

*Terra preta* identifies very fertile soils with a thick black A horizon of the Amazonia basin with an anthropogenic origin.

In non-floodable areas of lowlands of Amazonia, the forest was deliberately or accidentally added of charcoal or biochar, the solid product obtained by pyrolysis of biomass at low temperatures. Hence, in an area where soil fertility was low because of an excess of weathering, patches even larger than 20 ha of fertile soil with a thick black A horizon rich of organic matter and nutrients have formed.

In rural areas of Mozambique, the forest soil quickly loses its organic matter content and fertility during cultivation, except under kiln, where corn plants are 1 m taller than those in the rest of the field. In Mozambique, the soil of the *miombo* biome and under the kiln has a black A horizon that looks like the Amazonian *terra preta* but, at this moment, the intimate processes regulating its fertility and the fate of biochar when cultivation is suspended is still unknown.

The aim of this project is to understand the reason behind the forest soil fertility and its rapid loss during cultivation in Mozambique. There is a strong interest in studying the Mozambican soils to find sustainable systems able to transform exploited soils in organic carbon reservoir. To extend agriculture on the same soil for 4-5 years (instead of 2-3) by introducing grazing or practices able to increase soil fertility, would represent a great benefit for the peasants' families with benefits for forest and wild animals.

If the beneficial role of charcoal fragments would be confirmed, even for this region so different from Amazonia, artisanal pyrolyzers in the peasant families could be introduced.