

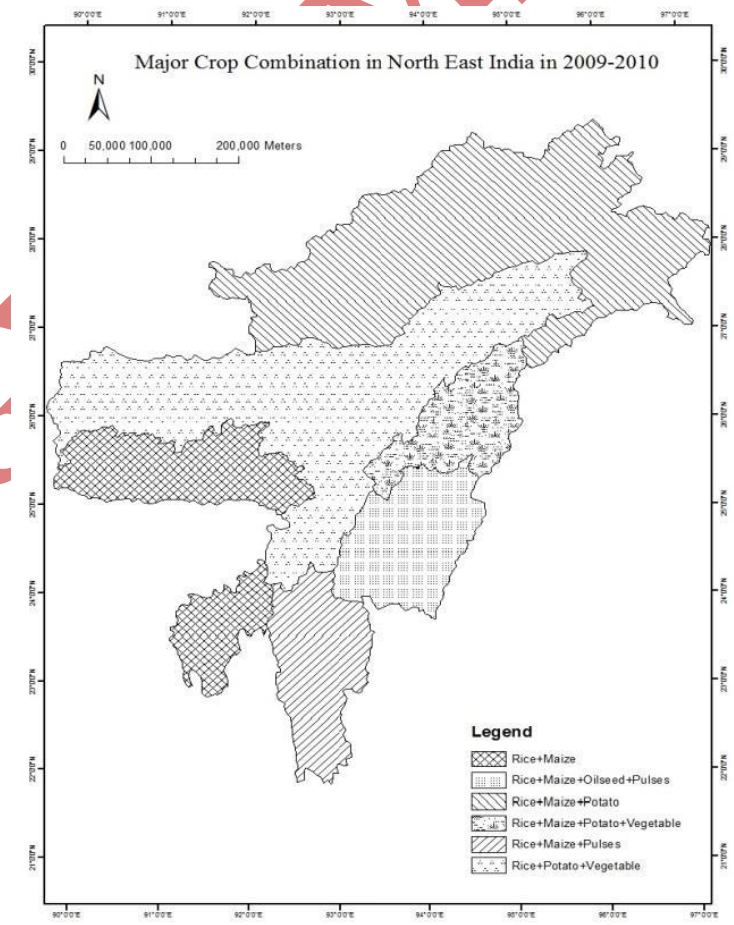
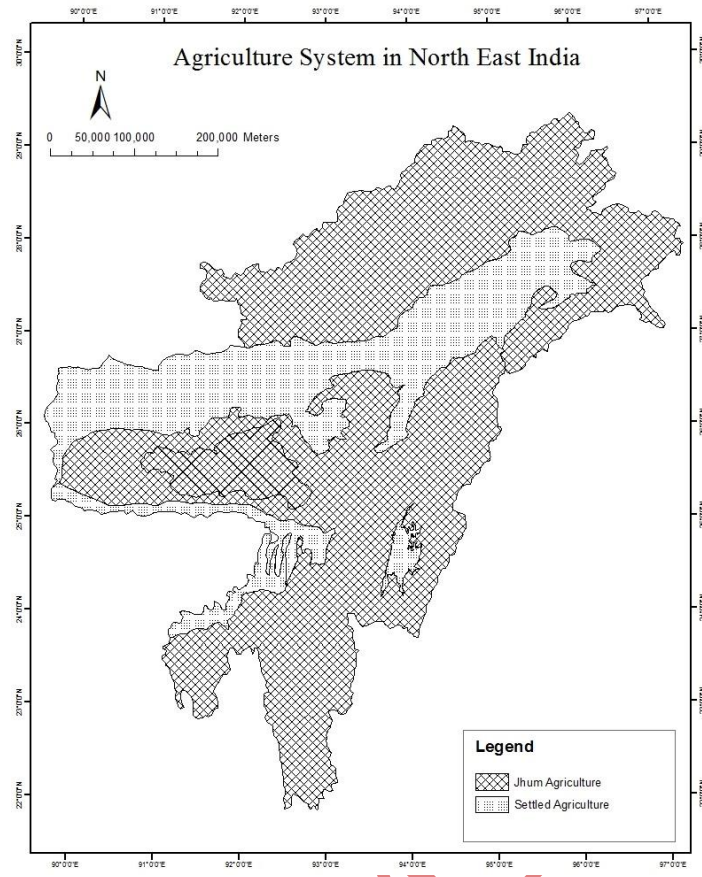
Agriculture practices in North-East India:

Agriculture condition in North-East India is basically influenced by the physiographic conditions having varied topography, different soil types and uneven distribution of temperatures and rainfall etc. About 70% area of the region is mountains and hills having red soil, lateritic soil and mountain soil which cover mostly of Arunachal Pradesh, Mizoram, Nagaland, Meghalaya, Sikkim and half of Tripura, one-fifth of Assam and nine-tenth of Manipur, while the plains of the region with alluvial soils are – The Brahmaputra Valley of Assam, the Barak Valley and the Tripura plains in the south, the Imphal Valley of Manipur comprising only 10% area of the state. Based on these physical features the agriculture practices of the region are of two types- (i) Shifting cultivation (*Jhum*), and (ii) Settled or plains agriculture. As a large part of the region is hilly features settled by different tribal groups, shifting cultivation is the utmost customary which is the rudimentary life supportive subsistence intensive agriculture. Shifting cultivation is commonly practising in hilly red soil and laterite soil region. They are mostly practise by tribal in all districts of Arunachal Pradesh, hill region of southern Assam, mountain areas of Tripura, Mizoram, Nagaland and Kukis and Nagas in the hill regions of the Manipur. On the other hand, the plain or settled agriculture is generally practise in fertile alluvial plains of Assam, plain areas of south eastern Nagaland, Brahmaputra plain in southern Arunachal Pradesh, Barak Valley and some plain areas of Tripura and the central Imphal Valley of Manipur.

About three-fourths of NEI's population, on the average, depend on agriculture and other allied activities and 40 per cent of Net State Domestic Product (NSDP) comes from agricultural sector. Since the region is dominated by the tribal population, reference may be made to the tribal method of cultivation. 19.91 lakh hectares (83.73%) of the land in the region is under shifting cultivation or *Jhuming*, a practice considered as a farmer friendly. The cropping pattern of North-East India is not much similar to the other parts of the country. About 70% of the area is a hilly region taking manual based intensive agriculture, Crop combination in the region is mostly multiple systems of rice, maize, wheat, and oilseeds which are the main crops in fertile alluvial plains of the whole areas of the Brahmaputra Valley of Assam, southern parts of Tripura, Imphal valley of Manipur and Barak valley. The region produces nearly 5 million tons of food grains as against a demand of 6.7 million tons. This imbalance in food-security remains unabated due to slow growth in production as well as productivity of major food grains.

Shifting Cultivation:

Shifting cultivation, or *jhum* cultivation, is a traditional farming method that involves clearing the plot of land of any forestation and then burning it before cultivating any crop. This farming method is done to increase the fertility of the soil by increasing the presence of potash in the soil. This process may result in high yield initially, but continuous cropping of the area results in decreased soil fertility. Due to the reduction of soil fertility, the farmers then shift to a new forest area and repeat the same process.



Traditionally, a cultivated area is left fallow for 50-60 years allowing it to replenish soil fertility. But this has reduced drastically, as with increasing population farmers have been returning to the same site within 3-6 years. This time period is insufficient for the soil to regain its fertility and for forest to grow, hence resulting in reduced yield and a vast barren area.

Shifting cultivation in North-East India (NEI) is still prevalent and is practiced by the indigenous communities. This farming system has been widely disputed as environmentally destructive and economically unfeasible. Shifting cultivation has been part and parcel of the region's tradition and culture since time immemorial and its practice is widespread even to this day.

The perception on shifting cultivation has always been a negative one owing to its adverse effects on the environment. But an in-depth look at the importance of shifting cultivation to the indigenous tribes will shed some light on why they still practice shifting cultivation. In NEI, shifting cultivation is known as *jhum* cultivation (slash and burn cultivation). To this day, this age old farming method is practiced by neighbouring North-East states such as Arunachal Pradesh, Mizoram, Nagaland, Tripura, Manipur, and Meghalaya. Owing to the region's undulating and hilly terrain other cultivation method doesn't seem feasible. Unlike the plain farming areas in other parts of India, the rugged terrain of the region makes it challenging for mechanized operations to take place hence the farmers here opt for shifting cultivation instead.

