

# Innovation in Agriculture and Entrepreneurship: A Support of rural credit to boost the rural economy

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**Abstract:** Agriculture and Entrepreneurship development in the rural areas will create an impressive opportunity to the rural folks whose main occupation is to work in the field for the production of food and other agricultural products. The main objective of this Paper is to highlight how the development of Agriculture and Entrepreneurship in the primary sector with Rural Credit in the practice can boost its achievements in the form of employment prospects, increases the production process and a development and growth in the Agro-based industries. A combination of both Agriculture and Entrepreneurship in a rural economy can also be termed as AGRIPRENEURSHIP which can be defined as “generally, sustainable, community oriented, and directly marketed agriculture. Sustainable agriculture denotes a holistic system oriented approached to agriculture and farming that focus on the interrelationship of social, economic and environmental processes” (T. Nagalakshmi<sup>1</sup>, A. Sudhakar<sup>2</sup>).

**Keywords:** Innovation, Agriculture, Entrepreneurship, Rural credit, Agro Industries, Agri-preneur, Rural Economy.

## 1. INTRODUCTION:

The year 1991 has brought radical changes in the Economy of the country and subsequently in the North Eastern Region of India. The new Economic Reforms and policies have focused more in the Industrial and Service sectors whereas the agricultural sector, the one which the larger population are engaged as their main occupation has been put under pressure, which just not drag on the Economy but also raises fundamental questions on the inclusiveness of the Economic policies of the country. For instance, input subsidies for fertilizers, irrigation, fuel and electricity, seeds, credit facilities etc. that played a useful role in the early days of Green Revolution has become very large and fiscally unsustainable. Increasingly, their continuance has only underwritten unscientific and unsustainable use of fertilizers, water resulting in large scale soil degradation and water conservation in several part of the country. The environmental degradation has raised many questions which can eventually affect the sustainability in agriculture sector and thereby a warning for the food security of the country. Besides, Agricultural sector has a large scale competition by the rise in the use of land due to urbanization and also the increasing number of Non- Agricultural activities, such as, the growth of small and tiny industries, banking, insurance, institutions etc that lead to a reduction of land for agricultural purposes. Amidst such conditions, the inflation factors, and high income has caused a demand for high value agricultural commodities like dairy products, fruits and vegetables, meat and poultry products and many more. In response to these demands, supply of these commodities has grown significantly despite constraints among the farmers of the country in general and the region in particular. In order to counter the difficulties regarding inputs and infrastructures farmers have come up with several initiatives to address the issues by an innovative strategies like Credit and Marketing arrangements, accessing New Technology, and the use of media, social platform as well as Information and Communication Technology (ICT) for sustainability in Agriculture and Rural development. Therefore, it is a need of the hour that Entrepreneurship in Agriculture or rather the emergence of Agri-preneur, development of Agriculture Industries, and timely action of rural credit among the farmers can boost the Rural Economy. Henceforth, this could be a source of food reliability in the region, and transform Indian agriculture to meet the emergence of any challenges or need of the rural sector in the North Eastern Region.

Across different countries of the world it has been observed that they are going through a phase of transition period. In due course, agriculture has been expanding its area of operation beyond the limits of mere crop cultivation and animal

husbandry for livelihood of rural population. Activities like diversification, value addition, precision farming, high-tech agriculture, Agripreneurship, global marketing, organic farming, fast food, food packaging, etc. are gradually getting due attention of people involved on redefining agriculture. Agripreneurship is a combination of both Agriculture and Entrepreneurship in which such endeavour can encourage the rural population on improving their livelihood. It is an employment strategy that can strengthen the rural folks for economic self-sufficiency. Agripreneurship can be defined as *“generally, sustainable, community oriented, and directly marketed agriculture. Sustainable agriculture denotes a holistic system oriented approached to agriculture and farming that focus on the interrelationship of social, economic and environmental processes”* (T. Nagalakshmi<sup>1</sup>, A. Sudhakar<sup>2</sup>). It can also define as *the process of adopting new methods, processes, techniques in Agriculture or the allied sectors of agriculture for better output and economic earnings. It converts all form of agricultural activities into an entrepreneurial activity*; in other words, Agripreneurship is a form of doing business and sustainable livelihood of the rural population by processing, packaging, producing, distribution, marketing etc. of all form of agricultural and allied agricultural practices into business activities. By adopting agripreneurship in rural areas it will resolved certain issues for those whose area in the agricultural field is not their comfort zone to work with but they can pursue their business activities by engaging themselves in Agro-based industries or marketing and trading of Agriculture products that will ultimately create employment opportunities as well as improving their livelihood. A coordination of the Micro, Small and Medium Enterprise (MSME) specifically for the agro-based industries will only help to boost the development and growth in the rural economy.

Though, it is a very challenging job for an agripreneur as he has to take up risk, adopts innovative ideas, create new ways of doing things and taps new markets opportunities, but it is a most sustainable and community – oriented. It denotes a holistic, system oriented approach to agriculture and farming that focuses on the interrelationship of social, economic, environmental processes. 50% of Indians rely themselves from agriculture for their livelihood hence, this will be an entirely a new approach and a new set of emerging technology for development in rural livelihood which is a transition from employment to job creation and self-employment.

## 2. LITERATURE REVIEW:

**Nagalakshmi, T (etal) 2013:** In their work they discussed on the function and activities of the entrepreneurs in Agriculture Sector; a sector which is the main areas for employment of the rural population, the problem face by Agripreneurs and also stated that it is a need of the hour to introduce Agripreneurship in rural economy so that with the changing strategy of new economic policy towards agriculture, Agripreneurship can sustain and meet the challenges faced by the rural people and also improve their livelihood. The encroaching of the Industrial sectors towards the Primary Sector is also a cause for concern as most of the farmers in Dharmapuri, Andhra Pradesh part the rich and fertile agricultural land to set up industries. Therefore, Agro-based industries, the industries which relates to agricultural production and food production will be an encouraging trend to resolve issues of the rural economy.

**Chand, Kapil Kumar (2019):** In his work on Agripreneurship, a tool for economic development of India in the new millennium focused on the requirement of this combination in order to boost the economy of the country as a whole and particularly the Rural Economy, which is in the present scenario there are huge pressure regarding the production, and marketing of Agricultural produced. Though, this area is quite new to the Indian farmers and the North Eastern Region but with his recommendations and suggestions like establishing Training centres, workshop and awareness programs, identification of agricultural production feasible for business purpose, promotion of entrepreneurial culture among the rural population etc.

**Mario Geissler (et.al):** highlighted the importance of entrepreneurial climate at universities which can be an impact of many organizational factors and contribute to effectively implement decisions and policies in the rural sectors. Essential qualifications that an entrepreneurs or more specifically, Agripreneurs, to achieve its goal are: qualification programs, infrastructure, social support, Entrepreneurial climate, exposure and the role model is needed for the proper implementation of Entrepreneurship in Agriculture.

**Ibrahim , M.syed,** in his paper he discussed the merger and amalgamation of Regional Rural Bank and National Bank for Agriculture and Rural Development (NABARD)He used secondary data on the issue and addressed the problems which makes a marked improvement in the growth and development in rural sectors

**Basak, Nabendu,** with the less opportunity of the rural credit through various commercial bank, he emphasised more on the performance and practice of the Rural Bank and its contribution in rural areas. As credit is the centre stage for any progress in the field of innovation and entrepreneurship, this paper of Basak stress upon sponsoring and co-sponsors the co-operative societies, NGOs, SHGs thereby, could facilitate the fast implementation of micro credit schemes.

**Verma, Rabeesh Kumar (Et.al) 2018:** this presentation felt that the need of Agripreneurship is necessary for the current generation of unemployment and less focussed in the agriculture sector. The paper also point out the relationship to be made to both the Secondary and tertiary sector back and forth which can generate employment and opportunities.

Some of the areas mentioned are beekeeping, animal husbandry, horticulture etc. that can be made possible for its progress. However, it may be pointed out that the achievement that can be made is not without any challenges or problems like financial, infrastructure, technology and human resources.

**Sarala, K.S (Et.al) (2020):** In a study made by K.S. Sarala in the year 2020 on the topic “opportunities and challenges of agripreneurs in India – some reviews” tries to locate the position of Indian farmers in terms of doing business with their agricultural product. In this paper it pointed out that research has been carried out by many experts in the field but it still failed to implement the suggestions and proposed ideas. The work is extensive for a period of 20 years with the main objective is to press the needs for entrepreneurship in agriculture to be carried out in a judicious manner in India.

**Faria, João Ricardo (Et.al) (2016):** this paper pointed out that with the growing economy and the process of globalization and greater market integration that occurred in recent years, the rural economy is now more influenced by farmers’ entrepreneurs whose concentration focussed more on value addition to the agro-products, supply chain, network with traditional farmers, generating entrepreneurial capacity and capabilities. Within the modern rural economy described, relatively little is known about how farmer-entrepreneurs’ innovations relate to their industrial partners, such as those in the food processing sector, and to research and development (R&D). The dynamic model in this paper presents two economic sectors—a non-competitive industrial sector (i.e., food processing), which is the leader, and an agricultural sector, which is considered to be the follower. The close integration of both sectors is a sign of entrepreneurship by farmers who are motivated to increase productivity and other margins.

**Vijaya Bharathi.G (Et.al) (2022):** Bharathi and Sudhakar is of the view that in today’s generation of rural youths caused a matter of concern that contribute agriculture sector to face many problems like the increasing migration of rural youth to urban areas, and their negative perceptions and attitudes toward agriculture which have necessitated a redesign of agricultural activities. Therefore a shift from agriculture to agripreneurship is a necessary step in redesigning agriculture and making it more appealing and profitable. Moreover, agripreneurship has the ability to contribute to a variety of goals such as job creation, income generation, poverty alleviation, and improvements in nutrition, health, and overall food security of the nation. The primary emphasis of this paper is on the fundamental ideas of agripreneurship, the necessity and significance of agripreneurship, and potential areas for agripreneurship growth in India.

**Vinayagam, S.S (et.al) (2023):** In their write ups on “*Agri Start-ups: Status and challenges*” they pointed out that India witnessed a remarkable ascent in its start-up ecosystem in recent years, ranking as the third rapidly expanding hub in the world for budding entrepreneurs after the USA and China as per the Economic Survey 2021- 22. As of July 2023, India has a remarkable count of 5577 agriculture start-ups officially recognized by the Department for Promotion of Industry and Internal Trade (DPIIT). Of these 2608 are dedicated to AgriTech, 861 to organic agriculture, 175 to horticulture, and 888 to food processing, 320 to animal husbandry and dairy farming, and 76 to fisheries which are focusing on leveraging technology, data, and innovations to improve farm productivity, enhancing supply chain efficiency, promoting sustainable practices, and empowering farmers.

### 3. OBJECTIVES :

The main objectives of this working paper is

- i. To learn about the concept of Agripreneurship and Agripreneur which is the basis for the combination of both Agriculture and Entrepreneurship
- ii. To study about rural credit and livelihood in rural areas
- iii. To collect information regarding Agripreneurship with regards to North East India
- iv. To identify areas where challenges against Agripreneurs of the region

To Discuss the Agriculture Business in the context of the North Eastern Region

### 4. RESEARCH METHOD:

The present study is use by secondary data only. Such data are available through the Internet, websites of government departments, journals, research work, newspaper, magazines, statistical records etc. most of the data drawn for analysis and interpretation can also be represented in the form of diagrams.

### 5. FINDINGS :

It has been observed that the number of Branches of the Regional Rural Bank located in the different states of the North Eastern Region is not evenly distributed. Comparing with the size of the area and the population of each states and the number of Branches, only Assam, Tripura and Mizoram which is more that hundred (100). The state of Meghalaya has 93 branches. To meet the demand for Agripreneurship in the different states of the NER more branches will be required. Impressive deposits of Regional Rural Bank in the NER are the state of Assam, Tripura, Mizoram and Meghalaya, and with sound deposits, it is encouraging for any growth, development and rural livelihood among the rural population. Credit facilities in the rural bank, Assam, Mizoram and Tripura are the three states in the region with encouraging trends.

Meghalaya needed much to put effort in improving both credit facilities and deposits. Comparing at an all India level, the region is still lacking behind on many front which entrepreneurship in agriculture has to work out considerably.

## 6. DISCUSSION:

Agriculture can be defined as the science and practice of farming, which include cultivation of the soil, growing crops in fertile and feasible agricultural land of and rearing of cattle, goat, pigs, and other animals to provide food, wool, and other products. It encompasses crops and other livestock productions, aquaculture, fisheries, and forestry for food and non-food products. In India, Agriculture has been considered as the primary occupation of the rural population, it is also the backbone of the Indian Economy. All other sectors that developed after independence is due to the support and contribution made from this sector, as it is the highest contribution towards Gross Domestic Products (GDP) during the years.

Entrepreneurship on the other hand is a process for the creation of doing business or businesses by adopting innovative ideas and taking risk with a motive to earn maximum profit with minimum output. An individual who has an idea of starting new things for earning profit and embracing entrepreneurship is known as an entrepreneur. He requires having *the ability and readiness to develop, organize and run a business enterprise, along with any of its uncertainties* in order to make a profit. In India, this process has been popular in the industrial sector and Service sector for a very long period. In recent times this method of doing business has started to enter in the Agriculture sector which is a positive sign, in high probability that it will bring good production in the Agriculture and its allied activities, as well as creation of employment opportunities among the rural youth, where migration of labourers from rural sector to urban sector is increasing day by day.

Therefore a combination of both is a necessity in the present scenario and the development of Agripreneurship in the rural sector can imbibe a sense of responsibility and more agricultural production will be demanded. Besides, Agro-based industries, small industries, training centres, institutions etc. It can open new channels to the farmers and rural populations.

Realising the need of agricultural credit in the rural, and in particular, the agricultural sector in India's development, the Government and the Reserve Bank of India instituted a framework to established a rural credit policy to cater for the increasing credit requirement in the rural sector. The credit delivery mechanisms were periodically monitored in order to attune to the changing requirement of the rural sector. It is high time that such credit facilities have to expand its area of operation once the agripreneurship concepts occupied the farmers' activities. The activities of the farmer will no longer concentrate in the Agricultural field alone but also in the innovative methods for the production of agricultural produce. Rural Bank being one of the most important banking institutions which its area of operation is in Rural and the clients are largely the rural population, hence, a proactive awareness among the farmers has to be created. Besides, other institutions like NABARD, Government agencies, cooperative societies are also play their part to propagate the idea of Agripreneurship among the farmers and rural youths. Financial assistance is highly required if such method are to be accepted.

The farmers living in different villages of the eight (8) states of the north eastern region (NER) of India largely depend on Regional Rural Bank for its financial obligations which can substantiate by the following table:

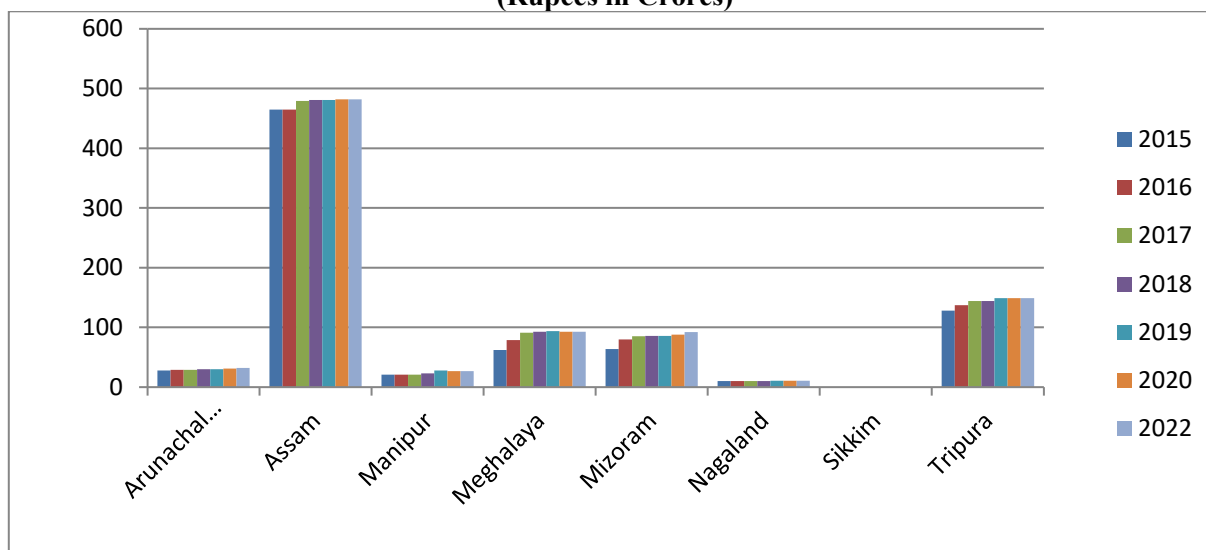
**State-wise Number of Branches of Regional Rural Banks, 2015-to 2022:**

(As at end March)

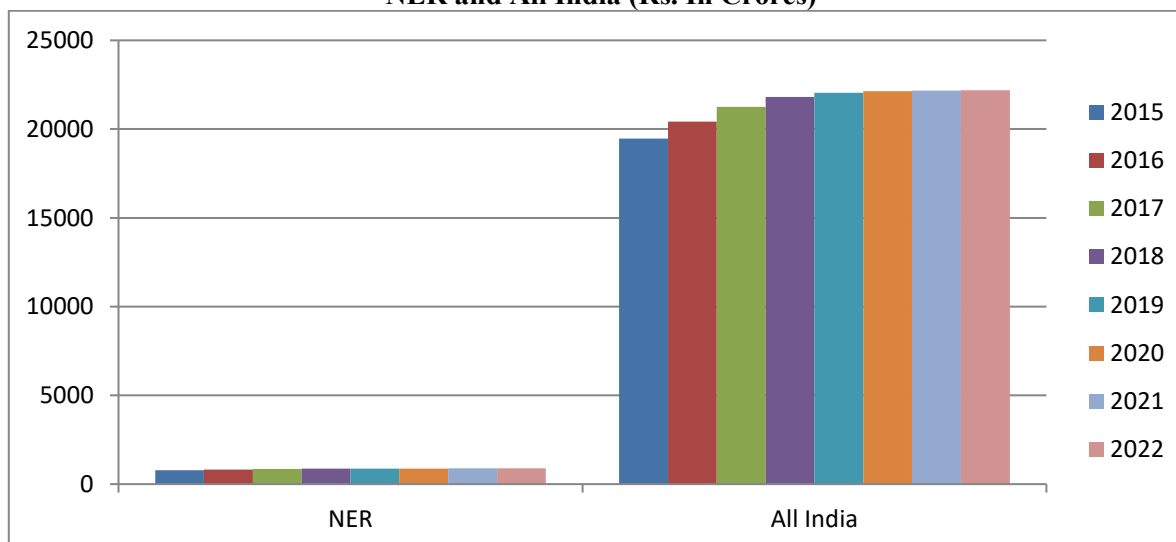
| State             | 2015  | 2016  | 2017  | 2018   | 2019  | 2020  | 2021  | 2022  |
|-------------------|-------|-------|-------|--------|-------|-------|-------|-------|
| Arunachal Pradesh | 28    | 29    | 29    | 30     | 30    | 31    | 32    | 32    |
| Assam             | 465   | 465   | 479   | 481    | 481   | 482   | 482   | 482   |
| Manipur           | 21    | 21    | 21    | 23     | 28    | 27    | 27    | 27    |
| Meghalaya         | 62    | 79    | 91    | 93     | 94    | 93    | 93    | 93    |
| Mizoram           | 64    | 80    | 85    | 86     | 86    | 88    | 92    | 102   |
| Nagaland          | 10    | 10    | 10    | 10     | 11    | 11    | 11    | 11    |
| Sikkim            | -     | -     | -     | -      | -     | -     | -     | -     |
| Tripura           | 128   | 137   | 144   | 144    | 149   | 149   | 149   | 149   |
| NER               | 778   | 821   | 859   | 867    | 879   | 881   | 886   | 896   |
| ALL INDIA         | 19472 | 20416 | 21251 | 21,805 | 22042 | 22130 | 22172 | 22187 |

Source: Handbook of Statistics on Indian States 2021-22

**State-wise Number of Branches of Regional Rural Banks (2015-2022)**  
**(Rupees in Crores)**



**Number of Branches of Regional Rural Banks (2015-2022)**  
**NER and All India (Rs. In Crores)**

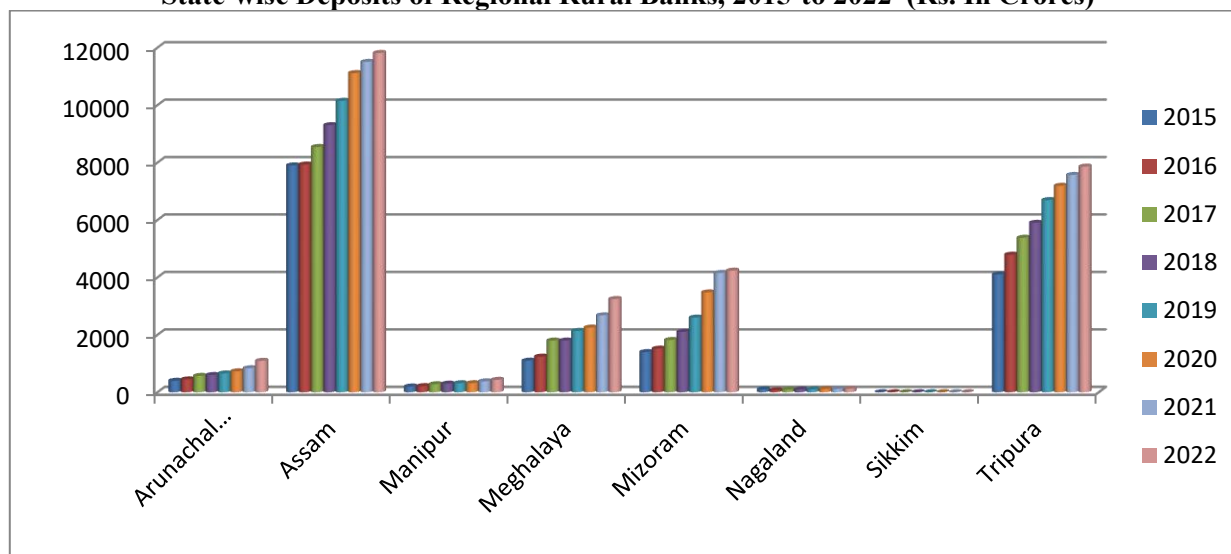


**State-wise Deposits of Regional Rural Banks, 2015-to 2022:**  
**(As at end March) (₹ in Crore)**

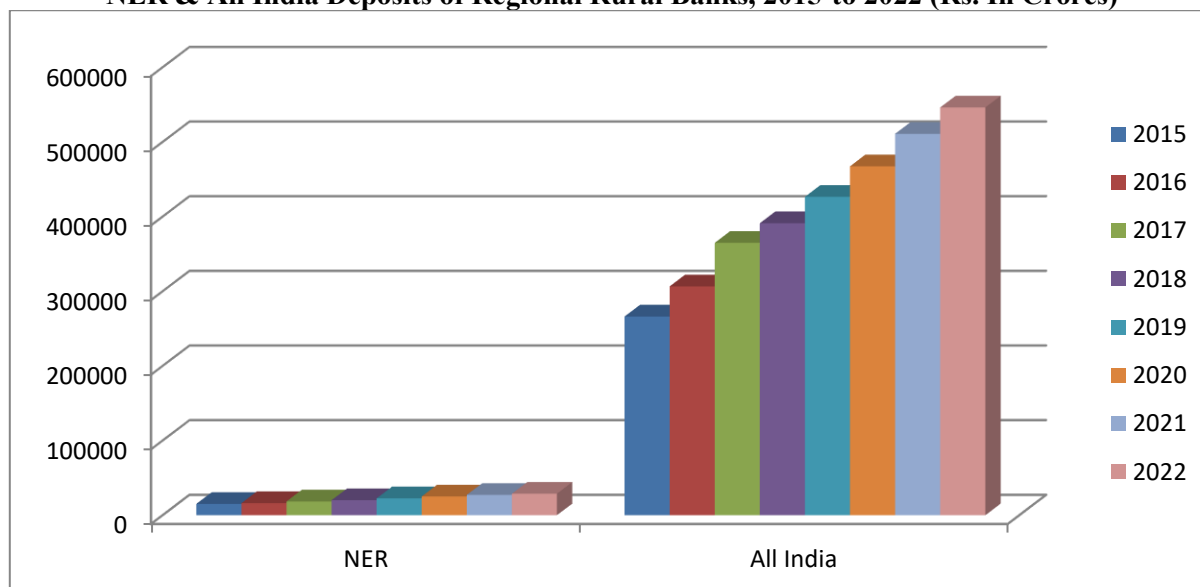
| State             | 2015   | 2016   | 2017   | 2018   | 2019   | 2020   | 2021   | 2022   |
|-------------------|--------|--------|--------|--------|--------|--------|--------|--------|
| Arunachal Pradesh | 400    | 450    | 570    | 600    | 656    | 730    | 837    | 1094   |
| Assam             | 7900   | 7930   | 8540   | 9300   | 10148  | 11113  | 11504  | 11814  |
| Manipur           | 200    | 215    | 280    | 300    | 315    | 316    | 381    | 433    |
| Meghalaya         | 1100   | 1240   | 1800   | 1800   | 2136   | 2252   | 2678   | 3247   |
| Mizoram           | 1400   | 1520   | 1820   | 2100   | 2600   | 3478   | 4155   | 4235   |
| Nagaland          | 100    | 67     | 90     | 100    | 101    | 114    | 117    | 123    |
| Sikkim            | -      | -      | -      | -      | -      | -      | -      | -      |
| Tripura           | 4100   | 4790   | 5380   | 5900   | 6692   | 7190   | 7567   | 7857   |
| NER               | 15200  | 16212  | 18480  | 20100  | 22648  | 25193  | 27239  | 28803  |
| ALL INDIA         | 266200 | 306500 | 364900 | 391200 | 426568 | 467422 | 510900 | 546237 |

Source: Handbook of Statistics on Indian States 2021-22

State-wise Deposits of Regional Rural Banks, 2015-to 2022 (Rs. In Crores)



NER & All India Deposits of Regional Rural Banks, 2015-to 2022 (Rs. In Crores)



State-wise Credit of Regional Rural Banks, 2015-to 2022:

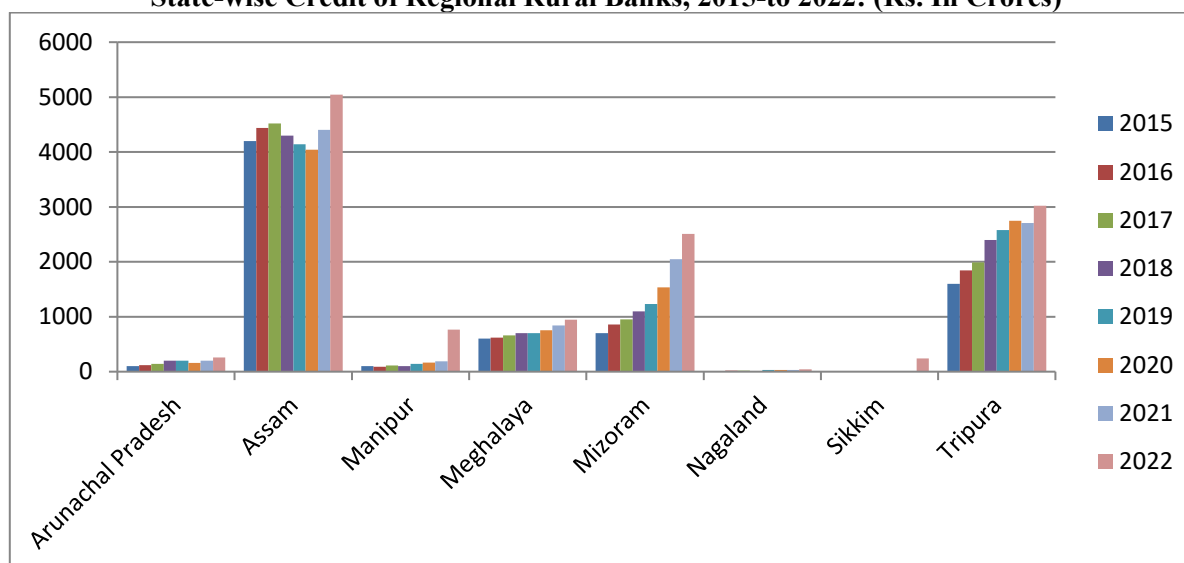
(As at end March)

(₹ in Crore)

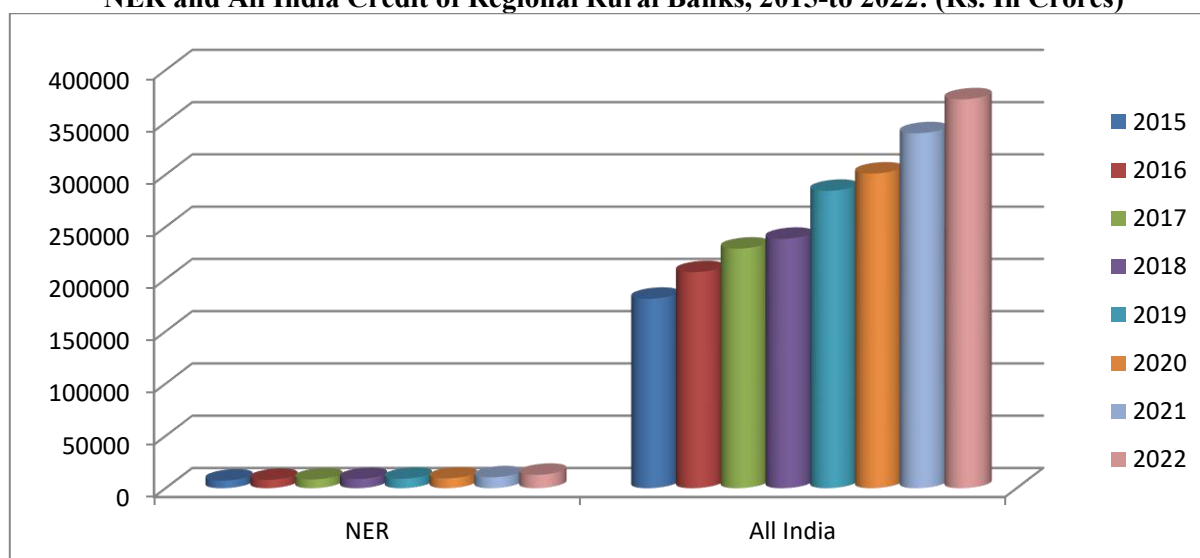
| State             | 2015   | 2016   | 2017   | 2018   | 2019   | 2020   | 2021   | 2022   |
|-------------------|--------|--------|--------|--------|--------|--------|--------|--------|
| Arunachal Pradesh | 100    | 120    | 140    | 200    | 198    | 162    | 200    | 257    |
| Assam             | 4200   | 4440   | 4520   | 4300   | 4140   | 4044   | 4406   | 5047   |
| Manipur           | 100    | 90     | 110    | 100    | 140    | 163    | 190    | 763    |
| Meghalaya         | 600    | 620    | 660    | 700    | 701    | 756    | 842    | 947    |
| Mizoram           | 700    | 860    | 950    | 1100   | 1231   | 1536   | 2050   | 2508   |
| Nagaland          | -      | 22     | 20     | -      | 30     | 34     | 33     | 43     |
| Sikkim            | -      | -      | -      | -      | -      | -      | -      | 243    |
| Tripura           | 1600   | 1844   | 1990   | 2400   | 2576   | 2747   | 2705   | 3022   |
| NER               | 7300   | 7996   | 8390   | 8800   | 9016   | 9442   | 10426  | 12830  |
| ALL INDIA         | 181200 | 206700 | 229210 | 238600 | 284494 | 301051 | 339609 | 372066 |

Source: Handbook of Statistics on Indian States 2021-22

**State-wise Credit of Regional Rural Banks, 2015-to 2022: (Rs. In Crores)**



**NER and All India Credit of Regional Rural Banks, 2015-to 2022: (Rs. In Crores)**



## 8. CONCLUSION :

To conclude the above discourse of the paper there are many emerging areas that can apply and utilise in the North Eastern Region in general and in the State of Meghalaya in particular. These emerging trends are Input development: incubation centre for livestock and other farming, livestock feed and fodder, Infrastructure development: Transport and communication services, Power and Electrical equipment, Irrigation, cold storage device, Production of Agricultural inputs: High yielding Varieties seeds, floriculture, horticulture, pisci-culture, fisheries, Biofloc etc., Agricultural Processing units: Food processing, meat processing, dairy product processing, sugarcane processing etc. Trade and Commerce: Contract farming, retailing, Cooperative farming, logistic marketing and value chain.

However, as Entrepreneurship is much to do with risk takers, so also the risk factor in the Agriculture sector is no excuses, as most of the product in this sector is non – durable and the items can get deplete its quality value if kept for too long, hence a well organised method of production, distribution and marketing procedures need to be clearly understood so that product from the Agricultural field can reach the consumers in a specified timings.

## 9. RECOMMENDATIONS:

It can be observed that farmers were unwilling to engage in agricultural activities through the adoption of scientific and effective agricultural management techniques especially those farmers who still follow the Jhum cultivation. They are also unable to cope with the delayed monsoons, drought, agricultural debts, and fertilizer scarcity. Thus, those farmers

become agripreneurs when entrepreneurial abilities such as management, technical, and inventive thinking are applied to farming. Agripreneurship has the ability to contribute to social and economic development by creating jobs, reducing poverty, and improving nutrition, health, and food security in the national economy, especially in rural regions. Agripreneurship is viewed as a panacea for resolving agriculture's increased burden, providing employment opportunities for rural youth, reducing migration from rural to urban areas, increasing national income, and promoting rural industry development. It also helps alleviate increased pressure on urban areas. Some of the areas that the farmers of the North Eastern Region can work upon are:-

- Agriculture Processing Units in which such units can process the produce to a consumable items
- Agriculture Manufacturing units of which agriculture produce are being treated as the raw materials and thereby produce a new product
- Agriculture Service centre, in the process of growth and development, it is needed to have certain kinds of service centre, such as repairing and maintenance of equipment and impediments of agricultural machineries, services like marketing, availability of loans and financial assistance for agricultural purposes etc.
- Other areas for its development are bee-keeping, feed processing units, seed processing units, mushroom production units, commercial vermi-compost units, goat & Cattle rearing farmer clubs, Piggery clubs, Fisheries Club, poultry farming, organic manures, organic vegetable and fruits retail outlet, bamboo plantation etc.

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