



Artist: Ariel

Traditional slash and mulch in Guadalcanal

Tony Jansen and Roselyn Kabu Maemouri

The Solomon Islands are located in the Western Pacific Ocean. The main islands are volcanic in origin with mountains reaching 2400m. Climate is wet and tropical with an annual rainfall of 2500 to 6000mm. There is no distinct wet and dry season.

Most of the country is covered by rainforest and 80% of the population live in small isolated communities and practice shifting cultivation. Population growth, land degradation and cash cropping have resulted in shortened fallows that today vary from 5-7 years but which in some places are as short as three.

'Slash and burn' practices are the customary way of preparing garden sites but when we look more closely at traditional methods we find there are different approaches to the use of fire. Locally specific alternative practices have been documented. Some are in common use, others are on the verge of extinction. These traditional practices have been used to start discussions with farmers on the role of organic matter in soil fertility. Here, 'slash and mulch' will be discussed.

Yam and pana slash and mulch

Guadalcanal is well known for a 'slash and mulch' system of planting of yam (*Dioscorea esculenta*) and pana (*Dioscorea alata*) in which no fire or staking is used. The natural vegetation is usually mature forest or secondary forest. This is cleared leaving most of the trees standing. Vegetation is spread randomly over the site and yams are planted with traditional digging sticks. The leaves rot into rich organic material and trunks and branches form a mass of crossed 'stakes' that support the

growing yams. Bananas and taro can also be planted in this system.

Tasimate slash and mulch

This is a similar method used in Tasimate. The difference is that it is applied with all food crops especially sweet potato and taro. This makes the results likely to be much more widely applicable.

Secondary forests are often dominated by stands of maturing pioneer species such as *Macaranga sp.* and trees with an understory of soft ginger and banana-like plants. Undergrowth is cleared in a fallow of 4-6 years and the garden laid-out under the canopy of larger trees. The crops are planted in rows in a pattern depending on how the fallow trees that will be cut will fall on the land. After the plants are established, the trees are cut and branches and trunks are placed in wide rows across the garden. Soft leaves and stems are cut into thick mulch (5-10cm thick) and spread between the crop.

Sweet potato cuttings are planted farther apart than is usual in slash and burn systems and the vines grow over the thick mulch and rotting trunks. The first harvest comes from the mulched land, the second from the areas of sticks and trunks where nutrients are released more slowly. Higher yields are obtained from this system than from other slash and burn systems practiced on similar soils in this area. Yields are also good with relatively short fallows. In fact these short fallow areas are preferred by farmers who practice this method.

Traditional knowledge has an important role in reinforcing sustainable management systems. It provides important links to

Themes for the ILEIA Newsletter

March 2001 Vol.17-1

Resilience of agriculture

How do farmers prevent disaster and react to the catastrophies of drought, flood, armed conflict, disease and economic crisis? How do farmers deal with variability and risk? How can the resilience of farming and rural livelihoods be improved? What impact does labour migration have on farming systems and gender roles? How can women best adapt farming in areas of labour migration and still optimise benefits and ecological sustainability? How can gender roles be renegotiated? How can women farmers best be reached and supported? How can farming by refugees be supported? **Deadline for contributions 1 December 2000.**

July 2001 Vol. 17-2

Globalisation challenged

Many farmers in the tropics are negatively affected by globalisation of the world economy and expansion of the consumer culture. To them, this is one step further on the road to marginalisation. In reaction, some farmers, communities and organisations have started to reconstruct traditional 'agri-culture', save indigenous seeds or harvest water. Others focus on development of organic agriculture, local products, empowerment of local institutions or alternative education. Still others protest against genetically modified organisms and international agreements on intellectual property rights. For this issue of the LEISA Newsletter we invite articles on such reactions to globalisation and on how local communities and farmer organisations can be strengthened to retain the right to their own futures. **Deadline for contributions 1 March 2001.**

You are invited to contribute to these issues with articles (about 1800 words + 2 illustrations), suggest possible authors, and send us information about interesting issues, publications, training courses, meetings and websites.

move from the known to the unknown in development of new practices to cope with increasing land use pressure.

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