

Using Sloping Agricultural Land Technology in Myanmar

Background



Photo: Tearfund

In the early 1970s, in response to poor yields caused by severe soil erosion on hillside farms in the Philippines, 'Sloping Agricultural Land Technology' (SALT) was developed.

The underlying objectives of the system are to:

- control soil erosion;
- help restore soil structure and fertility;
- be efficient in food crop production;
- be easily duplicated by upland farmers using local resources and without the need for external loans;
- be culturally acceptable;
- be fully productive in as short a time as possible;
- require minimal labour;
- be economically feasible and ecologically sound.

In SALT, field and permanent crops are grown in 4-5m bands between contoured rows of nitrogen-fixing trees and shrubs, which are thickly planted in double rows to form hedgerows. Farmers can use any leguminous trees and shrubs found on their farms. When a hedge is 1.5 to 2 m tall, it is cut back to a height of 40cm and the cut branches are placed in the alleys between the hedgerows to serve as mulch for conserving moisture and as organic fertiliser (green manure).

Rows of permanent crops such as coffee, cacao, citrus and banana can be dispersed throughout the farm plot. The alleys not occupied by permanent crops are planted on a rotating basis with cereals or other crops and legumes (e.g. mung bean, bush bean, soybean, peanut). This cyclical cropping helps maintain soil fertility and provides the farmer with several harvests throughout the year.

Agroforestry training

In 2006, **Tearfund's partner, World Concern Myanmar (WCM)**, sent some of its agriculture staff to Thailand to study agroforestry at the Upland Holistic Development Project (UHDP). On return to Myanmar, one of the agricultural technicians worked with a WCM-trained community agriculture facilitator to establish a SALT farm in Mon state.

The field was 0.06 acres with a slope of 45 degrees. Seven rows of hedgerows were formed as follows:

- Hedgerows 1 and 2: Indigofera
- Hedgerow 3: lemon grass
- Hedgerows 4: Leucaena
- Hedgerow 5: Tephrosia
- Hedgerows 6 and 7: pineapple

Between the hedgerows, in monsoon season, hot peppers and mustard were grown. After the mustard was harvested mung beans were grown as a second crop resulting in increased income, soil conservation and compost material.

Benefits

After one season, the pineapple crop had begun to bear fruit and the owner made \$80 from the sale of lemon grass and \$100 from the sale of hot peppers and mustard. The mung bean crop residue was used as a green manure.

The farmer has continued to extend his cropping patterns, increasing his income each year, and has overcome the cash difficulties that he used to experience during the monsoon season. He has become an extension agent, sharing his knowledge and experiences with other local farmers.

Food Security