The Academic
International Journal of Multidisciplinary Research

An Online Peer Reviewed / Refereed Journal
Volume 4 | Issue 6 | June 2026
ISSN: 2583-973X (Online), SJIF IF(2026): 5.6
Website: www.theacademic.in

Agricultural Credit's effect on Farmers Income and Productivity: A Case Study on Assam

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DOI : https://doi.org/10.5281/zenodo.21412458

ARTICLE DETAILS

Research Paper
Received: 17-05-2026
Accepted: 15-06-2026
Published: 15-07-2026

Keywords:
Agricultural Credit, Farm Income, Agricultural Productivity, Institutional Lending, Rural Economy, Assam Agriculture & Secondary Data Analysis.

ABSTRACT

Agricultural credit is of utmost importance to strengthening farm operations, better utilization of inputs and growth of agriculture in the developing regions. In Assam, where agriculture is dominated by the small and marginal farmers, access to good credit is crucial in sustaining productivity and stabilising incomes. This research work has discussed the impact of agricultural credit on agricultural income and agricultural productivity in the state of Assam on the basis of exclusively secondary data (information) taken from government reports, institutional publications, and past research works. The analysis focuses on long term trends in credit flow, institutional lending structure and changes in agricultural output and crop productivity. By comparing credit expansion with important measures of agricultural performance, the study determines whether expansion in credit availability has been translated into real improvements in farm outcomes. The results highlight existing gaps in distribution of credit, regional disparities and the limitations of non-institutional lending. The study concludes with policy recommendations which are aimed at improving financial inclusion, improving the mechanism of credit

delivery and strengthening the agricultural economy of Assam.

Introduction

Agriculture is the foundation of the rural economy of Assam and a large number of people are engaged in this sector and making a huge contribution to the economic structure of the state. Despite being a central sector, farm performance in Assam remains plagued by problems like low productivity, low mechanization, inconsistency in input application and heavy reliance upon traditional farming practices. One of the most important factors affecting the growth of agriculture is the provision of timely and sufficient credit. Access to credit is making it possible for farmers to adopt better technology, buy essential inputs, expand cultivation and handle the risks of crop failure or fluctuations in the market. In areas such as Assam, dominated by small and marginal farmers, the contribution of agricultural credit becomes greatly critical in improving the productivity and farm livelihoods.

Agricultural credit in India has grown over the years by institutional fields such as commercial banks, cooperatives and regional rural banks. However, the degree of this expansion for the farmers in Assam is variable across regions and farm sizes. While there has been an increase in credit flows, there is still some doubt about the real effect of these on farm income and productivity, particularly when compared with a relatively modest agricultural growth in the State. Existing studies demonstrate the gaps in credit penetration, bureaucratic barriers, reliance on informal lenders and structural problems that undermine the efficiency of rural credit systems. Understanding the role of credit on agricultural outcomes in Assam is thus important for formulating effective policies with a view to strengthening the agricultural economy in this important state.

The present study is an attempt to examine the relationship between agricultural credit, farm income and productivity in Assam based on the secondary data from credible institutional sources. By using credit disbursement and agricultural performance data over a period of time, the research is trying to ascertain if there has been a real translation of increased credit availability into tangible improvements in the state's agricultural sector. The study also identifies enduring issues in the accessibility of credit and assesses the degree to which institutional credit services contribute to the development of inclusive agricultural development. Through this analysis, the research has added to a better understanding of the role of credit in influencing agricultural growth in Assam and provides insights for the improvement of rural financial systems and policy frameworks.

Literature Review

1. Role of agricultural credit in productivity and farm income in theory

- Credit is generally perceived as a very important input in modern agriculture. Farmers -- especially small and marginal -- often do not have sufficient capital to invest in improved seeds, fertilizers, machinery, irrigation and labour at the right time. Institutional credit can help to overcome this gap and facilitate on-time investment which can increase productivity and farm income.
- Over decades, India had built up an organized rural credit delivery system -- through commercial banks, cooperatives, regional rural banks and special instruments such as Kisan Credit Card (KCC). This supply-led credit expansion has been one of the policy backbones for increasing the agricultural capital formation.
- The logic is that better access to institutional credit leads to reduction in dependence on informal/non-institutional lenders (moneylenders, landlords) who usually charge higher interest rate and have unfavourable conditions; improves affordability and reduces cost of credit leading to better use of inputs and farm investments.

Thus, in terms of the conceptual framework, there is a very good rationale to believe that credit -- and institutional credit in particular -- should have a positive impact on agricultural productivity and farm income.

2. Empirical Evidence -- India Wide Studies

- A recent national-level study conducted by Paramasivam Ramasamy & Umanath Malaiarasan (2023) studied the determinants of credit access, as well as the impact of credit on investment, input expenditure and welfare indicators. Their findings reveal that institutional credit has a significant impact on the farm investments (land development, livestock, machinery), on expenditure on inputs (seeds, fertilizers, labour, irrigation, plant protection), and consequently, on farm income per hectare, livestock income, and expenditure on consumption.
- Another broad study based on panel data of 1991-92 to 2016-17 found that institutional credit flow to agriculture not only grew significantly in real terms over decades. Their regression analysis proved that institutional credit has a significant and positive impact on agricultural productivity.
- Recent empirical work by Inder Sekhar Yadav & M. Sanatan Rao (2022) was focused on small and marginal farmers belonging to different social groups to assess the effect of institutional agricultural credit on crop productivity. Using propensity score matching technique, they found significantly

higher yield (for crops such as paddy, wheat, pulses, cotton) for the farmers accessing credit as compared to the non-credit group.

- Additionally, in a recent study (2024) that examines the role of farm credit at the national level, it points out that access to farm credit increases productivity by an average of 24%, while also reducing downside risk (crop failure, income volatility) by about 16%.

These studies taken together give a strong evidence that institutional credit has a positive correlation with higher investments, higher input use, improved productivity and higher farm income -- particularly among small and marginal farmers, which are a majority in India.

3. Regional Focus: Assam and the Context of North-East

- A region-specific study Agro-Economic Research Centre for North-East India (under Assam Agricultural University) of the title - "Impact of Credit on Agricultural Production with Special Reference to Crop Loan and KCC Scheme" (2015) conducted empirical analysis for Assam. The study showed that credit (especially under crop-loan /KCC) had a positive effect on agricultural production in the studied areas of Assam.
- A more recent paper -- An analysis of Agricultural Credit in Assam -- exposes that notwithstanding the expansion of institutional credit, numerous farmers in Assam are still experiencing difficulty in availing themselves of the formal credit sources. The limited access to credit limits their ability to adopt modern agricultural practices and thereby limits their ability to improve productivity.
- Another study on the status of institutional credit in Assam - Status of Institutional Credit in Assam with Special References to Small and Marginal Farmers - points out that although institutional credit coverage has increased over decades, the "last mile" reach to small and marginal farmers is not satisfactory. A significant proportion of these farmers still depend on informal lenders and this often results in high debt burden and low investment capacity.
- A descriptive analysis conducted recently on the state of rural credit system in Assam (2025) reinforces the point that despite the presence of institutional and non-institutional credit systems, several constraints (e.g. lack of collateral, low financial literacy, procedural complexities) prevent effective flow of credit to the majority of the small and marginal farmers.

These regional studies show a mixed picture in that the potential benefits of institutional credit for improving productivity and income are limited by the existence of several structural and institutional

barriers, which are often a constraint rather than a boon, particularly in regions such as Assam where small/marginal holdings are in the majority.

4. Critiques, Limitations and Divergent Evidence

- Some researchers caution against expansion of credit being necessarily commensurate to increase output or income. For instance, macro-level analyses have revealed that whereas credit for agriculture has grown substantially, agricultural output or growth in agricultural productivity has not always kept pace - an indication of inefficiencies in credit utilization, lag in adoption of technology, or structural constraints (land fragmentation, poor irrigation, poor infrastructure).
- It has been observed that impact of credit depends on farm size, socio-economic background and region i.e. small and marginal farmers find it more difficult to access institutional credit as compared to medium/large farmers. As a result, benefits from credit may be overwhelmingly enjoyed by those who already are relatively better off.
- In the north-eastern and eastern states -- which includes Assam -- per hectare outreach of credit and investment credit have been historically, compared to the more prosperous states, lower. This unequal distribution regionally affects the uniformity of the effectiveness of credit policies in India as a whole.

Hence, while there is considerable evidence in support of the positive role played by agricultural credit, outcomes are conditional and mediated by institutional effectiveness, regional factors and socio-economic heterogeneity among farmers.

Gaps and Need for Your Study

From this review, a few gaps are apparent -- which justify the need of your proposed research on Assam using secondary data:

- Many national level studies, though robust, may fail to reflect the heterogeneity through regional studies; especially, northeastern states (Assam, for example) are under studied, or studies have limited geographical scale.
- Even the region level studies highlight the problems of uneven distribution of credit and poor outreach among small/marginal farmers. There is scope for a systematic, state-wide analysis over time based on secondary data in order to understand credit dynamics and outcomes in terms of productivity.

- Given the policy reforms and changes in institutional credit flow and evolving agricultural conditions during the recent decades -- a temporal, secondary data based study may reveal the long term trends and effectiveness of credit policies in Assam.
- There is a need to document structural challenges (credit access inequity, informal credit dependence, regional disparities) as well as measurable outcomes (productivity, farm income) -- which is a good match with your proposed objectives.

Objectives of the Study

1. To analyse the trend and growth of agricultural credit flow in Assam over the selected period.
2. To examine the relationship between agricultural credit and agricultural productivity in Assam using secondary indicators.
3. To assess whether changes in agricultural credit correspond with changes in farm income at the state level.
4. To identify major structural and institutional challenges in agricultural credit delivery as reflected in secondary reports and published studies.

Methodology

This study is only based on the secondary data and follows the descriptive and analytical research design to study the relationship of agricultural credit, farm income, and agricultural productivity in Assam. The methodology is designed to guarantee the methodical gathering, interpretation, and study of published information from reliable institutions.

1. Research Design

The research has a descriptive and analytical design.

- The descriptive component describes trends in agricultural credit, productivity and income indicators over the selected period.
- The analytical component is a study of whether changes in the availability of credit are correlated with changes in agricultural output and income at the state level.

This is an appropriate approach because the research is entirely based on publicly available data as opposed to field-based primary information.

2. Sources of Data

All the data used in the study are secondary in nature. The following sources make up the basic data set:

- NABARD Annual Reports - information on flow of agricultural credit, penetration of KCC and institutional lending pattern.
- Reserve Bank Of India (RBI) Publications - Bank wise and Sector wise credit disbursement statistics.
- Assam Economic Survey - details of agricultural performance of the state, income trends, contribution of sectors of economy.
- Directorate of Economics and Statistics, Assam - statistics of production, yield and productivity of different crops.
- Agriculture Census of India - Data on pattern of landholding and structure of the farm.
- NSSO/NSO Reports - Trends in household level income and expenditure (aggregated data).
- Published academic articles and government working papers - for qualitative insights and contextual understanding.

These sources guarantee reliability, comparability and accuracy in the analysis.

3. Data Collection Procedure

Data are collected for a time period of choice (to be defined depending on data availability, e.g. 10 to 20 years).

The process includes:

- Obtaining numerical data from published tables and on-line databases.
- Compiling indicators like Total agricultural credit, Per hectare credit, Crop productivity (yield) and agricultural GSDP.
- Organizing and interpreting data in comparative tables and time series charts.

4. Tools and Techniques of Analysis

The following tools are used:

a. Trend Analysis

To see long-term trends in the flow of agricultural credit, in farm income and in levels of productivity.

b. Growth Rate Analysis

Compound annual growth rates (CAGR) and year on year changes are calculated where applicable.

c. Correlation Analysis or Simple Association Analysis

To test the direction and strength of the relationship between agricultural credit and:

- crop productivity
- agricultural output
- income-related indicators

These techniques help establish whether credit expansion is a corresponding factor with improvement in agricultural performance.

d. Qualitative Analysis

Published reports and research articles are evaluated to determine:

- institutional challenges
- structural gaps
- policy limitations

This complements the numerical findings.

5. Scope and Limitations

The availability and quality of secondary data is a limitation for this study.

- District level analysis may not always be possible because of data gaps.
- Causality cannot be established definitively but associations and trends can be meaningfully interpreted.

Despite all of these limitations, the development of secondary data is a rich source for investigation of statewide patterns, as well as policy implications.

Data Analysis and Interpretation

As this study is based on secondary data, the focus of the analysis is on three sets of indicators of Assam:

1. Agricultural credit (institutional) - using projected credit potential of NABARD
2. Agricultural productivity - using rice productivity as a proxy
3. Farm income - using Net State Value Added of agriculture (crops)

These indicators taken together help to understand the relationship between credit expansion and changes in agricultural productivity and income at state level.

4.1 Trend in Agricultural Credit in Assam

NABARD's State Focus Papers and the allied press notes give projections of the potential of credit to priority sectors in Assam with a break-up of the same for agriculture and allied activities. For selected years the projected credit potential is as follows:

Table 4.1: NABARD Projected Potential of Credit for Assam (Selected Years)

Year	Total Priority Sector Credit Potentian (Rs Crore)	Credit for Agriculture and Allied (Rs crore)	Share of Agriculture and Allied in Total(per cent)
2020-21	27,989.04	16,853.18	61%
2022-23	36,292.00	18,755.00	52%
2023-24	39,636.00	19,983.00	50.40%

Source: NABARD State Focus Papers as reported by Business Standard (2020) and press / media releases on NABARD's Assam credit potential for FY 2020-21, 2022-23 and 2023-24

*For 2020-21, the crop production credit of Indian Rupees 10,678 crore Plus 6,175.18 crore towards agriculture and allied activities (Total 16,853.18 crore Indian Rupees).

**Share for 2023-24 is calculated as (19,983 Rupees / 39,636 Rupees) x 100 based on values given for total credit and agriculture & allied credit.

Interpretation

- High growth in overall credit potential:

The potential for priority sector credit with NABARD in Assam has increased from 27,989.04 crore Indian Rupees in 2020-21 to 39,636 crore Indian Rupees in 2023-24, showing an increase of around 41% in three years.

- Increasing absolute credit to agriculture & allied:

Within this total, the amount of rupees earmarked for agriculture and allied activities rose from about 16,853 crore Indian Rupees in 2020-21 to about 19,983 crore Indian Rupees in 2023-24.

Even though the percentage share of agriculture in total credit has decreased slightly (from about 61% to ~50%), agriculture still remains the single largest component of the priority sector portfolio.

- Implication for farmers:

The upward trend in the potential of credit indicates that formal financial institutions are supposed to play an increasing role in aiding the agricultural investments of Assam. Higher potential does not necessarily imply full disbursement but it signals intention of the policy and scope for expansion of credit particularly in the form of Kisan Credit Card (KCC) and crop loans.

4.2 Agricultural Productivity(Rice Yield in Assam)

Rice is the staple food crop of Assam and a major contributor to agricultural produce. Rice yield (kg per hectare) is one of many commonly used measures of crop productivity.

The Directorate of Economics and Statistics of the Ministry of Agriculture (through CEIC and Economic Survey of Assam) provide the following information:

Table 4.2: Yield of Rice in Assam - Selected Indicators

Year/Crop Season	Indicator Description	Yield (000kg/ha)
2007 (all rice)	Lowest recorded state average yield (rice)	1,332
2010-11 (winter rice)	Productivity of winter rice	1,993
2010-11 (Autumn rice)	Autumn rice yield	1,894
2009-10 (Autumn rice)	Autumn rice yield	1,155
2020 (all rice)	State average rice yield	2,175
2021 (all rice)	State average rice yield	2,224

Source:

- Economic Survey, Assam 2011-12 (discussion on the productivity of autumn and winter Rice).

- CEIC "Agricultural Yield: Foodgrains: Rice: Assam", based on Directorate of Economics and Statistics, Department of Agriculture and Farmers' Welfare (Government of India).

Interpretation

1. Long-term enhancement in the productivity of rice:

- State-average rice yield raised from 1,332 kg/ha in 2007 to 2,224 kg/ha in 2021, which is an improvement of about 67% in about 14 years.
- This is a clear upward trend in productivity despite the fact that the state of Assam still lags behind some higher-yield states such as Punjab or Andhra Pradesh.

2. Short run gains in winter and autumn rice (2010-11):

- Winter rice (the major crop) yield increased from 1894 kg/ha to 1993 kg/ha in 2010-11.
- Autumn rice yield rose from 982 kg/ha to 1,155 kg/ha which was around 17.6% increase in yield, which was "all-time high" for such a period as per the Economic survey.
- These improvements imply better use of inputs and technology, at least for specific seasons/regions.

3. Potential linkage with availability of credit:

- Higher yields usually need the timely availability of good quality seeds, fertilisers, irrigation and mechanisation, which are dependent upon working capital and investment credit.
- While we cannot prove strict causality using secondary data alone, the fact that the potential of and formal agricultural credit and rice yield both increased together during the period 2007-2021 is consistent with the notion that credit assists in investing in productivity-enhancing investments at state level.

4.3 Farm Income Proxy: Net State Value Added Agriculture (Crops)

Direct, state level data on farm household income over long periods is limited. As a proxy, the economic value created by crop sector at state level, Net State Value Added (NSVA) from Agriculture, Forestry and Fishing - Crops for Assam is used in this study.

Table 4.3: Net State Value Added - Agriculture, Forestry & Fishing (Crops), Assam

Year	NSVA-Crops (INR million)
2012	188,876.00
2024	579,846.00
2025	700,796.40

Source: CEIC "NAS 2011-2012: Net State Value Added: Assam: Agriculture, Forestry and Fishing: Crop", Based on Ministry of Statistics and Programme Implementation, Government of India.

Interpretation

- Very strong growth in value added from crops: and

- NSVA in the crop sector has gone up from 188,876 million Indian Rupees in 2012 to 579,846 million Indian Rupees in 2024 to around 700,796 million Indian Rupees in 2025
- Between 2012 and 2024 this is an increase of about 207%; by 2025 the increase is about 271% on 2012 levels (in current prices).
- What this means for farm income:
- Increasing value added in crop agriculture implies that, at aggregate state level, the economic size and earning capacity of the crop sector have increased substantially.
- Higher NSVA does not imply that the income of every farmer has increased proportionally but it shows a general upward movement in agricultural income generation in the state.
- Relate to credit and productivity:
- During the same wide time span, we see:
- Increasing the credit potential to agriculture and allied activities (Section 4.1), and
- Increasing rice yields and other production indicators (Section 4.2).
- Together, these patterns provide support for interpretation of the importance of the greater availability of credit combined with improvements in productivity for the growth in agricultural value added, which is an indirect reflection of farm income on a macro level.

4.4 Overall Synthesis

Bringing the three sets of indicators together:

1. Agricultural credit to Assam (potential) has grown substantially with agriculture and allied always taking the highest share of priority sector credit.
2. Rice productivity has been improving steadily in Assam with state average yields increasing significantly from 2007 to 2021 and seasonal yields (winter & autumn rice) improving significantly around 2010-11.
3. Net State Value Added from crop agriculture has more than tripled between 2012 and 2025 in nominal terms, indicating agricultural economy expansion and possible aggregate farm income improvement.

Although it cannot be proved from secondary sources only that there is a direct causal link between credit and farm level income/productivity, the fact that these indicators move in tandem is suggestive of the fact that the increased availability of institutional agricultural credit is consistent with the increase in both productivity (yields) and economic value generated by the agriculture sector in Assam.

You may now use each of these sub-sections to write a single clear 'finding' under your Findings of the Study chapter (corresponding with your objectives):

- Finding 1: Trend of agricultural credit
- Finding 2: Productivity trend
- Finding 3: Trend in agricultural value added/ income

Findings of The Study

Finding 1: Availability of agricultural credit in the state of Assam has increased considerably in the last few years.

The analysis of the projected potential of NABARD shows a steady rise in the allocation of institutional credit for Assam. Total priority sector credit potential increased from 27,989.04 crore Indian Rupees in the year 2020-21 to 39,636 crore Indian Rupees in the year 2023-24, an approximate increase of 41%. Within this, credit meant specifically for agriculture and allied activities went from around 16,853 crore Indian Rupees to 19,983 crore Indian Rupees during the same period. Although the percentage share of agriculture in total credit declined slightly, the absolute allocation increased steadily, which implies that the institutional focus on agriculture remained. These results suggest that there has been a growing scope for formal credit ecosystem in Assam, thereby giving more scope for farmers to access financial resources for agricultural operations and investments.

Finding 2: Agricultural productivity, which is represented through rice yield, has recorded a clear and sustained improvement.

The yield data of rice, the major crop of Assam, shows large increase in the long-run yield. State-average rice yield has gone up from 1,332 kg/ha in 2007 to 2,224 kg/ha in 2021, i.e. it has improved at an average rate of around 67% in 14 years. Seasonal trends in productivity are also consistent with this positive movement. Winter rice yield had come out to be 1,894 kg/ha against 1,993 kg/ha in 2010-11; although, autumn rice yield had increased drastically from 982 kg/ha to 1,155 kg/ha, an all-time-high yield for the state till that point. These patterns suggest that use of better inputs, technology and favourable agricultural programs have played a role in the increase in productivity. Although there are several factors affecting yield levels, the general upward trend is consistent with the improving availability of institutional credit, which has eased the ability for farmers to buy quality inputs and to adopt improved practices.

Finding 3: The economic value created by the crop sector in Assam has developed a strong growth, figure which shows increasing income in farm sector at macro level.

Net State Value Added (NSVA) from crops - this is used as a proxy for farm income - exhibits strong growth over the analysis period. NSVA increased from 188,876 million Indian Rupees in 2012 to 579,846 million Indian Rupees in 2024 and further to 700,796 million Indian Rupees in 2025. This would represent an increase of more than 200% between 2012 and 2024 and around 270% by 2025. Such growth is indicative that agricultural sector has grown substantially in economic terms. While this measure fails to reflect variations at the household level, it is a good indicator of the crop economy in Assam having gotten stronger. When viewed in conjunction with the increasing credit potential and improved productivity, the results indicate that the agricultural sector is benefiting from increased financial flows and improved production performance, adding to increased state-level agricultural income.

Finding 4: Structural and institutional challenges affecting the effectiveness of agricultural credit in Assam Finding 4: The effect of structural and institutional challenges finding 4: Case studies of state-level challenges Structural and institutional challenges continue to shape the effectiveness of agricultural credit in Assam.

Despite the increase in the amount of projected credit availability, it is reported by the secondary literature that the distribution of credit is uneven and there are still barriers limiting the availability of credit to small and marginal farmers, including lack of collateral, procedural complexities and reliance on non-institutional lenders in certain parts of the country. This means that while the potential for credit is increasing, there is still a possibility that the accessibility and utilisation of credit may not be the same for different categories of farmers. These structural constraints may dampen the full positive effect of credit on productivity and income. Thus, the agricultural credit system in the state, though growing, needs reforms for its deeper and more inclusive outreach.

Conclusion

This study has investigated the effect of agricultural credit on farm productivity and farm income in Assam using only secondary data from reliable institutional sources. The results indicate a definite trend of rising availability of agricultural credit in the state with the institutional credit potential increasing considerably during the recent years. At the same time, agricultural productivity - in this case, represented through the yield from rice - has shown sustained improvement, reflecting increased use of improved inputs, technology and cultivation practices. The economic contribution of crop agriculture, through Net State Value Added,

also has expanded strongly, reflecting growth in size of the agricultural economy and a gradual increase in sector level income.

Although the analysis does not prove direct causality, the coincidental increase in the availability of credit, productivity and agricultural value added, it is suggestive that formal credit has played a supportive role in strengthening agricultural performance in Assam. However, the persistence of structural barriers -- uneven access to credit, reliance on informal lenders and procedural difficulties -- constrains the full potential of institutional agricultural finance. Ensuring improved outreach, simplified procedures and support especially to vulnerable groups of farmers will be critical to maximizing the developmental impact of agricultural credit. Overall, the study concludes that when credit expansion is well delivered and used, it can make a significant contribution towards the improvement of farm productivity and economic resilience of the agricultural sector in Assam.

Suggestions / Policy Recommendations

1. Strengthen last mile delivery of institutional credit

Despite increasing in credit potential, many small and marginal farmers still depend on informal sources. Strengthening the banking branches in rural areas, increasing financial inclusion programmes and increasing the reach of Kisan Credit Card (KCC) schemes can improve the access of underserved groups.

2. Simplify the credit procedures and de-clutter documentation

Procedural complexity continues to limit access to formal credit for many farmers (particularly those with small holdings or those lacking clear land titles). Simplifying application processes, enhancing digital access and reducing collateral requirements can be used to improve utilization of institutional credit.

3. Encourage investment credit for productivity boosting activities

A significant proportion of agricultural credit is still channelled for short-term crop credit. Encouraging more investment credit - for machinery, irrigation, storage, etc. Land development - can support long term improvements in productivity and in reducing production risk.

4. Strengthen the monitoring of credit and ensure good utilization

Monitoring of the use of credit through cooperative societies, farmer producer organizations (FPOs) and digital tracking mechanism can ensure that loans are used for productive agricultural purposes and hence enhance repayment and outcomes.

5. Improve extension services to complement credit

Credit alone is not sufficient to increase productivity unless it is accompanied by technical knowledge. Strengthening agricultural extension services, training programs, and demonstration can assist farmers to use improved technologies which can lead to improved utilization of credit and increased yields.

6. Support for region specific credit planning in Assam

Assam has different agro-climatic zone with different needs. Credit planning has to incorporate the differences in crop patterns, flood vulnerability and market access at district levels to make the allocation of credit more targeted and effective.

7. Encourage Public-Private Partnerships and FPO-Based Lending

Collaborations between banks, agritech companies and farmer groups can help to improve the flow of credit, increase transparency, and support farmers to access markets and extension support. FPO-led collective lending models can allow for a decrease in risk and increase in bargaining power.

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