Business Models and Opportunities for Rice Straw Mushroom Production



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Training on Rice Straw Mushroom Production

Project: Scalable straw management options for improved livelihoods, sustainability, and low environmental footprint in rice-based production systems



Funded by BMZ M



Value chain of rice straw mushroom production



Business model: rice straw mushroom production

 Key Partners Members of farmers group Private sector NGO assisting with organizational issues Bank Policy makers 	Activities • Collection • Transportation • Storage • Mushroom growing • Processing • Marketing • Marketing • Rice straw • Infrastructure • Labor • Supplies	 Value Proposition Add value to rice production Generate other BM, e.g. fabricators, spore suppliers, etc. Reduce environmental footprint caused by bad practices (burning, incorporation) 	Customer Relationships: Contracts with 1.Farmers for straw 2.service providers for straw, collection, etc. 3.Processing companies 4.Traders/exporters 5.Processing nushroom	Customer Segments 1. Farmers 2. Related resource suppliers 3. Community 4. Processing producers 5. Traders/ exporters
Cost St	ructure	Profit	Revenue So	t reams
Land used, deprecia	ation, maintenance,		Income from	n sales
interest, energy, la	abor, marketing		Income from servi	ice provision

Rice straw availability (feedstock)

Province	Rice	Estimated rice	% of rice straw
	production,	straw, 1000 t	burning in the field,
	1000 t		
(Mekong Delta)			
Bac Lieu	990	594	50 – 70%
Ca Mau	550	330	70 – 80%
Can Tho	1,360	816	30 - 50%
Kien Giang	4,400	2,640	60%
Soc Trang	2,100	1,260	60 - 80%
Tra Vinh	1,000	600	70%
(Central /Northern VN)			
Quang Ngai	100	60	20%
Vinh Phuc	335	200	20%

Source: Nguyen Van Hung et al., 2013



Market of rice straw now



Year	Spread in the field (\$US/ha)	Baled straw at the field (\$US/ton)	Baled straw at the market (\$US/ton)
2013	15	96	115
2014	20	80	100
2015	30	62	95



Compress 10 roll-bales → 1 square bale

Or fermented-

packaging



Increase bale density by 400% (94 → 390 kg m⁻³). → Reduce transportation cost by 60% for a 60 km driving distance using trucks. →Net profit \$US 6.2/ton (for compressing)

Source: TGU, NLU and IRRI, on-going research

Cost-benefits of rice straw mushroom growing





Business model design process (adapted from Glenn's presentation)

Activities	Key success factors	Key dangers
1. Mobilization: preparation		
 Frame project objectives. Test preliminary business ideas Plan Assemble team 	Appropriate people, experience, and knowledge	Overestimating value of initial idea(s)
2. Understanding: Research and ana	lyze the elements nee	eded
 Scan environment Study potential customers Interview key personnel/experts Research what has already been tried (e.g. examples of failures and their causes) Collect ideas and opinions 	 Deep understanding of potential target markets Looking beyond the traditional boundaries delinking target markets 	 Over-researching → disconnect between research and objectives Biased research because of precommitment to certain business idea

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Partnership

CGIAR

IKK

Business model design process (con't)

CGIAR

Partnership

Activities	Key success factors	Key dangers
3. Design: Adapt and research	modify the business model in re	esponse to market
 Brainstorm Prototype Test Select 	 Co-create with people from across the organization Ability to see beyond status quo Efforts to explore multiple business model ideas 	 Watering down or suppressing bold ideas Falling in love with ideas too quickly
4. Implementation: Im	plement the business model pre	ototype in the field
Communicate and involveExecute	 Best practice management Ability and willingness to rapidly adapt the business model Align "old" and "new" business models 	Weak of fading momentum
Global Rice		- 20

Business model design process (con't)

IRR

Global Rice Science Partnership

CGIAR

Activities	Key success factors	Key dangers	
5. Manage: Adapt and modify the business model in response to market reaction			
 Scan the environment Continuously assess your business model Rejuvenate or rethink your model Align business models throughout the enterprise Manage synergies or conflicts between models 	 Long term perspective Proactiveness Governance of business models 	 Becoming victim of your own success, failing to adapt 	



Thank you

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