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# A Significant Impact on Various Aspects of Life Including Food Supply

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# Commentary

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# DESCRIPTION

Karif plantation, also known as kharif crop or monsoon crop, is a type of agricultural cultivation that takes place during the rainy season in India. The term "karif" is derived from the Arabic word "kharif," meaning autumn. In India, the karif season typically runs from June to September, and farmers use this period to grow a variety of crops, including rice, maize, millet, soybeans, and cotton.. Karif plantation is an important part of India's agricultural economy, as it provides a significant portion of the country's food supply. However, it is also subject to a variety of challenges, including water scarcity, pest infestations, and climate change. In this article, we'll take a closer look at karif plantation, its importance to India's agriculture, and some of the challenges that farmers face.

#### Importance of karif plantation in India

Karif plantation is a crucial part of India's agricultural economy, as it provides food for millions of people across the country. According to the Ministry of Agriculture and Farmers Welfare, karif crops account for around 60% of India's total foodgrain production. Rice, in particular, is a key karif crop, as it is the staple food for a large portion of the population In addition to providing food, karif crops also support rural livelihoods and contribute to the country's economy. According to a report by the National Bank for Agriculture and Rural Development (NABARD), agriculture and allied activities contribute around 17% of India's Gross Domestic Product (GDP) and employ around 50% of the country's workforce.

# Challenges faced by karif plantation

Despite its importance, karif plantation is subject to a variety of challenges that can impact crop yields and quality. One of the biggest challenges is water scarcity, as the monsoon season can be unpredictable and rainfall can vary significantly from year to year. This can make it difficult for farmers to plan their irrigation and water management strategies.

Another challenge is pest infestations, which can damage crops and reduce yields. In particular, the fall armyworm has become a major pest in recent years, causing significant damage to maize crops. Other pests that can affect karif crops include the rice stem borer, the cotton bollworm, and the soybean pod borer.

Climate change is also a major concern for karif plantation, as rising temperatures and changes in rainfall patterns can affect crop growth and yield. According to a report by the Indian Council of Agricultural Research (ICAR), climate change is expected to reduce yields of major karif crops like rice and maize in the coming decades.

# Mitigation strategies for karif plantation

To address these challenges, farmers and agricultural experts have developed a variety of mitigation strategies. One of the most important is water management, which involves using irrigation techniques like drip irrigation and sprinkler irrigation to conserve water and improve crop yields. In addition, farmers can use water-saving technologies like the System of Rice Intensification (SRI) to reduce water use in rice cultivation.

Integrated pest management (IPM) is another important strategy for controlling pest infestations in karif crops. IPM involves using a combination of techniques, including biological control, crop rotation, and the use of resistant varieties, to manage pests and reduce the need for chemical pesticides.

Finally, Climate Smart Agriculture (CSA) practices can help farmers adapt to the impacts of climate change and reduce their carbon footprint. CSA practices include using climate-resilient crop varieties, improving soil health, and reducing greenhouse gas emissions through practices like conservation agriculture.

# Urban vs rural environments

Now that we've covered karif plantation, let's take a closer look at the differences and similarities between urban and rural environments. While they may seem very different at first glance, there are actually many connections between urban and rural areas.

Urban environments are characterized by high population densities, buildings and infrastructure, and a concentration of economic activities like commerce and industry. Rural environments, on the other hand, are characterized by lower population densities, open spaces, and a focus on agriculture and natural resources.

Despite these differences, there are many connections between urban and rural areas. For example, urban areas rely on rural areas for food, water, and other natural resources. In addition, rural areas often provide labor and raw materials for urban industries.

One of the biggest challenges facing both urban and rural areas is climate change. Rising temperatures, extreme weather events, and sea level rise are all expected to have significant impacts on both types of environments. To address these challenges, policymakers and communities will need to work together to develop strategies for mitigating and adapting to the impacts of climate change.