



# VKP – Idea for Change Challenge

Need Assessment of Innovative Enterprises



# Innovations Covered under Needs Assessment

Sl. No	Name of the Project	Name of the District
1.	Production of Bio Seed Role	Chengalpattu
2	Banana Sakthi “Micronutrient mixture for Banana Crop”	Trichy
3	Lantana briquette making products	Erode
4	Water hyacinth value addition products	Thoothukudi
5	Food on wheels (EV Food Truck)	Chengalpattu
6	IOT mushroom cultivation	Nagapattinam
7	Biodegradable cups using Rice Bran and Coir pith	Namakkal
8	Biodegradable cups using Groundnut shell	Villupuram
9	Biodegradable Sanitary Napkin Production	Salem and Thiruvannamalai
10	Pottery Kiln Project	Sivagangai

# Summary problem statement matrix\*

Theme/ Innovation	Bio Seed roll, Chengalpattu	Banana Shakti, Trichy	Water hyacinth value addition products, Toothukudi	Lantana briquette making products, Erode	Food on wheels (EV Food Truck), Chengalpat tu	IOT mushroom cultivation, Nagapattinam	Biodegradable cups using Rice Bran and Coir pith, Namakkal	Biodegradable cups using Groundnut shell, Villupuram	Biodegradable Sanitary Napkin Production, Salem and Thiruvannamalai	Pottery Kiln Project, Sivagangai
<b>Market Linkage</b>	Sale of Bio Seed roll	Sale of Banana Shakti micronutrient	Sale of handicraft products made from WH	Sale of Lantana briquette		Sale of Oyster Mushrooms	Sale of the cups	Sale of the cups	Sale of the napkins	Sale of the pots
<b>Product Development and Branding</b>	Promotion of bio seed roll	Better packaging and branding of FPO products	Branding as river saving sustainable solution and promotion of products/ group		Branding and promotion of products/ group	Branding as organically produced and promotion of products/ group	Better product design for cups and branding	Better product design for cups and branding	Improved Branding, packaging and promotion of products	GI tag Branding and promotion of products/ group
<b>Processing Technology</b>	Single mould machine for bio seed roll	Packaging machine	Heater to dry the plant stalks	Shredder (3mm), Briquette making machine	Upgraded EV food truck	Cold storage of Mushroom Spawn (seed)		Need a smaller cup making machine of ~8 HP as power is an issue	Fully Automatic machine to develop different sizes of napkins	Heater/storage to dry the pots
<b>Raw material procurement</b>	In-house preparation of compost from municipality waste	Raw material storage (Zinc and other chemicals)	Water hyacinth harvester	Safety kit, Storage space for Lantana		Different varieties of spawn				Sustainable sourcing of clay
<b>Waste to Value (W2V)</b>			W2V solutions for degraded stalks			W2V solutions for used casing	W2V solutions for discarded rice bran and coir pith		W2V solutions for rejected pieces	
<b>Legal and accounting services</b>	Biodegradable Certification	Fertilizer sale license and ERP			Licenses to run the truck	FSSAI license	Biodegradable Certification	Biodegradable Certification	Biodegradable Certification	

\*Detailed problem statements of the innovative enterprises provided in the following slides

## Key Problems Faced

1. **Market Linkage** : Currently selling to local nurseries and exploring options with forest department but lacks consistent buyers
2. **Branding** : Unable to position the product adequately in the market and convey its uniqueness to target potential buyers. They are considering to improve visibility by adding the EG name with the product name and revising it as bio plant roll instead of seed roll.
3. **Processing Technology**: Current machine has a mold with 9 cones with slightly variable sizes leading to inconsistency in product size irregularities and thickness issues leading to more rejected pieces. Need to develop a single mold-based machine for product standardization.
4. **Raw material procurement** : Procurement of municipality compost incurs logistics cost in addition to the high price of raw materials. Lacks capacity for in-house preparation of compost from municipality waste.
5. **Legal and accounting services** : Need certification to prove biodegradability

## Other problems

1. Lack of awareness among potential consumers
2. Availability of cheaper alternatives.
3. Lack of willingness to pay 20 Rs for one seed roll among customers (exploring the possibility of planting multiple seeds for tomatoes, and chilies may be useful)
4. Limited customer base: Customers are primarily plant nurseries. (Also approached marriage halls to promote the idea of providing bio seed roles as return gifts for marriage)
5. No advertising, limited mouth publicity, no website, no social media

## Key Problems Faced

1. **Market Linkage:** Lack of large bulk orders. It is sold in local shop or in VKP stall
2. **Branding :** Better packaging and branding of FPO products. They currently use aluminium foil and printed paper which increases the cost, needs bulk printing and branding.
3. **Processing Technology :** Packaging machine
4. **Raw material procurement :** Raw material storage for (Zinc and other chemicals). Zinc is very fissile material and needs dry storage space
5. **Legal and accounting services:** To sell to input dealers, they need Fertilizer sale license and ERP

## Other problems

1. Lack of awareness
2. Lack of advertising
3. Transportation: Their sales method is through field demos for which they need to travel to different villages

## Key Problems Faced

1. **Market Linkage:** There are a few enquiries from companies but no final quotes. Needs support in the sale of handicraft products made from Water Hyacinth.
2. **Branding :** Branding as river saving sustainable solution and promotion of products/ group
3. **Processing Technology :** Heater to dry the plant stalks
4. **Raw material procurement :** High raw material cost - The method to collect raw material is very difficult and due to this their cost for procurement is very high. High wastage - only about 20-30% of the raw material purchased is converted to the products. The raw material is harvested during rainy season, but there is no storage or shed for drying the stalks.
5. **Waste to Value (W2V) :** W2V solutions for degraded stalks

## Other problems

1. The price of the product is too low to get profits
2. There is variation in the quality of the products made by each weaver, additional training needs to be provided for selecting right raw material, weaving different designs and creating high quality products
3. To ensure the product is long lasting, training and support is required to apply water resistant and heat resistant finishing

## Key Problems Faced

1. **Market Linkage** : Currently sold in loose to local briquette factories. Planning to scale it up to making Lantana briquettes.
2. **Processing Technology**: Current shredder produces lantana shreds of 8mm while market standards are 3mm. The machine needs modifications. Machinery and infrastructural support for briquette production also needs to be installed
3. **Raw material procurement** : Need for improved safety kits to prevent injuries while cutting. Currently lantana is stored in open air. Storage space for Lantana to control moisture levels is needed. Also collection and transportation is manually done as headloads reducing the efficiency.

## Other problems

1. Collection, shredding and storage of Lantana is challenging during rainy season
2. Forest department permissions for cutting lantana

## Key Problems Faced

1. **Market Linkage** : The key product is D' Lite Masalas. Seasonal nature of demand peaking during festival seasons. To address this, they have diversified into sale of cooked food and baked items under *Tinnal kitchen initiative*. However there is a lack of online presence and other modes of customer acquisition.
2. **Branding** : Branding and promotion of products/ group. Current Paper bag-based packaging costs 8 Rs / Kg, seemed less appealing, with labels only in Tamil. Brand story of the product is not communicated effectively to the customers.
3. **Processing Technology**: Upgraded/ Modified EV food truck as the current truck has stability issues and loses balance due to extra fittings. Therefore difficult to stand on the platform and sell for longer duration. Mentally challenged members cannot be sent to sell on the truck without supervision.
4. **Legal and accounting services** : Licenses to run the truck

## Other problems

1. The customer base is primarily donors and local well-wishers
2. Lack of proper marketing channel / dedicated personnel and lack of funds for marketing: Relies on mouth publicity - no advertising or social media usage. No website, no online sales
3. Higher price in comparison (50 Rs. / packet), customers tend to buy cheaper substitutes
4. Cost of production/packet = 38 Rs, shops purchase only a minimum quantity and demand a commission of 5 - 6 Rs./ packet which reduces their profit margin. Negotiations with shopkeepers on reducing commission were unsuccessful.
5. Relies on grants and CSR funds to cover operational costs, but hasn't explored partnerships or networks that support products made by specially-abled people.



## Key Problems Faced

1. **Market Linkage:** Low demand for Oyster Mushrooms while there is high demand for milky mushrooms in the region
2. **Branding:** Sold mostly in the village and local shops as loose product. Though produced organically, there is no branding or promotion of the products / group
3. **Raw material Procurement:** Lack of availability of different varieties of spawn. Spawns are available only from TNAU Coimbatore and that too for oyster mushrooms.
4. **Legal and Accounting services:** They need FSSAI license to produce and sell to companies
5. **Processing Technology:** Lack of cold storage of Mushroom Spawn (seed). Spawns need to be refrigerated and stored in a proper container else they spoil in a week
6. **Waste to Value (W2V) :** W2V solutions for rejected pieces

## Other problems

1. Lack of record management system

## Key Problems Faced

1. **Market Linkage** : Need for regular orders from bulk buyers
2. **Branding** : Better product design for cups and improved branding. The rice bran cups have better finishing and smoother appearance than ground nut shell cups. The EG has experimented making cups with sugarcane bagasse, lemon grass etc. Finished products looked usable but hasn't been promoted effectively.
3. **W2V solutions** : W2V solutions for discarded rice bran and coir pith
4. **Legal and accounting services** : Need for Biodegradable Certification

## Key Problems Faced

1. **Market Linkage** : Only the pilot is over. Production and sale of the cups have not started in full capacity. Currently there are no buyers for the product.
2. **Branding** : Better product design for cups and branding support. Willingness to pay is low among buyers due to lack of proper messaging and high cost. Buyers are asking to reduce price from 1.5 Rs / cup to 80 paisa.
3. **Processing Technology** : Ground nut cups soften within 15 - 20 minutes of usage. Leakage issues have also been indicated. Power related issues regarding the cup making machine as there are multiple machines functioning simultaneously in the same unit. The machine needs to be of less than 8 HP while currently it takes around 15 HP. Frequent power cuts also affect production.
4. **Legal and accounting services**: Need for Biodegradable Certification

## Key Problems Faced

1. **Market linkage:** To improve sales, marketing through SHG's has been explored but there are limited buyers for the product.
2. **Branding :** The branding and packaging of products are under SANFED which reduces unique value proposition of the EG.
3. **Processing Technology :** The current mould doesn't allow for producing diverse sizes as per market demand. Able to produce only pads in one size (320 mm) with wings. Semi-automatic machine has heating issues, less efficient, there is smell during production. Pads produced in automatic machines are softer, so customers prefer smoother pads available in the market.
4. **Raw Material Procurement:** Lack of availability of raw materials locally- demand based purchase from Mumbai, Hyderabad. Lack of quality assurance mechanisms in place to assess raw materials.
5. **Legal and accounting services :** Medical shops are demanding scientific proof for the product. There is no certification for biodegradability.
6. **Waste to Value (W2V) :** Proper disposal of rejected pieces is a challenge. To ensure waste to value solutions for rejected pieces, pillows were tried out.

## Other problems

1. **Price related:** Retailers are unwilling to pay 7Rs / pad.
2. Training and Technical skill support
3. **Scientific Evidence :** Lack of scientific evidence of % of biodegradability that can be claimed and the benefits of herbal pads produced in Thiruvannamalai.

## Key Problems Faced

1. **Market Linkage** : The pots are sold in local markets to traders and wholesalers based on requirements but there is a lack of consistent demand.
2. **Branding** : GI tag Branding and promotion of products/ group is not being realized. The pots are sold to traders and wholesalers at very low cost, while they are not utilising the GI tag received by the region to brand their products
3. **Processing Technology** : Lack of Heater / storage unit to dry the pots. There is increasing demand for pots during rainy season due to festivals but drying of pots is a challenge as there is no storage or quick drying solutions.
4. **Raw material procurement** : Sustainable sourcing of clay

## Other problems

1. Lack of access to good raw material. Collection of clay from the riverbeds is an environmentally sensitive topic.
2. Soil crushing machine could be made more efficient by having machine with 2 rollers