PEOPLE • IDEAS • A MORE RESILIENT PACIFIC

From islands' resources to shared opportunities

AI decision support for turning agri-food waste into value

Pacific Island delegation • 23 October 2026

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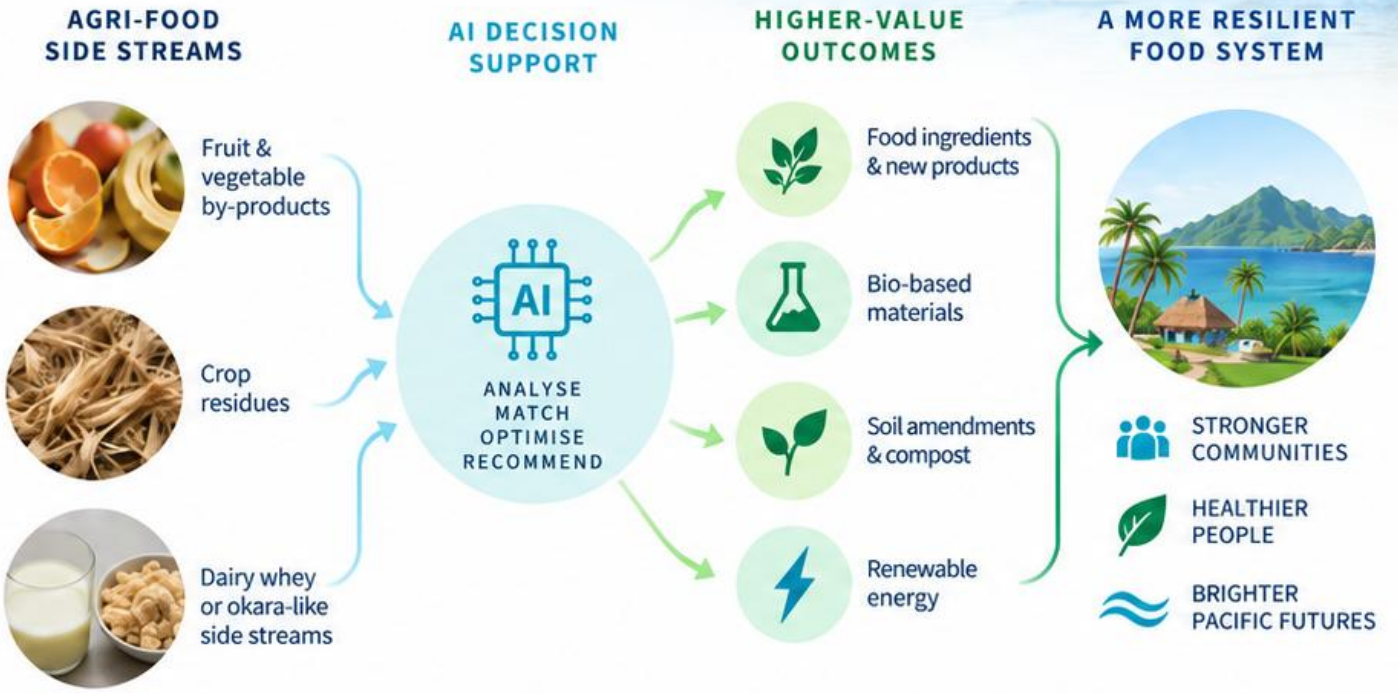
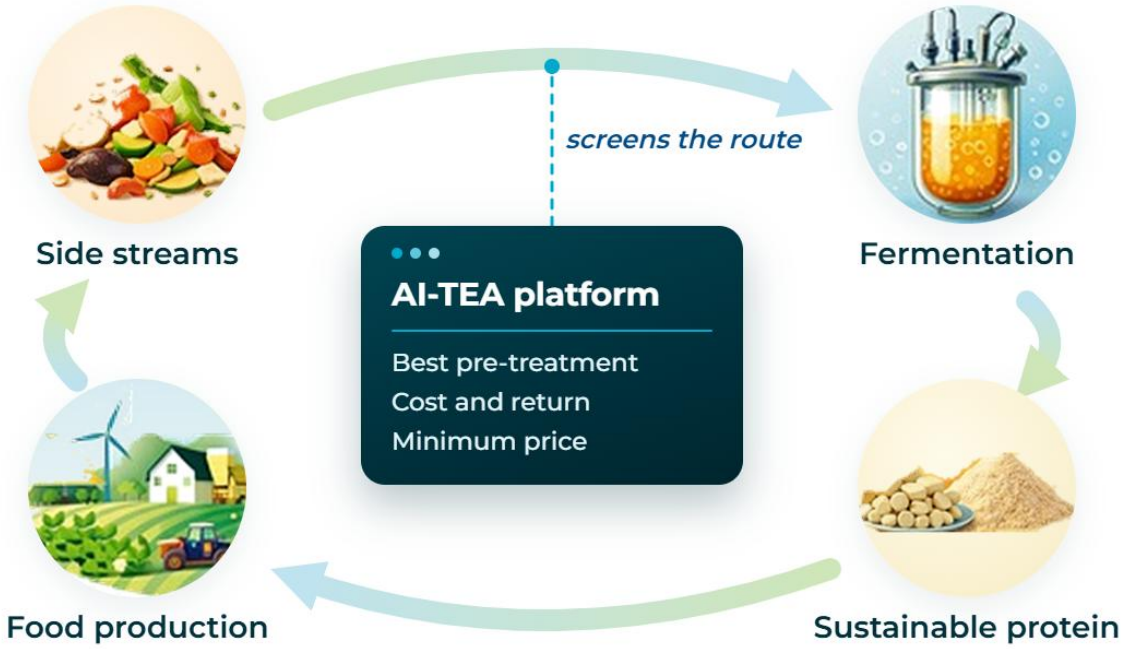


From resource to decision

Screening which local by-products are worth turning into protein



PACIFIC BY-PRODUCTS IT COULD SCREEN

- Sugarcane molasses and bagasse
- Cocoa pod husks and coffee pulp
- Coconut by-products
- Cassava and taro peels
- Tuna processing by-products

From islands' resources
to shared opportunities

How the decision support works

PHYSICAL / TECHNICAL PATHWAY



Agri-food side stream

Composition data

Pre-treatment options



Fermentation



Protein / ingredient



Protein-enriched foods & drinks

DECISION-SUPPORT WRAPPER

INPUTS

- Scientific evidence
- Local data
- Human expertise

AI / MODELS / ECONOMICS

- **AI**
- **Process models**
- **Cost & return**

OUTPUT

Decision

pathway worth testing

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to shared opportunities

The bottom line

Know which local by-products could become food and income, before you invest



Stronger food security

More protein made locally, less reliance on imports when shipping or harvests are disrupted.



New local livelihoods

New products and jobs from by-products that are now thrown away.

Smarter investment

Test options on screen first, so scarce funds go to the pathways most likely to work.

Decision question: What could this local resource become, and is it worth pursuing?



Questions for the Pacific context

Where could this help your food system most?

- What is produced locally?
- What is currently wasted or low-value?
- Where is the biggest food-system vulnerability or import dependence?
- Which pathway is worth testing first?

First step: choose one local by-product and test it together, with local data.