

Publication on Tree Planting

In recent years there has been much talk of a distinctive tree planting culture. On average tree planters are between the ages of 18 and 30. Based on this, the Kenya organization of environmental education embarks on a programme (eco-schools programme Kenya) that targets schools as an entry point for promoting sustainable development and environmental conservation.

Tree planting and climate change

A recent survey in the Rift valley schools showed that schools are aware of the environmental issues surrounding their schools put up initiative to ensure that they conserve their school environments. Most schools were involved in tree planting activities and clean up activities around the municipality.

Eco-schools Kenya emphasizes on incorporating the community around schools to participate in activities towards environmental conservation. This approach ensures that the community owns up the projects set out by their community schools. This also ensures that the projects are sustained by the community when the schools go on recess. A good example of such a project is a eucalyptus project that is being run by kipkaren primary school.

The type of tree planted may have great influence on the environmental outcomes. Planting the wrong kinds of trees, such as monocultures of eucalyptus where they are not native species, can devastate the lands of the local people. However, it is often much more profitable to outside interests to plant non-native fast-growing trees, such as eucalyptus or pine (e.g., *Pinus radiata* or *Pinus caribaea*), even though the environmental and biodiversity benefits of such monoculture plantations are not comparable to native forest, and such offset projects are frequently objects of controversy.

To promote the growth of native ecosystems, many environmentalists advocate only indigenous trees be planted. A practical solution is to plant tough, fast-growing native tree species which begin rebuilding the land. Planting non-invasive trees that assist in the natural return of indigenous species is called "assisted natural regeneration." There are many such species that can be planted, of which about 12 are in widespread use, such as *Leucaena leucocephala*.

Climate scientists believe that human-induced global deforestation is responsible for 18-25% of global climate change. The United Nations, World Bank and other leading nongovernmental organizations are encouraging reforestation, avoided deforestation and other projects that encourage tree planting to mitigate the effects of climate change.

Trees sequester carbon through photosynthesis, converting carbon dioxide and water into molecular di-oxygen (O₂) and plant organic matter, such as carbohydrates (e.g., cellulose). Hence, forests that grow in area or density and thus increase in organic biomass will reduce atmospheric CO₂ levels.

A well-watered lawn, for example, is as green as a tree, but absorbs far less CO₂. Deciduous trees also have the advantage of providing shade in the summer and sunlight in the winter; so these trees, when planted close to houses, can be utilized to help increase energy efficiency of these houses.