

## **Slash and Burn Agriculture**

Slash and burn agriculture is the process of cutting down the vegetation in a particular plot of land, setting fire to the remaining foliage, and using the ashes to provide nutrients to the soil for use of planting food crops.

The cleared area following slash and burn, also known as swidden, is used for a relatively short period of time, and then left alone for a longer period of time so that vegetation can grow again. For this reason, this type of agriculture is also known as shifting cultivation.

Generally, the following steps are taken in slash and burn agriculture:

1. Prepare the field by cutting down vegetation; plants that provide food or timber may be left standing
2. The downed vegetation is allowed to dry until just before the rainiest part of the year to ensure an effective burn.
3. The plot of land is burned to remove vegetation, drive away pests, and provide a burst of nutrients for planting.
4. Planting is done directly in the ashes left after the burn.

Cultivation (the preparation of land for planting crops) on the plot is done for a few years, until the fertility of the formerly burned land is reduced. The plot is left alone for longer than it was cultivated, sometimes up to 10 or more years, to allow wild vegetation to grow on the plot of land. When vegetation has grown again, the slash and burn process may be repeated.

### **Geography of Slash and Burn Agriculture**

Places where open land for farming is not readily available because of dense vegetation are the places where slash and burn agriculture is practiced most often. These regions include central Africa, northern South America, and Southeast Asia, and typically within grasslands and rainforests.

Slash and burn is a method of agriculture primarily used by tribal communities for subsistence farming (farming to survive). Humans have practiced this method for about 12,000 years, ever since the transition known as the Neolithic Revolution, the time when humans stopped hunting and gathering and started to stay put and grow crops. Today, between 200 and 500 million people, or up to 7% of the world's population, uses slash and burn agriculture.

When used properly, slash and burn agriculture provides communities with a source of food and income. Slash and burn allows for people to farm in places where it usually is not possible because of dense vegetation, soil infertility, low soil nutrient content, uncontrollable pests, or other reasons.

## Negative Aspects of Slash and Burn

Many critics claim that slash and burn agriculture contributes to a number of reoccurring problems specific to the environment. They include:

- Deforestation: When practiced by large populations, or when fields are not given sufficient time for vegetation to grow back, there is a temporary or permanent loss of forest cover.
- Erosion: When fields are slashed, burned, and cultivated next to each other in rapid succession, roots and temporary water storages are lost and unable to prevent nutrients from leaving the area permanently.
- Nutrient Loss: For the same reasons, fields may gradually lose the fertility they once had. The result may be desertification, a situation in which land is infertile and unable to support growth of any kind.
- Biodiversity Loss: When plots of land area cleared, the various plants and animals that lived there are swept away. If a particular area is the only one that holds a particular species, slashing and burning could result in extinction for that species. Because slash and burn agriculture is often practiced in tropical regions where biodiversity is extremely high, endangerment and extinction may be magnified.

The negative aspects above are interconnected, and when one happens, typically another happens also. These issues may come about because of irresponsible practices of slash and burn agriculture by a large amount of people. Knowledge of the ecosystem of the area and agricultural skills could prove very helpful in the safe, sustainable use of slash and burn agriculture.

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<http://geography.about.com/od/urbaneconomicgeography/a/slashburn.htm>