

## 4.3 Development of higher-value forest and cash-crop products

### Background

Forests and many cash crop plantations produce a range of essential food and fibre products from long-rotation, perennial plantings on land that is often marginal for most annual food crops. They provide an opportunity for rural landowners to diversify their production base and to integrate the intensive and peak labour-demand crops such as grains and vegetables with the longer-term production of crops that have more flexible labour requirements.

In subsistence agriculture systems, forest and cash-crop plantations can generate income that allows smallholders to participate in the broader economy and to access education and health services. They can also be the basis of small rural industries that provide alternative employment opportunities for communities. With increasing competition for land and water for non-agricultural uses, the economic return per unit of land must be increased. However, there can be a lag of years between establishment of many plantation crops and obtaining a return on the investment.

To increase rural incomes and alleviate poverty, the economic efficiency and social benefits of forest and cash-crop plantations must be improved. When undertaken by smallholders, these activities often suffer from disadvantages of small scale and large distance from markets, requiring well-informed enterprise decisions by the landholders. The disadvantages can be counterbalanced by harvesting of higher-

value products, either achieved from increasing recovery or yield per land unit area or by quality increases that attract higher unit prices for products.

### Key strategies

An understanding of the characteristics and dynamics of the whole production–marketing chain is critical to the development of higher-value products from forestry and cash-crop plantations and to the generation of benefits to rural communities. Australia has strengths in processing of wood products from forests, and some experience in processing of leaf oils. Though there is little expertise in technical aspects of many plantation cash crops, there are Australian institutions with relevant skills in socioeconomics. Key strategies are as follows:

- Initial research will focus on the market and consumer requirements that are likely to determine the demand for (and profitability of) forest and cash-crop plantations, particularly when managed by smallholders.
- Quality factors such as storability, appearance, flavour and nutrition of food cash crops, and the strength, dimensional stability, durability, workability and appearance of fibre cash crops, will need to be assessed against market and consumer requirements, and prioritised in terms of their ability to attract higher unit prices.
- Impediments to value addition for specific crops will need to be overcome. This may include the particular species or varieties grown, the cultivation systems used, the





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### Linking Farmers to Markets



timing and method of harvest, the storage systems used, the various processing steps before marketing, the method of transport to market, and the presentation at market.

- Value will be added to crops by reduction of waste or by turning waste into saleable products.
- The economic and social incentives needed to encourage higher value, higher yields and higher returns from cash crops and plantation forestry will be identified.
- Alternative grower inputs needed to enhance quality and add value will be developed, and their feasibility and potential benefits and costs analysed.



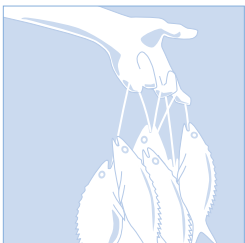
- through the analysis of the production and marketing chains, identify quality factors that can be targeted for improvement to increase grower incomes;
- identify the social and economic incentives necessary to encourage adoption of high-value production or higher recovery/yield systems; and
- undertake research on the means to improve quality, recovery or yield, when these are likely to provide direct benefits to growers or rural processors (including investigation of the growing, harvesting, processing, transport or marketing components of production).



### Implementing the strategies

ACIAR projects will especially encourage linkages with the private sector and industry organisations, as well as research providers, to:

- undertake market and consumer surveys to identify the potential for higher-value products to increase grower incomes;



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