

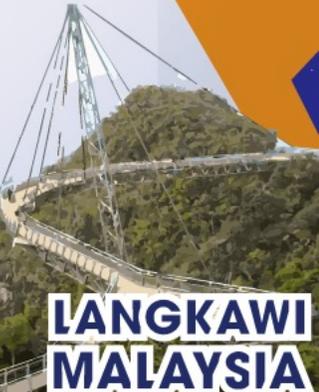


AIGIF 2023
ASEAN-Ind a Grassroots Innovation Forum
Langkawi, Malaysia

SEMINAR B THEME:
“RURAL ENTREPRENEURIAL AND INNOVATION”

**“Pioneering the *In Situ* Incubation Model
for Rural Grassroots Innovation Based
Entrepreneurship”**

by
DR. NITIN MAURYA



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1925, Trivandrum (now Thiruvananthapuram), India

“we cannot live without science”, but we should be accountable in some way

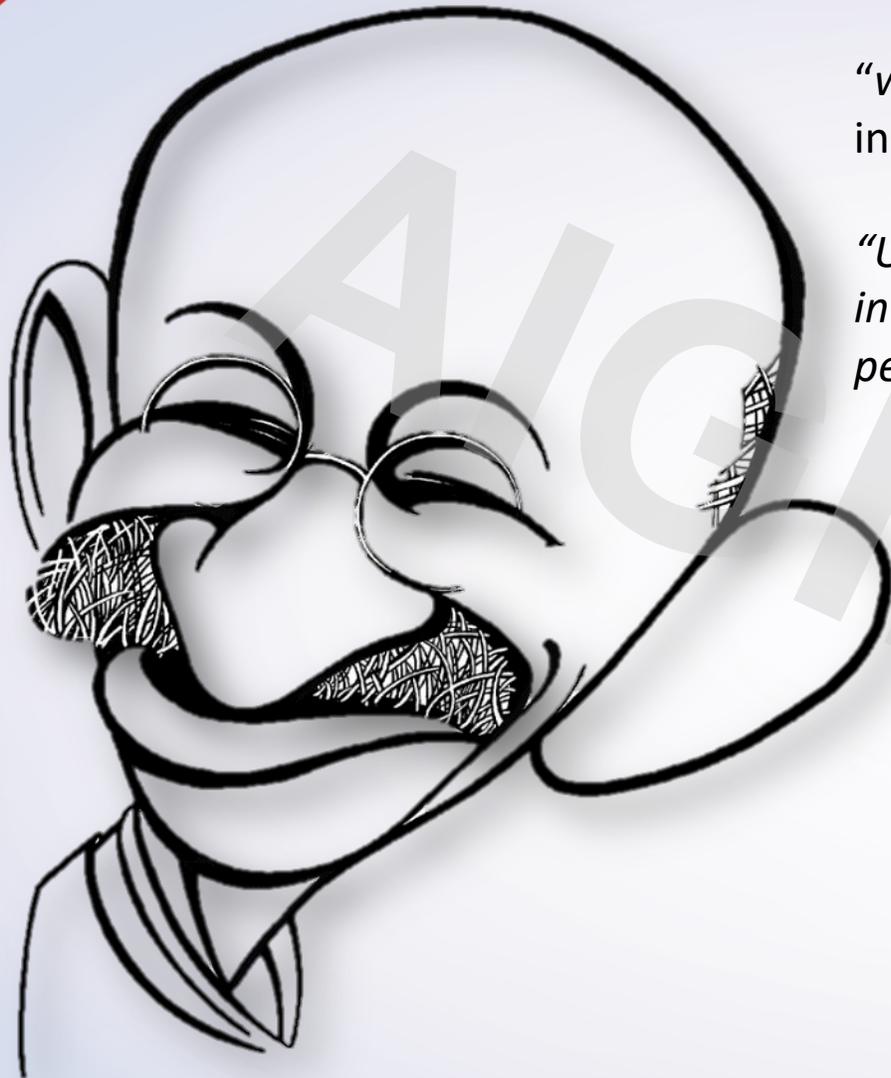
“Unfortunately, we, who learn in colleges, forget that India lives in her villages and not in her towns. How will you infect the people of the villages with your scientific knowledge?”

less-harmful technologies, manufacturing on a more human scale vs. resource intensive, industrial scale manufacturing

Long term view of development with human at its center

Judicial use of natural resources – harmonious coexistence of man and nature

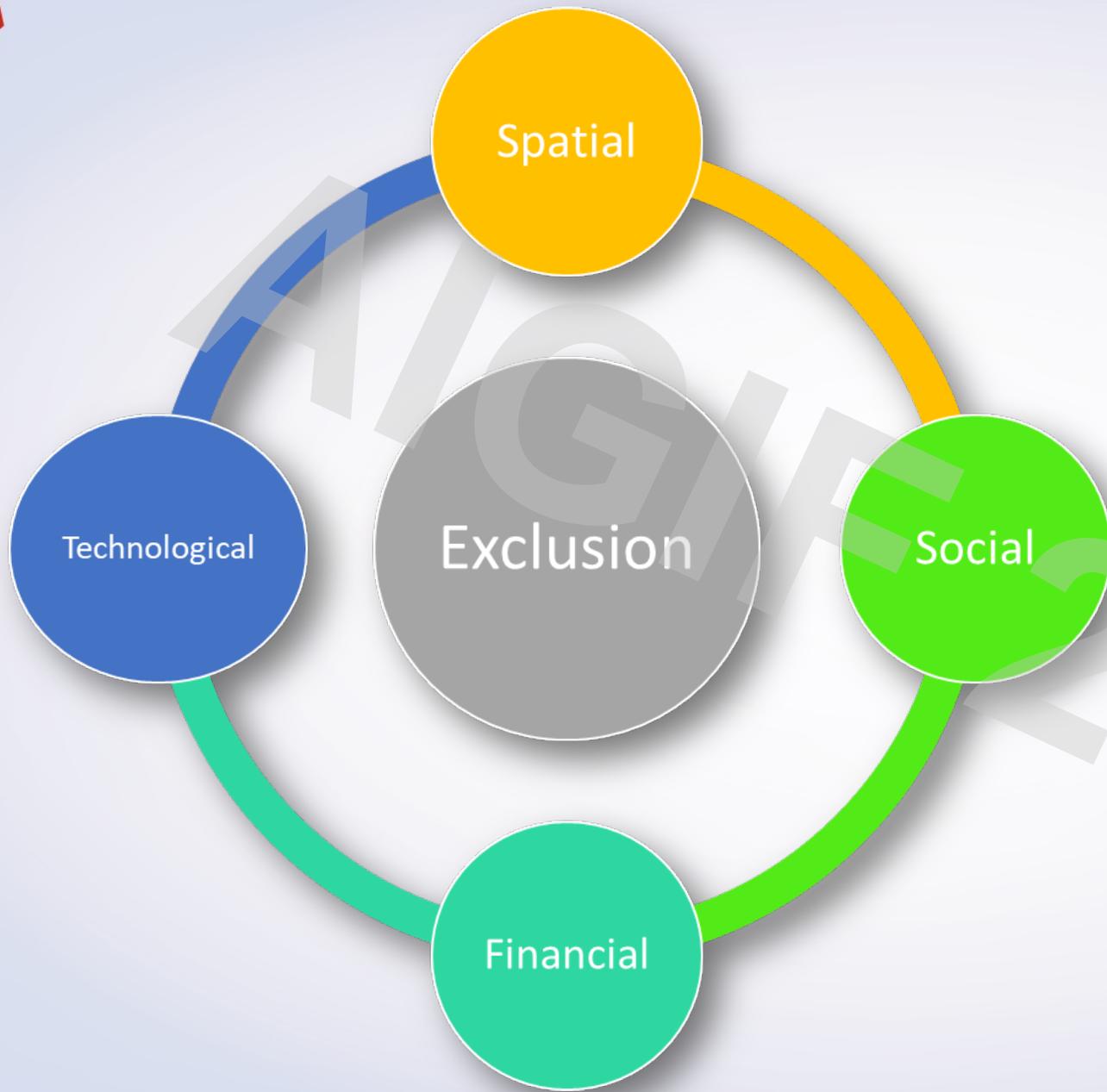
Self-help, self-reliance, decentralization of industries and labour intensive technology



Source: <http://gandhistory.in/caricature.php>



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Balancing the asymmetry through grassroots innovations – new ideas, new products, improvement in existing products



Grassroots Innovations

Dimensions

Innovations *at*
grassroots

Innovations *by*
grassroots

Innovation *with*
grassroots

Innovation *for*
grassroots

The *In-situ* model of innovation incubation

- Not expecting the innovator to visit office – No passive approach
- Ascertaining all the needs and requirements at the place of the innovator – Proactive approach
- Providing all required services and support at the doorsteps of innovator
- Allowing innovation to 'grow' in the context it originated – supporting innovation based enterprises

How
Grassroots
Innovations
create
social
impact

Increase in income

Increased livelihood opportunities

Reduction/ elimination of drudgery, child labour

Improvement in efficiency

Improved access to information, products & services

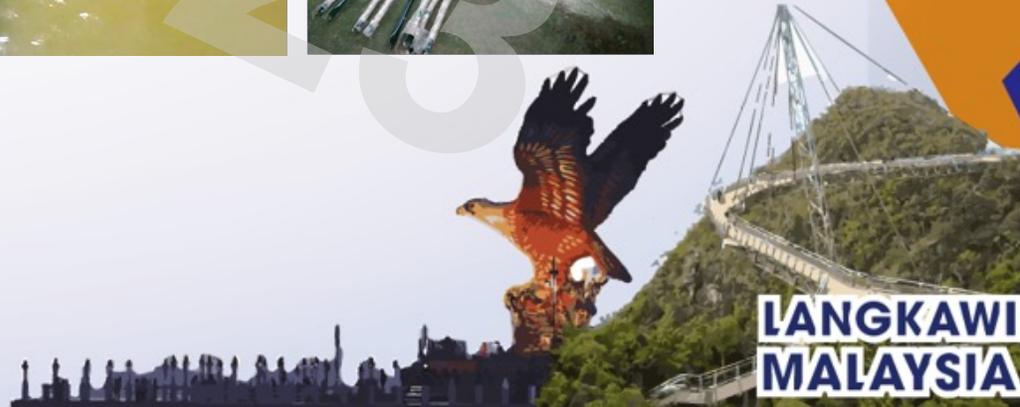
Improved health & sanitation

Simple

Incremental

Unique

Simple



Incremental



Unique





“Mitticool”

Mansukhbhai Prajapati, Gujarat, INDIA



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Product Portfolio

- Non stick clay Tawa (griddle), clay cooker, Dinnerware , water filter, Mitticool Refrigerator, Mitticool Home & Building Décor

Bureau of Indian Standards (BIS) , National standard authority of India approved first standards for grassroots innovation – Non Electric Clay Cabinet (Mitticool Refrigerator developed by Mansukh Prajapati

A case of bringing grassroots innovation into mainstream through Policy Intervention by NIF

Free Standard provided by BIS via BSB Edge Private Limited to Prakash Bachani - Ahmedabad.(prakashsvj@yahoo.co.in) 14.139.112.34 [for non-commercial use only].

भारतीय मानक
Indian Standard

IS 17693 : 2022

क्ले से बने अविद्युतीय प्रशीतन कैबिनेट

Non-electric Cooling Cabinet
Made of Clay

ICS 97.040.30

© BIS 2022



भारतीय मानक ब्यूरो
BUREAU OF INDIAN STANDARDS
मानक भवन, 9 बहादुरशाह जफर मार्ग, नई दिल्ली – 110002
MANAK BHAVAN, 9 BAHADUR SHAH ZAFAR MARG
NEW DELHI-110002
www.bis.gov.in www.standardsbis.in

February 2022

Price Group 2

BIS granted the 1st ever license to a grassroots innovation based enterprise - M/s Mitticool Clay Creation
Grassroots Innovator : Shri Mansukh Bhai Prajapati



केन्द्रीय मुहर विभाग - III

हमारा संदर्भ- केन्द्रीय मुहर विभाग-3/16: IS 17693

२७ जनवरी २०२३

विषय: IS 17693 के अनुसार अखिल भारतीय प्रथम लाइसेंस का अनुदान

उपरोक्त विषय से संबंधित संलग्न परिपत्र सभी संबंधितों की जानकारी के लिए परिचालित है।

राकेश कुमार
वैज्ञानिक डी/ संयुक्त निदेशक (के मु वि -III)

प्रसूख (सी एम डी-III)

सभी संबंधितों को परिचालित
आई टी एस विभाग – वीआईएस वेबसाइट पर "न्हाट्स निऊ" अपलोड करने हेतू

CENTRAL MARKS DEPARTMENT-III

Our Ref: CMD-3/16: IS 17693

27 January 2023

Subject: Grant of All India First Licence for "Non-electric Cooling Cabinet Made of Clay" as per IS 17693: 2022

Circular on the above subject is being issued for information to all concerned.

(Rakesh Kumar)
Scientist D/ Joint Director (CMD III)

Head (CMD - III)

Circulated to: All concerned for information
Copy to: ITS for hosting on BIS website under "What's New" Tab



Technology Diffusion – from Street vendor to Exclusive Showrooms



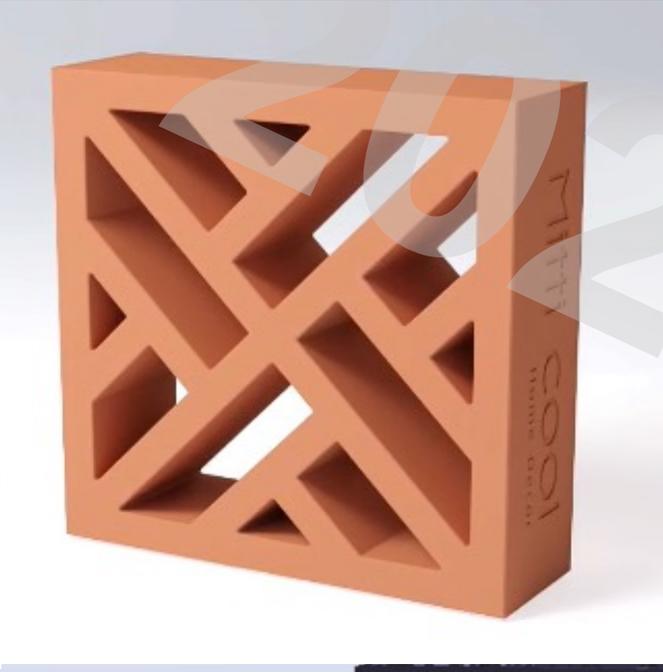
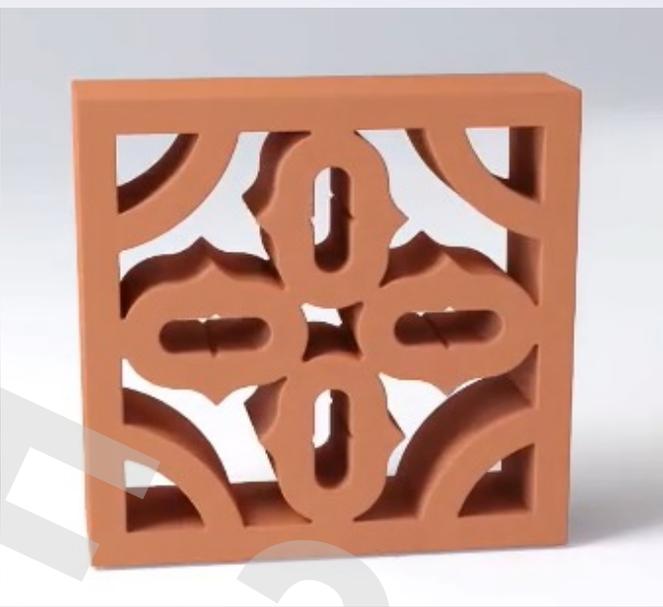
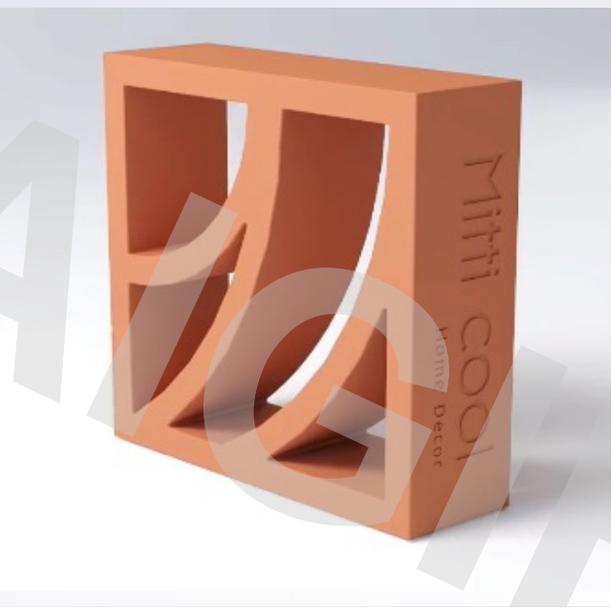
Mitticool Abroad

Showrooms (in Franchise mode)

- *Australia*
- *Dubai*
- *Saudi Arabia*
- *Oman*
- *South Africa*
- *Taiwan*



Mitticool Home Décor - Portfolio expansion and Diversification keeps innovator ahead of competitors



NIF's role in elevating its impact

Improving the TRL

(Technology Readiness Level) leading to greater acceptance of product by the end user

Business Development

through strategic marketing inputs & growing sales both through online and offline mechanisms

Secure the required BIS standard

which would lead to other benefits like (a) Facilitation of trade and commerce (b) Improvement of processes and making them more efficient (c) Guidance in consistent functioning and quality (d) Simplifying comparison of products and services (e) Promoting further technological developments

What's the elevated impact ?

8+ countries

60+ cities

250+ retail outlets

Direct employment to 300 people daily (who were at the bottom of pyramid) of which 90% constitute women

Indirect employment to 2000+ people who are part of the value chain in varying capacities, be it the sales staff, logistics staff etc

Beyond Mitticool.....Benefit sharing with society

- Sponsoring Awards to kids in community who have done well in their studies, craft or sports.
- Organizing regular training and workshops of Gujarat and other states
- Inspired more than 500 members of his community to continue the pottery business

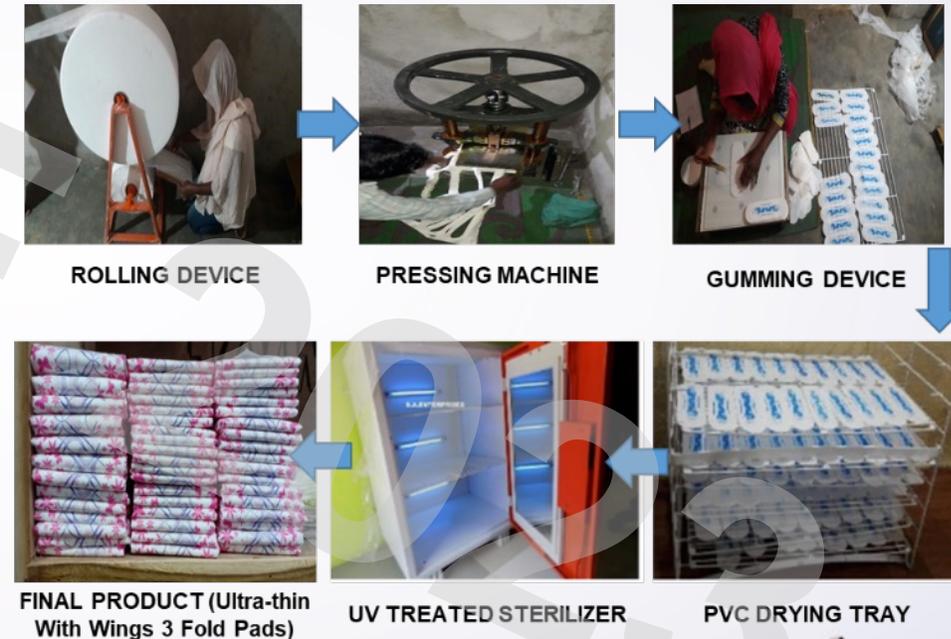
The 'Semi-automatic Sanitary Napkin Making Machine' enables creation of sustainable micro-enterprises and generation livelihood in rural areas for women

Value Proposition

- Potential to achieve **positive operating cashflow in first month** and **payback of capital invested in 13 months**
- **Low electricity requirement**, only for UV sterilization @ ~2 KW per day, making it suitable for rural areas with erratic electricity supply
- Contributes to rural socio-economic development with potential to **create entrepreneurial ecosystem** and provide **employment to 5-10 women per unit**
- Localized production enables **easier access to affordable pads**
- Environment friendly **bio-degradable pads**



Founder & Grassroots Innovator: Shaikh Afzal



Financial viability

Item	Amount (\$)	Remarks
Capital investment		
Machinery and Equipment	4200	
Furniture and other utility	360	
Total	4560	
Operational Cost (per month) (8 hours/day, 25 working days)		
Raw Materials	720	For 50,000 pads
Manpower cost	720	5 persons @ \$ 144
Office supplies & utilities	60	Electricity, water, etc.
Rent	144	500 SQFT space
Total	1643	
Average manufacturing cost	0.032 per pad	Large size pad, 320 mm
Annual Cost	19717	
Annual Revenue	25187	@ \$ 0.042 per pad
Profit per month	460	
Annual profit	4270	

Over 400 units sold across the country and provided training to over 5,000 people leading to generation of employment for over 2,000 people



Founder & Grassroots Innovator: Shaikh Afzal

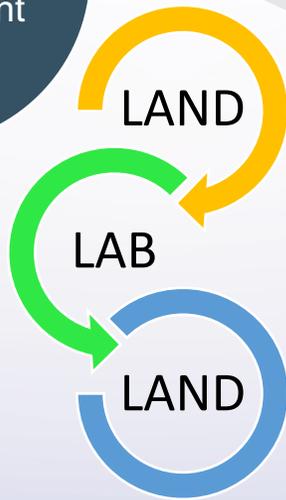
Awards & recognitions

- Innovation recognised by National Innovation Foundation - India
- 'Most Innovative SME of the Year' at SME- Empowering India Awards 2023



Grassroots Innovation Based Enterprises helping in securing/ improving livelihood in rural areas





>3,25,000

Technological ideas, innovations, and traditional knowledge practices identified from over 625 districts of the country

>1125

Grassroots innovators and school students recognised at the national level



Biennial National Grassroots Innovation Awards

Nation-wide programs for identifying and recognising innovators



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Terima Kasih!

Thank you!

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