

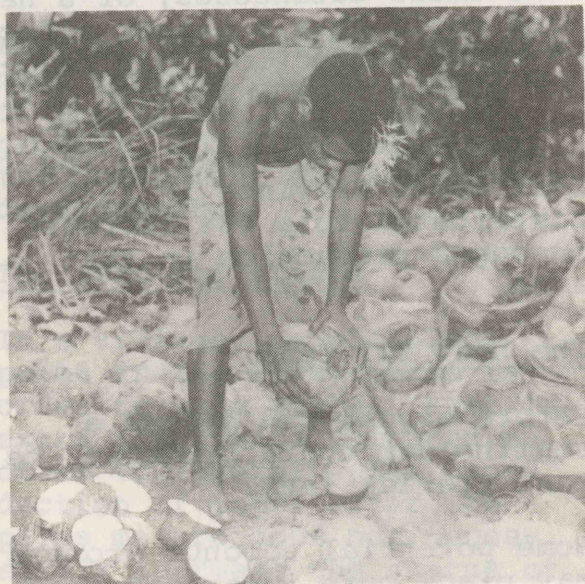
FACTORS AFFECTING SMALLHOLDER INVESTMENT IN COCONUTS

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INTRODUCTION

In Papua New Guinea, the production of coconuts from plantations (average 0.9 t/ha) is always higher than the production from smallholders (average 0.5 t/ha). This big difference in production is partly because plantations are more carefully managed, but it is also related to the needs of the grower.

On plantations it is very important to make a profit. The area is brushed regularly and all nuts go to the copra drier. In villages, profit is less important so brushing is done less often and some of the nuts are used for food.



Taking the husks off coconuts for copra production

Management practices which increase the yield per palm (for example, ring weeding and use of fertilizers) are uncommon on both plantations and smallholder blocks. Since the planting material has been the same in both cases, probably the actual yield per palm is also similar.

Some of the special factors which affect smallholders who choose to grow coconuts are discussed in this article. In the light of these factors we may be in a better position to plan for development of the copra industry.

WHO ARE THE SMALLHOLDERS?

Several types of farmer could be called 'SMALLHOLDERS'. The thing which separates the groups is the size of area of cash crop.

The groups are:

1. Villagers who are mainly subsistence farmers, but who gain enough income for their families' needs from a small area of cash crop.
2. Villagers who grow mostly cash crops, with a small

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amount of subsistence gardening for the family.

3. Large smallholders who buy nearly all their families' needs from selling cash crops.

4. Village groups who have taken over plantations and choose to keep the area as a single unit.

Most smallholders fit into the first group, but the number of people in the other groups is getting bigger.

WHY GROW COCONUTS?

In Papua New Guinea, there has never been a big effort from the government to encourage people to plant coconut palms. In spite of this, large numbers of palms have been planted. However, the standard of maintenance of the coconut stands is very low. In the 1960's there was an effort to persuade growers to thin out overcrowded stands, but in many areas the effort failed.

Thus, it seems that the reasons for planting palms in the first place are different from the reasons for good maintenance.

Good maintenance practices include ring weeding and fertilising of productive palms, removal of unproductive palms, and replanting when necessary. If all these practices are carried out, we can expect good copra production.

The success of any coconut development programme depends on whether people think it is worthwhile investing in them. Of course different people are influenced for different reasons, but some factors which affect smallholder investment in coconuts include:

- . The need for money
- . The need for land
- . The need for status
- . Social obligations
- . A change in social structure

The need for money

Plantations need money all the time to pay wages, etc. But most village growers want cash for personal use and not for business reasons. A villager will need cash, for example, when school fees have to be paid, when he wants to travel, and when he wishes to buy food or clothes from a store. The traditional smallholder (Group 1 above) will produce only enough of the crop to satisfy his need for cash.

An extension officer usually uses the aim of making money to encourage people to produce copra. This approach will be most effective with villagers who already have the biggest money commitments - those who are already well-off. In underdeveloped areas, where not so much money is needed, the approach works less well. A well-stocked trade store, or some small businesses, or a new road could have a bigger effect on copra production than regular visits from extension officers. For example, the completion of a new road in the East Sepik Province in 1979 contributed to a 48% increase in copra production in that area.

The need for land

Before anyone can become a smallholder copra producer, he must provide land.

Some potential coconut growers may place more importance on gaining land than gaining money. One way of encouraging these people is resettlement.



Four-year-old coconut palms on a Land Resettlement Scheme near Kikori, Gulf Province

Resettlement schemes are not an easy answer to the uneven distribution of land. Firstly, people need a lot of incentive to leave their home area, so the schemes cost a lot of money. Secondly, people who have extra land are not often willing to hand it over to other people, especially if they are from another area. Thirdly, for a scheme to be successful, good community services, such as roads, schools and health services, must be provided.

However, well-planned resettlement schemes can be a good way of satisfying the needs of growers, and also satisfying the government aim for economic development.

The need for status

In a village, people plant palms in the first place in order to gain status (that is, extra importance compared to other villagers). The production of copra after the palms mature does not necessarily increase the status of their owner any more. This need for status may explain why some growers are unwilling to remove old, unproductive palms.

One way to persuade people to cut down their old palms may be to set up sawmills. Coconut wood could be used to make building materials, and the people will see that what they have planted is not just wasted.

The possibility of using the hearts of palms for export could also be investigated.

Social obligations

The traditional obligations that affect coconut growers are feasts for deaths, marriages and other village customs, and also church and local government commitments.

One obligation which is relevant to replanting is that a grower may have harvesting rights to coconuts on someone else's land. Therefore the grower may not be in a position to decide to remove any palms.

It would be difficult to change these factors in a village.

Change in social structure

A change in social structure can come about following resettlement in the same way as a change in social obligations.

DISCUSSION

The factors listed above help to explain why many smallholders are willing to plant coconut palms, but do not maintain them well, do not produce much copra and are unwilling to cut down old palms and replant new ones.

All five of the factors are involved in resettlement in another province:

If the settlers were short of land in their home province, then resettlement satisfies this need. It provides a change in the social structure and traditional obligations which sometimes interfere with business in a village. This in turn changes the status of people in their new home, and so increases their need for money.

Despite the problems involved in resettlement, it is one way of satisfying the needs of smallholders, and at the same time providing economic development, at a rate that is acceptable to the Government.

PLANS FOR DEVELOPMENT

The introduction of hybrid coconuts and the creation of a National Project for their production and distribution, will give D.P.I. a good chance to get improved management practices adopted by both smallholders and plantations. Hybrids will respond to ring weeding and fertilizer better than tall coconuts, and this will be seen by growers when the demonstration blocks planted in each province come into production in 1982-83.

Extension staff in each province will have access to specialist coconut staff to help them to develop realistic coconut improvement programmes. To achieve an improvement in grower management, they must however, be aware of the needs of those growers.

In practical terms development planning could include:

1. The establishment of mixed crop resettlement schemes in suitable provinces. These schemes should be



Coconuts interplanted with cocoa

well planned with adequate roads and other services, if they are going to have any chance of success.

2. At planting, coconuts could be intercropped with food gardens and short term cash crops such as chillies. As long as tall food crops such as bananas and pawpaw are not planted closer than 4 m from the coconuts, this will not affect the growth of the young palms.
3. Coconuts should be where ever possible intercropped with cocoa or robusta coffee after 2-3 years. It is easier to

establish these crops under coconuts than any other type of shade. Hybrid coconuts grow almost as high as tall palms but the planting density should be reduced to about 100 palms per hectare (10 metre triangle or 12 metres x 2 metres). This would still allow for a full stand of cocoa or coffee.

4. Smallholder management does not necessarily have to be poor. Extension programmes should be based on the factors that increase grower's incentive to invest their own time, labour and land in economic development.