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DEVELOPMENT
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Reducing poverty and improving food security for smallholder livestock farmers in PNG

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PREMIUM
FOOD AND WINE FROM OUR
CLEAN
ENVIRONMENT



Government
of South Australia



PNG



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ACIAR projects in PNG aim to reduce poverty and improve livelihoods

To overcome poverty, poor farmers need solutions to help produce more and healthy food, create more jobs, achieve self reliance and a larger marketable surplus to increase real incomes



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Village Monogastric Industry

The monogastric sector has a market value of A\$190.5m/annum with 600,000 small farmers.

360,000 pig farmers; 220,000 poultry farmers and 20,000 fish farmers

Farm viability is vulnerable due to the rising costs of imported ingredients and the lack of cheap feed made from local ingredients.



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Village Monogastric Industry

Local feed resources are available that could be utilized better for feeding fish, pigs and poultry.

Encourage the establishment of small feed mills

Manufacture cheaper concentrate diets based mainly on local feed.



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Village Broiler Farmer



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Village Broiler Farmers



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Village Pigs



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Local crossbred pigs

Native pig, *Sus scrofa papuensis*



F1 cross progeny of native sow



Crossbred gilt, 25% native



Crossbred, Large White 50%



Mixed genotype



Large Black sow with F1 piglets



Village tilapia pond



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MADANG villagers involved in trial work



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ACIAR project partners



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Mini feed mills in PNG



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Outcomes from feed mill project

- The research focused on making more effective use of locally available feed resources particularly sweet potato and cassava.
- High and low energy feed concentrates made by feed mills were blended with garden vegetables from villages to reduce feed cost and increase profits for smallholder farmers
- This saving helps to reduce poverty and improve food security for village families.



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Outcomes from feed mill project

- This technology has incorporated the use of mini feed mills to enhance feed processing, blending and production.
- Results of on-farm research with broilers using this technology have been promising with savings in feed cost of up to 30 percent.
- Results with growing pigs and tilapia have also been successful.



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Sweet potato based diet



Collect and wash tubers



Boil



Drain and cool



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How to prepare sweet potato based diet



Mash the boiled tubers
Mix one part of concentrate
with three parts of sweet
potato



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Sweet potato silage



SUMMARY

- The ACIAR feed mill project has shown that diets using mainly local feed resources can be prepared by mini feed mills and result in cost savings for pig, poultry and aquaculture farmers.
- The Centre for Knowledge Development in the Netherlands has selected the low cost feeding system for smallholder semi-commercial broiler chicken farmers as one of the top 20 innovations for smallholder farmers in African, Caribbean and the Pacific Countries.



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