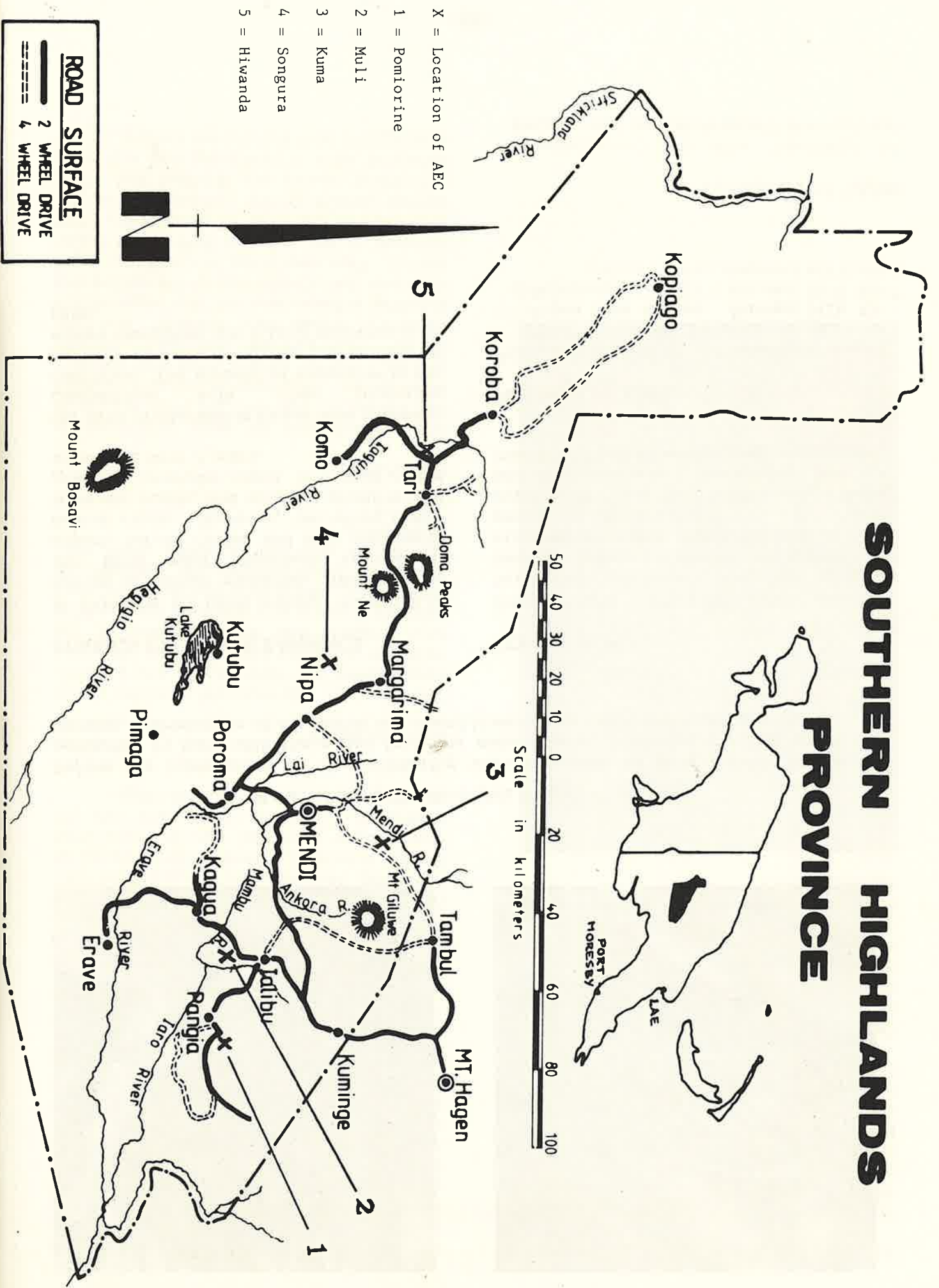


SOUTHERN HIGHLANDS PROVINCE



IMPROVING AGRICULTURAL EXTENSION IN THE SOUTHERN HIGHLANDS

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INTRODUCTION

During 1985, 5 Agricultural Extension Centres (AECs) were established in the Southern Highlands. These AECs are similar to the former D.P.I. base camps, except that all are staffed by a trained didiman (Rural Development Technician). They are also given better support and service from Provincial D.P.I.

The five AECs are funded by the Southern Highlands Rural Development Project (SHRDP), one of the National Development Projects funded by the World Bank. Three of the AECs are former base camps. The other two were research farms of Agricultural Field Trials, Studies, Extension and Monitoring Unit (AFTSEMU) - the agricultural research section of SHRDP. The location of the five centres is shown on the map opposite.

FROM BASE CAMP TO AEC

Around 1970 about 50 D.P.I. 'Base Camps' were established in the Southern Highlands Province to provide an Agricultural Extension service to the villages. There were a number of problems with these base camps:

- In most cases land for the base camp was not bought from the local people, it was 'requested'. This arrangement was not satisfactory.
- There was little support from Provincial D.P.I. Also the base camps were staffed by RDA's or labourers. The lack of qualified staff and support meant that the base camps often had no real impact on the local people.

In 1983, Provincial D.P.I. decided to upgrade the base camp system in order to carry out its policy of developing a proper agricultural extension service. Eighty percent of the people in the Southern Highlands are subsistence farmers. It is the policy of DPI in the Southern Highlands to reach these farmers by moving extension staff who are presently based at district headquarters out to the base camps.

It was decided to give the upgraded base camps a more appropriate name - 'Agricultural Extension Centres'.

FUNDING

Initially, in 1983, it was planned to develop 7 AECs, one in each district. Both the District Management Teams and the Provincial Management Team supported D.P.I. in their proposal. The Provincial Government requested funding from SHRDP.

It was felt that it would be too difficult to establish and successfully operate seven centres. Therefore the number was reduced to three - one from the west, one from the centre and one from the east of the province. The three base camps chosen to be developed as Agricultural Extension Centres were:

- Muli, between Ialibu and Kagua;
- Songura, between Nipa and Margarima;
- Hiwanda, just outside Tari on the road to Komo.

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Funds became available in early 1984. Work started in July. At the same time AFTSEMU was developing its extension work and preparing to hand over responsibility to Provincial D.P.I. Two of the AFTSEMU research farms - Kuma, in Upper Mendi, and Pomiorine, just outside Pangia station - were also developed as AECs. The AFTSEMU team developed the extension work in the AECs, following recommendations from their own research. Management plans were drawn up for each AEC.

AFTSEMU staff, Provincial D.P.I. section heads, and the DRDO's of the districts involved, visited the proposed AECs and prepared plans to establish them.

Two Provincial staff members were appointed as 'AEC co-ordinators' (D.P.I./-AFTSEMU liaison officers). It was their job to oversee the establishment of the AECs and to work closely with the OICs of the AFTSEMU research farms.

AIMS

The aims of the AECs are as follows:

1. To be centres from which an RDT carries out agricultural extension work in the surrounding area;
2. To be demonstration centres for recommended farming practices;
3. To be multiplication centres for seeds, seedlings and cuttings;
4. To provide services to farmers presently only available at district or sub-district offices; for example, sales of fertilizer, pig wormer and pesticides.

Each RDT is expected to spend at least 60% of his time on extension work in the local villages.

FACILITIES

Each AEC has a two bedroomed kit house for the Officer-in-Charge and an office/-storeroom/garage unit. The officer has a



Niay Yamba, OIC, Pomiorine AEC, in front of a corn demonstration.



Meli Kuruma Manda, OIC, Kuma AEC, examines his legume crops.



Raphael Seki, DRDO, Tari (right) and Pulupe Wauwe, OIC, Hiwanda (left) examine part of a kaukau variety demonstration.

motor bike for his extension work in the surrounding villages and he has access to the district D.P.I. truck when necessary. Furniture, office requirements, tools, chemicals and fertilizer were also provided. There are either two or three labourers employed at each AEC.

A land cruiser was provided for the AEC coordinators. They made an advisory visit to each AEC at least once every three weeks.

Staff moved into the AECs during the months of February and March 1985. The initial work was digging ditches and erecting fences, clearing the crops area and constructing bush material animal houses.

ON-STATION ACTIVITIES

Crops

The annual crops area of AEC is divided into ten to twelve blocks, each about 10m x 10m or 10m x 20m. A crop rotation plan was prepared. Thus, at any time a selection of crops is growing.



A view of Songura AEC, showing the layout of the crop blocks (all are 10 m x 10 m) and the fish pond.



Hobol Wep, the OIC of Muli AEC, demonstrates the principles of making compost to local farmers.

These blocks are used for crop demonstrations or for seed multiplication. The demonstrations are based on findings from AFTSEMU research. They are designed to be easily seen and understood by the village farmer.

The crop demonstrations concentrate on the following:

1. Improving soil fertility through the use of locally available animal manure and compost; or by using rates of compost which are higher than those used already;
2. Increasing kaukau yields by introducing higher yielding varieties from other parts of the Southern Highlands, Papua New Guinea and other countries;
3. Demonstrations to show the advantages of recommended practices such as correct spacing, use of fertilizer/-manure with cash crops, advantages of improved varieties, etc.;
4. Demonstrating how to grow introduced vegetables in areas where markets for such vegetables already exist.



A view of the livestock area at Muli AEC. The sheep house is being built on the right; in the centre is the poultry house and in front is the newly dug fish pond.

A block size of between 100 sq. metres and 200 sq. metres is ideal for these demonstrations or for multiplying quantities of seeds/planting materials for distribution in the surrounding villages.

Two of the AECs have small blocks of coffee for demonstration purposes and three have fish pond/duck combinations.

Livestock

Most AECs are stocked with Australorps, a free range, dual purpose breed of poultry, and some sheep or goats. It is planned to establish a herd of 25 ewes at one of the AECs; this is the size of flock recommended for smallholders who wish to specialise in sheep.

Whatever is demonstrated at the AECs must be appropriate and easy for interested farmers to copy. Hence the livestock houses have been constructed from bush materials in the local style and livestock numbers are kept small.

FARMER INTEREST

Local farmers are being encouraged to visit the centres to have a look at the on-station activities. Regular field days are being

held to show farmers the results of the planned demonstrations. Recently two of the AECs held Farmer Field Days and they were well attended by the local farmers.

With the object of establishing better links with the local farmers, it is planned to repeat some of the more appropriate crop demonstrations in the gardens of local farmers near the AECs. At harvest time other farmers will be invited to attend, observe and make their own judgement of the results.

Each AEC sells small amounts of farm inputs such as pig wormer, pig concentrate, fertilizer, etc. There is great demand for this service especially as these items are not available for sale in private stores.

Items available from the AEC are sold and not given away. In the case of farm inputs, the price charged to the farmer covers the cost of purchase by the AEC plus a small extra charge to cover wastage, bags, etc. There is also a small charge for planting materials produced at the AEC. If things are paid for, then they are valued and perhaps looked after better. Advice and instructions are given on their use and demonstrations are held regularly.

An initial stock of farm supplies was

supplied to each AEC. The OIC restocks from the sale money received. He keeps an account of the sales made and other necessary information. A regular check on these records helps the OIC to keep his accounts accurately.

COSTS

Below is a breakdown of the money which was spent to establish the three new AECs together with the 1985 operating costs for the five AECs. These costs do not include the salaries of the officers concerned or the wages of the labourers at the AECs.

Item 4	(Purchase of materials in Govt. Stores and private shops)	K16,382.55
Item 5	(Transport and fuel)	K14,197.08
Item 6	(Special services - land survey)	K 570.00
Item 7	(Capital assets)	K44,713.03
Item 10	(Contract labour)	K 3,030.45
	TOTAL:	K78,893.11

If K2,000 is estimated for the operating costs of each AEC, then the cost of establishing an AEC amounted to approximately K23,000.

FUTURE DIRECTION

The AECs have now been operating for the past year and even at this early stage it is possible to give some advice regarding their future.

1. There must be continual evaluation and development of the AEC system to meet the needs and requirements of

the local people. Unless this is done, the AEC may be a show piece, but of no real educational benefit to the local farmers.

2. The on station activities must not be so time consuming that they prevent the RDT from performing the most important part of his job, i.e. getting out to the local villages for agricultural extension purposes.
3. The local DRDO, provincial DPI sectional heads and the AEC co-ordinator must provide adequate support, guidance and assistance to the OIC of each AEC so that the work at the AEC runs smoothly and is kept relevant to the needs of local people.
4. Every effort must be made to attract the local farmers to come and see what is going on at the AEC, e.g. open days, etc.
5. Off station extension activities must be held in the surrounding villages to make sure that the information from the AECs is getting out to local farmers.

The success of each AEC is very much dependent on the work, dedication and enthusiasm of the individual Officer-in-charge.

The aim is eventually to have one AEC in each of the 14 districts and sub-districts in the Southern Highlands Province.

It is acknowledged that the "AEC system" as it is operating in the Southern Highlands is not a final solution to improving agricultural extension. It is nevertheless one attempt to improve the existing situation.

FURTHER INFORMATION

If readers would like more information about the AECs in the Southern Highlands or have some comments to make about them, please feel free to contact Arnold Andiken, PAEO, D.P.I., P.O. Box 251, Mendi, S.H.P. (PHONE 59 1196).