lakh of those earning upto ₹18.00 lakh per year.

Policy Initiatives of the Govt. of Punjab

It is the endeavour of the State government to provide real estate industry with favorable investment opportunities in terms of better infrastructure sport and single window clearance.

- The Punjab Cabinet has paved the way for the notification of the Affordable Colony Policy - 2018 to facilitate affordable housing for lower income groups, thereby also checking the mushroom growth of unauthorized colonies. With most unauthorized colonies found to have small sized plots that are normally purchased by economically weaker section (EWS) and lower income group (LIG), the state government has decided to relax certain provisions in approved colonies, including relaxation in saleable area, Floor Area Ratio (FAR) etc., with the aim to make plots available to the common man on affordable rates.
- The Cabinet has also given its nod to the new policy, aimed at offering higher density and floor area ratio (FAR) to the promoters who were keen to develop an affordable colony. The new policy has proposed rebate in rates pertaining to Change of Land Use (CLU), External Development Charges (EDC) and License Fee (LF) to enable construction of the maximum possible number of flats over an acre of land. This would help make these available to the lower income groups on affordable price. Plot sizes in such colonies shall be maximum up to 125 square yards and their average size shall not exceed 100 sq. yard. Under the policy, a maximum of five acres of land would be required to carve out an affordable colony in all the master plans of the State, except SAS Nagar and New Chandigarh master plans, wherein any activity to set up a colony is only allowed to be undertaken as per the provisions of the approved master plans.
- The policy proposes plotted, flatted and a mix of plotted and flatted development by the promoters. It also envisages the maximum saleable area for the flats at 65 per cent of the total project, as against the existing 50 per cent, which would come as a major relief to builders. Similarly, under the flatted development on roads of 40 to 80 feet and above, an FAR of 1:2 to 1:3 has been proposed. Parking norms for the dwelling units have also been relaxed.
- Refinance support from NABARD: NABARD supports rural housing by refinancing rural housing loans to Banks and other such eligible financial institutions for financing rural housing under priority sector lending.

The Punjab Housing & Urban Development Department is entrusted with the responsibility of ensuring proper and planned growth of urban areas with adequate infrastructure, amenities and services to the citizen. The Department is mandated to frame policies, prepare plans and schemes for the growth of the urban areas as well as creation of investment opportunities by accelerating economic growth of cities and towns.

PPP in affordable housing: A plethora of possibilities

The affordable housing stakeholder community is diverse and includes the Central Government, State Governments, real estate and infrastructure developers, financial institutions, urban planners and, most importantly, urban dwellers. Backed by a strong mandate of the Central Government, whose recent announcement to start building homes for the urban poor across 305 cities and towns is expected to boost the economy, the Affordable Housing segment has the potential to offer a multitude of opportunities to all stakeholders, provided there are concerted and aligned efforts in a common direction. In

this context, the private sector can play a significant role in bridging the current deficit of Affordable Housing

Housing loans under priority sector

Housing is one of the priority sectors identified by the Reserve Bank of India. Loans to individuals up to ₹35 lakh in metropolitan centres (with population of ten lakh and above) and loans up to ₹25 lakh in other centres for purchase/construction of a dwelling unit per family, are eligible to be considered as priority sector provided the overall cost of the dwelling unit in the metropolitan centre and at other centres does not exceed ₹45 lakh and ₹30 lakh, respectively.

GLC Flow to Housing:

(Amount in ₹)

Sector	2020-21	2021-22	2022-23
Housing	53015002	92579777	84480973

The credit potential for the Housing sector is pegged at ₹17,305.39 crores for the year 2024-25.

4.8 Social Infrastructure Involving Bank Credit

The provision of drinking water, sanitation, education, healthcare, parks & open spaces, public conveniences, community centers defines the quality of life of an individual. These services affect day-to-day life of people and have long-term impact in terms of longevity and earning capacity. In Punjab, economic and social infrastructure is well developed when compared with the country as a whole. However, due to insufficient budget for maintenance of public social infrastructures, rise in consumer demand for quality services there is growth of private equity participation in health and education. The participation of private sector in higher education and super-specialty medical facilities has increased over the years.

GLC Flow to Social Infrastructure:

(Amount in ₹)

Sector	2020-21	2021-22	2022-23
Social Infrastructure	7978709	11398973	1181102

Given the importance of social infrastructure for overall development and its impact on ultimate credit absorption in rural and urban areas, bank financing for building infrastructure activities viz., schools and health care facilities, drinking water facilities and sanitation facilities etc, potential of ₹4286.14 crores for 2024-25 envisaged under this sector.

4.9 Renewable Energy (RE)

The installed renewable energy capacity in India has increased from 115.94 GW in March 2018 to 172.00 GW in March 2023, i.e., an increase of around 1.48 times. Globally, India has the fourth largest Installed Capacity of renewable energy and is working towards achieving 500 GW of installed electricity capacity from non-fossil sources by 2030. The contribution of renewable energy to the power sector has increased manifold and is expected to increase in the future. However, the potential for each of the RE expected to increase in future with more resource assessments and technological advancements.

As of 2022, majority of the installed capacity in the state comes from thermal sources. However, the renewables and clean power sources, such as nuclear, hydro and other renewables (solar, wind etc.) constitute the remaining capacity. This could be increased

further, if Punjab were to leverage the power of biomass, abundant in the state due to its large agricultural sector.

Priority Sector Guidelines issued by RBI

Bank loans upto a limit of ₹30 crore to borrowers for purposes like solar based power generators, biomass-based power generators, wind mills, micro-hydel plants and for renewable energy based public utilities viz. street lighting systems and remote village electrification etc. falls under priority sector. For individual households, the loan limit of ₹10 lakh per borrower is considered under priority sector. It aims to encourage and support environment friendly lending policies to help achieve Sustainable Development Goals (SDGs). Promoting renewable energy resources also has a positive impact on the net creation of jobs. Adequate and reliable availability of electricity is indispensable for sustainable growth of the economy because it plays an important role as a factor of production.

Infrastructure and linkage support available, planned and gaps Infrastructure available

The Punjab Energy Development Agency (PEDA) is the nodal agency for propagation of this activity. The agency is promoting Institutional Biogas plants, Solar Energy, municipal waste, and wind energy plants etc. The agency is also engaged in imparting training to the beneficiaries and support solar thermal programme/plants and solar photovoltaic programme.

- The availability of huge quantity of wheat stubble and paddy husk, other agriculture wastes, by-product of industries and household waste provides good scope for generating biomass energy. Further, there is 50% to 80% subsidy available on projects for generating energy from biomass.
- The agriculture department /KVK has extension staff to guide the farmers about the benefits of biogas and implement the scheme.
- One Nodal Officer has been appointed in the district by State Govt. to make arrangement for supply/ construction and maintenance of bio gas plants.

Critical Gaps in infrastructure

- Awareness regarding generation and benefits of solar, biomass, wind energy has not yet percolated down and needs to be widely propagated by the Punjab Energy Development Agency (PEDA) and Indian Renewable Energy Development Agency (IREDA).
- Limited budget for providing subsidy to create a meaningful impact for the development of this activity.
- Small farmers are handicapped because of constraints of space.

Critical interventions required for creating a definitive impact.

Emphasis has to be placed on other renewable resources, especially on expanding wind power generation and in the emerging era of solar thermal and solar photovoltaic. Creating awareness among the bankers and rural population about solar home light systems is required. There should be adequate number of suppliers in the district. Exploring possibility of financing other renewable energy products like solar cookers, solar water heaters in residential and commercial buildings, wind pumps and designing suitable credit products.

Suggested Action Points

- While sanctioning big dairy units, a component of biogas may also be included at the project appraisal stage and separate financial assistance should be provided. Developing a biomass trading platform.
- Lead Bank in association with PEDDA may take up periodical review of targets allotted to the banks and ensure successful implementation of the programme.
- The subsidy schemes under National Solar Mission may be popularized in the State. Banks may extend credit support for installation of solar water heaters and solar lighting systems.
- While sanctioning loans for vehicles, special preference and rebate may be given to EVs. Special package loans may be provided for creation of adequate charging infrastructure
- Penetration of solar pumps can be increased by providing loans at less-than-market rates through co-operatives and gram panchayats.
- Promoting energy efficient cold storage working on solar power.
- Facilitation of e-tractors for farmers. Electric tractors, with their relatively economical costs, can become the most suited replacement to traditional diesel-driven tractors in the state.
- Financial incentives to increase uptake of solar water heaters in residential and commercial buildings.
- Projects may be implemented under PM-KUSUM for installation of pumps and grid connected solar and other renewable energy power. Projects may be submitted by state under RIDF.

Other related matters

- Biomass: Bio energy plants may be installed that can use paddy and wheat straw, dried cotton plants, etc. for power generation.
- Thrust Area: Bio mass/ Agro residue/ Urban, Municipal and Industrial Liquid / Solid waste/ Solar Power generation / wind power / promotion for Green Technologies.
- For the same NRSE works for Fuel cells/ Hydrogen energy/ geothermal energy/ Bio fuels/ Bio ethanol etc. have a great potential of becoming commercial RE technologies.

GLC Flow to Renewable Energy:

(Amount in ₹)

Sector	2020-21	2021-22	2022-23
Renewable Energy	6306160	159874	751918

The potential for credit in the Renewable Energy sector for the year 2024-2025 is estimated to be ₹ 761.46 crores.

4.10 Informal Credit Delivery System

Status of SHG Bank Linkage Programme

During 2022-23, 4581 SHGs were credit linked in Punjab State. A comparative position of progress of SHG Bank Linkage Programme in the State of Punjab vis-à-vis the country as a whole is given below:

Table 4.12: Status of SHG

(As on 31.03.2023)

Particulars	All India	Punjab
No. of SHGs saving linked (cumulative)	13403083	64560
No. of SHGs credit linked (cumulative)	4295521	10599

Average loan per SHG (₹)	2.70 lakh	0.90 lakh
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Issues relating to Microfinance

- Identification/ re-activating dormant/ inactive group by providing various capacity building initiatives both to bankers and SHG members.
- Issues relating to multiple membership and multiple financing to be addressed.
- Thrust on sustenance of existing groups with focus on quality of SHGs, which is key to sustenance. SHPIs/Banks need to introduce regular grading of SHGs. The SHGs need to be provided training for reiterating the basic tenets, group dynamics and proper book keeping.
- Addressing regional imbalance by targeting blocks where there is less development.
- Promotion of micro enterprises among the mature SHGs through skill development and market oriented training to them.

NABARD Initiatives to promote micro finance activities

NABARD has taken a number of initiatives for promotion of quality and sustainable SHGs, creating awareness as also to address the issues faced by SHGs in credit linkage, some of which are listed below:

- Designed Simple Account Opening Format in consultation with core group of bankers that was approved by SLBC.
- Designed Standardized Record Keeping for Groups through select group of bankers & NGOs with facilitation by NABARD.
- Capacity building of stakeholders viz. NGOs, Branch Managers of RRBs in the area of micro credit.
- Regular review meetings of NGOs at State level with NGOs for reviewing the progress and providing guidance.
- Regular State Level Meet of RRBs & CCBs to review SHG Programme & JLG scheme.
- SLBC forum used effectively for discussing problems in credit linkage of SHGs & monitoring of performance in credit linkage of SHGs.

Capacity Building

NABARD has been conducting capacity building programmes of all partners / stake holders of SHG Bank Linkage Programme. District level awareness programmes for various stake holders viz. NGOs, Banks, Govt. Officials are conducted which also include exposure visits to groups. Bank specific sensitization programme for branch managers / field officers are also convened by NABARD.

Grant Assistance to SHPIs

NABARD has been providing grant assistance to the Banks, NGOs, Farmers' Clubs and other agencies acting as SHPI, for promoting SHGs in non intensive blocks which are

Refinance Support

In order to boost micro credit efforts of the Banks, NABARD provides 100% refinance support to them against their lending towards Self Help Groups.

Micro Enterprise Development Programme (MEDP) and Livelihood and Enterprise Development Programme (LEDP)

To enhance the capacity of the members of matured SHGs to take up micro enterprises and sustainable livelihood activities through appropriate skill upgradation/ development in the

existing or new livelihood activities both in farm and non-farm sectors by way of enriching knowledge of participants on enterprise management, business dynamics, etc. NABARD has been supporting Micro Enterprise Development Programme (MEDP) and LEDP to enable the SHGs graduate to micro enterprises. MEDPs covering various activities like food processing, tailoring, embroidery & dari making, tie & dye, phulkari, goat rearing, home furnishing products, commercial horticulture, health care, fabric upgradation making of pickles, jams and aam papad, dairy farming, Jute bags and Jute products etc. have been sanctioned in the State for matured SHGs. During FY 2022-23, grant assistance for providing skill upgradation to 1230 matured members of SHGs/JLGs was sanctioned in the State under 22 MEDPs and 05 LEDPs.

Financing through Joint Liability Groups

Just as the SHG- BLP spearheaded by NABARD has proved to be successful in providing access to financial services from formal banking sector to millions of rural poor, more particularly women, NABARD has launched the scheme for promotion of **Joint Liability Groups (JLGs)** to develop effective credit products for small/ marginal/ tenant farmers/ oral lessees and sharecroppers as also entrepreneurs engaged in various NFS activities. The JLG mode of financing serves as a collateral substitute for loans provided to the small, marginal, tenant farmers, oral lessees, share croppers, etc. It enables the banks to reach farmers through group approach, adopt cluster approach, and facilitate peer education credit discipline.

The essential feature of JLG is that it is an informal group comprising of 4-10 individuals coming together for the purpose of availing loan on individual basis or through group mechanism against mutual guarantee. Generally, members of a JLG would engage in the group serves as security for loan repayment. To facilitate promotion of JLGs, Banks/ group promoting institutions including banks are eligible for incentive from NABARD. Incentives will be extended for formation, nurturing and credit linking/ financing of JLGs over a period of 03 years @ ₹4000/- per JLG for Co-operative Banks and RRB and @ ₹2000/- per JLG for SCBs.

The number of JLGs promoted in Punjab during 2022-23 is 85442 and the loan disbursed to these JLGs is ₹145623.53 lakh.

Issues related to micro-Finance

There are following challenges in propagation of micro credit, which need to be addressed:

1. Simple Account Opening Form for SHGs not adopted by all the branches.
2. Some branches insist for KYC verification of all the members of SHGs at the time of account opening whereas as per RBI guidelines KYC verification of Office Bearers is required.
3. Branch Managers are not regularly attending PMIC meetings with the result issues of credit linkage of SHGs promoted by NGOs are not addressed.
4. Some Groups have to visit banks number of times for credit linkage. It would be desirable if bank branches could fix dedicated time in a week for SHGs / JLGs.
5. Data on Saving & Credit linkage of Groups is not supplied by branches to Lead Bank Office.
6. Some of the Branch Managers/ Loan Managers are not aware about SHG-BLP and they are reluctant to finance SHGs.

Road map for the future

The SHG movement needs to be scaled up in the State to cover the entire rural poor families under the SHG movement to eradicate the poverty. Apart from mitigating the challenges

as indicated in the previous paragraph, the following strategies may also be adopted by all concerned:

- NGOs should be invited in the DCC / BLBC meetings to discuss issues / constraints in credit linkage of Groups.
- Financial Literacy Awareness Campaigns should be launched for members of SHGs with focus on opening of accounts of all the members of SHGs.
- All eligible members of SHGs should be covered under three Security Schemes PMJJBY, PMSBSY, APY launched by PM.
- Success stories of SHG-BLP would be aggressively publicized in the field so that the same are replicated in other parts of the district.

Chapter V**Status and Prospects of Cooperatives**

A cooperative is defined as ‘an autonomous association of persons united voluntarily to meet their common social, economic and cultural needs as well as their aspirations through a jointly owned and democratically controlled enterprise’.

A cooperative is governed by seven major principles, i.e. voluntary and open membership; principle of democratic member control; principle of member economic participation; principle of autonomy and independence; principle of education, training and information; principle of cooperation and, principle of concern for community.

Cooperative enterprises help their members to collectively solve shared socio-economic problems. Cooperatives strengthen bargaining powers of their members; help them get access to competitive markets and to capitalise on new market opportunities. As such, they improve income opportunities, reduce costs and manage risks of the members.

5.1. Status of Cooperatives in the State

The State of Punjab has a 3-tier structure under ST Coop. Credit Structure. At apex level there is PStCB followed by 20 nos. of District Central Coop. Banks at the district level and 3552 nos. of functional PACS at the grassroot level. The important financial parameters of the PStCB as on 31.03.2023 are tabulated below:

(₹ lakh)

Parameters	Financial Status (position as on 31.03.2023)
Shared Capital	16981.34
Deposits	383398.70
Loans and Advances O/s	568554.39
CRAR (%age)	14.08
Annual profit	2678.08
Net NPA %	0.00%
Recovery %	98.62%
Investment	276270.60
Borrowings	388364.63
Accumulated Loss	0.00
Total Number of Branches	17 branches +01 Extension Counter

Source: Data consolidated from The Punjab State Coop. Bank Ltd., Chandigarh

The important financial parameters (consolidated figures) in respect of 20 DCCBs affiliated to PStCB as on 31.03.2023 were as under: (₹ lakh)

Parameters	Financial Status (position as on 31.03.2023)
Total Assets	Not available
Deposits	1857010.42
Loans and Advances Outstanding	1164276.77
Total Business	3021287.19
Profit/ Loss	-2969.48
CRAR %	Out of 18 only two DCCBs namely Ferozpur DCCB; Tarn Taran DCCB; have CRAR less than 9% as on 31.03.2023.

Parameters	Financial Status (position as on 31.03.2023)
Networth	171985.89
Gross NPAs	128383.30, 11.03% For the Group as a whole the gross NPA in absolute term has decreased by 1.81% on a Y-o-Y basis.
Net NPAs	22216.20
CASA Deposit	774001.94
Business per Branch	3767.19
Business per Staff	941.80
Branch network	802 branches
Staff Strength	3208 persons

Source: Data consolidated from The Punjab State Coop. Bank Ltd., Chandigarh

As far as the LT Coop. Credit Structure is concerned, the state has a federal structure with PSCADB at the State Level and 89 nos. of PABs at the district level.

The important financial parameters of PSCADB (**Tentative** position as on 31.03.2023) were as under: (₹ lakh)

Parameters	Financial Status (position as on 31.03.2023)
Capital Funds	
Tier-I Capital	
Paid –up share capital	7888.15
Statutory reserves and other free reserves	32113.77
Capital Reserves arising out of sale of assets	
Surplus in P&L Account (Undistributed profit less probable dividend outgo)	20147.37
TOTAL	60149.29
Deduct	
Accumulated Losses	Nil
Short provision	Nil
Net Tier I Capital	
Tier-II Capital	
Undisclosed reserves, if any	
Revaluation Reserve	
Provision for standard assets	536.97
Excess provision for NPAs	Nil
Investment fluctuation reserve , if any	
Total of Tier-I and Tier II capital	
Risk weighted assets	
CRAR%	32.96
Overdues%	85.01
Gross NPA	115740.06
Gross NPA %	62.05
Provision Coverage Ratio %	

The financial performance of 89 PADBs affiliated to PSCADB (position as on 31.03.2022) are as under: (₹ lakh)

S.No.	Particulars	Position as on 31.03.2022
1	No. of PADBs	89
2	Paid up share capital	13909.36

S.No.	Particulars	Position as on 31.03.2022
3	Owned Funds	6630.11
4	Working Capital	511834.57
5	Loans Outstanding	194462.70
6	No. of PADBs in profit	05
7	Amount of profit	355.48
8	Percentage of overdue	85.01
9	No. of PADBs in loss	84
10	Accumulated losses	16641.96
11	Imbalances	24886.85
12	NPA percentage (NET NPA)	50.47

5.2. Sector-wise/ Activity-wise distribution of Cooperatives

The details are as under (position as on 31.03.2023)

Sr. No	Type	Number of Societies
J. Details of Non-Credit Cooperative Societies		
1	AH Sector (Milk/Fishery/Poultry etc.)	6873 Primary Coop. Milk Producers' Societies affiliated to 11 nos. of Distt. Coop. Milk Producers' Union (DCMPU) and federated at the State level as Punjab State Coop. Federation of Milk Producers' Union Ltd. (MILKFED), Chandigarh.
2	Consumer Stores	NIL
3	Housing Societies	684 Primary Coop. House Building Societies federated at the State Level as Punjab State Coop. Housing Federation Ltd., (HOUSEFED).
4	Weavers	NIL
5	Marketing	85 functional Primary Coop. Marketing Societies and federated at State Level under the aegis of MARKFED.
6	Labour Societies	2141 Primary Cooperative Labor and Construction Society , federated into 17 District Cooperative Labor and Construction Unions and further federated at the State level as the Punjab State Cooperative Labour and Construction Federation Ltd.
7	Industrial Societies	NIL
8	Agro Processing and Sugar	85 Non- Credit Societies - Agro-allied/Agro-processing and 15 nos of Coop. Sugar Mills federated at the State Level into Punjab State Coop. Sugar Mills Federation Ltd. (SUGARFED).
9	All others	29 Coop. societies federated at the State Level into Punjab State Coop. Development Federation Ltd. (PUNCOFED), Jalandhar with a membership of 29 Coop. Societies.
	Total	9358
K. Details of Credit Cooperative Societies		
10	Primary Agriculture Credit Societies	As on 31.03.2023, the total number of PACS in the State stood at 3967. Out of the same

		only 3552 are active whereas the remaining 415 PACS were defunct /dormant.
L. Details of Multi State Cooperative Societies		
11	No. of MSCS	NIL
<i>Source: Annual Administrative Report, Dept. of Cooperation, Govt. of Punjab-2020-21, Statistical abstract of Punjab 2022-23.</i>		

5.3. Status of Cooperatives in the District

Sr. No	Type	Number of Societies
A	Non Credit Cooperative Societies	
1	AH Sector (Milk/Fishery/ Poultry etc.)	232
2	Consumer Stores	0
3	Housing Societies	18
4	Weavers	0
5	Marketing	15
6	Labor Societies	232
7	Industrial Societies and Agro processing	10
8	Sugar	1
9	All others	33
	Total	541
B	Credit Cooperative Societies	
10	Primary Agriculture Credit Societies	184
C	Multi State Cooperative Societies (MSCs)	
11	MSCs	

The district has an average cooperative profile with 725 cooperative societies working in diverse sector such as milk, housing, industrial sector etc. covering almost all the potential sector in the district. The district lacks cooperative societies, which are working in Agro processing, or for that matter there are no cooperative societies, which play a part of any value chain apart from the Milk Cooperatives. Also, none of the PACS have undertaken any agro processing activity as part of Multi-Purpose Cooperative Societies transformation.

5.4 Status of PACS Computerization: This scheme aims at computerization of 63000 functional PACS across the country leading to increase in efficiency, profitability, transparency and accountability in the working of PACS. The Govt. of Punjab is computerising the operations of 3482 PACS under the Centrally Sponsored Project for computerisation of PACS. In Punjab, the budgetary provision of ₹ 72.94 Crore has been made for the project. As on 20.12.2023, 3482 out of 3523 PACS have identified by the state for computerization in the first phase. Remaining 41 PACS will be taken up in second phase.

5.5 Potential for formation of cooperatives: There is fair potential for cooperative activity in the Agro Processing, Joint farming and Multi Service Societies, as elucidated in the relevant chapters.

The distribution is uniform in all the blocks and all areas are covered under some of the societies.

Chapter VI

Infrastructure Support

Introduction

The Indian farmer faces many challenges like constraints of marketing and processing of agricultural produce and poor infrastructure. The greatest challenge lies in reducing the transaction costs for farmers by providing them access to excellent physical infrastructure. A comprehensive value chain model covering innovations in farming, transportation, storage, processing, value addition and marketing can help farmers earn profit in a sustainable manner.

6.1 The Importance of public investment in agriculture and rural infrastructure:

Public investment by State and local government builds the nation's capital by devoting resources to the basic physical infrastructure such as roads, bridges, rail lines, airports and water distribution, green investments (clean power sources) and education both primary and advanced, as well as job training that leads to higher productivity and/or higher living standards.

Rural Infrastructure Development Fund (RIDF) in NABARD has been the most important additional source of finance for State Government, on easy terms, including lower rate of interest, in their efforts to create rural infrastructure. NABARD, as the apex level development bank, has been supporting creating/strengthening of rural infrastructure and other promotional activities in the development of agriculture, allied and rural non-farm sector activities as well as rural areas of the country in the primary sector. Special funds like RIDF, NIDA, and MIF are deployed for the development of infrastructure in rural areas.

RIDF was set up in Financial Year 1995-96 with an initial corpus of ₹2,000 crores. RIDF XXIX (2023-24) has a corpus of ₹40000 crores. It has emerged as NABARD's major partnership with state governments for the creation of a wide variety of rural infrastructure covering 39 activities, under three broad categories, viz, agriculture and related sectors, rural connectivity and social sectors.

NABARD has sanctioned RIDF assistance of ₹855.81 crore (106%) against a normative allocation of ₹800.00 crore allocated to the state during FY 2023-24. Similarly, disbursement to the tune of ₹787 crore (104.93%) against the disbursement target of ₹750 crore had been made to the State Govt during FY 2022-23.

6.2 Infrastructure Indicators

Punjab has relatively good infrastructure in place. It has given priority to development of infrastructure during the plan periods and matching funds were allocated in different plans. As a result, the State has developed a strong infrastructure base, reflecting in a relatively high infrastructure index. All the villages in the State have all weather connectivity, power supply and potable drinking water supply.

At present, the challenge before the State is to further strengthen and maintain the infrastructure created and improve its efficacy for better performance of agriculture and allied activities in the rural areas.

6.3 Critical Infrastructure Requirement Identified

In order to prioritise investments in rural infrastructure strategically, NABARD has taken the initiative in identifying infrastructural gaps, which could be supported under RIDF and other sources.

6.4 Sector-wise Infrastructure Requirement

The details of critical infrastructure support that is required to be provided (both in physical and financial terms) during FY 2024-25 are indicated below:

Table 5.2: Sector-wise distribution of critical infrastructure

(₹ crore)

Sr. No.	Sector	No. of projects	Tentative Cost of the project
1	Tourism	16	3305.99
2	Connectivity	119	8885.38
3	Drinking water & Sanitation	42	7111.64
4	Education	41	8229.93
5	Irrigation	13	13407.19
6	Food Processing & Agriculture	11	16.66
	TOTAL	242	40956.79

Source :(PM Gati Shakti)

6.4.1 Agriculture

The focus of infrastructure or agricultural development revolves around soil health and water conservation, maintaining soil quality for increasing productivity and sustaining crop yields. Stagnation in yield of crops, depletion of underground water table, waterlogging because of excessive use of surface water and inadequate storage space are critical problems which stifles Punjab agriculture and require serious interventions measures and solutions in the State.

6.4.1.1 Irrigation Sector

Punjab has high irrigation intensity with 99% (against national average of 40%) of which 73.00% is irrigated by tubewells and rest is by canals. About 14.82 lakh tube wells draw underground water for irrigating crops in both the seasons. Free power supply for agricultural use in the State probably tempts the farmers to draw water without judiciousness. The concern is that the average annual rainfall in Punjab is about 438mm out of which 51% fall in the months of July and August. Hence, recharge of ground water is not adequate. The stage of ground water development is alarmingly high at 170%. In districts like Sangrur, Kapurthala, Jalandhar, Fatehgarh Sahib, Mansa and Moga, the stage of ground water development is more than 200%.

The State has three major water-related problems. First, rapid ground water depletion, where 79 percent of the State is under severe stress. Second, waterlogging has severely hit the south western districts of state particularly Muktsar, Fazilka, Ferozpur and Faridkot. At present, 1.04 lakh hectares suffer from critical waterlogging. This area consists of 34 saucer-shaped pockets, which are completely submerged and unfit for cultivation. Thirdly, floods affect the border areas and the sub-mountainous Kandi areas. Keeping this in view, following infrastructural projects are suggested.

Construction of Small Masonry Check Dams: In order to harness rainwater, small dams may be constructed in Hoshiarpur, Gurdaspur, Pathankot and Ropar districts so that they can support irrigation as well as add to underground water recharge. Construction of dams also checks soil erosion and denudation.

Surface drains/ lift structures in waterlogged areas: Muktsar district is badly hit with waterlogging. Construction of surface drains and other suitable structures for lifting the surface water may protect around fifty thousand hectares of arable land in the district.

Need for channelizing the water (surface waters) from two waterlogged districts to irrigate the fields in water-starved region of southern Punjab.

Drip/ Sprinkler Irrigation systems: Flood irrigation is widely practised in the State. Keeping in view the excessive pressure on underground water reserve and gradually reducing water table, it is utmost essential to motivate the farmers to resort to micro irrigation system like sprinkler irrigation and drip irrigation. The farmers need to be educated, motivated and incentivised for adopting micro irrigation technology.

Irrigation in *Kandi* blocks: Irrigation potential in the *Kandi* blocks of SBS Nagar and Rupnagar districts may be enhanced with the support of deep tubewells.

Flood Protection Structures: Over flowing of rivers and rivulets, especially during the rainy days, create flood like situations and damage crops very often in districts like Gurdaspur, Hoshiarpur, SBS Nagar, Patiala, Sangrur, etc. Therefore, construction and lining of embankments and flood protection structures along the watercourses may help in protecting the crops from floods.

Lining/re-lining of Water Courses/ canals/distributaries: In most parts of the State, due to soft, sandy & loamy texture of soils, percolation losses are very high. Irrigation potential gets drastically reduced in the absence of cemented bed and lining of the irrigation water distribution system. Thus, lining of distribution system is highly essential to enhance irrigation efficiency of a minor irrigation project.

Cleaning/rejuvenation of Village Ponds: Village ponds commonly known as 'chhapper' or 'tobas' are an integral part of rural Punjab, which were once used as source of water for human and animal consumption. However, presently most of the village ponds in the State have either silted or are filled up, encroached upon or being used for disposing village sewerage.

6.4.1.2 Animal Husbandry

Following infrastructural projects are suggested in the State:

- Modernisation of disease diagnostic labs and veterinary infrastructure in the State with latest and adequate equipment for disease testing, animal healthcare and breeding.
- Research infrastructure for developing suitable crossbreed meat variety of goat & setting up of additional goat breeding farms to meet the requirement of the borrowers.
- Breeding/AI facilities available in the State seems to be inadequate.
- Pashu Palak Tele Advisory centers may be set up to provide on line treatment/suggestion for animal husbandry farmers.

6.4.1.3 Soil and Water Conservation

Soft subsoil in most parts of the State and especially in *Kandi* region of the State gets eroded by rain water runoff and damages standing crops either by soil erosion or by depositing silt. In order to protect crop lands as also to facilitate recharge of underground water, location specific structures like check-dams, rain harvesting structures, run off controls, protection of land etc. may be constructed especially in districts like Rupnagar, SBS Nagar, Jalandhar, Gurdaspur and Hoshiarpur.

6.4.1.4 Agriculture Extension and Support System

One of the major reasons for stagnation in agricultural production is that all the research and innovations made by Agriculture Universities in farming have not reached the target community. There is seldom any crop rotation from paddy and wheat cycle. Farmers in the State use fertilizers and pesticides irrespective of the soil health or crop requirement. Farmers resort to burning of paddy and wheat crop residue and stubbles, which is not only damaging the soil moisture and micro-organisms favourable for crop productivity; it has also started to affect our atmosphere. All these factors reflect the inadequate awareness among farmers, which could be addressed by strengthening the extension services in the State.

In order to support the extension infrastructure in the State, agricultural polyclinics, seed treatment, micronutrient testing and treatment centres, mobile soil and water testing laboratories, Farmers' Training Centres, Agro Processing units, Agro Service centres, strengthening agri-marketing infrastructure, etc. may be ensured at district and block levels. Capacity building for adoption of technology of farmers may be undertaken to demonstrative units within state and other states.

6.4.2 Rural Connectivity

All the villages in the State have pucca road connectivity. Every year, about 4.5 lakh ha additional vehicles, including about 6000 tractors, 10000 trucks/lorries, hit the roads in the state. Therefore, traffic density on the road increases over the year. Rural roads have a life of 5-7 years and every year 15-20% of rural roads need improvement. Paddy, wheat, maize, potato and kinnow are the main farm produce of the State, which need huge transportation system backed by surface connectivity. Tapping the agricultural commodity market at the right time is the key towards reaping productivity benefits. Farmers have very less time and space for storage of farm produce and hence they transport the produce directly from the farm to markets. Therefore, rural connectivity plays a pivotal role in the State's economy.

Further, movement of heavy-duty farm machineries also need *pucca* and wide roads for quick movement. Moreover, Punjab is having about 16000 km long road network and many narrow and old bridges and culverts exist which need widening and improvement for movement of farm machineries and goods carrying vehicle ensuring backward and forward linkages.

6.4.3 Social sector

Provision of rural drinking water supply, health and education infrastructure are the major social sector infrastructure interventions needed in the State. RIDF has emerged as NABARD's major partnership with the state governments for the creation of a wide variety of rural infrastructure covering 39 activities, under three broad categories, viz., agriculture and related sectors, rural connectivity and social sectors.

6.5 Emerging sub-sectors requiring infrastructure support

6.5.1 Post Harvest Management /Value addition

Horticulture, especially fruit and vegetable cultivation is a prominent agricultural activity in the State. As a result of concerted efforts of the State Government and other stakeholders, farming community in the State is slowly allocating part of agricultural land to horticultural activities. Horticulture produce is highly perishable in nature. Management of entire supply chain has special significance in enhancing shelf-life of horticulture produce and in retaining its nutritive value. Supply chain management or popularly known as post-harvest management (PHM) of fresh horticulture produce includes on-farm handling, sorting and grading, packaging, transport and storage solutions including cold chain. The producers and entrepreneurs require quality planting material, farm inputs, packaging material and PHM technology prescribed by experts and overseas buyers for ensuring export competitiveness.

Currently, 15 types of fruits with total production of 2.41 million tonnes and 11 types of vegetables with total production of 6.51 million tonnes are produced in the State. Punjab is a leading producer of kinnow, peach, pear and guava. The approximated Horticultural production in the state is 9.09 million tonnes. The major area of fruit crops is under citrus fruits (46290 ha) and is concentrated in Ferozepur, Fazilka, Hoshiarpur and Muktsar districts (80% of area). Similarly, vegetables are grown in 3.16 lakh ha and the production is to the extent of 65.09 lakh MT. Government of India (GoI) has accorded top priority for the development of the food processing industry in the country and accordingly a Food Processing Fund (2014-15) with a corpus of ₹2000 crores has been established in NABARD to make available affordable credit to the sector. Under this, loans are being provided by NABARD to State Governments, entities promoted by State/Central

Governments, Joint ventures, Cooperatives, Federation of Cooperatives, SPVs, Farmers' Producers Organizations, Corporates, Companies, Entrepreneurs, etc., at concessional rate of interest for establishing the designated Food Parks and also for setting up of individual food/agro processing units in the designated Food Parks.

6.5.2 Warehouse/ Storage infrastructure

The state agencies viz. PUNGRAIN, PUNSUP, PSWC etc. are using covered storage space of about 146 lakh MT, for storing foodgrains. Of the total, 50% of the space is owned by these agencies and the rest is hired from private parties. Besides these covered storage, the State also has about 75.59 lakh MT of open storage space, which is primarily used to store wheat, as paddy cannot be stored in open. The open storage space of 75.59 lakh MT needs to be urgently converted to silos/covered storage structure in view of the unscientific manner of storage in open areas and the consequential losses associated with such form of storage. In addition to this, covered storage units of 11 lakh MT capacity is required as per assessment by the FCI. The NABARD-operated Warehouse Infrastructure Fund (WIF) was instituted by the Government of India with a corpus of ₹5,000 crores in 2013–14. The WIF corpus was augmented with a further allocation of ₹5,000 crores in 2014–15.

The Warehouse Infrastructure Fund (WIF) was designed to:

- Provide credit to public and private players for creation and augmentation of decentralised modern scientific storage facilities;
- Leverage credit facilities for farmers against stored produce to reduce the need for distress sale; and
- Realise better prices for agri-produce immediately after harvest.

NABARD had financed projects for creation of new 519.8 thousand metric tonnes capacity and improvement/modernisation of existing facilities of 2.73 million metric tonnes (MMT) with estimated assistance of ₹276.72 crores under WIF in Punjab.

6.5.2.1 World's Largest Grain Storage Project:

Embodying the vision of "Sahakar-se-Samridhi", the "World's Largest Grain Storage Plan in Cooperative Sector", to be rolled out as a Pilot Project. This visionary plan entails establishing diverse agricultural infrastructure at the level of Primary Agricultural Credit Societies (PACS), encompassing warehouses, custom hiring centres, processing units, etc., by elevating PACS into multifunctional entities.

It will address the lack of agricultural storage infrastructure by establishing godowns at the PACS level and empowers PACS to engage in other roles such as: Acting as procurement centres for State Agencies/ Food Corporation of India (FCI), functioning as Fair Price Shops (FPS), establishing custom hiring centres, creating common processing units for sorting, grading, and more. In Punjab, the process of identification of eligible PACS for implementation of the said scheme is under process by state Govt.

6.5.3 Power and Renewable Source of Energy

There is adequate scope for generation of energy through solar, biomass and mini hydel sources. Support under NABARD Infrastructure Development Assistance (NIDA) has been designed to fund directly State owned institutions/corporations on both on budget and off budget for creation of rural infrastructure outside the ambit of RIDF. Besides this, assistance is also available for funding the rural infrastructure projects, which are being implemented on PPP mode. The flexibility of terms and conditions and limited borrowing power of State Governments warranted opening of a new window for funding well managed State entities. NABARD Infrastructure Development Assistance (NIDA) has provided funding support to PSTCL for installation of transmission lines and setting up of new sub-stations.

6.5.4 Food Processing Fund

Government of India instituted the Food Processing Fund (FPF) in NABARD in 2014–15, with a corpus of ₹2,000 crores. Credit support under the dedicated fund enables public and private players for setting up food parks and food processing units in designated food parks (DFPs) notified by the Ministry of Food Processing Industries (MoFPI), Government of India. In Punjab, a term loan of ₹27.13 crores has been sanctioned to Punjab Agro Industries Corporation (PAIC) for setting up Gurukripa Mega Food Park in Ladhawal, Dist. Ludhiana. Presently, 19 food-processing units have been established under this food park.

6.5.5 Dairy Processing and Infrastructure Development Fund

In line with its announcement in the Union Budget 2017–18, Government of India had created a Dairy Processing and Infrastructure Development Fund (DIDF) in NABARD, with a total corpus of ₹8,004 crores to be utilised over a period of five years. The objectives of the scheme are modernisation and infrastructure augmentation for milk processing and value addition and to ensure optimum price realisation by the primary producers. It envisages creation of additional milk processing capacity of 12.6 million litres per day (MLPD), modernisation capacity of 1.2 MLPD, milk powder processing capacity of 210 million tonnes per day (MTPD), and other infrastructure facilities during the implementation period. Under DIDF, the National Dairy Development Board (NDDB) / National Cooperative Development Corporation (NCDC) can borrow money from NABARD for on-lending to eligible end borrowers such as cooperative milk unions, state cooperative dairy federations, multi-state milk cooperatives, milk producer companies, and NDDB subsidiaries.

6.5.6 Micro Irrigation

The Hon'ble Finance Minister in the Union Budget 2017–18 announced the setting up of the Micro Irrigation Fund (MIF) in NABARD with an initial corpus of ₹5,000 crores which has been increased to ₹ 1000 Crore. Ministry of Agriculture and Farmers' Welfare (MoA&FW), Government of India is the nodal ministry for implementation of the fund. The objective of the fund is to facilitate the mobilisation of resources in states for expanding the coverage of micro-irrigation by taking up special and innovative projects and also for incentivising micro-irrigation beyond the provisions available under Pradhan Mantri Krishi Sinchayee Yojana—Per Drop More Crop (PMKSY– PDMC). MoA&FW, GOI will provide 3% interest subvention. NABARD has operationalised MIF with the sanction of ₹150 crore loan in Punjab for promoting intelligent micro irrigation in 25000 Ha during FY 2021-22. During the year 2022-23, 3039.27 ha area covered under micro irrigation which consist of 1,210.56 ha under drip and 1828.71 ha under sprinkler irrigation.

6.5.7 Promotion of Market Infrastructure in Gramin Agricultural Markets

To bridge the gap in agri-market infrastructure, Hon'ble Finance Minister in the Union Budget 2018–19, announced an Agri-Market Infrastructure Fund with a corpus of ₹2,000 crores for developing and upgrading agricultural marketing infrastructure in the 22,000 Gramin Agricultural Markets (GrAMs) and linking them with 585 APMCs to bring them under e-NAM.

6.5.8 Animal Husbandry Infrastructure Development Fund

Government of India has announced the Animal Husbandry Infrastructure Development Fund (AHIDF) with a total corpus of ₹2,477.52. The fund primarily includes to support the development of dairy industry, milk processing units, animal feed manufacturing as well as scientific meat processing industry by primarily targeting the private dairy players, FPOs, individual entrepreneurs etc. within its ambit. As per the provisions of AHIDF, a project will be eligible for a loan amount that covers up to 90% of the estimated cost. Moreover, there will be interest subvention of 3% for all eligible entities. The eligible applicants can submit the proposal with a complete Detailed Project Report through the Udyami Mitra Portal.

6.5.9 Long term Irrigation Fund

Long Term Irrigation Fund (LTIF) was established for fast tracking medium and major irrigation projects to rehabilitate and augmentation of existing irrigation potential in the State. 4 projects are being financed through LTIF with assistance amount of ₹1455.23 crores.

Projects Financed under LTIF in Punjab

Shahpur Kandi Dam project in Pathankot district of the State is sanctioned with LTIF assistance of ₹485.35 crore. On completion of the project, an irrigation potential of 37,173 ha in Punjab and J&K State would be created and the project would be able to generate 206 MW of hydropower.

- The largest project with assistance of ₹826.17 crore is Relining of Sirhind Feeder and Rajasthan Feeder. Implementation of these twin projects would help in addressing the problem of water-logging in 84800 ha of land in Muktsar, Faridkot and Ferozpur districts in South-West Punjab. Farmers in the project area would be benefited due to stabilisation / improved irrigation in 69,086 ha due to relining of Sirhind Feeder and 98,739 ha of land due to relining of Rajasthan Feeder.

Kandi Canal Extension (Ph.II) in Hoshiarpur and SBS Nagar with assistance of ₹111.08 crore. On the completion of the project, additional area of 29,000 hectares in Kandi area of the State is envisaged to be brought under irrigation.

Rehabilitation of Ist Patiala Feeder and Kotla Branch Project with assistance of ₹32.63 crore. With the completion of the project, about 68,625 ha. additional area envisaged to be irrigated in 500 villages of six districts.

6.5.10 Fisheries and Aquaculture Infrastructure Development

In line with its announcement in the Union Budget 2018-19, Government of India created the Fisheries and Aquaculture Infrastructure Development Fund (FIDF) with a total corpus of ₹7,522.48 crores to be implemented over a period of five years (2018-19 to 2022-23). NABARD funds the public infrastructure components under FIDF for the State Government.

Chapter- VII

Details of the Policy Initiatives of GOI, RBI, NABARD and State Govt.

Important Policies and Developments

7.1 Policy Initiatives - Government of India

7.1.1 Union Budget of India- 2023-24 - Major Highlights

Vision for *Amrit Kaal* – an empowered and inclusive economy

- Facilitating ample opportunities for citizens, especially the youth, to fulfil their aspirations
- Providing strong impetus to growth and job creation
- Strengthening macro-economic stability

Priorities of the Budget: Saptarishi

1. Inclusive Development

- Building an accessible, inclusive and informative solutions for farmers
- Setting up Agri Accelerator Fund for encouraging innovative start-ups in rural areas
- Launching of Atmanirbhar Horticulture Clean Plant Program to boost production of high value horticultural crops
- Target of ₹20 lakh crore for agriculture credit with focus on animal husbandry, dairy and fisheries
- Pradhan Mantri Matsya Kisan Samridhi Sah-Yojana (PM-MKSSY), as a Central Sector Sub-scheme under PMMSY with targeted investment of ₹6,000 crore
- Making India Global Hub for Millets : ‘Sree Anna’
- Setting up of massive decentralised storage capacity for enhancing remuneration of farmers

2. Reaching the Last Mile

- Saturation of essential government services across multiple domains in 500 aspirational blocks
- Launching of Pradhan Mantra Development Mission to saturate Particularly Vulnerable Tribal Groups (PVTG) families and habitations

3. Infrastructure and Investment

- Continuance of the 50-year interest free loan to state governments for one more year to spur investment in infrastructure

4. Unleashing the Potential

- National Data Governance Policy to be brought out to enable access to anonymized data for start-ups and academia
- Vivad se Vishwas I for providing relief to MSMEs affected during COVID
- Entity DigiLocker to be set up for use by MSMEs, large business and charitable trusts for storing and sharing documents online securely

5. Green Growth

- Green Credit Programme to be notified under the Environment (Protection) Act to incentivize environmentally sustainable and responsive actions
- PM Programme for Restoration, Awareness, Nourishment and Amelioration of Mother Earth (PM-PRANAM) to be launched to incentivize States/UTs to promote alternative fertilizers

- 500 new 'waste to wealth' plants under GOBARdhan (Galvanizing Organic Bio-Agro Resources Dhan) scheme to be established for promoting circular economy
- Mangrove Initiative for Shoreline Habitats & Tangible Incomes (MISHTI) to be taken up for mangrove plantation along the coastline and on salt pan lands
- Amrit Dharohar to be implemented for optimal use of wetlands
- Setting up 10,000 bio-inputs resource centre to facilitate farmers adopt natural farming

6. Youth Power

- Pradhan Mantri Kaushal Vikas Yojana 4.0 to be launched to skill lakhs of youth within the next three years
- Digital ecosystem for skilling to be further expanded with the launch of a unified Skill India Digital platform

7. Financial Sector

- National Financial Information Registry (NFIR) to be set up to serve as the central repository of financial and ancillary information
- Expanded corpus under Credit Guarantee for MSMEs to enable additional collateral-free guaranteed credit of ₹2 lakh crore

7.1.2 PACS Computerisation - The new Ministry of Cooperation was formed with a mandate to realise the vision of 'Sahakar Se Samridhi'. To realise this vision, GoI have initiated computerisation of 63,000 Primary Agricultural Credit Societies (PACS) with an investment of ₹2,516 crore. NABARD, apart from financial contributions, has taken the initiative of ground level implementation of the project.

7.1.3 National Cooperative Policy - The National Cooperative Policy envisions increasing contribution of cooperative sector in GDP from present level of ₹21 lakh crore to ₹90 lakh crore by year 2030 and reaching around ₹900 lakh crore by 2047, thereby aiming to achieve the target of around 40% share in the GDP of the nation. The Policy Framework is under finalisation.

7.1.4 World's Largest Grain Storage - Ministry of Cooperation, GoI had conceived the idea of creating the World's largest grain storage in the Cooperative sector by establishing Godowns /Warehouses of varying capacities at the grassroots cooperatives. NABARD is involved with the MoC in implementing the pilot project. NABARD has awarded the assignment on preparation of Detailed Project Report (DPR) and Project Management Consultancy (PMC) to NABCONS.

7.1.5 Formation of 2 lakh more PACS - Union Cabinet, in its meeting held on 15.02.2023, has approved the plan for Strengthening Cooperative Movement in the country by formation of 2 lakh PACS in next five years. NABARD, NDDDB and NFDB are required to prepare national level action plans for strengthening of primary cooperative societies and establishment of new multipurpose PACS or primary Dairy/ Fishery cooperative societies, as per requirement.

7.1.6 Formation of Multi State Cooperative Societies – GoI is envisaging formation of three Multi State Cooperative Societies at national level, one each for Exports, Certified Seeds and Organic Farming to give special focus on the produce of the cooperatives.

7.1.7 JanSamarth Portal – GoI has launched JanSamarth Portal, a unique digital portal linking twelve Credit Linked Govt. Schemes on a single platform, for ease of access to all the beneficiaries and related stakeholders. The Portal uses cutting-edge technology and smart analytics to provide intuitive guidance to beneficiaries for checking subsidy eligibility and auto recommendation system offers best suitable scheme as per beneficiary's requirements and

credentials. Advanced technologies automate entire lending process based on digital verifications making the entire process simple, speedy and hassle free.

7.1.8 Account Aggregator Framework - Account Aggregator (AA) network is a financial data-sharing system that gives consumers, greater access and control over their financial records and expands the potential pool of customers for lenders and fintech companies. GoI has directed that all banks, including the Cooperative Banks and RRBs should on-board the AA framework. NABARD has come forward to set up a Common Infrastructure at its level and on-board the cooperative banks on the AA ecosystem as a service to the banks.

7.1.9 Aspirational Block Programme (ABP) - The Hon'ble Prime Minister has launched the Aspirational Block Program throughout India with a special emphasis on the "India-First Approach" in January 2023. The programme aims at developing the most backward blocks of the country identified based on a variety of factors as recognized by NITI Aayog. The program will cover 500 districts across 31 states and UTs initially with over half of these blocks are in 6 states - Uttar Pradesh (68 blocks), Bihar (61), Madhya Pradesh (42), Jharkhand (34), Odisha (29) and West Bengal (29). ABP will concentrate on tracking 15 important socio-economic indicators covering Health and nutrition, education, agriculture and water resources, basic infrastructure, skill development, financial inclusion and social development. These socio-economic indicators will be monitored in real-time, and periodic rankings in important subject areas will be made public in order to promote healthy competition among the blocks and data-driven government.

7.1.10 Enhancing Credit Flow: Credit Guarantee Schemes: Credit Guarantees are risk-sharing instruments for lenders and are aimed to improve flow of credit in borrowers' segment, which are normally perceived to be risky by lenders. For the promotion of Agriculture and Allied Sector, GoI has announced two Credit Guarantee Schemes, which are being managed by NABSankshya Trustee Private Limited, a wholly owned subsidiary of NABARD.

Item	Credit Guarantee Scheme for FPOs	Credit Guarantee Scheme for Animal Husbandry and Dairying
Guarantee Cover	85% of the sanctioned amount max. ₹1.5 cr	25% of the Credit Facility
Annual Guarantee Fee	Up to 0.85% of sanctioned amount	0.50% of the sanctioned amount
Eligible Lending Institutions	Scheduled Commercial Banks, Co-operative Banks, NEDFI, NABKISAN, etc.	Scheduled Banks
Eligible Borrower	FPOs (Agri based)	FPO, Pvt. Company, Sec. 8 Company, Individual Entrepreneur, MSME, etc.

7.2 Policy Initiatives - Reserve Bank of India

The following important initiatives have been taken by the RBI under Agriculture and Rural Sector:

- i. Master Circular on Lead Bank Scheme (FIDD.CO.LBS.BC.No.04/02.01.001/2023-24 dated 03 April 2023) issued by RBI has inter alia included revised agenda for SLBC meetings, activities under annual calendar, mechanism of data flow for LBS fora meetings, alternative framework of Due Diligence in place of No Dues Certificate, etc.
- ii. As per Master Circular on SHG - Bank Linkage Programme (FIDD.CO.FID.BC.No.1/12.01.033/2023-24 dated 01 April 2023) issued by RBI, a simple system requiring minimum procedures and documentation is a precondition for augmenting flow of credit to SHGs.

- iii. Master Circular on Deendayal Antyodaya Yojana - National Rural Livelihoods Mission (DAY-NRLM) SHG-Bank Linkage Programme consolidating all the instructions/guidelines issued on the subject issued till date was issued by RBI vide circular FIDD.GSSD.CO.BC.No.07/09.01.003/2023-24 dated 26 April 2023.

7.3 Policy Initiatives – NABARD

7.3.1 Long-Term Refinance

To ensure increased and uninterrupted credit flow to farmers, as also to give a boost to capital formation in agriculture sector, NABARD provides refinance to the cooperative banks and RRBs out of Long Term Rural Credit Fund, at a reasonable rate of interest. An amount of ₹ 1,07,015 crore was disbursed during the year 2022-23.

7.3.2 Short-Term Refinance

NABARD provides Short Term refinance to Cooperatives, RRBs and SFBs for their crop loan lending. The disbursement for the year 2022-23 was ₹1,58,905 crore.

7.3.3 Special Refinance Scheme

NABARD introduced Special Refinance scheme for financing under Agriculture Infrastructure Fund (AIF) for RRBs, Cooperative Banks and subsidiaries of NABARD with a view to address the existing infrastructure gaps and to provide a fillip to the rural financial institutions for funding projects of other than PACS under AIF and also funding to eligible beneficiaries being covered under AIF. The scheme envisages creation of investment in viable projects relating to post harvest management infrastructure and community farming assets.

7.3.4 Government Sponsored Programmes with Bank Credit

- Government of India introduced Sugar Ethanol Interest Subvention scheme in 2018-19 with a view to increase the production of ethanol and its supply under the 'Ethanol Blended Petrol (EBP).' NABARD is the nodal agency responsible for managing the Sugar Ethanol Interest Subvention Scheme of the Department of Food and Public Distribution (DFPD), Government of India.
- KCC-ISS portal developed by MoA & FW, GoI went live in 26 December 2022. Presently, the data entry is going on in the portal. As on 30 March 2023, 174 Cooperative Banks and 29 RRBs have started data entry in the portal. NABARD is monitoring the progress in respect of Cooperative Banks and RRBs.
- NABARD has been playing an important role in channelling subsidy to eligible banks under various credit-linked subsidy schemes of Government of India, primarily for agriculture projects and priority sector activities. Implementation of these schemes has also enabled enhancement of flow of Ground Level Credit (GLC) to agriculture and allied sector and priority sector activities.

7.3.5 Rural Infrastructure Development Fund (RIDF)

RIDF instituted in NABARD during 1995-96 with the main objective of providing loans to State Governments for completing ongoing rural infrastructure projects, at present covers as many as 39 activities, classified under three broad sector, viz; (i) Agriculture and related sector (ii) Social Sector and (iii) Rural Connectivity. RIDF is estimated to create/restore irrigation potential of 376 lakh ha, 5.35 lakh km of rural roads and 13.34 lakh meters of bridges and also generate non-recurring employment of 3029 crore man-days as on 31 March 2023.

7.3.6 Micro Credit Intervention

NABARD has been extending grant support to partner agencies for promotion and nurturing of SHGs, training and capacity building of SHG members and other stakeholders, besides initiating special programmes for backward regions.

7.3.7 Financial Inclusion

NABARD supports the creation of the financial inclusion infrastructure of banks and various financial inclusion awareness activities under the aegis of the Financial Inclusion Fund (FIF) placed in NABARD. Apart from extending assistance to RFIs for onboarding to technology platform, NABARD has onboarded the Account Aggregator platform as Financial Information User (FIU) which will facilitate structured financial data sharing from Financial Information Users (FIPs).

7.3.8 Institutional Development

- **Cooperative Development Fund (CDF):**

The Cooperative Development Fund was constituted in 1993 under section 45 of NABARD Act 1981, with an initial corpus of Rs 10 crore. The fund is replenished every year through Contribution from NABARD's surplus. Assistance from the CDF is available to co-operatives in the form of soft loans/grants for infrastructure development of PACS for resource mobilisation, human resource development, capacity building and operational streamlining, setting up of PACS Development Cells in CCBs etc., which in turn contribute to their functional efficiency.

As on 31 March 2023, the total utilizations from CDF was ₹ 3,363.30 lakh against the budget allocation of ₹11,368.50 lakh (Allocation includes ₹7,000.00 lakh towards GoI's PACS Computerization project).

7.3.9 Farm Sector Development

- **Central Sector Scheme on Formation and Promotion of 10,000 FPOs:** NABARD, as one of the Implementing Agencies under the scheme, has empanelled 110 Agencies to work as CBBOs across the country. As on 31 March 2023, NABARD has sanctioned 1,751 FPOs wherein a total of 3.04 lakh farmers have taken the membership.
- **Climate Change:** NABARD has facilitated sanction of 40 projects with a total financial outlay of ₹1,852.61 crore under various funding mechanisms viz., Adaptation Fund (AF), National Adaptation Fund for Climate Change (NAFCC) and Green Climate Fund (GCF).

7.3.10 Off Farm Sector Development

Capacity Building Fund - Social Stock Exchange (CBF-SSE): A Capacity Building Fund of Social Stock Exchange (CBF-SSE) is proposed to be created in NABARD with a corpus of ₹100 crore funded by NABARD, SIDBI, BSE, NSE and Others for awareness creation and capacity building of the different stakeholders.

7.3.11 Agriculture Credit target for 2023-24

For the FY 2022-23, agriculture credit achievement was ₹ 21.67 lakh crore, as against the target of ₹18.50 lakh crore. Agriculture credit target for the year 2023-24 has been fixed at ₹20 lakh crore. In order to provide special focus to allied activities, separate sub targets of ₹1.40 lakh crore for working capital and ₹1.53 lakh crore for term loan towards allied activities under GLC targets have been fixed.

7.4 Policy Initiatives – State Government

1. Agriculture

Total allocation

- The state has allocated ₹13,888 crore for FY 2023-24 for agriculture and allied sectors which is 20% more than last year.

Direct Seeding of Rice and Moong cultivation

- ₹125 crore has been allocated towards sustainable and water saving agriculture practices viz. direct seeding of rice and procurement of Moong crop at MSP.

Free power to farms

- ₹9,331 crore allocated towards subsidy for providing free power to the agriculture sector.

Diversification

- ₹1,000 crore allocated for a special scheme on diversification in FY 2023-24 including market intervention for Basmati procurement, for which a revolving fund would be created; 33% subsidy on cotton seeds and track and trace mechanism for ensuring only quality seeds for our farmers.

Kisan Mitras

- 2,574 Kisan Mitras engaged to provide extension services in each village and spread information and knowledge at farmers' doorstep.

Checking Stubble Burning Practices

- ₹350 crore allocated under the Sub-Mission on Agriculture Mechanism, to provide various machines/ equipment to augment productivity and to manage paddy stubble.

2. Horticulture

- ₹253 crore allocated for next financial year, i.e. more than double the budget allocated in FY 2022-23(RE)
- ₹40 crore allocated for setting up the 5 new Horticulture Estates to promote the area under fruit and vegetable crops in their natural growing regions.
- Initial budgetary allocation of ₹15 crore made towards a new risk mitigation scheme i.e. "Bhaav Antar Bhugtan Yojna".

3. Forestry & Wildlife

- ₹258 crore allocated for the major ongoing programmes/schemes as under:
 - PUNCAMPA- ₹196 crore;
 - Wildlife and Zoo Development – ₹13 crore;
 - Green Punjab Mission – ₹31 crore.

4. Water Resources

- Allocated ₹2,630 crore for undertaking various water resources projects Some of which are listed below:
 - **Relining of Sirhind Feeder and Rajasthan Feeder:** Started in FY 2019-20. During FY 2023-24, relining and pucca structure work would be taken up for the remaining length of 16 km and 34 km, respectively.
 - **Lift Irrigation Scheme:** ₹80 crore allocated for undertaking the third lift irrigation work in FY 2023-24.
 - **Concrete Lining of Distributary systems:** ₹309 crore allocated for undertaking concrete lining of Arnauli distributary, Bhawanigarh distributary; Khanna Distributary; Nawada Distributary systems.
 - In addition to these, modernization of Naraingarh minor; rehabilitation of Kanganwal distributary system, etc. are also proposed to be undertaken in FY 2023-24

5. Water Supply & Sanitation

- ₹1,987 crore allocated with an increase of 27% over FY 2022-23(RE) for undertaking the following projects:
 - Swachh Bharat Mission (Gramin): ₹400 crore;
 - Jal Jeevan Mission: ₹200 crore;
 - For repair and maintenance of water-supply related infrastructure- ₹20 crore; and
 - For construction of Jal Bhawan at Sahibzada Ajit Singh (S.A.S) Nagar with an investment of ₹40 crore.
- 6. Employment Generation and Skill Development**
 - ₹231 crore allocated for employment generation and skill development in FY 2023-24 which is 36% higher than the previous FY 2022-23(BE).
 - An outlay of ₹163 crore is proposed for implementing the various schemes for training and skill development such as Deen Dayal Upadhyaya Grameen Kaushal Yojana (DDU-GKY) and Pradhan Mantri Kaushal Vikas Yojana (PMKVY), etc
- 7. Rural Development**
 - ₹3,319 crore allocated in the State Budget for FY 2023-24 with an increase of 11% over FY 2022-23(BE).
 - The following allocations have been proposed for different schemes for rural development during FY 2023-24:
 - MGNREGS: ₹655 crore for providing employment;
 - Pradhan Mantri Awas Yojana (Gramin): For construction of 10,000 houses in rural areas, ₹150 crore;
 - Shyama Prasad Mukherji Rurban Mission: ₹50 crore;
 - Pradhan Mantri Krishi Sinchai Yojana: ₹20 crore; and
 - Rashtriya Gram Swaraj Abhiyaan: ₹80 crore.
- 8. Roads & Bridges**
 - Budgetary allocation has been raised to ₹3,297 crore against ₹1,495 crore in FY 2022-23(RE) to undertake construction and maintenance of roads, bridges and building.
- 9. Education, Sports, Arts, and culture**
 - ₹17,072 crore allocated for school and higher education, which is 12% higher than the previous year.
- 9.1. School Education**
 - ₹99 crore allocated for ensuring basic cleanliness and upkeep of schools
 - ₹20 crore allocated for skill up-gradation programme for teachers/ school heads
 - ₹200 crore budgeted for up-gradation of the schools into Schools of Eminence.
 - Pre-matric scholarship scheme: an allocation of ₹18 crore for OBC students and ₹60 crore for SC students in FY 2023-24.
 - Proposed allocations under various schemes in the Education sector:
 - Punjab Young Entrepreneur Programme- ₹30 crore
 - Installation of Roof-Top Solar Panel System in Government Schools- ₹100 crore;
 - Up-gradation of Infrastructure including Boundary- Wall in Government Schools- ₹324 crore;
 - **For providing Mid-Day Meal to 16.35 lac students - ₹456 crore;**
 - **Samagra Shiksha Abhiyan - ₹1,425 crore;**
 - **For providing uniforms to pre-primary class students- ₹25 crore;**
 - **For free books, repair and maintenance of schools- ₹90 crore**
- 9.2. Higher Education**
 - **Coaching for Employment:**

State Govt has proposed 2 new schemes i.e. Professional Coaching for Employment and Soft Skill & Communication Training in the State Budget FY 2023-24.

- **Provision for Infrastructure**

A budgetary outlay of ₹68 crore proposed for undertaking infrastructure development; improvement of infrastructure facilities and for creation of libraries in the Government colleges of the State.

- **Rashtriya Uchchar Shiksha Abhiyan (RUSA)**

Under Phase 2 of RUSA, the State Government would set up 06 centers for enhancing quality and excellence under the aegis of Guru Nanak Dev University, Amritsar at a cost of ₹70 crore in FY 2023-24.

- **An allocation of ₹116 crore is proposed for establishing Entrepreneurship Hubs by Guru Nanak Dev University, Amritsar and Punjabi University in partnership with foreign Universities and Institutes of National importance.**

- **For strengthening and upgradation of Urdu Academy, Malerkotla, an allocation of ₹2 crore is proposed during FY 2023-24.**

10. Technical Education

- An allocation of ₹615 crore in FY 2023-24 for improving the technical capacities of technical education institutes, which is almost 6% higher allocation than FY 2022-23 (RE)

11. Cooperation

- ₹100 crore proposed for completion of the 07 projects of setting up new godowns by MARKFED during FY 2023-24.
- ₹100 crore proposed to MILKFED
- ₹135 crore capital infusion has been done to facilitate District Central Cooperative Banks (DCCBs). Similarly, ₹250 crore allocated for FY 2023-24 for SUGARFED.
- ₹100 crore in allocated to complete the pending works for setting up of sugar complexes at Batala and Gurdaspur.

12. Health

- Budgetary provision of ₹4,781 crore for Health 24 and Family Welfare in FY 2023-24 which is 11% higher than the previous year 2022-23(RE).
- Initial outlay of ₹39 crore in FY 2023-24 for the strengthening of secondary health care institutions.
- ₹18 crore is earmarked for establishing two 50 Bedded Integrated AYUSH Hospitals are being constructed at Dayalpur Sodhian, Sahibzada Ajit Singh (S.A.S) Nagar & Duneke (Moga).
- Few initiatives to be undertaken in FY 2023-24:
 - Running and upgradation of drug management facilities and centres- ₹40 crore;
 - Procurement of PET scan & SPECT CT machines for Homi Bhabha 26 Cancer Centre- ₹17 crore; and
 - 24 hours Emergency Response Services - ₹61 crore.

7.4.1 Recent Developments/ Initiatives taken by State Government in strengthening of outreach and activities of Cooperatives

- The Govt. of Punjab is computerising the operations of 3482 PACS under the Centrally Sponsored Project for computerisation of PACS.
- In order to rightfully remunerate the cane growers, Govt. of Punjab has increased the rate provided to farmers to ₹380 per quintal.
- SUGARFED has been provided a support of ₹400 crore to further pay cane growers of the State and clear all pending liabilities. Govt. of Punjab has made a budgetary allocation of

₹250 crore more in FY 2023-24 for SUGARFED. Due to efforts of Govt. of Punjab, the sugar mills were allocated an additional quota of 50% for the cooperative sugar mills with the Union Government and also the export quota. All this has helped these mills to clear last 3-4 years pending inventory of sugar and molasses and earn considerable revenue.

- Further, for setting up of sugar complexes at Batala and Gurdaspur for efficient processing and value addition to sugarcane, ₹75 crore was provided in the current year, Govt. of Punjab has allocated ₹100 crore more in FY 2023-24 to complete the pending works of these projects.
- Govt. of Punjab has allocated ₹100 crore in the state budget 2023-24 to nudge MILKFED to double its turnover from ₹4,886 crore in FY 2021-22 to ₹10,000 crore by FY 2026-27.
- MARKFED is setting up new godowns at 13 locations with the total capacity of 1.75 lac MT for which ₹100 crore has been allocated for completion of the remaining 07 projects in the FY 2023-24.
- A new 110 Ton Per Day (TPD) physical refinery for processing of crude palm oil and 100 TPD Vanaspati plant at Khanna are being installed by MARKFED and the work would be completed in FY 2023-24. Further, two new Oil Mills at Budhlada and Gidderbaha for processing of Mustard crop would be installed by MARKFED in FY 2023-24.

7.4.2 State Government Sponsored Programmes with Bank Credit

- Punjab Dairy Development Board is implementing various credit linked schemes wherein subsidy is provided to dairy entrepreneurs. Various components in which the subsidy is being provided are listed below
- Purchase of 2 to 20 milch animals with a maximum cost of ₹14 lakh and subsidy of 25% for General Category and 33% for SC/ST category.
- Dairy farm of Indigenous animals upto 10 animals with a maximum cost of ₹ 7 lakh and subsidy of 25% for General Category and 33% for SC/ST category.
- Cattle sheds with cost of ₹ 4- 6 lakh and subsidy of 25% for General Category and SC/ST category.
- Single row fodder harvester with maximum cost of ₹2.5 lakh with subsidy of ₹ 50000 and ₹ 63000 for General category and SC/ST category respectively.
- Self propelled Forage cutter with maximum cost of ₹2.25 lakh with subsidy of ₹ 50000 and ₹ 63000 for General category and SC/ST category respectively.
- Automatic Milk Dispensing Unit with maximum cost of ₹ 4 lakh and subsidy of ₹ 4 lakh for all beneficiaries.
- Horticulture Department under MIDH provides Subsidy to entrepreneurs for setting up Cold Storages with subsidy of 35%.
- Horticulture Department under MIDH provides Subsidy to entrepreneurs for setting up mushroom production units and spawn making unit with maximum subsidy of ₹ 20 lakh and 15 lakh or 40% of the cost.
- Horticulture department under MIDH provides 40% and 25% subsidy for SM Farmers and other category farmers respectively for cut flowers and bulbulous flowers.

7.4.3 Any other Policy Initiative taken by State Government impacting Agriculture and Priority Sector

- The Govt. of Punjab is encouraging in situ stubble management to reduce incidents of stubble burning and is extending subsidy on surface seeders for in situ management.
- In order to give fillip to crop diversification in Punjab, Dept. of Horticulture, GoP has launched an APP titled 'Kisan-e-Bagbani'. The main purpose of this app is to disseminate the knowledge about scientific horticultural practices amongst farmers, spread information about ongoing schemes of the department, bring transparency in

the departmental operational procedures, allow farmers to submit online applications as well as tracking its status etc.

- During the recently concluded Rabi season 2023-24, 125.57 lakh MT of wheat was procured by Punjab Govt. out of which 121.07 Lakh MT was procured by Govt. agencies and nearly 4.50 lakh MT was procured by private agencies. An amount of ₹ 24,693 crore was disbursed as Minimum Support Price (MSP) to nearly 08 lakh farmers for their produce.
- The Govt. of Punjab unveiled the new industrial and Business Development Policy during the course of the 5th Progressive Punjab Investors Summit held on 23-24 February 2023 at Chandigarh. The policy proposes providing incentives to investors undertaking expansion projects, setting up new MSME, setting up start-ups in service and manufacturing sectors etc. The Govt. also proposes to develop 20 rural industrial clusters and 15 industrial parks towards operationalization of this policy.
- **Punjab Sarkar-Kisan Milni and NRI Farmers' Conclave:** For the economic empowerment of the Punjab farmers, the Govt. of Punjab hold "Punjab Sarkar-Kisan Milni and NRI Farmers' Conclave: Experience Exchange for Punjab Farmers' Welfare". Thousands of farmers participate in the Milni which receives feedback from the agricultural community, discussing their farm related problems and providing solutions for the same at Salah-Mashwara halls. Besides, NRI farmers-Punjab farmers' interface witnesses exchange of views and sharing of experiences regarding different aspects of agriculture and allied occupations. Farmers from Punjab, India and abroad connect with the programmes online (YouTube) as well as offline.

Annexure-I: District-wise, Sector-wise PLP projections

Summary of Sector/Sub-sector wise PLP Projections – 2024-25

Sr.No.	Particulars	PLP Projections (₹ lakh)					
		2024-25					
I	Credit Potential for Agriculture	Amritsar	Barnala	Bathinda	Faridkot	Fatehgarh	Punjab (For all Districts)
A	Farm Credit						
(i)	Crop Production, Maintenance and Marketing	344837.53	227358.25	469299.43	249697.69	172394.76	6939335.141
(ii)	Water Resources	1826.78	2975.40	10603.53	12777.83	4247.06	182675.84
(iii)	Farm Mechanisation	28077.94	13392.57	19030.83	24976.79	37477.71	578361.813
(iv)	Plantation and Horticulture	7294.39	2236.44	13460.96	11204.22	2386.91	162254.908
(v)	Forestry and Waste Land Development	398.82	604.80	573.93	2022.18	457.65	36727.48
(vi)	Animal Husbandry - Dairy	47156.43	22216.73	58322.91	25223.39	27471.18	886487.15
(vii)	Animal Husbandry - Poultry	2771.06	4855.56	1128.50	5093.07	6020.89	135279.65
(viii)	Animal Husbandry - Sheep, Goat, Piggery etc.	1281.13	1191.98	3609.02	4975.45	1859.51	52710.263
(ix)	Fisheries	830.40	1651.80	2714.07	2228.72	2079	42769.655
(x)	Others – Bullock, Bullock cart etc.	3086.64	64132.50	4792.50	1860.00	225	375394.62
	Sub total (i to x)	437561.12	340616.03	583535.68	340059.34	254619.67	9391996.478
B	Agriculture Infrastructure						
(i)	Construction of Storage facilities	31682.25	17202.75	4269.00	48150.00	20018.25	453806.77
(ii)	Land Development, Soil Conservation, Watershed Development	3235.01	2964.15	75991.50	5542.47	5677.2	343809.11
(iii)	Others	2572.50	1428.25	615.26	2460.31	1707.27	74209.36
	Sub Total (i to iii)	37489.76	21595.15	80875.76	56152.78	27402.72	871825.24
C	Ancillary Activities						
(i)	Food and Agro Processing	26056.38	9235.14	7181.82	20038.47	12993.78	433184.93
(ii)	Others (Loans to PACS, ACABC, etc.)	43027.00	4782.00	97105.00	47783.00	141904	1147579.16
	Sub Total (i to ii)	69083.38	14017.14	104286.82	67821.47	154897.78	1580764.09
	TOTAL AGRICULTURE (A to C)	544134.26	376228.32	768698.26	464033.59	436920.17	11844585.8
II	Micro, Small and Medium Enterprises						
(i)	MSME – Term Loan	410465.00	70376.00	41695.00	55050.00	70462.5	4473961.75
(ii)	MSME – Working Capital	513400.00	75075.00	234395.00	45562.50	81410	3598471.88
	TOTAL MSME (i and ii)	923865.00	145451.00	276090.00	100612.50	151872.5	8072433.63
III	Export Credit	25875.00	1012.50	1125.00	1462.50	34687.5	1308592.75
IV	Education	28900.00	14250.00	4210.00	4930.50	25080	585017.25
V	Housing	100627.25	44550.00	105000.00	19134.00	46860	1730539.3
VI	Renewable Energy	3215.72	1350.82	1774.68	1673.02	1164.1	76146.27
VII	Others- Loans to SHG/JLG etc.	12707.50	20350.00	40056.00	2599.40	840.01	314714.06
VIII	Social Infrastructure involving Bank Credit	6375.00	15412.50	7585.66	2192.25	34031.25	428614.06
	TOTAL PRIORITY SECTOR (I to VIII)	1645699.73	618605.14	1204539.60	596637.76	731455.53	24360643.12

Summary of Sector/Sub-sector wise PLP Projections – 2024-25

Sr.No.	Particulars	PLP Projections (₹ lakh)					
		2024-25					
		Fazilka	Ferozepur	Gurdaspur	Hoshiarpur	Jalandhar	Kapurthala
I	Credit Potential for Agriculture						
A	Farm Credit						
(i)	Crop Production, Maintenance and Marketing	421224.66	335391.94	348462.06	323318.22	419538.64	241622.68
(ii)	Water Resources	8862.45	10629.81	5444.19	12057.51	4323.8	7095.61
(iii)	Farm Mechanisation	17261.46	23524.69	16205.27	29106.13	32279.58	20396.65
(iv)	Plantation and Horticulture	5279.25	2256.77	5918.56	9756.58	4864.88	3026.02
(v)	Forestry and Waste Land Development	471.75	2145.83	7403.74	3387.25	401.03	371.27
(vi)	Animal Husbandry - Dairy	49173.44	20696.57	36685.15	53073.19	24677.46	34713.03
(vii)	Animal Husbandry - Poultry	6826.20	1878.75	9383.46	16398.63	2165.36	1803.09
(viii)	Animal Husbandry - Sheep, Goat, Piggery etc.	1363.54	2224.74	2167.56	1299.31	587.52	739.31
(ix)	Fisheries	540.09	1162.75	1776.88	2323.05	2473.45	1528.32
(x)	Others – Bullock, Bullock cart etc.	5686.50	6511.00	28955.00	2445.45	844.2	658.13
	Sub total (i to x)	516689.34	406422.85	462401.87	453165.30	492155.92	311954.11
B	Agriculture Infrastructure						
(i)	Construction of Storage facilities	6229.50	6361.50	14962.50	51633.25	13947.75	21492
(ii)	Land Development, Soil Conservation, Watershed Development	13209.04	21386.00	10718.35	30468.68	4458.15	1615.05
(iii)	Others	2741.54	4103.46	3571.40	6012.90	7043.53	2453.99
	Sub Total (i to iii)	22180.08	31850.96	29252.25	88114.83	25449.43	25561.04
C	Ancillary Activities						
(i)	Food and Agro Processing	35287.92	14463.90	32501.16	16016.98	49034.8	25119.37
(ii)	Others (Loans to PACS, ACABC, etc.)	7242.85	32050.31	459.70	154071.00	39618.5	52110
	Sub Total (i to ii)	42530.77	46514.21	32960.86	170087.98	88653.3	77229.37
	TOTAL AGRICULTURE (A to C)	581400.19	484788.02	524614.98	711368.10	606258.65	414744.52
II	Micro, Small and Medium Enterprises						
(i)	MSME – Term Loan	95625.00	109575.00	55275.00	110212.50	194650.5	132375
(ii)	MSME – Working Capital	8643.75	119250.00	94162.50	220312.50	261100	125750
	TOTAL MSME (i and ii)	104268.75	228825.00	149437.50	330525.00	455750.5	258125
III	Export Credit	7350.00	118500.00	21920.00	6368.75	93096.25	44700
IV	Education	13130.25	16065.00	12780.00	35530.00	38165	11842.5
V	Housing	39618.75	31500.00	24224.00	76500.00	84171.05	48112.5
VI	Renewable Energy	6536.30	13989.30	1679.58	769.25	1832.39	1005.39
VII	Others- Loans to SHG/JLG etc.	3492.25	15589.20	8573.25	12570.00	61435	3950
VIII	Social Infrastructure involving Bank Credit	13125.00	3825.00	9146.00	7520.00	15617.17	9862.5
	TOTAL PRIORITY SECTOR (I to VIII)	768921.49	913081.52	752375.31	1181151.10	1356326.01	792342.41

Summary of Sector/Sub-sector wise PLP Projections – 2024-25

Sr.No.	Particulars	PLP Projections (₹ lakh)					
		2024-25					
I	Credit Potential for Agriculture	Ludhiana	Mansa	Malerkotla	Moga	Muktsar	Pathankot
A	Farm Credit						
(i)	Crop Production, Maintenance and Marketing	518874.79	305326.58	100316.80	329144.36	364258.13	63502.63
(ii)	Water Resources	16994.93	20942.05	1143.89	16639.63	1714.6	988.8
(iii)	Farm Mechanisation	21384.32	13226.66	11229.61	30723.44	6017.42	5631.86
(iv)	Plantation and Horticulture	43254.11	1117.37	2271.65	7435.03	4075.08	1333.54
(v)	Forestry and Waste Land Development	4855.66	115.20	203.40	1254.60	2058.98	538.39
(vi)	Animal Husbandry - Dairy	60683.28	56532.00	10445.87	56191.29	40619.05	5251.15
(vii)	Animal Husbandry - Poultry	13626.70	463.35	1559.40	6763.02	10438.36	2121.35
(viii)	Animal Husbandry - Sheep, Goat, Piggery etc.	4760.82	907.60	527.64	2314.03	2121.34	1243.67
(ix)	Fisheries	3384.00	910.75	731.25	1480.00	4028.72	547.41
(x)	Others – Bullock, Bullock cart etc.	43386.30	292.50	19458.57	1740.01	310.52	858.46
	Sub total (i to x)	731204.91	399834.06	147888.08	453685.41	435642.2	82017.26
B	Agriculture Infrastructure						
(i)	Construction of Storage facilities	58215.60	3855.00	8337.75	38373.75	17424.75	4537.5
(ii)	Land Development, Soil Conservation, Watershed Development	20786.40	45697.50	5790.15	13971.38	20897.33	333.94
(iii)	Others	3451.46	40.95	2036.40	2111.01	851.27	925.3
	Sub Total (i to iii)	82453.46	49593.45	16164.30	54456.14	39173.35	5796.74
C	Ancillary Activities						
(i)	Food and Agro Processing	19851.46	780.40	2682.39	44805.42	13368.78	910.08
(ii)	Others (Loans to PACS, ACABC, etc.)	68587.50	113371.50	1125.00	94802.50	32777	176.7
	Sub Total (i to ii)	88438.96	114151.90	3807.39	139607.92	46145.78	1086.78
	TOTAL AGRICULTURE (A to C)	902097.33	563579.41	167859.77	647749.47	520961.33	88900.78
II	Micro, Small and Medium Enterprises						
(i)	MSME – Term Loan	1931816.25	17280.00	9754.00	149625.00	61500	50250
(ii)	MSME – Working Capital	1100325.00	73800.00	65025.00	149625.00	3075	57750
	TOTAL MSME (i and ii)	3032141.25	91080.00	74779.00	299250.00	64575	108000
III	Export Credit	842400.00	119.25	1762.50	9375.00	1003.5	3680
IV	Education	123750.00	2125.00	3325.00	21375.00	1539	4260
V	Housing	191070.00	5250.00	18506.25	76125.00	420	14828
VI	Renewable Energy	11705.38	448.13	357.02	2445.70	425.78	1547.75
VII	Others- Loans to SHG/JLG etc.	33416.70	6968.75	9452.00	9000.00	575	2687
VIII	Social Infrastructure involving Bank Credit	147413.70	2126.25	4218.75	9150.00	3723.76	5720.5
	TOTAL PRIORITY SECTOR (I to VIII)	5283994.36	671696.79	280260.29	1074470.17	593223.37	229624.03

Summary of Sector/Sub-sector wise PLP Projections – 2024-25

Sr.No.	Particulars	PLP Projections (₹ lakh)					
		2024-25					
I	Credit Potential for Agriculture	Patiala	Rupnagar	Sangrur	SAS Nagar	SBS Nagar	Tarn Taran
A	Farm Credit						
(i)	Crop Production, Maintenance and Marketing	476472.02	134825.55	495219.00	93729.85	171908.05	332611.521
(ii)	Water Resources	15005.48	5789.98	4452.34	5039.99	10670.02	2450.16
(iii)	Farm Mechanisation	128515.95	13950.38	37020.85	8347.29	21386.25	19198.163
(iv)	Plantation and Horticulture	7410.73	3950.15	6196.88	6058.10	5820.67	5646.618
(v)	Forestry and Waste Land Development	1256.52	3080.19	679.50	1395.50	2338.99	712.3
(vi)	Animal Husbandry - Dairy	56718.17	48634.11	35705.46	14491.66	40048.52	61757.11
(vii)	Animal Husbandry - Poultry	21156.10	4823.73	5691.54	2443.56	4655.03	3212.94
(viii)	Animal Husbandry - Sheep, Goat, Piggery etc.	9107.40	2686.56	2698.52	1230.89	2855.19	957.533
(ix)	Fisheries	2152.20	3624.57	2478.70	1063.74	1759.81	1299.975
(x)	Others – Bullock, Bullock cart etc.	23876.25	311.10	161775.00	475.89	484.5	3228.6
	Sub total (i to x)	741670.82	221676.32	751917.79	134276.47	261927.01	431074.918
B	Agriculture Infrastructure						
(i)	Construction of Storage facilities	20149.17	3303.75	23699.25	9507.75	11531.25	18922.5
(ii)	Land Development, Soil Conservation, Watershed Development	25214.72	5507.40	7322.63	4143.14	3240.45	15638.47
(iii)	Others	21898.80	272.25	5441.84	872.77	450	1146.9
	Sub Total (i to iii)	67262.69	9083.40	36463.72	14523.66	15221.7	35707.87
C	Ancillary Activities						
(i)	Food and Agro Processing	47600.49	8946.50	9484.53	7953.78	8170	20701.38
(ii)	Others (Loans to PACS, ACABC, etc.)	50978.00	16379.50	6318.00	92411.60	15937.5	34561
	Sub Total (i to ii)	98578.49	25326.00	15802.53	100365.38	24107.5	55262.38
	TOTAL AGRICULTURE (A to C)	907512.00	256085.72	804184.04	249165.51	301256.21	522045.17
II	Micro, Small and Medium Enterprises						
(i)	MSME – Term Loan	346125.00	82406.25	125040.00	174000.00	117843.75	62560
(ii)	MSME – Working Capital	19820.00	16481.25	106840.00	135900.00	26934.38	63835
	TOTAL MSME (i and ii)	365945.00	98887.50	231880.00	309900.00	144778.13	126395
III	Export Credit	50625.00	3862.50	3300.00	14062.50	3180	19125
IV	Education	78625.00	10950.00	23750.00	26790.00	21000	62645
V	Housing	309150.00	53250.00	86400.00	109350.00	78187.5	167705
VI	Renewable Energy	4215.43	4740.03	1807.92	2460.35	4972.5	6029.73
VII	Others- Loans to SHG/JLG etc.	5602.50	2155.00	42500.00	860.00	1500	17834.5
VIII	Social Infrastructure involving Bank Credit	71175.02	4481.25	23850.00	10061.25	6326.25	15675
	TOTAL PRIORITY SECTOR (I to VIII)	1792849.95	434412.00	1217671.96	722649.61	561200.59	937454.4

Annexure II: Agency wise, broad sector wise flow of Ground Level Credit Targets, Achievement and % achievement for last three years and target for 2023-24

(₹ crores)

Sr. No.	Particulars	2020-21			2021-22			2022-23			2023-24
		Target	Ach.	% Ach.	Target	Ach.	% Ach.	Target	Ach.	% Ach.	Target
1	Crop Loan										
	CBs	42364.17	51775.69	122.22	65659.00	53934.88	82.14	63595.38	53343.00	84.10	61473.96
	SCB/CCBs	32618.71	13636.08	41.80	22356.00	13118.82	58.68	19978.02	9846.16	49.28	7651.99
	RRBs	7781.31	6927.69	89.03	7687.00	7513.98	97.75	6201.53	6230.00	100.45	5554.04
	PADB/ Others	0.00	0.00	0.00	0.00	0.00	0.00	310.11	0.00	0.00	01.61
	Sub-Total	82764.19	72339.46	87.40	95702.00	74567.68	77.92	90085.04	69419.00	77.01	74681.60
2	Term Loan (MT+LT)										
	CBs	37985.77	15972.67	42.05	31360.00	14816.12	47.25	39239.69	28495.63	72.61	28175.62
	SCB/CCBs	5652.51	591.16	10.46	4877.00	1148.15	23.54	7310.36	953.30	13.04	4009.18
	RRBs	3129.56	639.66	20.44	1082.70	634.82	58.63	2755.05	1111.55	40.34	2273.96
	PADB/ Others	1305.60	147.73	11.32	1009.79	91.15	9.03	599.87	55.30	09.21	60.36
	Sub-Total	48073.44	17351.21	36.09	38329.49	16690.24	43.54	49904.97	30615.77	61.35	34518.40
3	Total Agriculture Credit (1+2)										
	CBs	93066.05	67629.95	72.67	97018.16	68750.92	70.86	102835.07	81838.00	79.58	89649.58
	SCB/CCBs	28538.32	14272.58	50.01	27236.08	14266.99	52.38	27288.38	10797.00	39.56	11661.17
	RRBs	8190.06	7648.16	93.38	8768.54	8148.82	92.93	8956.58	7341.0	81.96	7828.00
	PADB/ Others	1043.21	139.97	13.42	1008.37	91.17	9.04	909.98	57.00	6.26	61.97
	Sub-Total	130837.63	89690.67	68.55	134031.15	91257.89	68.09	139990.01	100034	71.45	109200.00
4	Non-Farm Sector										

Sr. No.	Particulars	2020-21			2021-22			2022-23			2023-24
		Target	Ach.	% Ach.	Target	Ach.	% Ach.	Target	Ach.	% Ach.	Target
	CBs	41731.15	43712.82	104.75	48505.56	52613.55	108.47	50793.69	73617.00	144.93	86041.17
	SCB/CCBs	724.90	77.99	10.76	681.80	172.98	25.37	1184.48	65.00	5.48	104.87
	RRBs	411.24	492.97	119.87	521.95	592.66	113.55	656.48	1014.00	154.46	1128.66
	PADBs/ Others	96.09	1.45	1.51	100.55	84.68	84.22	136.44	34.00	24.91	40.84
	Sub-Total	42963.38	44285.24	103.08	49809.87	53463.87	107.34	52771.09	74729.0	141.60	87315.54
	Other Priority Sector										
5	CBs	35666.32	15986.67	44.82	37009.95	25622.38	69.23	37989.53	21304.00	56.08	23569.40
	SCB/CCBs	1640.38	818.26	49.88	1469.72	607.40	41.33	1763.92	973.00	55.16	1070.64
	RRBs	493.44	245.57	49.77	477.42	320.90	67.22	513.47	169.00	32.91	185.49
	PADBs/ Others	457.80	85.23	18.62	562.85	78.39	13.93	451.83	15.00	3.32	16.28
	Sub-Total	38257.94	17135.73	44.79	39519.93	26629.07	67.38	40718.75	22461.00	55.16	24841.81
Total Priority Sector											
6	CBs	170463.52	127252.75	74.65	182533.67	146986.85	80.53	191618.30	176759.00	92.25	199115.59
	SCB/CCBs	30903.59	15168.83	49.08	29387.60	15047.36	51.20	30236.78	11835.00	39.14	12806.04
	RRBs	9094.75	8386.71	92.21	9767.91	9062.38	92.78	10126.52	8524.00	84.18	9129.49
	PADBs/ Others	1597.09	226.66	14.19	1671.78	254.24	15.21	1498.26	106.00	7.07	116.89
7	Grand Total	212058.94	151034.96	71.22	223360.95	171350.83	76.71	233479.86	197223.55	84.47	221051.12

Source: SLBC, Punjab

Annexure III: Critical Infrastructure Support to be provided

Amritsar	Support for projects for revival of the canal irrigation system of UBDC.	Upgradation of health facilities at block and village level.	Support for Micro Irrigation and Precision farming techniques.
Barnala	Provision of Maize dryers in Mandis	Establishment of Meat processing plants for PORK	Establishment of Silage Plants
Bathinda	Need for construction of water harvesting facility	There is a need of assured market for other crops like Cotton, oilseeds etc. for crop diversification.	Improvement in the health infrastructure at village and block level
Faridkot	Drip/ Sprinkler Irrigation systems to the farmers	Mobile Soil Testing Lab may be set up at Faridkot	Healthcare facility to ensure the health of poultry birds.
Fatehgarh Sahib	Need to set up agri service centres	Awareness for use of efficiently Solar Energy	Need to support Gram Panchayat to develop micro infrastructure projects.
Firozpur	The Agriculture Department may be equipped with Mobile Micronutrient Testing Lab with leaf analysis facility to cover all the blocks.	For wider dissemination of Agriculture technologies through regular interactions, a well-equipped Farmer Training Centre with hostel facilities is required at district level.	Banks should extend credit against the pledge of Agricultural Produce/ Warehouse Receipts to the farmers
Fazilka	Agro- Service Centres setup at PACS level need to be strengthened with new and latest farm machinery reducing costly manual labour.	Uninterrupted power supply for farming operations needs to be taken care of.	There is a need of assured market for other crops like Maize, pulses, oilseeds etc. for crop diversification.
Gurdaspur	Integrated farming demonstration unit to encourage farmers	Revival of MSME industries in Batala to provide employment opportunities to rural youth in a sector other than agriculture so that burden on agriculture can be reduced	Improvement in the health infrastructure at village and block level
Hoshiarpur	Setting up sale seed unit in the district	Energy efficient pump sets (BEE rated pump sets) should be installed, Solar powered Community Irrigation project is being implemented in water scarce and ecologically handicapped Kandi area	Use of combines for paddy harvesting has been accepted by the farmers in Hoshiarpur due to shortage of labour
Jalandhar	Crop diversification is urgently required	ground water table is over exploited hence urgent work to be done for the replenishment/ recharge of water table	As per the scheme of the government for Akshaya Urza the need of the hour is that government should made it mandatory that the household having the area of 300sq mts, must have a solar roof top panels on their

			roofs
Kapurthala	Drip/ Sprinkler Irrigation systems to the farmers	Cleaning/ rejuvenation of village ponds for Irrigation purposes	Desilting/ cleaning of weeds of drain at Sultanpur Lodhi, (2) Providing rainwater harvesting structures, (3) Farmers Training and Agro Processing Centres
Ludhiana	Multi chamber cold storage facilities	Creation of Micro Infrastructure at village level	Support for Micro Irrigation and Precision farming techniques.
Mansa	Artificial Recharge infrastructure in Sardulgarh and Budhlada block	Construction of new and renovation of Veterinary hospitals in the district	Reconstruction of Bhikhi Distributary
Moga	Drip/ Sprinkler Irrigation systems to the farmers	Agro- Service Centres setup at PACS level need to be strengthened with new and latest farm machinery reducing costly manual labour.	Healthcare facility to ensure the health of poultry birds.
Sri Muktsar Sahib	Laying of underground pipelines to solve the problem of waterlogging and salinity.	Use of more FM technology like adoption of direct seeding of paddy using Happy Seeder or Lucky Seed Drill due to migration of labour in COVID19.	Provision of regulated fruit market in the district to enable farmers to sell their products at high/competitive rates.
Pathankot	Support for Fruit processing and packaging plant	Support for Meat processing plant specially for PIG meat as pig are exported to north east without any processing and thus reducing the value of product	Improvement in the health infrastructure at village and block level
Patiala	Construction of new and renovation of Veterinary hospitals in the district	Crop diversification is urgently required	Drip/ Sprinkler Irrigation systems to the farmers
Rupnagar	Setting up of Agro-processing units	Multi chamber cold storage facilities	Creation of Micro Infrastructure at village level
Sahibzada Ajit Singh Nagar	Cleaning and desilting of drain in Kharar block	Rejuvenation of village ponds for Irrigation and Ground water recharge	Drip/ Sprinkler Irrigation systems to the farmers
Sangrur	Direct road linking Sangur with Samana (Patiala) and further in Haryana	Promotion of Mechanical Paddy Trans planter	Multi Chamber Cold Storages
Shahid Bhagat Singh Nagar	Setting up of Agro-processing units	Multi chamber cold storage facilities	Creation of Micro Infrastructure at Village Level

Annexure IV: Critical Interventions required in various sectors/sub- sector

	Sector	Sub-Sector	Critical Intervention Required
1	Agriculture	Farm Credit	
		<p>Crop Loans, ATL, P&H, Forestry and Waste Land Development, AH-Dairy, Sheep, Goat Piggery, Fisheries, Agriculture Infrastructure like Construction of Storage facilities</p> <p>Soil Conservation and Agriculture Ancillary Activities like Food and Agro Processing, etc.</p>	<ol style="list-style-type: none"> 1. Availability of Extension services in virtual mode at the doorstep of the farmer. 2. Provision of Maize Dryers in Mandis 2. Promotion of Mechanical Trans planter for paddy 3. Awareness in respect of Soil and water harvesting programme 4. Agriculture Department, ATMA, KVK and Punjab Agriculture University supported Farmers Agriculture Service Society may provide extension services to the farmers. 5. About 40% of Storage Capacity presently under open, may be made covered one. 6. Agro- Service Centres setup at PACS level need to be strengthened with new and latest farm machinery reducing costly manual labour. 7. There is need for Integrated Micro Nutrient Management in the district to overcome Micro - Nutrient Deficiency in Wheat, paddy and Other crops. 8. There is no seed sales outlet of State Seed Corporation and PUNSEED in the district. Awareness about the other crop/ diversifications of crops is required. 9. Agro- Service Centres setup at PACS level need to be strengthened with new and latest farm machinery reducing costly manual labour. 10. Micro-nutrient lab in Kapurthala and one mobile Soil Testing Lab at Kapurthala or Sultanpur Lodhi may be setup. 11. For wider dissemination of Agriculture technologies through regular interactions, a well-equipped Farmer Training Centre with hostel facilities may be considered at district level. 12. The presence of alkaline soil in various parts of Patiala, esp. Rajpura block needs to be addressed. 13. There is a need of assured market for other crops like Maize, pulses, oilseeds etc. for crop diversification 14. Provision of Maize Dryers in Mandis and Promotion of Mechanical Transplanter for paddy 15. There is a need of assured market for other crops like Maize, pulses, oilseeds etc. for crop diversification
2	Micro, Small and Medium Enterprises		<ul style="list-style-type: none"> • Promoting Cargo Export facility at Amritsar airport and operationalization of cold chain facility. • Need to establish industrial Estates in each block in the dist. • The unregistered MSME sector in the district is dominated by service enterprises, majority of which are proprietary units. The unregistered sector in the district produces goods and services pertaining to different industrial groups such as Food and Beverage, readymade garments, wooden products, paper products and printing, leather goods, mechanical products, electrical machinery and apparatus, machinery and parts, repair and services and transport equipment and parts etc. • Basic infrastructure needs to be set up in the Rural Focal Points. Restrictive provisions in the Focal point scheme may be removed to attract investments.

	Sector	Sub-Sector	Critical Intervention Required
			<ul style="list-style-type: none"> • Small sector unit in service sector such as Mobile repair, auto mobile repair, farm implements repair, computer education may be encouraged as these units will provide employment opportunities to the rural youth. • The market tie-up of all the Micro and Small Enterprises, Availability of uninterrupted power supply and water, based on the availability of the raw material MSME sector may be promoted • Private Sector Industrial Estate may be set up through SPV mode. • Market tie up of all the Micro and Small Enterprises. Banks may consider issuing GCC/SCC to the small entrepreneurs. • Micro Food processing units may be encouraged in the district in view of fruit and vegetable cultivation in the district. • Need for market tie-up of all the Micro and Small Enterprise • Need to establish industrial Estates in each block in the dist.
3	Renewable Energy		<ul style="list-style-type: none"> • Mass awareness, promotion and development are required to popularize generation, biogas/solar /thermal technologies of biomass-based gasified systems, energy recovery from municipal waste, etc. • The subsidy schemes under National Solar Mission may be popularized in the State. Banks may extend credit support for installation of solar water pumping system and solar lighting systems. The target of financing solar water Pumping system for the state has been fixed at 3,300 units (one pumping system per rural bank branch). Further NBFCs and Urban Coop Banks have also been made eligible to claim subsidy against finance of solar water pumping system.
4	Social sector		<ul style="list-style-type: none"> • Construction of toilet blocks in existing schools, especially for girls • Solid Waste Management and infrastructure works related with sanitation in rural areas.
5	Others (Loans to SHGs/ JLGs, loans to distressed persons to prepay non-institutional lenders, PMJDY, loans to state sponsored organizations for SC/ST, loans to FPOs)		<ul style="list-style-type: none"> • Need for intensifying promotion of SHGs. • State Govt. may launch a scheme to provide impetus to SHG programme in Punjab

List of Abbreviations

ACP	Annual Credit Plan	DTPC	District Tourism Promotion Council
ACABC	Agri Clinic and Agri Business Centre	EDP	Entrepreneurship Development Programme
ADS	Area Development Scheme	e-NAM	e-National Agriculture Market
AEZ	Agri. Export Zone	FIF	Financial Inclusion Fund
AH	Animal Husbandry	FLC	Financial Literacy Centre
AMRUT	Atal Mission for Rejuvenation and Urban Transformation	FLCC	Financial Literacy and Credit Counselling Centres
AIF	Agriculture Infrastructure Fund	FM	Farm Mechanization
AMI	Agriculture Marketing Infrastructure	FPF	Food Processing Fund
APMC	Agricultural Produce Market Committee	FPO	Farmer Producers' Organization
APY	Atal Pension Yojana	FSPF	Farm Sector Promotion Fund
APEDA	Agricultural and Processed Food Products Export Development Authority	GCA	Gross Cropped Area
AI	Artificial Insemination	GCF	Green Climate Fund
ATMA	Agricultural Technology Management Agency	GIA	Gross Irrigated Area
BC	Business Correspondent	GLC	Ground Level Credit
BF	Business Facilitator	GoI	Government of India
BLBC	Block Level Banker's Committee	HYV	High Yielding Variety
BPL	Below Poverty Line	ICT	Information and Communications Technology
BSBDA	Basic Savings Bank Deposit Account	IWMS	Integrated Watershed Management Scheme
CAT	Capacity Building for Adoption of Technology	JLG	Joint Liability Group
CBs	Commercial Banks	KCC	Kisan Credit Card
CBS	Core Banking Solution	KVIB/KVIC	Khadi and Village Industries Board/ Khadi and Village Industries Commission
CCF	Climate Change Fund	KYC	Know Your Customer
CDR	Credit Deposit Ratio	KVK	Krishi Vigyan Kendra
CGTMSE	Credit Guarantee Fund Trust for Micro and Small Enterprises	LBR	Lead Bank Return
CISS	Capital Investment Subsidy Scheme	LDM	Lead District Manager
CRAR	Capital to Risk weighted Asset Ratio	LEDP	Livelihood and Enterprise Development Programmes
DAP	Development Action Plan	LWE	Left Wing Extremism
DBT	Direct Benefit Transfer	MEDP	Micro Enterprise Development Programme
DDD-GKY	Deen Dayal Upadhyaya-Grameen Kaushal Yojana	MFI	Micro Finance Institution
DCCB	District Central Cooperative Bank	MIDH	Mission for Integrated Development of Horticulture
DCC	District Consultative Committee	MI	Minor Irrigation
DCP	District Credit Plan	MNRE	Ministry of New and Renewable Energy
DDM	District Development Manager	MNREGA	Mahatma Gandhi National Rural Employment Guarantee Act
DIDF	Dairy Processing and Infrastructure Development Fund	MSME	Micro, Small and Medium Enterprises

DLRC	District Level Review Committee	MoRD	Ministry of Rural Development
DLTC	District Level Technical Committee	MSC	Multi Service Centre
DRDA	District Rural Development Agency	NABARD	National Bank for Agriculture and Rural Development
NBFC	Non-Banking Financial Company	PPP	Public Private Partnership
NDDB	National Dairy Development Board	PRI	Panchayati Raj Institution
NEFT	National Electronic Fund Transfer	PWCS	Primary Weavers Cooperative Society
NFDB	National Fisheries Development Board	RBI	Reserve Bank of India
NAFCC	National Adaptation Fund for Climate Change	RIDF	Rural Infrastructure Development Fund
NHB/ NHM	National Horticulture Board/ National Horticulture Mission	RNFS	Rural Non-Farm Sector
NIDA	NABARD Infrastructure Development Assistance	RKBY	Rashtriya Krishi Bima Yojana
NIA	Net Irrigated Area	RKVY	Rashtriya Krishi Vikas Yojana
NRLM	National Rural Livelihood Mission	RRB	Regional Rural Bank
NRM	National Resource Management	RUDSETI	Rural Development & Self Employment Training Institute
NSA	Net Sown Area	RSETI	Rural Self Employment Training Institute
NSSO	National Sample Survey Organisation	SAMIS	Service Area Monitoring and Information System
NWR	Negotiable Warehouse Receipt	SAO	Seasonal Agriculture Operation
OFPF	Off-Farm Promotion Fund	SCARDB	State Cooperative Agriculture & Rural Development Bank
OPS	Other Priority Sector	SDI	Skill Development Initiative
PACS	Primary Agricultural Cooperative Society	SF/MF	Small Farmer / Marginal Farmer
PCARDB	Primary Cooperative Agriculture & Rural Development Bank	SFAC	Small Farmers' Agri-Business Consortium
P & H	Plantation & Horticulture	SHG	Self Help Group
PKVY	Paramparagat Krishi Vikas Yojana	SHPI	Self Help Group Promotion Institution
PMFBY	Pradhan Mantri Fasal Bima Yojana	SIDBI	Small Industries Development Bank of India
PMJDY	Pradhan Mantri Jan Dhan Yojana	SMAM	Sub Mission on Agricultural Mechanization
PMJJBY	Pradhan Mantri Jeevan Jyoti Bima Yojana	SLBC	State level Banker's Committee
PMKVY	Pradhan Mantri Kaushal Vikas Yojana	SRI	System of Rice Intensification
PMMY	Pradhan Mantri Mudra Yojana	SRLM	State Rural Livelihood Mission
PMRY	Prime Minister's Rozgar Yojana	StCB	State Cooperative Bank
PMSBY	Pradhan Mantri Suraksha Bima Yojana	TDF	Tribal Development Fund
PMKSY	Prime Mantri Krishi Sinchayee Yojana	WDF	Watershed Development Fund
PODF	Producer Organisation Development Fund	WDRA	Warehousing Development and Regulatory Authority
POPI	Producer Organisation Promoting Institution	WIF	Warehouse Infrastructure Fund
POS	Point of Sale	WSHG	Women Self Help Group

Conatct Details of Cluster Offices

Name of districts	Name of officers/Designation	Mobile No.	Landline no.	Email ID
Patiala Cluster Office Email :Patiala.Cluster@nabard.org				
1.Patiala 2.Sangrur 3.SAS Nagar 4.Barnala 5.Malerkotla	Ms.Parvinder Kaur Nagra, Asstt. General Manager	7658004287	0175-2911057	parvinder.nagra@nabard.org
	Sh. Manish Gupta, Asstt. General Manager	8239332943		manish.g@nabard.org
	Sh.Gurpreet Singh, Asstt. General Manager	8284860013		gurpreet.singh@nabard.org
Ludhiana Cluster Office Email: Ludhiana.cluster @nabard.org				
1.Ludhiana 2.Fatehgarh Sahib 3.Rupnagar 4. SBS Nagar	Shri Davinder Kumar, Asstt.General Manager	9459587626	0161-5042625	davinder.kumar@nabard.org
	Shri Sanjeev Kumar, Asstt. General Manager	9463188638		sanjeev.kumar4@nabard.org
Jalandhar Cluster Office Email: Jalandhar.cluster@nabard.org				
1.Jalandhar 2.Kapurthala 3.Hoshiarpur 4.Moga 5.Ferozepur	Sh.Rasheed Lekhi, Asstt. General Manager	8378548758	0181-4667433	rasheed.lekhi@nabard.org
	Sh.Rajat Chhabra, Manager	999409968		rajat.chhabra@nabard.org
	Ms.Savita Singh, Asstt. General Manager	9417286405		savita.singh@nabard.org
Amritsar Cluster Office Email: Amritsar.cluster@nabard.org				
1.Amritsar 2.Tarn taran 3.Gurdaspur 4.Pathankot	Shri Jaskirat Singh, Asstt.General Manager	004891481	0183-2991140	jaskirat.singh@nabard.org
	Shri Manjeet Singh, Asstt. General Manager	9518064142		manjeet.singh@nabard.org
Bathinda Cluster Office Email: Bathinda.cluster@nabard.org				
1.Bathinda 2.Mansa 3.Muktsar 4.Fazilka 5.Faridkot	Shri Amit Garg, Deputy General Manager	7696888660	0164-2910018	amit.garg@nabard.org
	Shri Ashwani Kumar, Asstt. General Manager	7017148287		ashwani.kumar1@nabard.org
	Shri Satish Kumar, Manager	9418231545		satish.kumar2@nabard.org



NABSAMRUDDHI FINANCE Limited

A Subsidiary of NABARD

The objective of NABSAMRUDDHI is to provide credit facilities to legal entities for promotion, expansion, commercialisation and modernisation in off-farm & agri allied activities, microfinance, MSME, housing, education, transport, etc.

Focus Segments

Green Finance & Wellness
(Renewable Energy, Electric Vehicle, Health care, WASH)
Fabrics & textiles
Handicrafts value chain

Other Segments

- Small Business
- Microfinance
- Transport
- Housing
- Education
- Allied Agriculture
- Agri/Food processing

Registered Office: NABARD Regional Office, 1-1-61, RTC 'X' Road P.B. No. 1863, Hyderabad- 500020

☎ 040-23241155/56 🌐 www.nabsamruddhi.in

Corporate Office: NABARD, Gr. Floor, D Wing, Plot No. C-24, G Block, BKC, Bandra(East), Mumbai-400051

☎ 022-26539693 ✉ nabsamruddhi@nabard.org



NABFINS Limited

A Subsidiary of NABARD

- A Non deposit taking systemically important NBFC - MFI - Middle Layer advancing hassle free services to the low income households with the vision to become model MFI in the country
- Operating with 325 Branches in 198 districts across 18 states with active client base of appx. 7.34 lakh active borrowers
- Financial products offered: Direct Lending of micro finance loans, Traders Loan and Institutional loans.
- Timely and adequate credit without collateral
- Affordable interest rate in the sector
- Insurance facility to borrowers and co-obligants
- Door step delivery of financial services

Registered Office: 3072, 14th Cross, K. R. Road, Banashankari 2nd Stage, Bengaluru – 560 070, Karnataka, India

☎ 080-26970500

✉ ho@nabfins.org

🌐 www.nabfins.org



NABKISAN FINANCE Limited

A Subsidiary of NABARD

- Largest lender in FPO space
- Present in 20+ States including North East
- 2000+ FPOs credit linked
- Collateral free lending at affordable rates
- Financing FPOs through
 - Working Capital
 - Term loan
 - Pledge Financing (eNWR)
- Term lending for Corporates/ NBCs/ MFIs
- Soft loans for Agri Startups

Registered Office: C/o NABARD, Tamil Nadu RO, Chennai

☎ 044-28270138/28304658

✉ finance@nabkisan.org

Corporate Office: C/o NABARD, Head Office, Mumbai

☎ 022-26539620/9514

✉ corporate@nabkisan.org

🌐 www.nabkisan.org



NABARD Consultancy Services Private Limited (NABCONS)

A wholly owned Subsidiary of NABARD

OFFERS CONSULTANCY AND ADVISORY SERVICES
Pan India
Presence with offices in 31 States / UTs

SERVICES PROVIDED

- Project Management Consultancy
- IT based Natural Resources Information Systems
- Feasibility, Socio-economic & Impact Evaluation Studies
- Third Party Monitoring
- Climate Change & Sustainability
- Value Chain Development
- Skills & Livelihood Development
- Preparation of Detailed Project Reports (DPRs)
- Transaction Advisory Services

Registered Office: NABCONS, 3rd Floor, C wing, NABARD, Plot No. C-24, G Block, BKC, Bandra (East), Mumbai-400051

☎ 022-26539419

✉ headoffice@nabcons.in

Corporate Office: NABCONS, 7th Floor, NABARD Tower, 24, Rajendra Place, New Delhi – 110125

☎ 011-41538678/25745103

🌐 www.nabcons.com



NABVENTURES Limited

A wholly owned Subsidiary of NABARD

NABVENTURES Ltd., a Company registered under the Companies Act, 2013, with a paid-up capital of INR 25 crore, is the Sponsor and Investment Manager of NABVENTURES Fund-I, a SEBI-registered Category II Alternative Investment Fund (AIF), with a base corpus of INR 500 crore and greenshoe option of INR 200 crore.

Investment focus: Start-ups/MSMEs operating in/with

- **Sectors:** Agri-tech, rural fin-tech, food-tech, health-tech and edu-tech, with a rural focus
- **Stage:** Pre-Series A (INR 5-20 cr.) & Series A (INR 20-50 cr.)
- **Model:** Asset-light, technology-led models, which can be quickly scaled up across geographies

As on 31 March 2023:

- **Corpus raised:** INR 598 crore
- **Investments made:** INR 190.86 crore in 10 start-ups

Registered Office: NABARD, 2nd Floor, A Wing, Plot No. C-24, G Block, BKC, Bandra (East), Mumbai-400051

✉ nabventure@nabard.org

☎ 022-26539149

🌐 www.nabventure.in



NAB FOUNDATION

Leveraging the power of convergence

NABFOUNDATION is a wholly owned, not for profit, subsidiary of NABARD, established under Sec 8 of Companies Act, 2013. The organization draws its strength and experience from the thousands of development projects grounded by its parent body, NABARD, in multiple domains over nearly last four decades.

What does NABFOUNDATION want from you ?

IF YOU ARE AN INDIVIDUAL

Reach out to us with your ideas about development projects which you believe need to be implemented. We really look forward to your fresh ideas.

IF YOU ARE A CSR UNIT

Of a corporate and believe that there is a scope for collaborating with us to have access to the vast network of resources of NABARD in a structured manner, just give us a call.

IF YOU ARE A CIVIL SOCIETY ORGANIZATION/NGO

With an idea whose time you think has come and have not been able to find willing partners, reach out to us.

IF YOU ARE WITH THE GOVERNMENT

And believe that there is a need for reimagining implementation of your Central or State government projects, allow us to be a part of your vision.

Registered Office: NABARD, 4th floor, E wing, Plot No. C-24, BKC, Bandra (East), Mumbai-400051

✉ nabfoundation@nabard.org

☎ 022-26539404/9054

🌐 www.nabfoundation.in



NABSanrakshan Trustee Private Limited

A wholly owned Subsidiary of NABARD

Building Trust for Rural Prosperity

- Offers credit guarantee against the credit offered by the Eligible Lending Institutions, through the Trusts (Funds) under its Trusteeship
- Two sovereign Credit Guarantee Schemes offered are:
 - Credit Guarantee Scheme for FPO Financing
 - Credit Guarantee Scheme for Animal Husbandry and Dairying
- More than 700 FPOs provided credit guarantee till 31 March 2023 covering nearly 6.14 lakh farmers across 19 states
- Operations carried through Credit Guarantee Portal

Registered Office: NABARD, C- 24, G Block, Bandra Kurla Complex, Bandra (East), Mumbai – 400051

☎ 022-26539243/9241

✉ ho@nabsanrakshan.org

🌐 www.nabsanrakshan.org