

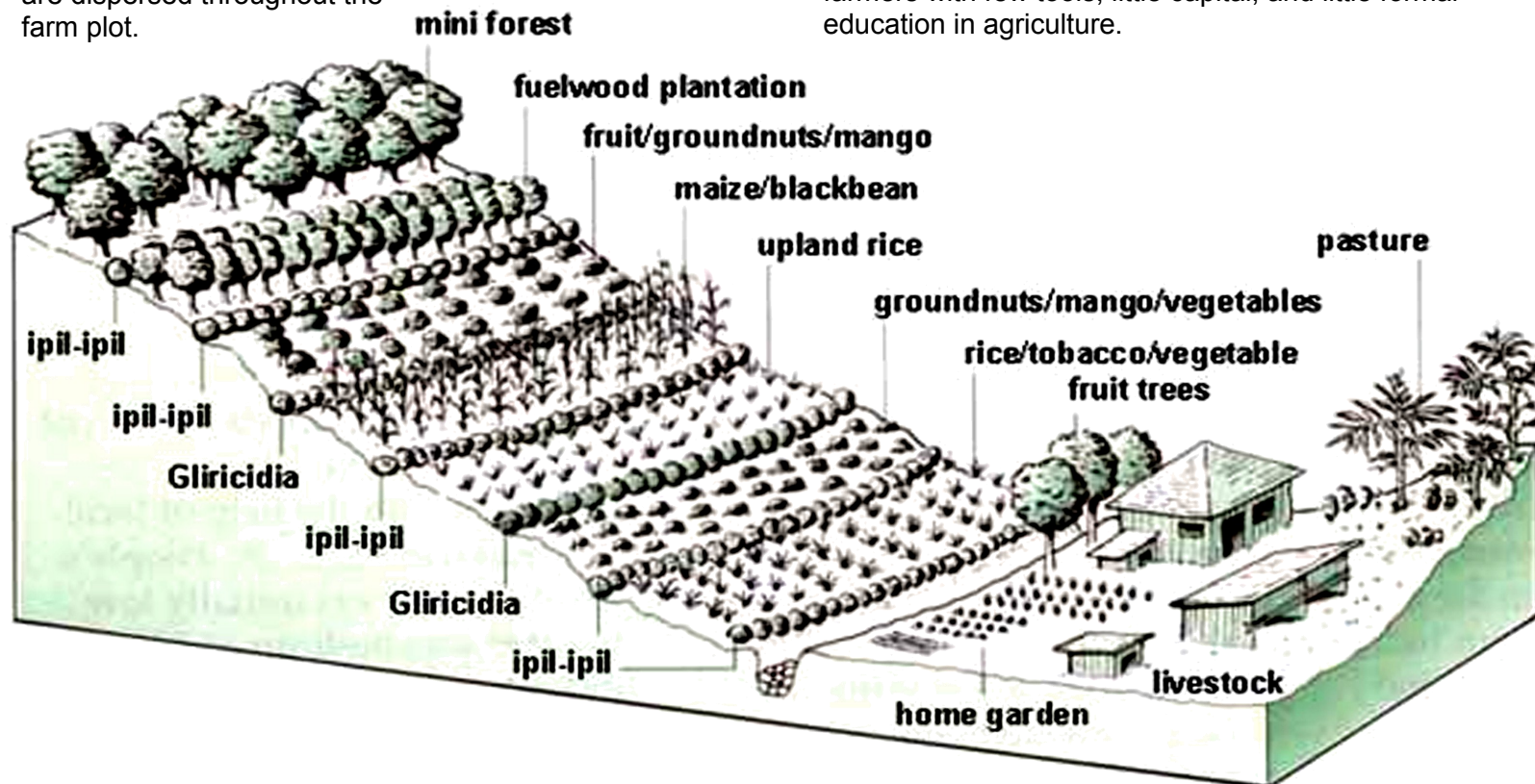
The SALT System

SALT is a package technology of soil conservation and food production, integrating differing soil conservation measures in just one setting. Basically, SALT is a method of growing field and permanent crops in 3meter to 5meterwide bands between contoured rows of nitrogen fixing trees.

The nitrogen fixing trees are thickly planted in double rows to make hedgerows. When a hedge is 1.5 to 2 meters tall, it is cut down to about 75 centimeters and the cuttings (tops) are placed in the alleyways to serve as organic fertilizer.

An Agroforestry Scheme

SALT is a diversified farming system which can be considered agro-forestry since rows of permanent shrubs like coffee, cacao, citrus and other fruit trees are dispersed throughout the farm plot.



The strips not occupied by permanent crops, how-ever, are planted alternately to cereals (corn, upland rice, sorghum, etc.) or other crops (sweet potato, melon, pineapple, castor bean, etc.) and legumes (soybean, mungbean, peanut, etc.).

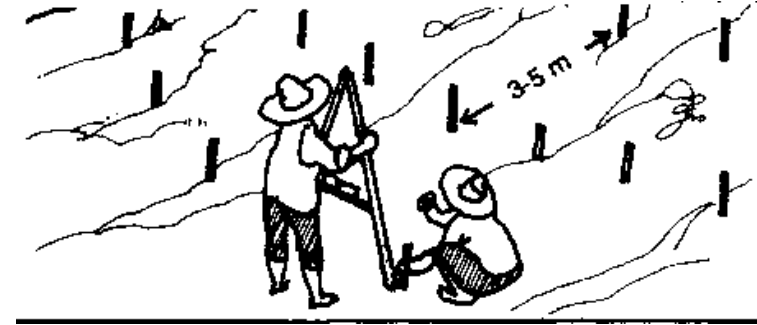
This cyclical cropping provides the farmer some harvest throughout the year.

SALT also includes planting of trees for timber and firewood on surrounding boundaries. Examples of tree species for "boundary forest" in SALT are mahogany, Cassuarina, Sesbania, Cashew, etc.

Advantages of SALT

The advantages of SALT are that it is a simple, applicable, low-cost, and timely method of farming uplands. It is a technology developed for Asian farmers with few tools, little capital, and little formal education in agriculture.

Contour lines are run by using an A-frame transit that any farmer can learn to make and use.



A farmer can grow varieties of crops he is familiar with and old farming patterns can be utilized in the SALT system.

As a proven system of upland farming, SALT has certain good qualities over both the traditional techniques of slash-and-burn and conventional terrace farming.

- The SALT system protects the soil from erosion.
- SALT helps restore soil fertility and structure.
- SALT is efficient in food crop production.
- SALT is applicable to at least 50 per cent of hillside farm.
- SALT is easily replicated by hillside farmers.
- SALT is culturally acceptable because the farming techniques are in harmony in Asian beliefs and traditional practices.
- SALT has small family as the focus and food production as the top priority. Fruit trees, forest and other crops are secondary priority.
- SALT is workable in a relatively short time.
- SALT is economically feasible.
- SALT is ecologically sound.
- The SALT farm can easily revert back to forestland if left unfarmed.
- In the Philippines SALT fits into the framework of the government's rainfed resources development strategy for the uplands.

Various Forms of SALT

There are several forms of SALT and a farmer may wish to use the SALT system in several variations.

- **Simple Agro-Livestock Technology (SALT 2)** is a small livestock-based agroforestry system preferably dairy goats with a land use of 40% for agriculture, 20% for forestry and 40% for livestock.

As in a conventional SALT project, hedgerows of different nitrogen fixing trees and shrubs are established on the contour lines. The manure from the animals is utilized as fertilizer both for agricultural crops and the forage crops.

- **Sustainable Agroforestry Land Technology (SALT 3)**, is a cropping system in which a farmer can incorporate food production, fruit production and forest trees that can be marketed.

The farmer first develops a conventional SALT project to produce food for his family and possibly food for livestock. On another area of land, he and can plant fruit trees such as rambutan, durian, and lanzones between the contour lines.

The plants in the hedgerows will be cut and piled around the fruit trees for fertilizer and soil conservation purposes.

A small forest of about one hectare will be developed in which trees of different species may be grown for firewood and charcoal for short-range production.

Other species that would produce wood and building materials may be grown for medium and long-range production.

In some areas where the soil is too steep for row crops, contour lines may be established two or three meters apart and planted with *Flemingia* or some other suitable hedgerow species.

In between the hedgerows, coffee, cacao, calamansi or other permanent crops could be planted.

- **Small Agrofruit Livelihood Technology (SALT 4)** which is based on a half- hectare sloping land with two-thirds developed to fruit trees and one-third intended for food crops.

Hedgerows of different nitrogen -fixing trees and shrubs are planted along the contours of the farm.

Reference:

- Sustainable Corn Production in Sloping Areas (SCOPSA) Handout, Training Module by Mindanao Baptist Rural Life Center
- Picture/illustrations: Food and Agriculture Organization of the United Nations

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THE Sloping Agricultural Land Technology (SALT) System

