

A Scenario of Agricultural Finance and Its Impact on Farmers: A Brief Review of Literature

¹Hardik Bhatt, ²Dr. Jay Talati

¹Ph.D. Ph. D. Research Scholar at the Department of Commerce, Faculty of Management and Commerce, Noble University, Junagadh 362001, India

²Ph. Registrar, at Noble University, Junagadh 362001, India

KEYWORDS

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ABSTRACT

Agriculture finance is a major contributor to agricultural operations' profitability and productivity. Farmers are accessing finance facilities for irrigation, land expansion, and Farm mechanization. This study aims to conduct a rigorous review of the needs, availabilities, and policy intervention in the segment of farm financing. The paper also intends to check the impact of agriculture financing on farmers' income levels. The study is based on secondary data sources like publications, websites, and reports from NABARD and the Reserve Bank of India. Google Scholars, Research Gate, Shodh Ganga, Science Direct, etc. are core source areas of the papers reviewed in this study. The Study describes the literature review on agriculture finance and its impact on farmers from 2001 to 2023. The study revealed that farm finance plays a vital role in setting smallholder systems, improving infrastructure, increasing labor availability, and setting automation in agriculture operations. The present review paper consists of comprehensive literature on agriculture finance that involves many financing strategies that affect the income level of farmers and it will also help the Academicians, Researchers, and Professionals for next-level work on the topic of agricultural finance.

1. INTRODUCTION

Agriculture works as a backbone of the Indian economy as it contributes significantly to the GDP of the country. To accelerate agricultural activities, loans are taken by farmers for various purposes like for purchase of equipment and machinery, crop production, diversification, innovation, etc. [1]. According to an old proverb, "credit supports the farmers as the hangman's rope supports the hanged. To stimulate the growth of agricultural production, adequate and timely credit should be provided to the farmers[2]. Agriculture credit can be categorized into two groups...a) productive needs i.e. funds for fertilizers, equipment, etc. b) Unproductive needs i.e. funds for personal purposes. Today farmers are fulfilling their credit requirements from various financial institutions like co-operative societies, commercial banks, regional rural banks, NABARD, etc. [3]. Government and financial institutions are forming many strategies to improve agricultural finance. Digital platforms and mobile banking bring revolution in access to credit services [4]. The majority of farmers are illiterate so training programs can be effective in improving financial literacy [5]. Accessing affordable agriculture credit allows farmers to be able to invest in modern inputs such as seeds, fertilizers, pesticides, and equipment, which remarkably boost the productivity of crops and will lead to an increase in the level of income of farmers[6].

2. OBJECTIVES:

The objectives of this review paper are as follows:

- To get an idea about the need for agricultural finance and also to know about problems and challenges faced by farmers.
- To enhance the knowledge about various sources of agriculture finance.

- To take an overview of various strategies to improve agricultural finance and the level of income of farmers.
- To take insight into the level of income of farmers after farm financing.

3. METHODOLOGY:

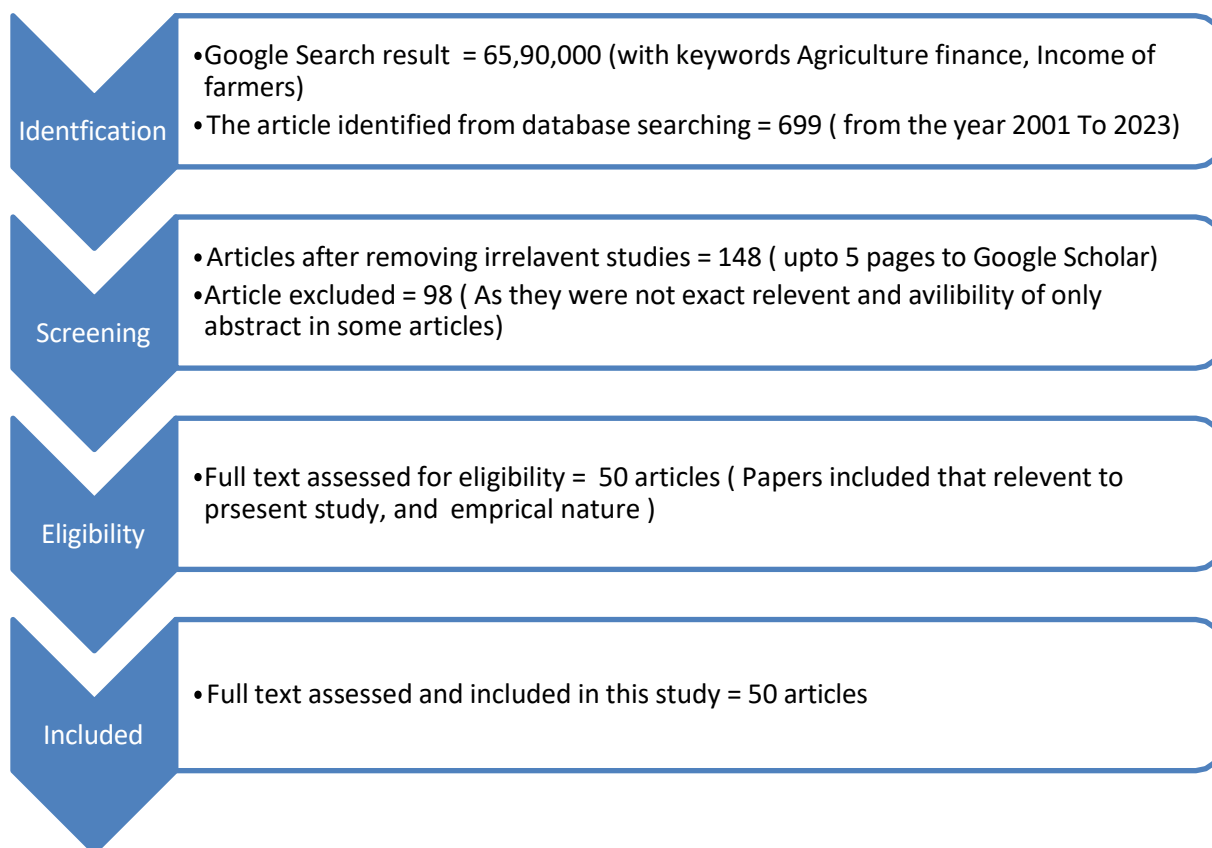


Figure: 1 PRISMA (Preferred reporting items for systematic reviews) Framework

Source: Author's creation

This paper is based on the reviews of 50 articles which are research papers and review papers on agricultural finance from the year 2001 to 2023. Google Scholar, Research Gate, Shodganga, Science Direct, etc. are the important sources reviewed in this study. Data also searched for keywords in the titles, abstracts, keyword lists, etc. This way it produced enormous research papers but I have selected only relevant papers for agricultural finance. Based on such relevance, I have selected only 50 papers related to agricultural finance after removing irrelevancy from the papers. I have studied the full text of 50 papers very carefully and based on it, the entire literature on agriculture finance was classified using a systematic literature review matrix. The entire agriculture finance literature can be classified into the following categories.

- Author(s), year and Countries
- Title of the study
- Name of Journal/ Conference
- Primary or Secondary study
- Sample size
- Keywords
- Number of citations
- Methodology or Tools used for study
- Findings and conclusions of the study

SR No.	Author(s), Year, Countries of study	Title of Study	Journal	Primary Or Secondary Study	Sample size	Keywords	No. of Citation	Methodology/ Tools utilized For Study	Findings and conclusions
1	A. TRZECIAK DUVAL (2002), [7] France	Agriculture Finance and credit infrastructure – conditions, policies, and channels	International Scientific Seminar on the anniversary of The Research Institute of Agricultural Economies	Secondary		European agriculture, Agricultural Finance, Agricultural credit, Sustainable rural banking	37	Theoretical concept	This paper tries to put concepts regarding government roles and potential channels for availing adequate agriculture finance in transition economies
2	Kamblil and Pankaj (2022), [8] India	A Review of access to agriculture finance by farmers and its impact on their income	International journal of case studies in business, IT, and education	Secondary		Agriculture finance, farmers' income, growth, strategies, ABCD analysis	16	Literature Review	The findings of the study show that credit facilities become very simple nowadays which leads farmers to earn more profit. Moreover today financial companies form many credit programs & strategies for the benefit of farmers.
3	Kanagavalli and Manick (2020), [9] India	Challenges and opportunities to improve the livelihoods of smallholder farmers in Tamil Nadu	Journal of Shanghai Jiaotong university	Secondary		Green Revolution, employment generation, linking small holders	8	Literature Review	This paper presents that co-operatives need to do much work in the field of food creation and mediation.
4	Odhiambo, W. (2007), [10] Africa	Financing African Agriculture: Issues & Challenges	Second African economics conference at United Nations conf. center Ethiopia	Secondary			22	Literature review	This paper stresses on role of agriculture in poverty reduction and overall growth. The study also emphasizes on priorities of the agriculture sector over others. The major share of the budget should be utilized for the agriculture sector to achieve the desired development in agriculture.
5	Patil, R. & Agarwal. (2014), [11] India	Challenges and impact of agricultural finance on the Socio-Economic status of Indian farmers	Research journal of social science & management	Primary	420	Agricultural finance, challenges, socio-economic status		Random Sampling, MCT	The findings of this paper reveal that farmers are struggling with many problems like a long process for finance, Unawareness about credit facilities, and Repayment failure in calamities. It leads to a reduction in the income level of farmers and results adversely in the Socio-economic status of farmers.
6	Ahmed et al. (2023), [12] India	Factors affecting access to agricultural finance in India: An Empirical validation from farmers' perspectives	International Journal of Regional Development	Primary	150 farmers from 10 Villages	Agricultural finance, farmers' perspectives, validation		i) Cronbach alpha for data integrity ii) KMO & Bartlett's test for sample adequacy	This study indicates that an efficient & operational financing scheme can be developed which will help to improve the socio-economic status of farmers. The loan-sanctioned policy should be easy and timely. Repayment of loan policies also should be liberal and based on the economic status of farmers.
7	Kamboli & Niyaz (2021), [13] India	An Overview of Agriculture Finance in India	International journal of case studies in business, IT & Education	Secondary		Agriculture finance, Indian policies, SWOC Analysis	10	Literature Review	The findings of the paper are that the indirect supply of credit is as vital as the direct supply of credit. paper also recommends about to create awareness regarding agriculture credit among farmers, to forming stringent regulations against high-interest loan providers.
8	Shah, M.A. (2017), [14] India	Problems faced by the farmers while availing the loan facilities from the banks - A case study of district Kulgam, Jammu & Kashmir	International journal of trend in scientific research & development	Primary	272 Respondents from 34 villages	Crops, Cropping system, Irrigation, Roads, Infrastructure, crop diversification, Kulgam, Jammu & Kashmir		Chi-Square test	The study reveals the fact about problems faced by farmers while availing loans from banks. Paper check the association of various attributes with facing the problems while availing loan.
9	Kishore, N.T. (2012), [15] India	Agriculture credit in India: An Integrated rural credit approach	International Journal of scientific & research publications	Secondary		Agriculture credit, rural credit, Integrated credit		Theoretical concept	The paper suggests the importance of agriculture finance for removing poverty, food insecurity, Unemployment, etc. To set a proper system for the development of farmers, many distribution channels between farmers & consumers should be removed or restructured so farmers can get more profit & consumers get products at less inflated prices.
10	Dyvisody, N. (2011), [16] India	Challenges faced by the agriculture sector in developing countries with special reference to India	International Journal of Rural Studies	Secondary			77	Literature Review	The agriculture sector though growing but still facing many challenges like illiteracy, lack of technical knowledge, lack of awareness, small-sized land holding, weather-dependent cropping systems, harsh bureaucratic procedures, etc.
11	Ahangar, G.B. et al.	A study on institutional	International journal of	Secondary		Institutional agencies,	46	i) Time series data	The study reveals that the quantity of institutional credit in the

	(2013), [17] India	credit to the agriculture sector in India	current research and academic review			Scheduled commercial banks, Co-operatives, agriculture		ii) Linear equation model for analyses	agriculture sector has increased in India. However, the increase in the quantum of outstanding is becoming terrible. Efforts should be made to reduce the outstanding amount to improve the agricultural sector.
12	Dr. J. Ramola Premalatha, (2018), [18] India	A study on farmers' choice of agricultural finance in Vellore district Tamilnadu	International journal of mechanical engineering & Technology	Primary	50 Farmers	Farmers, agricultural finance, Demographic factors, Finance related factors, regression, Vellore district		Linear regression model	The paper suggests that farmers should be given loans with higher payback periods so that they can invest in farming activities to generate enough income. Farmers should be provided proper training on procedural formalities which will make easy access to agriculture credit. Banks can introduce new schemes to attract new customers and also to provide satisfaction to existing ones.
13	Ponnarasi and Mohanraj (2017), [19] India	A study on Institutional credit to the agriculture sector in India	International journal of humanities and social science studies	Secondary		Institutional agencies, Scheduled commercial banks, Co-operatives, agriculture		i) Time series data from published sources ii) Linear regression model	The study reveals that the quantum of institutional agricultural credit has increased. However, nowadays financial institutions are trying hard to reduce the quantum of outstandings.
14	Ratnasabetti, and Gadagale, (2019), [20] India	Credit flow to the agriculture sector from institutional sources in Karnataka	Review of Research	Secondary		Agriculture, Institutional agencies, Co-operative banks, Regional rural banks, Scheduled		i) Time series data from published sources ii) Simple statistical tools	NABARD should extend refinance support to co-operative banks. The study also suggests opening the door for scheduled commercial banks in the agriculture sector. The study also reveals that formalities
		With special reference to regional rural banks				commercial banks, and credit		like percentage, Ratio	regarding financing are very simple and easy so that even illiterate farmers can access them easily.
15	Kumar, V. and Afroz, S.B. (2022), [21] India	Regional disparity in institutional credit to agriculture sector in India: trends and performance	Agricultural Economics Research Review (conference)	Secondary		Agriculture credit, Regional disparities, inclusiveness, convergence		i) Time series data from published sources ii) Simple statistical tools like percentages, Ratio	The study reveals that farmers should provide knowledge about various schemes. The government should digitalize land records to accelerate credit flow. Digitalization should be promoted properly and be covered under the Reserve Bank's regulations. Moreover, banks should develop a management information system for effective monitoring of end use of funds.
16	Sharath, A.M. and Shiva Kumar, S. (2019), [22] India	Agricultural finance in Karnataka	International Journal for research in applied Science & engineering technology	Secondary		Agricultural finance, farmer's Issues		Literature Review	This paper suggests that the government should take an eye on infrastructure development and awareness programs for illiterate farmers.
17	Chandhari, V. & Farmer, Mayuri. (2021), [23] India	Analysis of differences among regular agriculture loan borrowers of the Gujarat State Co-operative Agricultural & Rural	Co-operative perspective	Primary	450	Loan Borrower, Co-operative, Agriculture, Land ownership, ANOVA, Chi-square, Correlation Analysis	10	i) ANOVA ii) Chi-Square iii) Co-relation Analysis	The paper reveals the fact that large farmers avail higher credit facilities as compared to others and the majority of farmers were found satisfied with the services of OSCARD bank. The paper also suggests conducting awareness programs regarding loan schemes.
		Development Bank Ltd.							loan processing, loan repayment structure etc.
18	Bihari, B. et al. (2019), [24] India	Issues, challenges, and strategies for doubling the farmer's income in India	India journal of agricultural sciences	Secondary		Agricultural input management, doubling farmer's Income, Extension strategies, market management, PPME model, risk management	9	Theoretical concept	This paper presents a rigorous study of the government of India's aim to double the income of farmers in the period from 2016 to 2022. However, strategies like the PPME model were formed. Under the PPME model government agencies were procuring farm products from farmers at good prices.
19	Swaminathan B. et al. (2018) [25] India	Doubling farmers income in Gujarat state: Challenges and way forward		Secondary		Farmer's Income, Sustainability, Strategies, Gujarat	4	Theoretical concept	The paper suggests many strategies to improve or double the farmer's income like managing the yield gap, reducing the cost of cultivation, creating horticultural and pulse zones, improving micro irrigation systems, alleviating financial distress, focusing on a value chain approach, etc.
20	Irvan, I.P. and Yulianti, N.N. (2019), [26] Indonesia	Analysis of impact factors on farmer's income	International research journal of management, IT & Social sciences	Primary	135 Farmers	Income, labor, area, production cost, production	22	Linear regression model	Land, labor, production costs, and cultivation techniques affect the income of farmers. This study also suggests that farmers utilize land in an optimum manner by maintaining the fertility of the land. Moreover, the government should also conduct supervision of farmers regarding land management and cultivation techniques.

21	Nath, K. and Das, A. (2017), [27] India	Accessibility of rural credit among weaker section of the society: A case study of the south Tripura district of Tripura	Economic Affairs	Primary	100 House hold	Agriculture, livelihood, rural credit, weaker section, bank		i) Multistage sampling technique. ii) Percentage	The paper reveals that the accessibility of rural credit should have proper procedures. Loan facilities should concentrate on the agriculture sector. It also outlines the financial literacy program in every village at frequent intervals.
22	Somdarya, M. and Jayaram, G. (2020), [28] India	Farmer's opinion towards agriculture credit sanctioned by various financial institutions in Tirunelveli district	International journal of scientific & Technology Research	Primary	230 Farmer	Agriculture credit, Agriculture development, Financial Institutions, Farmers, Modern technology, National income		i) Factor analysis ii) Descriptive statistics iii) KMO Test iv) Chi-square test v) ANOVA	This paper suggests that banks provide agriculture finance for a long period to needy farmers and also to educate the farmers. Farmers also believe that agriculture credit helps to adopt technology, to cope with recovery from stress.
23	Kumar, A. et al. (2021), [29], India	Assessing the impact of lending through Kishan credit cards in rural India	International Food Policy Research Institute, Discussion paper (01997)	Primary	2932 Agricultural households from 5 states Bihar, UP, Jharkhand, Odisha, West Bengal			Conceptual Framework	The findings of this paper reveal that access to KCC is strongly associated with farming households. Access to KCC increases the agricultural inputs and income of farmers. KCC is one of the major factors for the reduction of dependency on money lenders.
24	Kannan, E. (2011), [30] India	Relationship between Agricultural credit policy, credit disbursements, and crop productivity: A study in Karnataka	Indian journal of agricultural economics	Secondary				Theoretical concept	Agriculture credit affects significantly to farm decisions. Timely availability of credit helps to purchase improved seeds, fertilizers, and hiring of equipment. Lack of adequate credit restricts agriculture development.
25	Maitra, P. et al. (2014), [31] India	Financing smallholder agriculture: An experiment with agent-intermediated microloans in India		Primary	50	Agricultural finance, Agent-based lending, group lending, selection, repayment	91	Linear Regression	This study gives an idea about two schemes i.e. TRAIL and OBL for small farmers. Microloans were given for the cultivation of potatoes, a high-value and risky cash crop. In TRAIL, a local trader-lender was incentivized to recommend borrowers, who then offered individual liability loans. In OBL, the lender offered joint liability loans to a self-formed group of five borrowers.
26	Sandhu, N. et al. (2012), [32] United Kingdom	Barriers to finance experienced by female owner/manager of marginal farms in India	Journal of small business and enterprise development	Primary	48 Female farmers & 15 Female Managers	Agriculture, Female marginal farmers, financing, formal finance, India	46		This paper shows that the relationship between female farmers and banks was affected by gender prejudices. The loan rejection rate was found significantly higher in the case of female farmers than in male farmers. The paper suggests to formulation of certain policies for female farmers.
27	Kumar, A. et al. (2011), [33] India	Financial innovation in Indian agricultural credit market: Progress and performance of Kishan credit card.	Indian journal of agricultural economics	Secondary			21	Times series analyses through published data	This paper shows the rate and importance of the Kishan credit card (KCC). The purpose behind the launching of KCC is to provide adequate & hassle free finance to farmers. Long-term objectives should be to compile long-term and short-term finance through KCC. However different variants of KCC like the "Laghu Udyami Credit Card," "Swamiga credit card" etc., would strengthen the institutional credit mechanism.
28	Ram Kumar, R., and Chavan, P. (2007), [34] India	Revival of agricultural credit in the 2000: An Explanation	Economic and political weekly	Secondary			75		This paper examines the credit revival which actually started after 2000. Due to indirect finance, the scope of farm lending became broadened. Between 2000 to 2006, the growth rate of credit flow to agriculture increased significantly.
29	Misra, R. et al. (2018) [35] India	Credit and Efficiency in Indian Agriculture: Evidence from household level data	Indian journal of agricultural economics	Secondary (Rural economic & demographic survey-database)		Agricultural credit, Agricultural efficiency, Data envelopment analysis, Marginal and small cultivator		Descriptive statistics & correlation matrix	The paper examines the relationship between agriculture credit and technical efficiency. It shows positive and significant relations. paper also underlines the need to provide more direct credit to marginal and small cultivators
30	Mandala, O. et al. (2021), [36] India	Problems and constraints faced by farmers in	Universal journal of accounting and finance	Primary	250	Agricultural, Economy, Farmer, Financing,		i) Percentage method ii) Chi-square method	The paper suggests that the government should provide credit at low interest for machines to upgrade profitability. The

		financing and marketing of agricultural produce in India				Marketing, and Production			government should fix the lowest costs for all wares including transitory vegetables. A controlled market framework will help to smooth and reinforce agricultural promotion.
31	Sahoo, A. K. et al. (2020), [37] India	The Application of Garrett scoring techniques for assessment of the farmer problems in repayment of agricultural credit	International journal of scientific & Technology Research	Primary	200			Garrett's scoring technique formula	The paper reveals the fact that rural farmers are still suffering a lot regarding acquiring credit and repayment of credit. primary survey points out some problems ranked by sample respondents i.e. nonavailability of family credit, complicated formalities for providing loans, etc. The paper suggests that if problems of farmers will be minimized if the above-mentioned problems are resolved by the government or by financial institutions.
32	Goswami, S. and Singh, A. (2012), [38] India	An Inquiry into the financial literacy and cognitive ability of farmers: Evidence from rural India.	Oxford development studies	Primary			88		This paper examines the level of financial literacy and cognitive ability of farmers in Gujarat state. Financial literacy and farmers' education are shown significantly correlated. Cognitive ability shows financial aptitude and debt literacy of farmers.
33	Sidda, R.S. et al. (2008), [39] India	Dynamics of Institutional Agricultural Credit and	Agricultural Economics research review	Primary	160			Co-relation Analyses	The Study shows that institutional credit has contributed positively for the development of agriculture infrastructure. Due to credit
		Growth in Punjab: Contribution and Demand Supply Gap							facilities, it becomes possible to adopt modern production inputs and private investments in irrigation, fracturization , and other machinery which proves crucial for the development of the agriculture sector.
34	Anant, T.C.A. (2002), [40] India	Institutional Reforms for Agricultural Growth	Indian Journal of Agricultural Economics	Secondary					The paper outlines the interconnection between the market, finance, and infrastructure. Economic development implies raising the standard of living of the population.
35	Kumbhar, V. (2011), [41] India	Performance of the agriculture sector in India: special reference to the post-reform period.	SSRN electronic journal	Secondary					Indian agriculture has shown an increasing trend after economic reforms. However due to unfavorable policies of the government, capital formation level is decreasing in the agriculture sector.
36	Ngori, O.M. et al. (2022) [42] Nigeria	Agricultural financing and economic growth in Nigeria	African journal of accounting and financial research	Secondary		Economic growth, Agricultural credit scheme, Commercial bank loan & advance.		i) Unit root test ii) Co-integration test iii) Error correction model iv) Granger causality test	The paper reveals the long-term impact of agricultural financing on Nigeria's economic growth however paper suggests about proactive campaign and the availability of credit for farmers i.e. availability of loans at a very cheap rate.
37	Key, N. et al. (2019) [43] United States of America	Financial conditions in the U.S. agricultural	Economic Information Bulletin number 211	Secondary		Farm financial performance, Farm income, loan repayment	39		The paper reveals the financial health of the U.S. Farmer sector. After peaking around 2012, farm
		sector: Historical comparisons				capacity, Agricultural lending			sector income showed a bearish trend.
38	Clapp, J. and Martin, S.J. (2018), [44] Canada	Agriculture and Finance	Encyclopedia of food and agricultural ethics.	Secondary		Agriculture business, Finance capital, Farming, Agricultural commodity	7		The paper presents the need for finance in agriculture. Due to climate change and unpredictable weather events, agriculture finance is required for the growth of farming productivity
39	Kimura, S. and Amos, J. (2011), [45] Australia	Risk management in agriculture in Australia	OECD Food, Agriculture and Fisheries paper No. 39	Secondary		Agricultural policy, risk management, drought policy	63		This paper analyses the risk management system that prevails in the agriculture sector in Australia. It reveals three layers of risk i.e. normal risk which should be retained by the farmer, intermediate risk and catastrophic risk which requires government assistance.
40	Waldman, K.B. et al. (2021), [46] USA	Socio-economic threats are more salient to farmers than environmental threats	Journal of Rural Studies	Primary	210	Decision-making, Trade war, consolidation, mental health	23	i) Descriptive statistics	The paper reveals that socio-economic risk is higher than the environmental risk in the agriculture sector in the USA.
41	Dube, I. et al. (2017), [47] Zimbabwe	The impact of contract farming on smallholder tobacco farmers' household income: A case study of Makau	Scholar's journal of agriculture and veterinary sciences	Primary	98	Household Income, Smallholder tobacco farmers, Contract farming, Zimbabwe, Tobit analysis	12	Tobit regression analysis	The paper shows the impact of contract farming on household income. Contract farmers are selling more goods in quantity but income is not realized to that proportion.

		district, Manicaland province, Zimbabwe							
42	Urrutia, J.D. et al. (2018), [48] Philippines	Analysis of factors influencing agricultural productivity in the Philippines	Indian Journal of science and technology	Secondary		Agriculture gross value added, Agriculture production, Multiple linear regression, Time series	7	i) Multiple regression analyses ii) Granger-causality test iii) Paired- T-Test	The paper identifies the factors affecting agricultural productivity. Factors like employment in agriculture, government expenditure on agriculture, electric consumption per capita, etc. affect productivity.
43	Sharma, Y.K. et al. (2007) [49] India	Factors affecting the gross and net income of farmers in different farming systems	Indian research journal of extension education	Primary	360	Farming system, crop farming system, labor farming system, Dairy farming system, Vegetable farming system	18	Multiple regression technique	The paper reveals that education and extension contact are important factors affecting annual gross income whereas cast, family type, and transport facility are factors affecting to annual net income of the crop farming system.
44	Golait, R. (2007), [50] India	Current issues in agriculture credit in India: An assessment	Reserve Bank of India, occasional papers	Secondary		Agriculture, credit, rural	169	Theoretical concept	The paper reveals the issues in agricultural credit in India. Analysis shows that credit facilities are still inadequate. Moreover, the co-operative credit structure needs some drastic changes to provide better credit facilities in rural areas.
45	Khan, N. (2018) [51] Pakistan	Critical review of past literature on agricultural credit in the developing world	Journal of Poverty, Investment, and development	Secondary	75	Critical review, past literature, agriculture credit, developing world	7	Literature review	The study spotlight on farmer's situation in developing countries. The majority of credit facilities are enjoyed by large farmers while poor farmers can not get enough credit facilities due to less farm holding, lack of awareness, etc.
46	Kumar, A. et al. (2010) [52] India	Institutional credit to the agriculture sector in India: Status, performance and determinants	Agricultural Economics Research Review	Secondary				Tobit model	Study shows that institutional agriculture credit has increased remarkably. Commercial banks and cooperative societies are playing vital role for institutional credit to agriculture. However paper suggests simplifying the procedure to access agricultural credit.
47	Yu, W., and Jensen, H.G. (2010), [53] China	China's Agricultural policy transition: Impacts of recent reforms and future scenarios	Journal of Agricultural Economics	Secondary			135	Theoretical concept	The paper reveals the development of the agriculture sector of China by formulating a domestic support policy. Reforms mainly took place in the form of exemption from taxes and providing direct subsidies.
48	Nazzaro, C. and Marotta, G. (2016), [54] Italy	The Common Agricultural Policy 2014-2020: Scenarios for the European Agricultural and Rural System	Agricultural and food economics	Secondary		Sustainability supply chain, farm diversification, common agricultural policy	71	Theoretical concept	The study presents the facts about common agricultural policy. It aims to promote competitiveness, efficient use of public goods, action against climate change, security in food, and social equilibrium.
49	Satyasai, K.J.S and Mehrotra, N. (2016) [55] India	Enhancing farmer's income	NABARD Foundation Day lectures – A collection	Secondary			20	Theoretical concept	This paper underlines the remedies to increase the farmer's income. The income of farmers can be increased through a rise in yields, reduction in cost, diversification within the farm sector effective water management, etc.
50	Ponnusamy, K. and Devi, M. K. (2017), [56] India	Impact of integrated farming system approach on doubling farmer's income	Agricultural Economics Research Review	Primary	150	Integrated farming system, Doubling farmer's income, Haryana, Tamilnadu	93	Correlation analyses	Study reveals the impact of integrated farming system on farmer's income. It is possible through the supply of quality inputs, market intelligence along risk management.

4. CONCLUSION:

The present review paper involves a rigorous literature review of 50 papers of which 36 were Indian papers and 14 overseas papers. Out of the total of 50 papers, 20 papers show primary studies and 30 show secondary studies. Linear regression analyses, Chi-square tests, ANOVA tests, Correlation analyses, Ratios, Percentages, and Factor analyses are the main tools used in the above papers. Agriculture finance plays a vital role in economic stability and consistent growth of the agriculture sector. Rural farmer's accessibility to credit facilities has increased remarkably since the beginning of the 21st century. It also brings a great downfall in the influence of unstructured intermediaries like money lenders. Due to easy and adequate credit accessibility, farmers become able to purchase seeds, fertilizers, and equipment that improve crop yields and the efficiency of the agriculture sector. However, some barriers to agriculture finance also prevail which restrict the flow of development of the agriculture sector. Today agriculture sector suffers from high interest rates credit, limited access to formal finance institutions, lack of financial knowledge, fluctuating commodity prices, climate change, etc. Government, financial institutions, and development agencies must work together to eliminate such limitations from the agriculture credit system. Policies should be reformed in such

a manner that it will reduce the risk for lenders, encourage financial innovation, and improve the financial literacy level of farmers.

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Full Home Address with Pin code / Zip code : (First Author) :-

Address:

Hardik Bhatt

“Ganesh Bhuvan”, Block No. 3

Jivan Park 1,

Zanzarda Road, Junagadh

District: - Junagadh

State: - Gujarat

Country: - India

Zip Code/ Pin Code: 362001 Mobile Number: +91 9824501407