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Boosting Agricultural Innovation in Africa
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First Mile Innovation
Leveraging Social Capital &
Fragmented Supply Chains:
Experience from India

A Portrait of INSEAD

- Three integrated campuses in Europe, Asia and in Abu Dhabi
- A world-class faculty inspiring more than 1000 degree participants in our MBA, Executive MBA and PhD programmes and more than 9500 participants in our Executive Education programmes
- More than 40,000 alumni in more than 160 countries
- Alliances with Wharton School (USA) and University of Tsinghua (China)

Where We Are



Campuses:

Fontainebleau - Singapore - Abu Dhabi

Alliances:

Wharton (US) - Tsinghua (China)

Office:

New York

Research Centre:

Caesarea (Israel)

Social Innovation Research Areas & Initiatives

Cross-functional initiatives

Africa

Social Impact

Research areas

CSR & Ethics

Healthcare Management

Humanitarian Research

Social Entrepreneurship

Sustainability

Challenges for business _____

Business for challenges

What is Social Innovation ?

Social innovation is the introduction of new business models and market-based mechanisms that deliver sustainable economic, environmental and social prosperity.

Involving:

- ***Uneasy alliances***
- ***Network-centric business models***
- ***Embedded Innovation***

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Level of
Cross-Boundary
Planning &
Collaboration

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From Last Mile to First Mile

- ‘The Last Mile Problem’ – *redefinition*
- Challenge to communities: *isolation, exclusion, fragmentation*
- Challenge to business: *decentralized economies, local production & consumption*
- ‘The First Mile Solution’ – *focus on existing capacity and building social capital.....*

Turn challenges into a source of competitive advantage

Energy from biomass ?

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**Overexploited
forestry ?**

**Under productive
agricultural land ?**

Castor – non-edible, industrial & fuel uses (*ricinus communis*)



- 250-600mm water
- 50% oil content
- 350-650kg oil / Ha
- multiple panicles
- unfertile and well drained soils
- leaves useable for Eri silk production
- biomass byproducts

Challenges to small-holders - potential for business

- isolation and fragmentation
- lack of access to markets, suppliers, buyers, finance, expertise and technology
- vulnerability and risk aversion
- uncertainty and opportunism
- lack of operational coordination
- lack of long term strategy

Interventions to enhance productivity and value across the value chain.

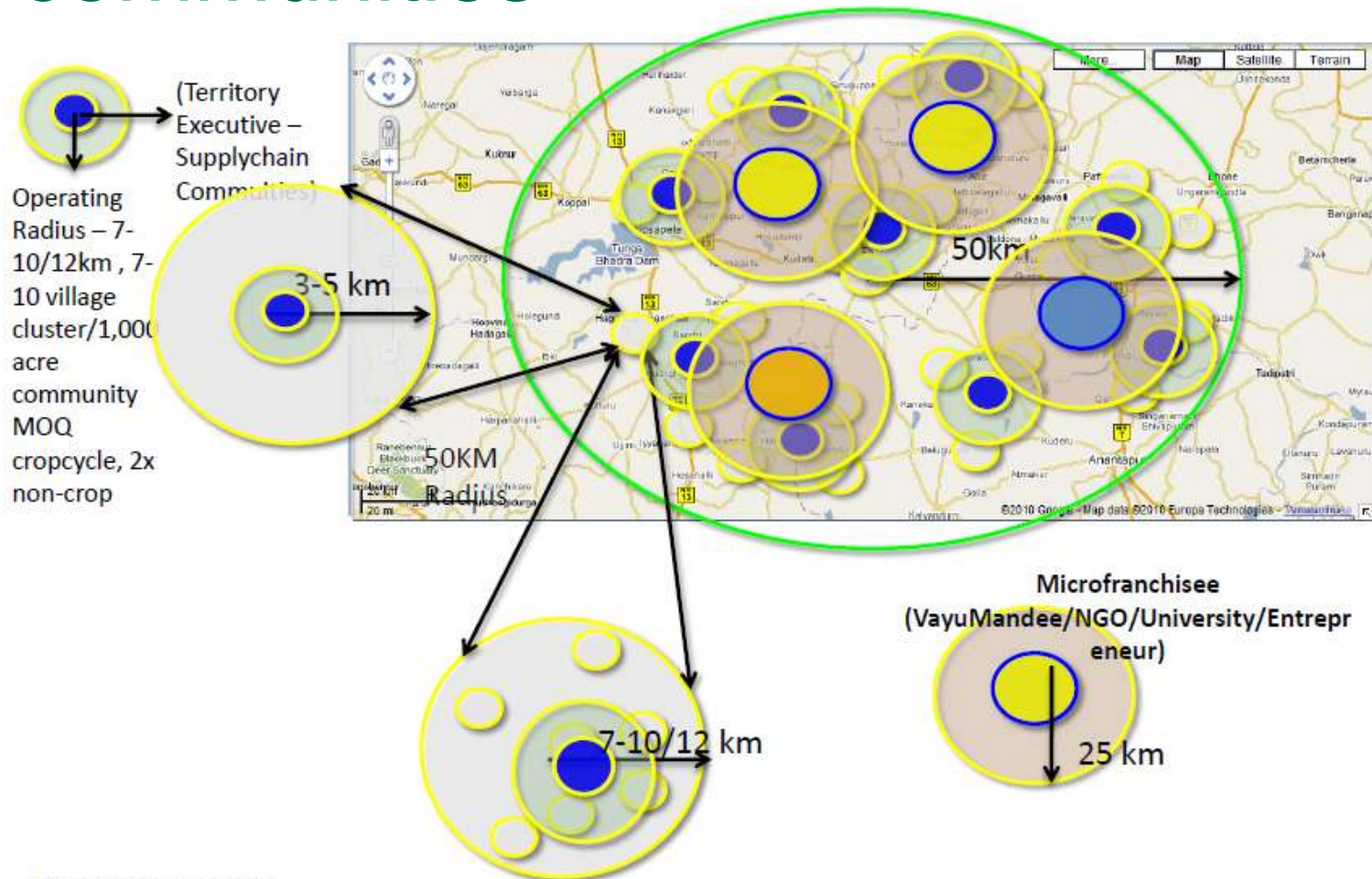


Underutilised Inventory Supply and Value Chains

- Selecting priority interventions

<i>Group</i>	<i>Issue</i>	<i>Causes</i>	<i>Solutions</i>
Small Holders	<ul style="list-style-type: none">• Low Farm Productivity• Inflated Costs• Risk Averse• Vulnerable	<ul style="list-style-type: none">• Isolated & Fragmented• Lack of technical expertise• Lack of access to resources & capital	<ul style="list-style-type: none">• Aggregate, train and certify communities• Supply technologies• Guarantee Fair Market Prices• Develop by-product markets• Provide access to finance and insurance

Bottom-up aggregated communities



* Images not to scale



Communities

First Mile communities are the heart of our Intermediation business model. It is with the community inclusion of local footprint demand-supply communities for ...

[read more ++](#)

Services

VayuGrid Value Added Services are designed to enable sustainable Prosumption and to be-risk demand-supply communities, de-risk renewable cycles ...

[read more ++](#)



Marketplace Connecting the First Mile

First Mile demand-supply community, products, services and ecosystem discovery & fulfillment to unlock socio-economic value is the role of the VayuGrid marketplace platform ...

[read more ++](#)

WELCOME

to the Investment Philosophy and business model

As Social entrepreneurs we founded VayuGrid Marketplace Services Pvt. Ltd. with a business model of being a **Social-Capital based Valuechain Aggregator & Manager**. Proud to be an Indian company, we believe that Gandhi's socio-economic model of **Production by the Masses**, rather than Mass Production is sustainable Socially, Environmentally & Economically, due to the inclusive linkages of demand-supply communities, thus creating wealth and impacting local communities.

Our focus as a company is to make a positive impact to key challenges of today—Rural communities included in the growth of the country and Access to Energy to drive productivity and create wealth.

We believe that Prosumption (Producers & Consumers) Capitalism, rather than Consumption based capitalism is the key to communities and economies being sustainable through inclusion, leading to our focus, Empowering The First Mile. The First Mile are social-networks of Communities that are inherently Socially, Environmentally and Economically sustainable devoid of systemic risk, all built around renewable valuechains.

Chairman's Blog

It is very interesting to see the power or Social business and commerce based networks at work ...

Our experience on the field has been off to a good start in India. The First Mile cluster that we are developing ...

Non edibles based biodiesel pilot



- *social-capital based*
- *value chain aggregator and manager*
- *production by the masses, rather than mass production*
- *inclusive linkages of demand & supply communities*
- *creating wealth*

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Action -Research

- A. Improve castor productivity and lower input costs
- B. **Map** new areas for Castor and Pongaymia.
- C. **Generate** derivative products and services
- D. **Sustainability** and Risk Reporting

The IMAGES Process

If carefully planned there are *shared components* and *staged processes* involved in minimising the costs of information collection and maximising value of the information and analysis. This value will accrue over time.

Gather data across the entire cluster NOT just Vayugrid farmers.

These costly and time consuming processes can be reduced

once ground-truth database, spectral libraries and automated algorithms are developed

Can be used for landcover mapping large areas quickly and cheaply ALSO improving soil maps and much more...

Reduces lab analysis to a minimum using spectral measures which can develop into rapid in-situ techniques using portable VIS/NIR sensor

The SIS can serve as the central logistical hub for MUCH MORE than just soil.

Logistics
Inventory
Reporting
Ordering
Control
Exploratory Analysis

Once in place the spatial system is highly versatile and can be targeted to specific issues (elite identification, irrigation potential mapping) AND multiple derivative products.