LITERATURE REVIEW

[1] P. S. Cornish et al. described the architecture of the open platform for big data analytics used to improve crop yield for food security and better lifestyles across a variety of crop alternatives and cropping systems. Farmers plant rain-fed crops in the Kharif to accommodate pre Kharif cultivation and the Rabi winter. They had access to some irrigation. How to Reduce Climate Risk in a High-Risk Environment using Rain-fed Rice Farmers' systems is critical for water resources; consequently, we advocate replacing rice fallow with a more secure climate - responsive strategy for watershed development. Rabi vegetable crops may need the use of tiny water collection systems. The approach evaluated less hazardous agricultural practices that produced more water.

[2] S. Rajeswari et al. offered a conceptual design of a big data open platform to assist various industries, including agriculture. Big data, mining techniques, cloud-based big data analytics, and IoT technologies play major roles in smart agricultural feasibility studies. Precision agricultural systems are expected to play a critical role in agricultural activity improvement.

[3] S. Athmaja et al. presented effective solutions for huge data analytics in studying machine learning algorithms. Agricultural communities worldwide have benefited from comparison information produced from big data analysis; via machine learning algorithms, agricultural communities have gained some comparative knowledge and adjustments to traditional agriculture.

[4] P. Shah et al. demonstrated a big data analytics architecture for an agricultural advisory system and constructed an analytical engine using open-source frameworks. Agro-advice systems that use big data analytics can increase agricultural productivity. The research is used to reduce technical communities and information through ideas and decision support systems to propose and create an open-source, cost-effective, and scalable big data analytics architecture for an agreed-upon system agricultural production prediction. Farmers should project yields based on current weather conditions and decide whether or not to produce that particular crop as a substitute crop if the forecasted yield is negative.

[5] R. Kaur and colleagues stressed the need to build a framework for detecting crop disease based on historical symptoms and recommendations. Big data analysis frameworks need machine learning approaches because massive messages cannot be stored in traditional data structures. The Hadoop platform, written in Java, collects this data and establishes a framework for sickness recommendation solutions. The big data analytics technology detects crop disease and recommends a solution based on symptom similarities. Because conventional techniques are incapable of storing and interpreting this amount of data, a data-parallel processing, and analytical paradigm are required. Agriculture is establishing a framework. To do this, identify illnesses based on their symptoms and associated treatments based on their high degree of similarity. The Hadoop and Hive technologies were used to collect, clean, and standardize the data.

[6] MR Bendre et al. advocate for web-based information in agriculture and weather forecasting for future farming. The employment of a programming model and a complexly distributed algorithm for data processing results in applying big data analytics to future processes and challenges in agricultural prediction. Agriculture applications have a unique opportunity to provide advanced weather to increase crop output and decrease unnecessary harvesting costs. Precision agriculture's future uses and challenges stemmed from using a programming model and distributed algorithm for data processing and weather forecasting. The model illustrates the temperature and precipitation in the region as a result of this conclusion. Crop patterns and irrigation management are two strategies for boosting output and profit.

[7] Ahrary and D. Ludena presented a profile-based precision agriculture architecture to facilitate service-based real-time decision-making. The Internet of Things is being used to automate the process of developing integrated environment information research in agricultural and commercial sectors to provide a richer user experience and relevant information about the unique environment. Numerous benefits of bigdata healthy food recommendation to the system's end-user and different analytics to improve system performance are critical for the nutrition-based vegetable production and distribution system. Farmers may profit from cost-effective and simple-to-implement technology solutions.

[8] S. S. Reddy and C. S. Bindu for developing a strategy for agricultural integrated analytics. Advances in internet speed have enabled data to be transported at incredibly rapid speeds on a global scale. A vast amount of data is continually being generated in the form of data streams from various real-world applications. Clustering algorithms for big data analysis Clustering is an unsupervised learning approach used to classify massive data sets with similar features. Clustering data streams poses extra challenges, such as managing limited time, memory, and noisy data, as well as clustering high-dimensional data.