



Business model for rice straw compost production

Oudom Soriya Cooperative

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Background: Testing the production of rice straw compost at Oudom Soriya Cooperative

- Assessments of current practices and context
- Mechanized rice-straw-based compost production
- Support for doing the pilot through to marketing
- Business model study (Phum Impact BB)





Characteristics
of the business

Name of AC	Oudom Soriya
Management member	5 People
Name of Business	Oudom Soriya organic fertilizer
Product	Rice straw compost
Customer profile	Members of the AC, Other ACs in Takeo province, plant and flower sellers, fruit tree farmers and agricultural development project
Production capacity	100 tones per year
Location	Taso Village, Oudomsoriya Commune, Donkeo District, Takeo Province



Key partnerships and market segments

- Agricultural development projects (Helen Keller, IRRI)
- PDAFF, local authority
- Oudom Soriya AC members and farmers from nearby villages (rice and vegetable)
- Member of AC network (Angbaksey AC, Tropoeng Srongae AC, Tropoeng Krolanh AC, Tropoeung Krokhoung AC, Champa Pdao AC, Osarai AC, Plao Lok AC)
- Fruit farm owners
- Fertilizer distributors
- Plant and flower sellers (horticulture)





Value proposition

- Composting with microorganism (bulk of compost available in shorter time)
- Benefiting biodiversity and the environment
- Consumer health, and health of communities (no burning)
- Improve soil quality – fertilized soil, retain moisture
- Using local materials, by products
- Possibility for legal registration and laboratory check

Cost (for 32 tons production) and implications



Description	QTY	Unit	Unit price-Riel	Total-Riel	Total-\$\$
Cow manure	11100.00	kg	443.20₭	4,919,570.82₭	\$ 1,229.89
Rice Straw	7080.00	kg	445.00₭	3,150,600.00₭	\$ 787.65
Rice husk ash	7196.50	kg	60.00₭	431,790.00₭	\$ 107.95
Coconut coir	5275.00	kg	930.64₭	4,909,126.00₭	\$ 1,227.28
Microorganism Inoculant	8	Liter	1,600.00₭	12,800.00₭	\$ 3.20
Molasse	80	Liter	7,000.00₭	560,000.00₭	\$ 140.00
Trichoderma	40	kg	40,000.00₭	1,600,000.00₭	\$ 400.00
Labor cost	48	Person/day	50,000.00₭	2,400,000.00₭	\$ 600.00
Bag-25 kg	1284	bag	600.00₭	770,400.00₭	\$ 192.60
<i>Depreciation per cycle (for fixed cost)</i>					\$1,357.24

Selling price of the compost:

- 285– 300 USD per ton (bulk, excluding the delivery cost)
- 320–330 USD per ton for retail

Profit for the cooperative

Profit per ton: 136 USD
Break even: 3,169/yr, 11 years



Key learnings

- Production cost was high due to high cost of raw materials
- Need to bring production closer to source of straw (reduce logistical costs)
- Difficulties in mobilizing labor
- Branding, building linkages among agricultural cooperatives and input suppliers
- Need for clear segmentation of market, and market strategy for each segment