

JHUM CULTIVATION (SHIFTING CULTIVATION): A TRADITIONAL FARMING OF INDIA

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Introduction

Traditional shifting cultivation, also known as Jhum, has historically been a significant source of income for the agricultural population in India's North Eastern Hill area. It is a primitive kind of agriculture practiced throughout the region's steep terrains. It is a traditional land use method that entails forest removal, agricultural cultivation for a few years on that site, and then the selection of a new location for fresh cultivation. In other terms, it is a resource management technique that involves moving farms or cultivable areas from one location to another (Mertz et al., 2008). Jhuming is the name given to the method of shifting agriculture, and Jhumias are the farmers who participate in it. In December/January, the woods are cleared, and the chopped trees, shrubs, stumps, and other debris are allowed to dry. These chopped pieces are burned to prepare the ground for agriculture before the monsoon arrives. The Jhumias farm in the same location for 3-5 years before moving to a new virgin forest region as a new Jhumia site. After 10-15 years of abandonment, the soil regains its fertility, which is advantageous for future farming. However, due to population growth, the Jhum cycle has been decreased to 2-3 years rather than 10-15 years. The Jhum sites have seen an ecological imbalance as well as a decline in production as a result of this. The states of NE India alone cover 0.76 million hectares, or more than 84 percent, of India's total Jhum area of 0.94 million ha (NRSC 2011).

History of jhum cultivation

Jhum Cultivation, as an agricultural system, has existed from the beginning of time. Around 6000-5000BC, man discovered the skill of crop cultivation. The Neolithic hunters-cum-cultivators began clearing greater portions of woodland to put them under agriculture as the population pressure mounted. They used to relocate to new areas to burn and clear woods for cultivating crops when fertility declined. 'Slash and burn' or 'Shifting Cultivation' are terms used to describe this style of cultivation.

Jhum cultivation in India

Jhum (Shifting agriculture) is still used in India's hilly regions, such as Sikkim, Bihar, Orissa, Andhra Pradesh, Madhya Pradesh, Tamil Nadu, Kerala, Karnataka, and Maharashtra. However, similar traditions continue to be practiced in the hill parts of the North-Eastern states of Orissa and Andhra Pradesh. Shifting agriculture on hill slopes is practiced by people in the eastern and north-eastern regions. Shifting cultivation is a centuries-old method that is especially popular in the Eastern Ghats. Approximately 5.0 million tribal households in India use this practice on 4.37 million hectares of land spread across 11 states (Sahu et al. 2005). In India, Orissa has the greatest area under shifting agriculture. Podu agriculture is the native term for shifting cultivation.



Fig.1: Shifting cultivation in hilly areas.

Process in jhum cultivation

Jhum farming is still practiced in India's hilly areas, including Karnataka, Andhra Pradesh, Himachal Pradesh, Orissa, Tamil Nadu, and Kerala. Because the procedure of clearing the forest before farming starts may entail burning the existing flora, this is similar to slash and burn cultivation. It should also be ensured that the same sort of crop is not grown in the next cycle. This decreases the soil's fertility by a factor of ten. Because of the movement of crops that must be done to maintain appropriate cultivation, it is known as shift cultivation. Jhum cultivation requires proper rotation. Jhum cultivation starts before to the arrival of summer and is completed in the months of December and January. Following the clearing of the vegetation, seeding holes are drilled in the earth. The crops grown in Jhum agriculture are mainly those that can be harvested in a matter of months. The harvest has been completed, and the soil will be replenished for a time.

Advantage

- Only a little investment is required.
- Easy to follow growth instructions.
- There is no need for animal labor.
- It is environmentally beneficial since organic farming is used.
- Soil that has been fertilized.
- It has the potential to prevent the occurrence of soil-borne illnesses.
- It has the potential to help with insect control.

Disadvantages

- It is not a long-term solution
- Destroying wild animal habitats.
- Taking away the ingredient that gives us life: oxygen.
- Deforestation.
- It's inconvenient to move around all the time.

Effects of jhum cultivation

- I. Shifting agriculture results in the extinction of flora and wildlife, including rare tree species, shrubs, medicinal plants, and minor forest products. Deforestation is a simple process.
- II. The wild creatures have lost their safe haven.
- III. Flooding occurs in the rivers below.
- IV. Tanks, nallas, rivers, and reservoirs are suffocated.
- V. Ecology has been disrupted and degraded, and it has never been recovered.
- VI. Soil erosion is affected by slope, soil properties, crop covering, soil depth, and rainfall patterns, among other factors.

Steps to improve jhum cultivation

By taking the necessary actions, the drawbacks listed may be avoided. Farmers should be aware of the potential loss if they do not follow the Jhum cultivation technique correctly. Crops will be lost as a consequence. To avoid deforestation, certain forest areas may be conserved, and farming should not be permitted in these places. There are ways to grow trees and crops at the same time to get the benefits of both while minimizing the drawbacks of each. Jhum cultivation is an ancient practice that has been practiced for millennia. Our forefathers made greater use of it by adhering to all of the environmental regulations that were also helpful to everyone. Despite the fact that there have been exploitations in recent times as a result of the expanding population, it remains one of the most often employed methods of farming.

Conclusions

- ❑ Shifting cultivation, which is now practiced in tropical and subtropical nations, has been characterized as a human and unscientific kind of land use that is impacting biodiversity and jeopardizing the region's ecological balance.
- ❑ Otherwise, jhuming offers many advantages from a livelihood standpoint, but also destabilizes the ecosystem in the long term since one inch of soil formation takes 1000 years in nature. Jhuming, on the other hand, washes off several inches of dirt each year.
- ❑ Large-scale deforestation, soil and nitrogen loss, and a significant impact on indigenous biodiversity were all consequences.
- ❑ Despite the fact that shifting farming is a non-viable resource-utilization strategy, tribals continue to cling to it in order to feed themselves and their children.

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