

Annex 1: SALT Guidelines

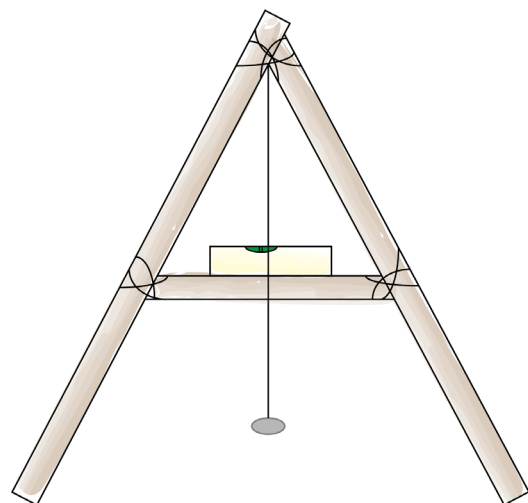


Annex 1: Salt Guidelines

Step 1: Make an A-frame

To begin preparing a hillside for SALT, a tool is needed to determine the contour lines of the fields. These contour lines will soon correspond to the rows of crows grown on the hillside, which will in turn act as a water break and help reduce streaming and the formation of gullies which would wash away hillside and crops.

To define the contours of the field, this approach recommends using an A-frame. This is a simple yet effective tool that looks like the letter A, hence its name. To make, cut two wooden poles of at least 1 meter to serve as the length, and a third piece of about 0.5 meters to be used as the crossbar of the frame. Attach the upper ends of the longer poles, and spread the legs about 1 meter apart to form a triangle, and then attach the crossbar between the two legs. Once a solid A-frame has been constructed, tie the carpenter's level to the crossbar.



Step 2: Locate and mark the contour lines

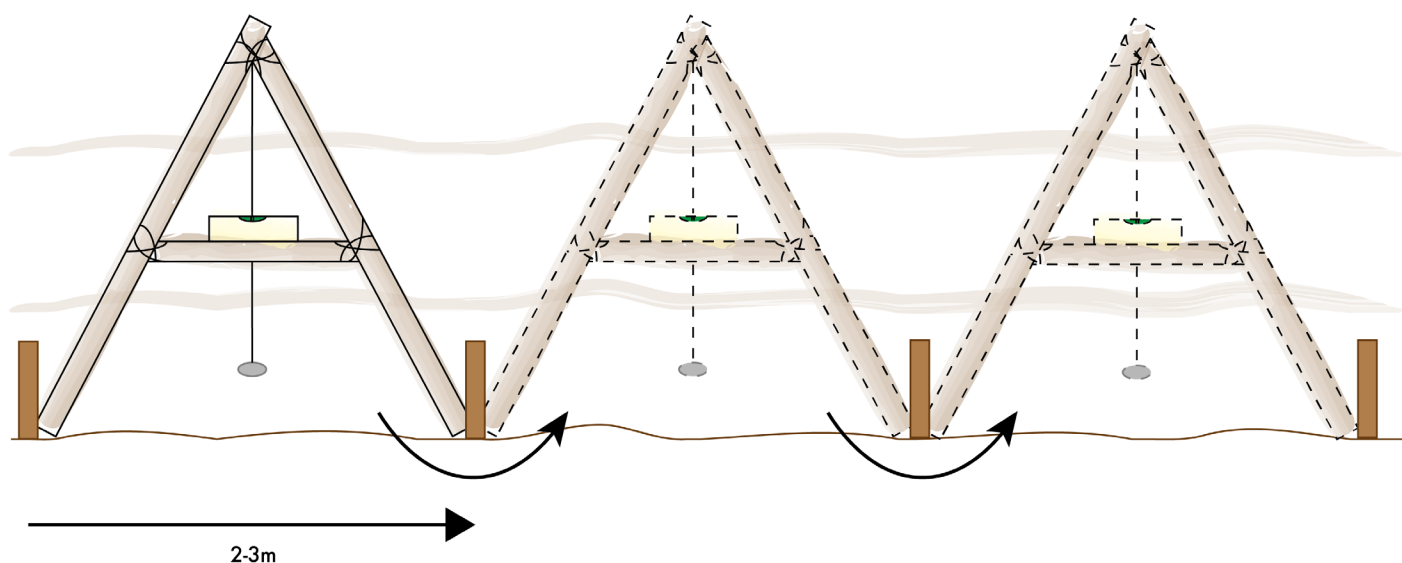
The next step is to use your instrument of choice to locate contour lines in the field. Cut tall grasses or remove any obstruction so that you can move easily and mark lines

It is important that the contour lines are straight and do not change in elevation. To begin, let the A-frame stand on the ground on the hillside. Without moving the rear leg, plant one leg of the A-frame, and then use the reading on the carpenter's level to adjust the second leg, until both legs are at the same level.

Now, mark with a stick the spot where the rear second stands, and move the A-frame along the side of the hill by placing the second leg on the spot where the first leg stood before. Again, adjust the first leg until it is level with the second. You will continue like this along the entire length of the hillside field, marking the contour line on the ground with a stake every 2-3 meters.

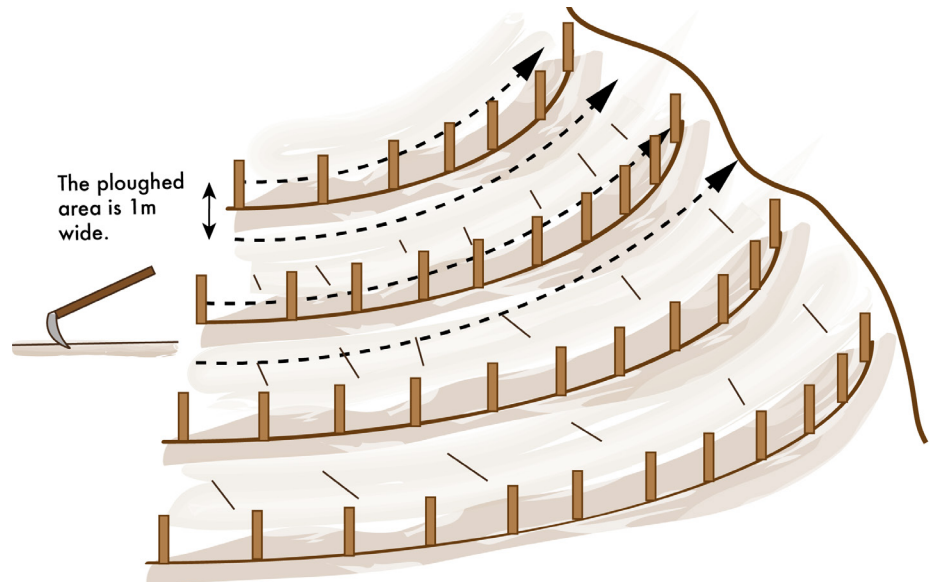
Move the A-frame forward by placing the rear leg on the spot where the front leg stood before. Adjust the front leg again until it is level with the rear leg. For every 2-3 m of contour line you find, mark it with a stake.

When you reach the end of the field, you will then move up the hill to determine the next contour line. Generally, no more than 1 meter vertical drop is desirable for effective erosion control. Therefore the steeper the hill, the closer the contour lines will be with each other.



Step 3: Prepare the contour lines

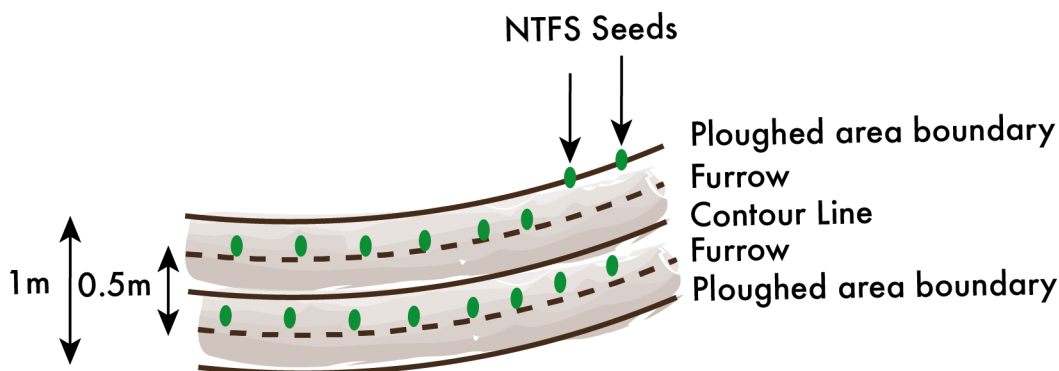
After you have found and marked the contour lines, prepare them by ploughing and harrowing until ready for planting. The width of each area to be prepared should be 1 meter. The stakes will serve as your guide during ploughing.



Step 4: Plant seeds of nitrogen-fixing trees and shrubs (NFTS)

On each prepared contour line make two furrows at a distance of 0.5 meters apart. Sow the seeds in each furrow to allow for a good, thick stand of seedlings. Cover seeds lightly and firmly with soil.

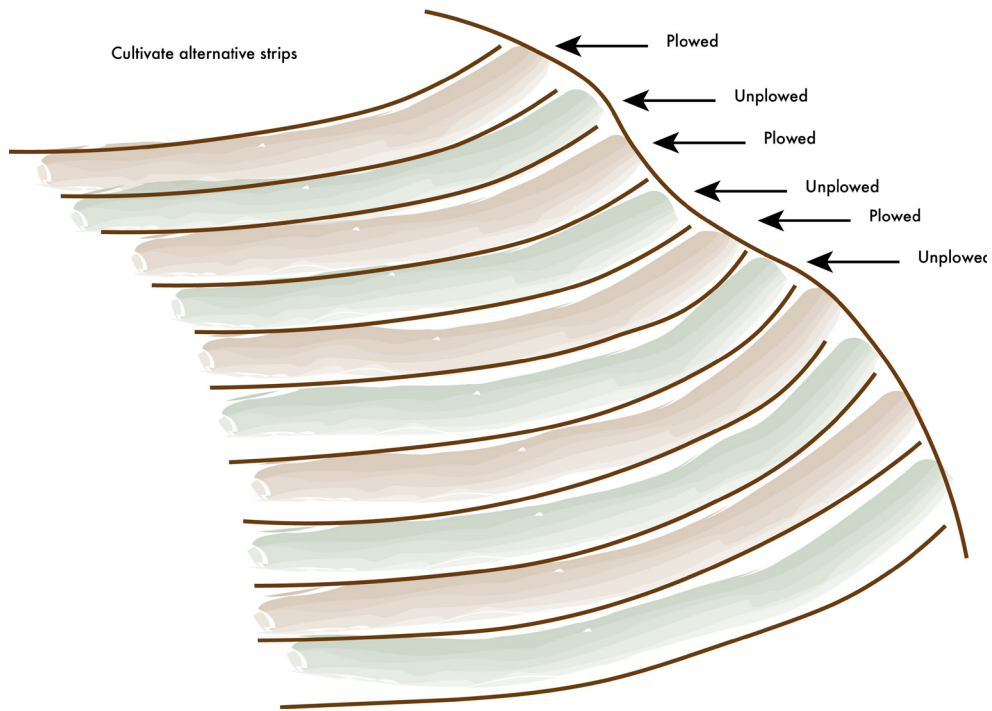
The ability of nitrogen-fixing trees and shrubs to grow on poor soils and in areas with long dry seasons makes them good plants for restoring forest cover to watersheds, slopes and other lands that have been denuded of trees. Through natural leaf drop, they enrich and fertilize the soil. In addition, they compete vigorously with coarse grasses, a common feature of many degraded areas that have been deforested or depleted by excessive agriculture.



Step 5: Cultivate alternate strips

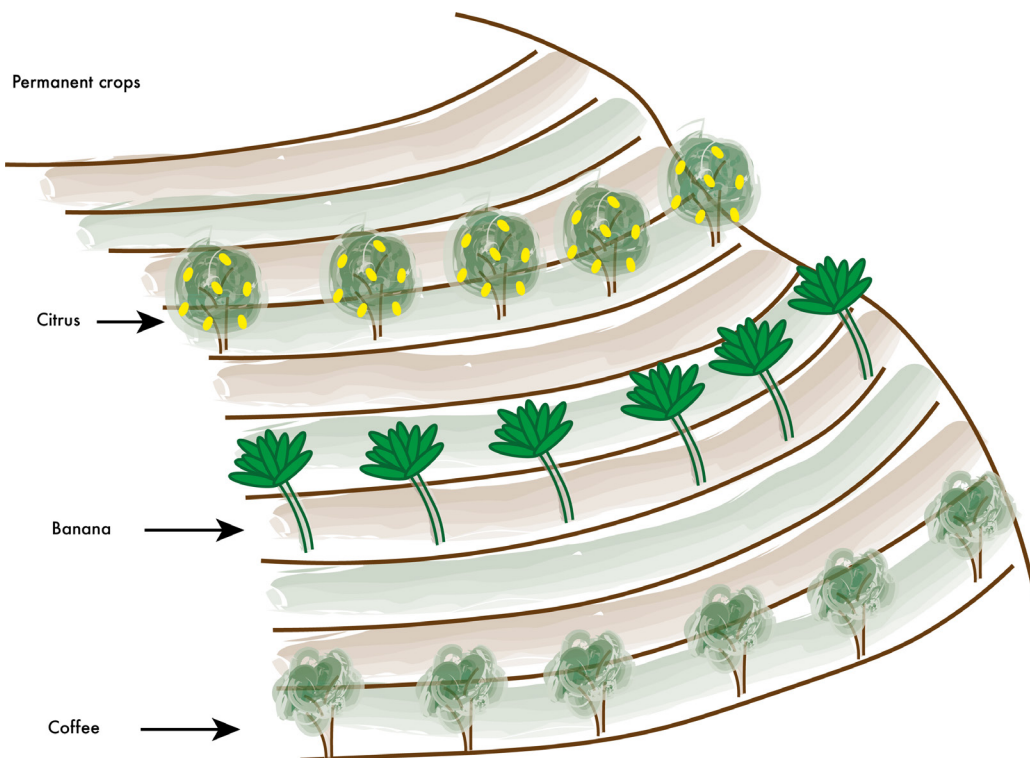
The spaces between the thick rows of trees and shrubs are where the crops are planted. These spaces may be called strips, alleyways or avenues.

Growing the trees and shrubs will take some time. If you wish to begin planting crops on the field in the season before the trees and shrubs are fully grown, do it alternately on strips 2, 4, 6, 8, (those ploughed) and so on. Alternate cultivation will prevent erosion because the unploughed strips will hold the soil in place. When the trees and shrubs are fully grown, you may proceed with cultivation on every strip.



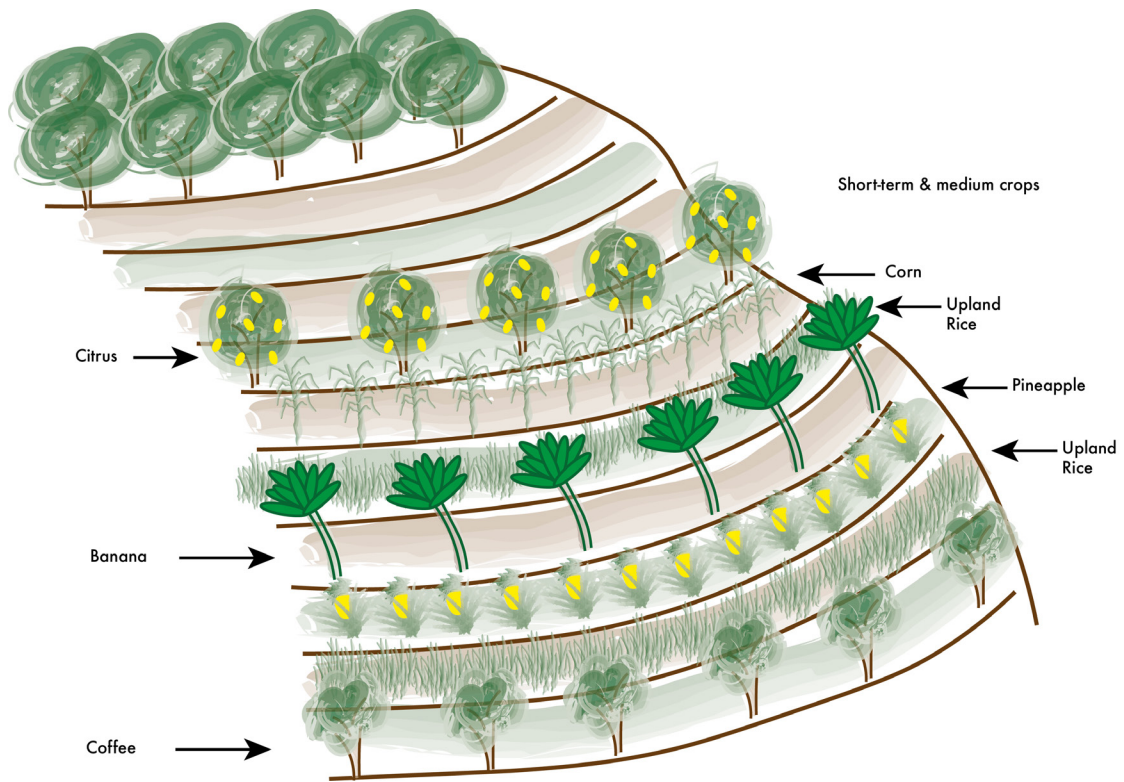
Step 6: Plant permanent crops

Plant permanent crops in every third strip. They may be planted at the same time the seeds of trees and shrubs are sown, but only ring weeding should be employed before the hillside is stabilized by the trees and shrubs. Examples of permanent crops include durian, lanzones, rambutan, coffee, banana, citrus and others of the same height.



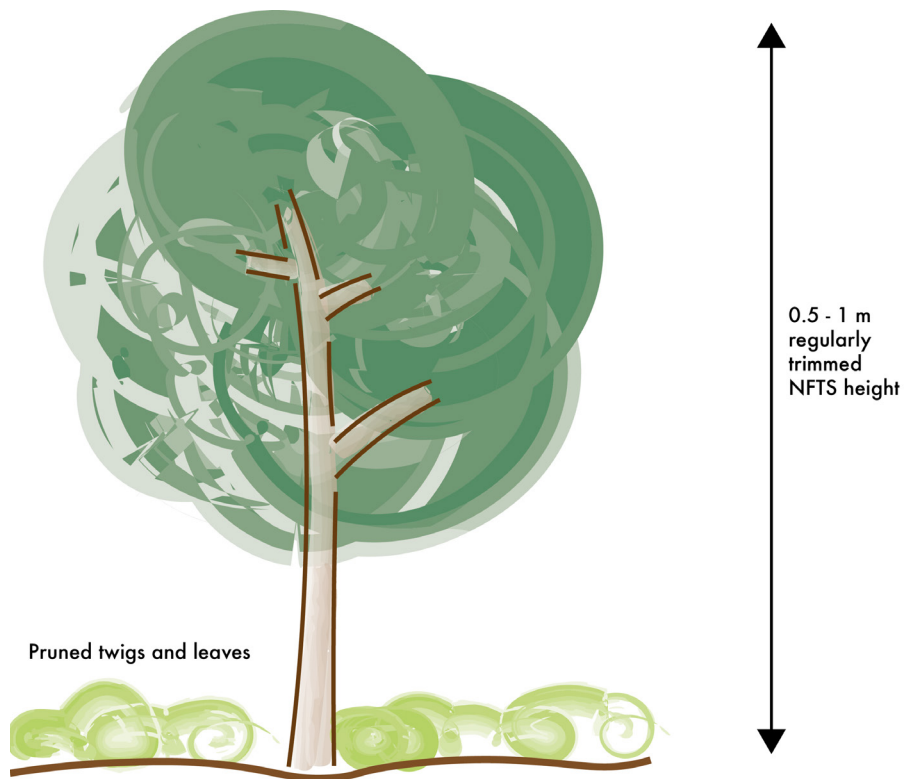
Step 7: Plant short and medium-term crops

You can now plant short-term and medium-term crops between and among strips of permanent crops. Suggested short and medium-term crops are pineapple, ginger, gabi, castor bean, camote, peanut, mung bean, melon, sorghum, corn, upland rice, etc. To avoid shading, plant shorter plants away from tall ones.



Step 8: Regularly trim the trees and shrubs

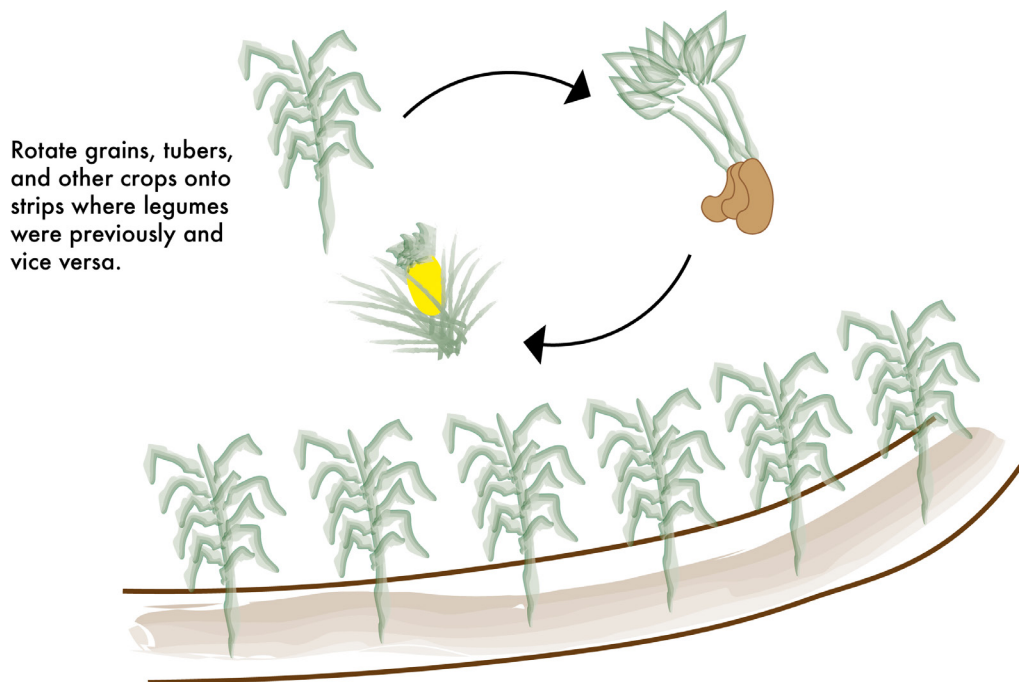
About once a month, the shrubs and trees should be cut back to a height of 0.5 meters to 1 meter from the ground. Pruned leaves and twigs should always be piled at the base of the crops. This serve as soil cover to minimize the impact of raindrops on the bare soil while providing organic fertilizer for both the permanent and short-term crops.



Step 9: Practice crop rotation

A good way of rotating non-permanent crops is to plant grains (corn, upland rice etc.), tubers (camote, cassava, gabi, etc) and other crops (pineapple, castor bean, etc) on strips where legumes (mung bean, bush sitao, peanut, etc) were planted previously, and vice versa.

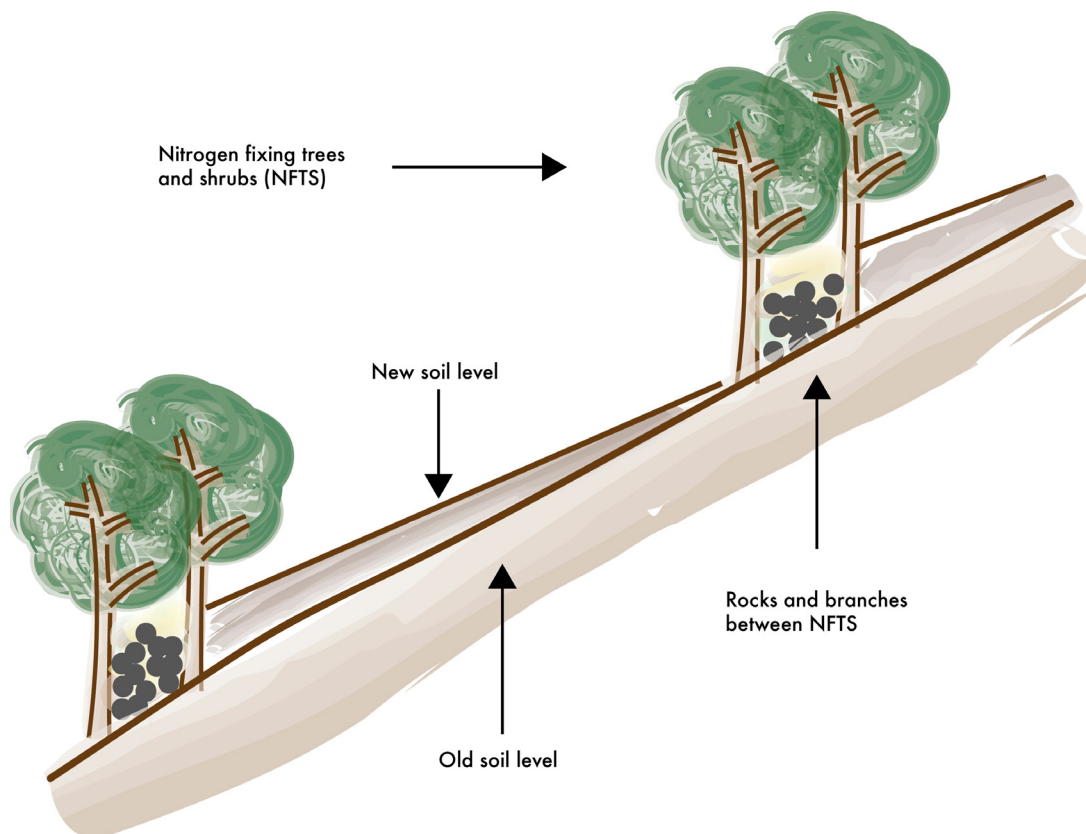
This practice will help maintain the fertility and good condition of your soil. Other management practices in crop growing, like weeding and pest control, should be done regularly.



Step 10: Build and maintain green terraces

Apart from providing you with adequate food and sufficient income, another important benefit of using SALT is the control of soil erosion. This is done by the double-thick rows of nitrogen-fixing trees and the natural terraces being formed along the contour lines of the hill.

As you go on farming the sloping land, keep gathering and piling up straw, stalks, twigs, branches, leaves, rocks, and stones at the base of the rows of nitrogen fixing trees. By doing this regularly, and as the years go by, you can build strong, sustainable and beautiful green terraces which will reliably anchor soil in place.



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