

# Subsistence Farming

Types of subsistence farming are 1. Primitive or Simple Subsistence Farming 2. Intensive Subsistence Farming!

## **1. Primitive or Simple Subsistence Farming:**

Primitive farming is the oldest form of agriculture and still prevalent in some areas of the world. From primitive gathering, some people have taken a step 'upward' on the economic ladder by learning the art of domesticating plants and their economy has moved into primitive cultivation. This type of farming is done on self-sufficient basis and farmers grow food only for themselves and their families. Some small surpluses may be either exchanged by barter or sold for cash. The resultant economy is thus static with little chance for improvement, but there is a high degree of rural independence because farmers are not tied to landlords or to trading centres.

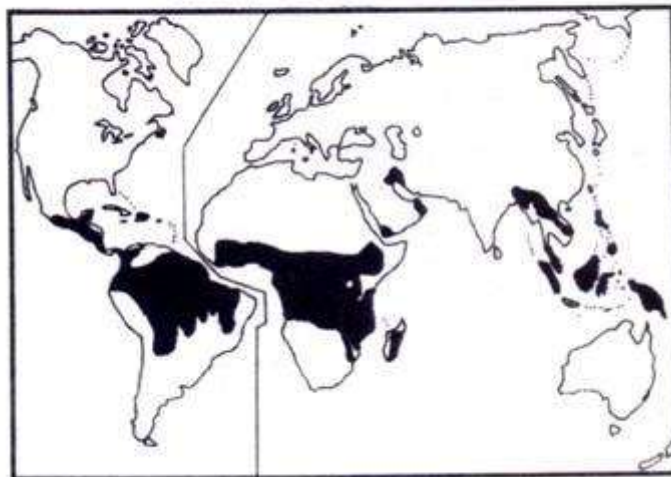
### **Location:**

This form of agriculture is widely practised by many tribes of the tropics, especially in Africa, in tropical South and Central America, and in South-East Asia. It is better known as shifting cultivation (Figure 4.2).

**Shifting cultivation is practised in the tropics by many different peoples and thus has many different names, e.g., milpa in Central America and parts of Africa, conuco in Venezuela, roca in Brazil, masole in Zaire, ladang in Malaysia, humah in Indonesia, caingin**

**Characteristics:**

**Figure 4.2**  
Areas of primitive subsistence farming



**The primitive subsistence agriculture or shifting cultivation is characterised by the following features:**

(i) Sites for the ladang are usually selected in the virgin forest by the experienced elders. Hill slopes are preferred because of better drainage. Many ladangs are located in the remote interiors, far from the main population centres.

This is partly for historical reasons as most shifting cultivators have been forced into less favourable areas by the expansion of more advanced farmers into the lower and better lands. Their isolation hinders their progress and makes the spread of new ideas more difficult.

(ii) The forests are usually cleared by fire and the ashes add to the fertility of the soil. Trees that are not burnt are hacked out by the men or left to decay naturally. Shifting cultivation is thus also called 'slash-and-burn agriculture'.

(iii) The cultivated patches are usually very small; about 0.5-1 hectare (1-3 acres) scattered in their distribution and separated from one another by dense forests or bush.

(iv) Cultivation is done with very primitive tools such as sticks and hoes, without the aid of machines or even draught animals. Much manual labour is needed in land clearance to produce food for a few people.

Thus, despite the fact that little attention is given to the crops when they are once planted, no other form of farming is so wasteful of human energy and so unrewarding as shifting cultivation.

(v) Few crops are raised in the ladings. The main crops are starchy foods, e.g., tapioca, cassava or manioc, yams, maize or corn, millet, upland rice, beans and bananas. Crops are sown at calculated intervals, often between the other plants, so that the harvest can be staggered to provide food all the year round. Much the same types of crops are grown in all the farms.

(vi) Short periods of crop occupancy alternate with long periods of fallowing. When the yields can no longer support the community because of soil exhaustion or the invasion of weeds and shrubs, the fields are abandoned and fresh areas cleared. 'Field rotation' rather than 'crop rotation' is practised.

(vii) This form of 'migratory agriculture' still supports many of the aboriginal tribes of the tropical rain forest, despite the efforts made by the local governments to resettle them. The exhaustion of soil nutrients, deterioration of the lightly constructed bamboo houses, and attack by insect-pests, diseases or wild animals are some of the major reasons that make migration a necessity.

A more advanced form of subsistence farming is 'sedentary subsistence agriculture' in tropical lowlands, where the fallowed fields are frequently reused and the community stays

permanently in one spot. Crop rotation is also practised in some places and greater attention is given to the land and the crops sown.

Methods of tillage are more intensive, though crude hand implements are often still used and there is a greater employment of manpower in the fields. This type of economy is capable of sustaining a relatively larger population on a permanent basis.

Many more animals are kept, including buffaloes, swine and horses, and animals are used for drought purposes on the farm as well as to supply milk or meat. Crops are sown in the cool season and grown throughout the rainy period to be harvested in the dry season.

Many sedentary farmers in Central America and South-East Asia also find jobs on plantations and return to their homes periodically with their earnings. In South-East Asia and West Africa subsistence farming may be combined with the cultivation of cash crops or with the collection and sale of forest products.

## **2. Intensive Subsistence Farming:**

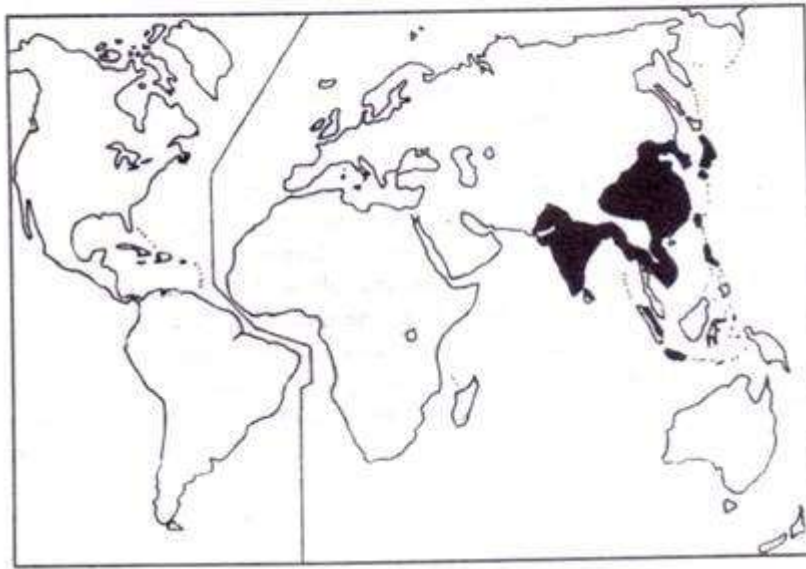
The term, 'intensive subsistence agriculture' is used to describe a type of agriculture characterised by high output per unit of land and relatively low output per worker. Although the nature of this agriculture has changed and in many areas now it is no more subsistence.

But despite changes the term 'intensive subsistence' is still used today to describe those agricultural systems which are clearly more sophisticated than the primitive agriculture. Sometimes it is also known as 'monsoon type of agriculture'.

### **Location:**

This form of agriculture is best developed in and practically confined to the monsoon lands of Asia. It is found in China, Japan, Korea, India, Pakistan, Sri Lanka, the greater part of continental South-East Asia and parts of insular South-East Asia (Java, Luzon, Visayan Inlands, coastal Sumatra and Malaysia) (Figure 4.3).

**Figure 4.3**  
Areas of intensive subsistence farming



Farming in both the wet lowlands and the terraced uplands has to be very intensive to support a dense population. Population densities in some agricultural areas in Asia are higher than those of industrial areas in the West. Many of the regions of intensive subsistence farming have a highly developed form of society and government and some such as China and India have a continuous history of civilisation going back more than 4,000 years.

The fast-growing population, almost unchecked for centuries, necessitates an ever greater intensity in the tillage of the lands. A small plot of land has to support 5 or 10 times the number of people that a similar plot on an extensive corn farm in the USA could feed.

**Characteristics:**

**The main characteristics of the intensive subsistence agriculture are as follows:**

**(i) Very small holdings:**

Farms have been subdivided through many generations so they have become extremely small and often uneconomic to run. An average farm in Japan is approximately 0.6 hectare (about 1.5 acres) but in India and elsewhere in Asia farms may be even smaller.

Individual peasants grow crops mainly to support their own families, though there is some surplus for sale in some areas. In China, however, rapid agricultural changes took place after the agrarian revolution of 1949 when the tiny farms were consolidated, under communist rule, into large collectives.

**(ii) Farming is very intensive:**

In Monsoon Asia, the peasants are so 'land hungry' that every bit of tillable land is utilised for agriculture. The fields are separated only by narrow, handmade ridges and footpaths by which

the farmers move around their farms. These are kept very narrow to save space. Additional land is made available for cultivation by draining swampy areas, irrigating drier areas and terracing hill slopes to produce flat areas that are suitable for padi cultivation. Only the steepest hills and the most infertile areas, irrigating drier areas and terracing hill slopes to produce flat areas that are suitable for paddy cultivation. Only the steepest hills and the most infertile areas are left uncultivated.

Farming is so intensive that double- or treble- cropping is practised, that is, several crops are grown on the same land during the course of a year. Where only one crop of padi can be raised, the fields are normally used in the dry season to raise other food or cash crops such as sugar, tobacco or oil-seeds.

**(iii) Much hand labour is entailed:**

Traditionally, much hand labour is required in wet padi cultivation. Ploughing is done with the aid of buffaloes, the fields are raked by hand, the padi is planted painstakingly in precise rows by the women, harvesting is done with sickles and threshing is done by hand. Farm implements are often still very simple.

The basic tools are simple ploughs, the cangkul, a kind of spade, and hoes. Nowadays machinery has been developed which is capable of working in the flooded fields and separate machines can plough, plant and harvest the padi.

Such machines are not yet widely used because most farmers cannot afford to buy them, but they are extensively used in more affluent Japan and are gradually spreading throughout Monsoon Asia. They may be owned by firms or co-operatives and hired by individual farmers. Machinery has also been widely used in the state farms of China.

**(iv) Use of animal and plant manures:**

To ensure high yields and continued fertility farmers make use of every available type of manure including farm wastes, rotten vegetables, clippings, fish wastes, guano, animal dung (especially those from the pig sties and poultry yards) and human excreta.

Increasing amounts of artificial fertilisers are now being used in Japan, India and China, usually with government advice or assistance. The basic fertilisers applied include phosphates, nitrates and potash, which help to replenish vital plant nutrients in the soil.

**(v) Dominance of padi and other food crops:**

Padi is the most dominating crop produced in intensive subsistence agriculture. But due to differences in relief, climate, soil and other geographical factors, it is not practicable to grow padi in many parts of Monsoon Asia.

Though methods are equally intensive and farming is done on a subsistence basis, a very wide range of other crops are raised. In most parts of North China, Manchuria, North Korea, northern Japan and Punjab, wheat, soya beans, barley or kaoliang (a type of millet) are extensively grown as major food crops.

In the India Deccan and parts of the Indus basin sorghum or millet is the dominant crop due to the scarcity of rain and the poorer soils. In many parts of continental South-East Asia such as the Dry Zone of Myanmar, the Korat Plateau of Thailand and the interior regions of Indo-China, the annual precipitation is too low for wet padi cultivation, and the substitute crops are millet, maize and groundnuts grown together with cotton, sugarcane and oil-seeds.

During recent decades, this type of agriculture has registered a significant improvement in the form of mechanisation, use of improved seeds and fertilisers and other modern systems of agro-science. The countries like China, India, Japan, Malaysia, Korea, Taiwan, Philippines, etc., have adopted improved system of agriculture.