COFFEE INNOVATION
Kiwari Specialty Instant Coffee
Consumer-Ready Coffee Products Created in Producing Communities
High quality coffee is difficult to prepare at home and profits are concentrated away from the farmers and producers. In Indonesia, home coffee making equipment is unusual and expensive, and commercial instant coffee is ubiquitous, cheap and widely available.

A group of young farmers established and developed Kiwari, a coffee cultivation business, in Mount Manglayang, Bandung district, West Java Province. Starting from a 0.5 hectare coffee plantation, Kiwari now manages 15 hectares and is expanding its business downstream to connect farmers more directly with consumers.

**OVERVIEW: SMALL BATCH INSTANT SPECIALTY COFFEE**

**CHALLENGE**

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**COMPANY DESCRIPTION**

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**INNOVATION**

**TRANSPARENT AND INCLUSIVE BUSINESS MODELS**

Create a process for transforming specialty coffee into small batch instant coffee, increasing value addition and return to farmers, maintaining the coffee quality with eco-friendly packaging and engaging more directly with local consumers.

**COST-BENEFIT ANALYSIS**

**COSTS**

- EQUIPMENT: USD$34,000
- PACKAGING: APPROX. USD$0.75 PER UNIT
- OVERHEAD / UTILITIES: 150% OF COGS

**EFFECTS ON REVENUE**

- TBD

**EFFECTS ON YIELD**

- NONE EXPECTED

**PREPARATION**

**TIMELINE**

1-3 MONTHS

**MATERIALS & EQUIPMENT**

- GREEN OR ROASTED COFFEE
- PACKAGING AND PACKAGING MACHINE
- FREEZE DRYING MACHINE 50L
- ESPRESSO MACHINE AND GRINDER

**STAFFING REQUIREMENTS**

1 FT

**LESSONS LEARNED**

**CHALLENGES**

Finding eco-packaging to meet their requirements for product delivery. Maintaining unique flavor of specialty and finding the correct brewing parameters. Calibrating equipment and product to find optimal texture for conveying flavors and quality as well as use of use.

**TAKEAWAYS**

- Initial product development and equipment procurement and testing take much longer than expected.
- It is difficult to determine pricing for a new product like instant specialty coffee and to market it because of the big disparities in price and quality of products consumers can choose from.
RESULTS

As a result of Kiwari’s trial,

20
FARMERS IMPACTED

15 hectares
TRIAL PRODUCED 4 TONS

5 years
RETURN ON INVESTMENT
IMPLEMENTATION

1. BREW THE COFFEE
   Extract your coffee as espresso with a 1:3 ratio, adjusting the brewing parameters to bringing out the unique flavors you want to have in your instant coffee.

2. FREEZE DRY THE COFFEE
   This involves freezing, primary drying and secondary drying through sublimation using a specialized machine.

3. TEST THE COFFEE POWDER
   Test the resulting instant coffee powder for flavor, aroma, texture and shelf life.
Recipe for Instant Coffee Powder (Trial Stage)

Coffee Brewing at 1:3 → Coffee extract → Freeze Drying (4 days, vacuum pressure 0.0098 mbar, -83°C) → Instant Coffee Powder

Yield during trial → 15 g instant coffee powder per 1 L coffee extract

*Result can be different depends on the operating conditions and drying machine
For further information:
Kiwari
Irfan Rahadian
irfanrahadians@gmail.com
https://www.facebook.com/kiwarifarmers/
@kopi.kiwari

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Deutsche Gesellschaft für
Internationale Zusammenarbeit (GIZ) GmbH

Registered offices
Bonn and Eschborn
Dag-Hammarskjöld-Weg 1-5
65760 Eschborn
T +49 61 96 79-0
F +49 61 96 79-11 15
E info@giz.de
I www.giz.de

E info@giz.de
I www.giz.de

Editors:
Kiwari and Jen Green, Jakarta

Design:
Vanna Sann, Phnom Penh

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Kiwari & Jen Green

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MISSION
The Fund’s objective is to increase profitability of small-holder coffee farmers, and foster greater, more equitable value distribution in the supply chain through promoting innovative farming systems, transparent and inclusive business models, and access to new markets.