



WOMEN-LED MICRO ENTREPRENEURSHIP

An analysis of
value chains and
opportunities



Implemented by
giz Deutsche Gesellschaft
für Internationale
Zusammenarbeit (GIZ) GmbH



HER empowering
women
&**NOW** entrepreneurs



Published by:

Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH

Registered offices:

Bonn and Eschborn

Project Name:

Her&Now - Economic Empowerment of Women Entrepreneurs and Start-ups by Women
B5/1, Safadarjung Enclave
New Delhi 110 029, India

T: +91 11 4949 5353 (Extn. 1305)

E: herandnow@giz.de

I: www.giz.de

Person responsible:

Ms Julia Karst

Project Head

Economic Empowerment of Women Entrepreneurs and Start-ups by Women

E: julia.karst@giz.de

Authors:

Anirban Gupta, Co-founder, Dhriiti

Bidisha Sinha, project manager, Dhriiti

Nidhi Arora, Co-founder, Dhriiti

Samiksha Todaria, project manager, Dhriiti

Design and Layout:

Wishbox Studio

On behalf of the German Federal Ministry for Economic Cooperation and Development (BMZ)

Disclaimer: This study will be used only for educational purpose, free of cost and will not be sold as a commercial publication.

While care has been taken in the collection, analysis, and compilation of the data and has been prepared in good faith on the basis of information available at the date of publication without any independent verification. Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH does not guarantee or warrant the accuracy, reliability, completeness or currency of the information in this publication. GIZ shall not be liable for any loss, damage, cost or expense incurred or arising by reason of any person using or relying on information in this publication.

Published on

June 2020, New Delhi



Contents

Acknowledgement	02	Dairy Products	76
Executive Summary	07	Fruits (Kinnow)	79
The North East Region	17	Handicrafts	82
Tourism	22	Jewellery	85
Eco Tourism	29	Meenakari	88
Adventure Tourism	29	Thewa Art	90
Cultural Tourism	30	Telangana	92
Agri-allied and Food Processing	31	Handloom and Stitched Apparel	96
Piggery	35	Handloom	99
Processing of Pineapple and Other Citrus Fruits	39	Stitched Apparel	101
Spices - Turmeric, Pepper, Chilli and Large Cardamom	42	Stitched Apparel Boutique	104
Handloom and Handicrafts	45	Food Processing	106
Bamboo/ Cane Handicrafts Products	51	Chillies	109
Grass & Reed Handicrafts	54	Poultry	112
Rajasthan	56	Mangoes	115
Textile and Stitched Apparel	60	Education	117
Block Printing	63	Play School/ Day Care	119
Applique	65	School Related Services	121
Stitched Apparel	67	Tutions & Coaching	123
Food Processing	69		
Spice	73		

Acknowledgment

The study on value chain analysis of women entrepreneurs of Northeast India, Rajasthan, and Telangana has been a deeply involving study for the study team at Dhriiti. We have received an overwhelming support from various government departments and agencies, civil society organizations, academicians, thought leaders, and most importantly women entrepreneurs from across these regions. We are truly humbled and highly obliged for the unconditional support provided by various agencies to undertake this study. The contribution of the experts and the practitioners are truly valued as the availability of gender-disaggregated data has been limited especially looking at various value chain analysis studies available. The study team at Dhriiti would like to thank the exceptional support received

for the regional partners of Project Economic Empowerment of Women Entrepreneurs and Start-ups by Women, Her&Now, Startup Oasis in Rajasthan, and WE-Hub in Telangana to enable us to effectively conduct the study. We consulted close to a hundred experts and practitioners for their inputs. We are grateful for their time and contributions. We would like to also like to thank all the members of the study team Anirban Gupta, Nidhi Gupta, Bidisha Sinha, Samiksha Todaria, and Udayan Bakshi. We sincerely thank GIZ and Project Her&Now for the opportunity to undertake this insightful study. We hope this study will be an important milestone for the great work being done by the Project and GIZ in the space of women's entrepreneurship in the North East Region (NER) India, Rajasthan, and Telangana.

Background

Promoting entrepreneurship has been a key mechanism to achieving sustainable economic growth and employment creation. It is imperative that the Government of India works towards the upliftment of economically disadvantaged segments of society, particularly women, and this can be achieved using the tools of entrepreneurship and micro-enterprise development.

Entrepreneurship contributes an important part towards the development of the country. The quantity and competency of entrepreneurs affect the economic development of the country. The economic history of the currently advanced countries like USA, Russia and Japan, supports the fact that economic development is the result for which entrepreneurship is an expected cause. The vital role played by the entrepreneurs towards the development of advanced countries, have made the individuals of developing and under-developed countries, cognizant of the importance of entrepreneurship for economic development.

In the present existence, it has been widely recognized that enthusiastic, motivated and active entrepreneurs possess the capability of exploring potentials of the availability of resources, technology, labour and capital. For achieving the goal of economic development, it is necessary to make advancements in entrepreneurship, both qualitatively and quantitatively.

The Policy Framework also mentions promotion of women's entrepreneurship as a factor essential for growth of entrepreneurship across the country. Promoting women's participation in entrepreneurship would unlock the full potential of women and could boost India's GDP by close to 6%.

(Source: <https://www.ideasforindia.in/topics/social-identity/closing-gender-gaps-in-india-does-increasing-women-s-access-to-finance-help.html>)

Objectives of the study

01

Conduct a value chain analysis of the key sectors that interact with women-led micro-enterprises in North-East Region (NER), Rajasthan, and Telangana.

02

Identify the top interventions that could be introduced to support women's entrepreneurship.

03

Map out the value chains for the selected sectors:

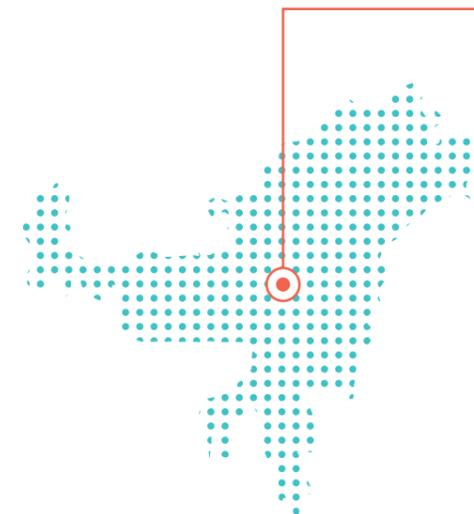
- Analyze how women entrepreneurs participate in these value chains.
- Identify the opportunities that can be harnessed for women micro-entrepreneurs in these sectors.

Key Stakeholders

135

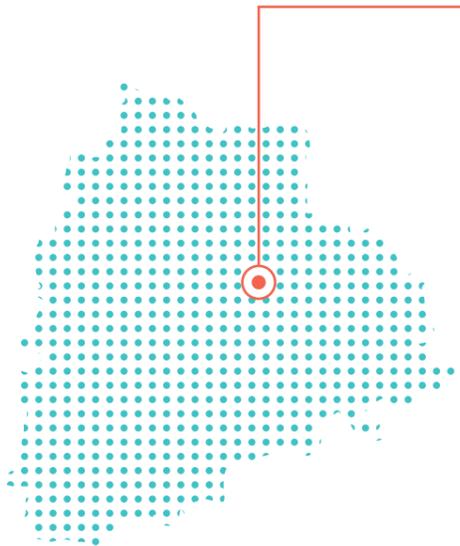
Total Surveyed

North East | 47



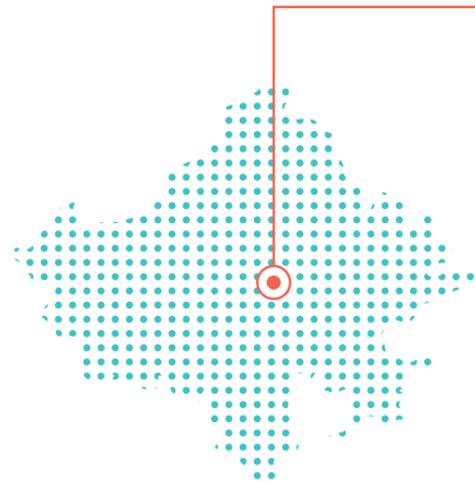
06 Government Bodies	03 Funding and Financing Agencies
08 Civil Society Organisations	04 Academia
10 Corporate and Business Entities	11 Women Entrepreneurs
05 Incubators and Eco-system Enablers	

Telangana | 41



06 Government Bodies	03 Funding and Financing Agencies
04 Civil Society Organisations	03 Academia
04 Corporate and Business Entities	11 Women Entrepreneurs
10 Incubators and Eco-system Enablers	

Rajasthan | 47



05 Government Bodies	07 Funding and Financing Agencies
07 Civil Society Organisations	03 Academia
09 Corporate and Business Entities	10 Women Entrepreneurs
06 Incubators and Eco-system Enablers	

Methodology

01 | Development of criterions for sector selection

Dhriiti study team in consultation with the GIZ team and the MSDE, Government of India developed a standard set of criteria for identification of key sectors and specific value chains (in the identified key sectors) for women entrepreneurs in the selected states of NER, Rajasthan and Telangana.

02 | Identification and interviews with various stakeholders

Dhriiti study team undertook intensive secondary research to identify various possible stakeholders in the eco-system. It thereafter undertook primary research through telephonic interviews etc. to select key stakeholders across various sectors in each of the 3 regions. These stakeholders were then invited to the Stakeholder Roundtables in the respective regional anchor locations (Guwahati, Hyderabad and Jaipur).

03 | Stakeholders roundtable

Stakeholder Roundtables were conducted in each state with various stakeholders including women entrepreneurs, organizations working with women entrepreneurs, academia, industry etc. It not only enabled the study team identify prospective sectors which were favourable for women entrepreneurs but also build partnerships across the regions to conduct the study effectively. A total of 135 stakeholders (individuals and organisations) were part of these consultations. Each consultation brought in various perspectives and issues in respect to women entrepreneurs in various value chains in the regions.

04 | Sectors identification

Dhriiti study team thereafter undertook sector identification research in different parts of each region with help and assistance of various partners identified through the stakeholder roundtables in the state. This not only enabled the research to be spread across the geographical spread in the region but also the sectoral and value chain spread across the region.

05 | Value chain identification

Based on the findings of the sector identification research, Dhriiti study team identified various value chains/value chain elements in the sector in consultation with experts from the sectors (from the region and otherwise). The team also evaluated on the basis of different criterions to figure out value chains/value chain elements in each of the top 3 identified sectors, which are or would be best suited for women entrepreneurs.

06 | Value chain study

Dhriiti study team thereafter conducted in depth value chain study/assessment of top 3 value chains/value chain elements from the identified sectors in each region. Each value chain/value chain element in each of the 3 states would enlists the following details:

- + Value chain mapping
 - Understanding the value chain activities elements.
 - Forward and backward linkages.
 - Stakeholder identification and profiling.
 - Identification of spaces in the value chain where women are concentrated.
- + Identification of key constraints.
- + Recommendations for enhancing the scope and purview of the value chain specifically for promoting and supporting women entrepreneurs.

07 | Report and dissemination

Dhriiti study team consolidated the findings and the detailed analysis as a report for each state separately. The research findings and the recommendations is shared with GIZ and its partners. Once finalized the report shall be given to GIZ for further dissemination and discussion.

Executive Summary

The socio-economic development of a country is fueled by its entrepreneurship activity and the ecosystem to support it. Entrepreneurship stimulates job creation, catalyzes change through innovation, and helps improve a nation's standard of living. Women's entrepreneurship has been recognized in the last decade as a vital pillar of growth. It not only contributes to the financial independence of women but also helps in exploring and tapping new arenas of entrepreneurial opportunity and growth.

In India, though the government has put considerable emphasis on the promotion of entrepreneurial activities and provided support for the formation and functioning of women-led enterprises, according to the Sixth Economic Census, only 14% of Indian women own or run businesses, more than 90% of companies run by women are microenterprises, and about 79% are self-financed.

Commissioned by Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) India and conducted by Dhriiti - The Courage Within, this study highlights the opportunities for endorsing women entrepreneurship in three regions of India - North-

East Region (NER), Rajasthan, and Telangana. The study was conducted to identify the top sectors that have the potential for women entrepreneurship in the mentioned geographic areas and to map out the value chains for those sectors. Based on both primary and secondary research methodologies, data was collected through several methods: a field app-based survey, an online survey, in-depth interviews by telephone and in person, focus group discussions (FGDs) with stakeholders and entrepreneurs as well as a snowball inquiry to map the sector-wise value chain. Secondary material included any publicly available information pertinent to this subject.

The report not only discusses the challenges faced by women entrepreneurs but also identifies the potential sectors that either already have a high concentration of women entrepreneurs or show potential opportunities for women entrepreneurship. It also provides an overview of each sector and presents insights into the investments and returns of the product value chains in each sector. Most importantly, the report offers key recommendations and potential avenues for women-led entrepreneurship in each of these sectors in the abovementioned geography.

North-East Region

Tourism

Prominent value chains: Eco-Tourism, Adventure Tourism, and Cultural Tourism.

Potential Avenues for Women-Led Entrepreneurship: There is a high concentration

of women entrepreneurs providing home-based accommodation services and food & shopping opportunities. Their participation is also high during cultural festivals. Though the concentration of women entrepreneurs in areas like music festivals,

city walks, and support services like web designing and tour aggregation is low, there is scope to increase women's participation in these businesses. Women-led businesses managing backpackers' hostels, camping sites, nature walks, and providing travel/trek guides are areas with high untapped potential.

Recommendations: Skill-building initiatives focussing on preparing women as naturalists and guides can enhance their participation in the tourism value chain. Government schemes that promote community-based tourism could ensure leveraging community-owned assets for business expansion.

Agri-allied and Food Processing

Prominent value chains: Piggery, Pineapple, and Spices (Turmeric, Pepper, Chilli, and Large Cardamom).

Potential Avenues for Women-Led Entrepreneurship: In the piggery value chain, there is scope to increase the participation of women entrepreneurs in the sales and distribution channel of raw meat. There is also potential in building women-led businesses in the aggregation of small rearers and processing/packaging of raw meat. In the pineapple value chain, women-led businesses in processed fruit could potentially harness opportunities in the national and global markets. In the spices value chain, the rising demand for herbal (plant-based) medicines and cosmetics is a potential area for women entrepreneurs to venture in.

Recommendations: For the piggery value chain, with increased impetus on rural livelihoods programs by the Government, piggery has been promoted as a livelihood activity amongst women's groups. This provides a ready base for women aggregators and processors. For the pineapple value chain, a huge and ready international market for raw and processed pineapple fruit can be tapped by government and private investment in supply chain infrastructure including cold chains and freight transport. For the spices value chain, bridging knowledge and skill gaps in legal and trade certifications could go a long way in encouraging women entrepreneurs to set up businesses manufacturing plant-based medicines and cosmetics. Women in these businesses would have a natural advantage of leveraging indigenous knowledge and local resources.

Handlooms and Handicrafts

Prominent value chains: Handloom Industry, Bamboo and Cane Handicrafts and Furniture, and Grass and Reed Handicrafts.

Potential Avenues for Women-Led Entrepreneurship: In the handloom value chain, textiles and weaves from the region have an ethnic value generating a huge demand in the international market which is a potential area of growth for women entrepreneurs operating in the sector. In the bamboo and cane handicrafts value chain, women entrepreneurs are limited to primary activities of harvesting, and to some extent primary processing. However, there is a huge potential for women to move up the value chain and set up designing and manufacturing facilities. In the grass and reed handicrafts value chain, women dominate most parts of the value chain; the skill used in making the handicrafts is indigenous and passed on from generations; the sector can benefit

from a better understanding of the user experience (UX) to increase its market potential.

Recommendations: For the handloom value chain, incentives and capacity building of women entrepreneurs who operate as a crucial link between the rural weavers and the market, would not just generate economic benefits but also social benefits for the region. A clear definition and explicit framework governing social enterprises are needed. For the bamboo and cane handicrafts value chain, the establishment of better linkages between research institutions (like NBM and NMBA) and existing and aspiring women entrepreneurs could optimize the results for both the groups. For the grass and reed handicrafts value chain, training and investing in design entrepreneurs could open up a whole new range of market opportunities for women.

Rajasthan

Textiles and stitched apparel

Prominent value chains: Block Printing, Applique, and Stitched Apparel

Potential Avenues for Women-Led Entrepreneurship: In block printing value chain, there is a potential to increase women's entrepreneurship in consumer-facing businesses like organized retail and e-commerce. In the applique value chain, most applique artisans and designers are women and there is scope to increase their presence as aggregators and consumer-facing businesses. In the stitched apparel value chain, most women in the value chain are either employed as workforce or are a part of family-run ventures and continue to constitute the hidden entrepreneurial talent in these value chains. There is some concentration of women entrepreneurs in the areas of designing and marketing.

Recommendations: For block printing value chain, investment in women entrepreneurship programs that deal with socio-emotional and behavioral aspects as much as with business aspects could lead to an increase in women-led businesses; women role models could lead to aspiration building resulting in more women exploring leadership and entrepreneurial roles. For the applique value chain, design labs could be set up to serve as common resources for women-led businesses helping them develop high-quality products for the export market. For the stitched apparel value chain, an impetus from the ecosystem (ranging from government schemes to incubation/acceleration programs) is needed to transform the hidden entrepreneurial talent into a potential avenue for economic and social growth.

Food processing

Prominent value chains: Spices (Coriander), Dairy Products, and Fruits (Kinnow).

Potential Avenues for Women-Led Entrepreneurship: In the spices value chain, women entrepreneurs have some presence at the producer level though it can be deepened. There is potential to build women-led businesses at the primary and secondary processing levels and also in providing agricultural inputs. In the dairy products value chain, though women entrepreneurs are present in most parts of the value chain, there is potential to strengthen their participation. In the fruits value chain, there is some concentration of women entrepreneurs in the early stages of the value chain, but there is potential to strengthen their engagement. There is scope for increasing women-led businesses in primary

processing and retail selling of fruit.

Recommendations: For the spices value chain, mechanization, introduction of modern processing technologies, and skill-building initiatives on these technologies would bring viability to processing based businesses and attract women entrepreneurs to it. For the dairy products value chain, public investment in supply chain infrastructure, and adequate availability of working capital could increase the viability of women-led processing units. For the fruits value chain, Government initiatives to promote women-led processing units and to link women producers to the retail consumer could provide the required impetus for women entrepreneurship in the sector.

Handicrafts

Prominent value chains: Jewellery (Semi-precious Stones), Meenakari, and Thewa Art.

Potential Avenues for Women-Led Entrepreneurship:

In the jewelry value chain, there is a high concentration of women as designpreneurs. There is scope, however, to increase women's participation in aggregation businesses and create opportunities to access national and international markets. In the Meenakari value chain, there is a strong presence of women entrepreneurs in the production stage and as designpreneurs. There is scope to increase women's participation in aggregation and create opportunities to access large-scale markets. In the Thewa Art value chain, the concentration of women entrepreneurs is high in all parts of the value chain except at the sales and distribution end.

Recommendations: For the jewelry value chain, opportunities for women entrepreneurs to access learning networks like trade associations and market networks like exhibitions/fairs are needed to strengthen participation. For the Meenakari value chain, incentives to attract women entrepreneurs in specific locations like airports or tourist locations could boost their participation. For Thewa Art value chain, innovations are needed to ensure that the scale of production increases while maintaining the authenticity of the craft. Experience centers and workshops doubling as sales outlets could be set up and managed by women entrepreneurs.

Telangana

Textiles and Stitched Apparel

Prominent value chains: Handloom, Stitched Apparel (Mass Production), and Stitched Apparel (Designer/Boutique).

Potential Avenues for Women-Led Entrepreneurship: In the handloom value chain, women entrepreneurs largely function as boutique owners and designpreneurs along with those running dyeing units that feed into the weaving setups. In the stitched apparel (mass production) value chain, there is a moderate engagement of women entrepreneurs and the potential to increase this engagement through increased business feasibility. In the stitched apparel (designer/boutique), women engage in design-based or consumer-facing businesses with a potential for women-led businesses in feeder businesses like stitching, dyeing, and financing.

Recommendations: For the handloom value chain, user-centric design interventions could enhance the marketability of the products and also lead to tapping into niche markets that have the capacity and willingness to absorb higher costs. For the stitched apparel (mass production) value chain, marketing opportunities designed for women such as trade fairs and buyer-seller meets could be organized to increase their participation, and services such as logistics and financing need to be encouraged. For the stitched apparel (designer/boutique), interventions that can help women entrepreneurs diversify markets to deal with seasonality in business would enhance business feasibility and attractiveness.

Food Processing

Prominent value chains: Chillies, Poultry, and Mangoes.

Potential Avenues for Women-Led Entrepreneurship: In the chilli value chain, there is a moderate engagement of women entrepreneurs in processing and trading activities with scope

for women-led businesses in wholesale, retail markets, and ancillary businesses like agri-inputs, equipment, business, and financial solutions. In the poultry value chain, there is scope to increase women-led businesses in trading and processing segments along with those providing services such as veterinary, equipment, packaging, etc. In the

mangoes value chain, there is scope for women entrepreneurs as wholesalers of farm produce and in catering to the domestic market for processed fruit pulp.

Recommendations: For the chilli value chain, adequate testing leading to state-level branding can streamline demand for the produce; state-level interventions on linkages between various players in the value chain could generate positive results.

For the poultry value chain, government intervention is needed to streamline processes across the value chain from feed procurement to processing infrastructure; increasing exposure of aspiring women entrepreneurs to innovative retail models such as egg cafes could result in opening up a prospective area. For the mangoes value chain, strengthening quality conscious markets and streamlining linkages across the value chain would ensure higher market returns resulting in higher profitability for women producers.

Education

Prominent value chains: Play School, Schools, and Tuitions/Coaching.

Potential Avenues for Women-Led Entrepreneurship: In the playschool value chain, there is an opportunity to explore untapped areas like transport and security equipment for schools. In the school value chain, most school owners in the state are women with high concentration also in the provision of services such as technology development, procurement of materials, and infrastructure. Services like counseling and skill-building also witness high participation from women entrepreneurs. In the tuitions/coaching value chain, there are very few women in entrepreneurial roles. There is potential to leverage advantages like high education levels amongst women in the state and the flexibility of

the business model to invite more women players. Women entrepreneurs can also explore providing feeder services to existing coaching centers.

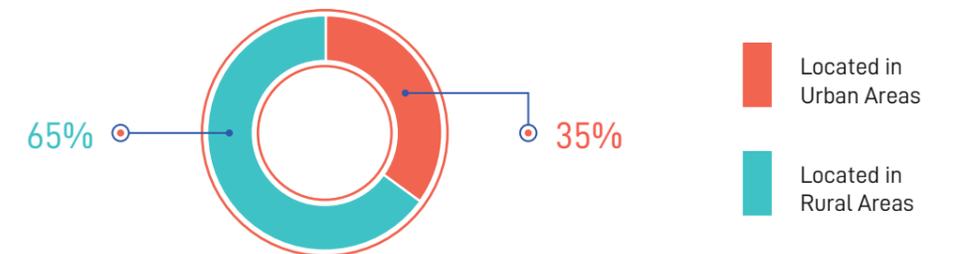
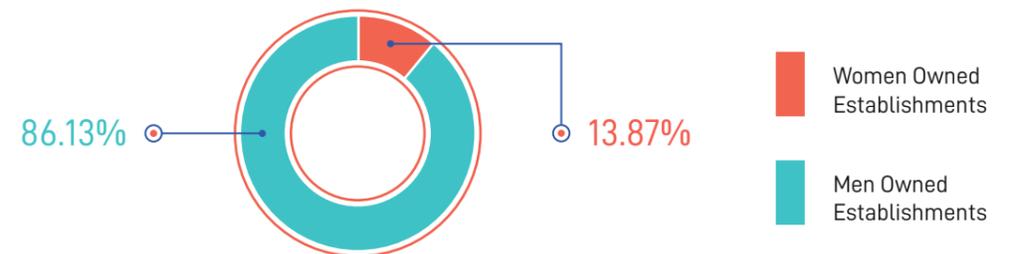
Recommendations: For the playschool value chain, women entrepreneurs could be invited to provide services such as transport and housekeeping to playschools. For the school value chain, there is scope to increase women-led businesses in all parts of the value chain, developing mechanisms for structured financing could lead to a surge in women entrepreneurs in the sector. For the tuitions/coaching value chain, hybrid models combining e-learning and classroom sessions could be promoted to attract women who are trained in technology and are exploring flexible career/business models.

Overview of Women's Entrepreneurship in India

There is a significant body of research into women's entrepreneurship that has covered entrepreneurial motivations, financial and psychological factors, barriers and growth factors, among other aspects. Some of the pertinent findings from these studies are as below:

- + **8.05 million** (13.87%) out of 58.5 million establishments were run by women entrepreneurs.
- + **83.19%** of the establishments operated without hired workers. This is more pronounced in rural areas, where the number stands at 86.85%, while in urban areas, it is 76.33%.
- + **65%** of the total women-led establishments are located in rural areas, while 35% are in urban areas.
- + Agriculture is the most dominant sector, accounting for **34.3%** of all women-led enterprises
- + Nature of women-led establishments:
 - Perennial – 89%
 - Seasonal – 9.03%
 - Casual – 1.97%

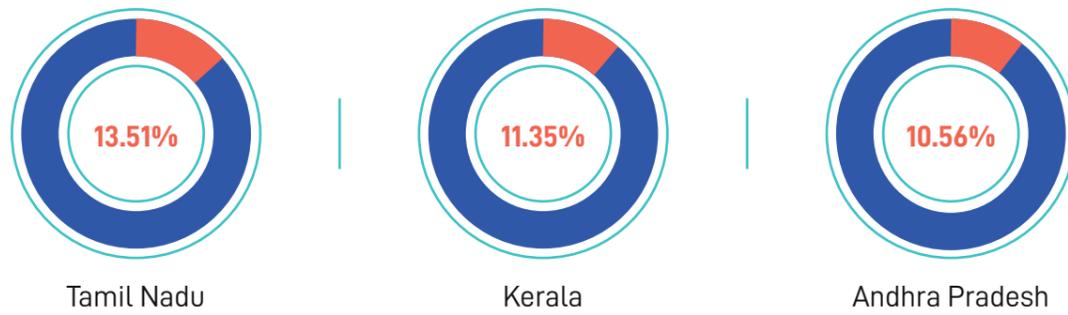
Distributions of establishments owned by women entrepreneurs across rural and urban locations.



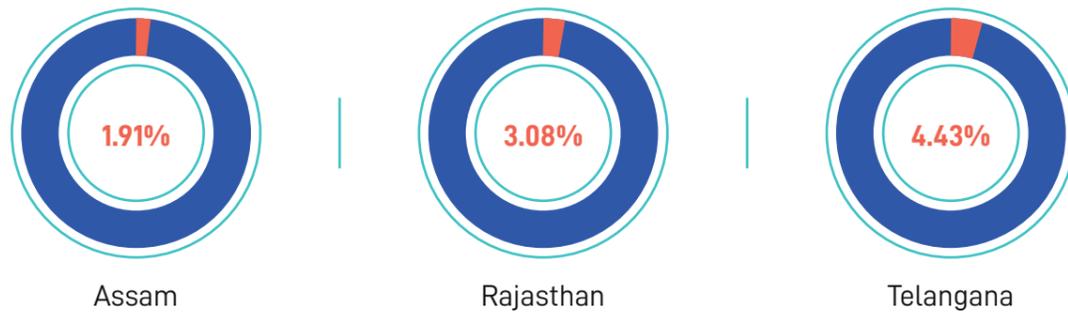
(Source: All India Report of Sixth Economic Census, Government of India, March 31st 2016)

Women Entrepreneurship in Assam, Telangana, and Rajasthan

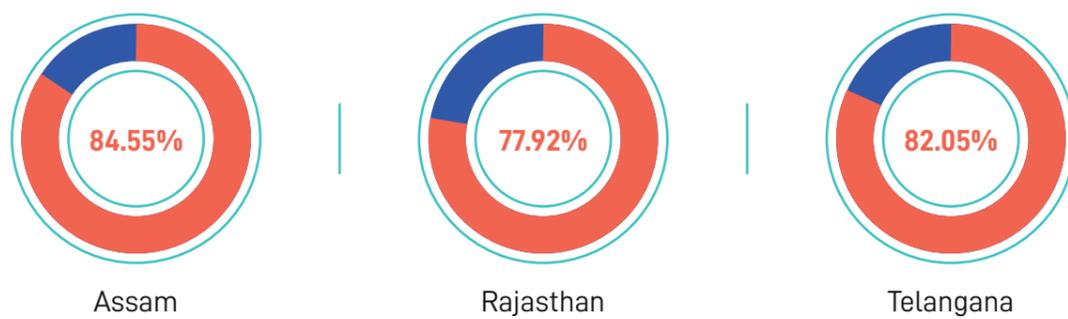
States with the highest percentage share of enterprises owned by women:



Percentage share in selected GIZ states for Women Economic Empowerment Project:



Percentage of women-owned establishments without hired labour (i.e. either self-run or family-run):



Statewise percentage of women-led enterprises by nature of operation

Assam



Rajasthan



Rajasthan



(Source: All India Report of Sixth Economic Census, Government of India, March 31st 2016)

Top Sectors for Women Entrepreneurs

North-East Region

- + Matrilineal societies but businesses still very patriarchal in nature
- + Processing and maintenance usually done by women; marketing and market interface by men
- + Financing for women-led enterprises an issue of high concern (often using informal sources)
- + Very few enabling agencies for supporting women's entrepreneurship in the region (very nascent entrepreneurship ecosystem)

Top - 3

Agri Allied & Food Processing
Handloom/ Handicraft and Fashion
Tourism

Close - 2

Beauty and Wellness
Tourism

Emerging - 1

Sports and Fitness

Rajasthan

- + Women's entrepreneurship vibrant but restricted to home-based businesses
- + Livelihoods initiatives prioritized over entrepreneurship programmes
- + Low Government/Policy focus on micro-enterprise development
- + Very traditional society, strong perspectives on spaces for women, trades for women and women in work in general.

Top - 3

Handloom/ Handicrafts
Food Processing
Stitched Apparel and Textiles

Close - 2

Tourism
Wellness

Emerging - 1

Water and energy

Telangana

- + Significantly higher percentage of women participating in tech-based initiatives across sectors
- + Proactive government support for entrepreneurship in the state, with focus on women's entrepreneurship
- + Thriving entrepreneurship ecosystem in the state (competitive environment for support structures)
- + Strong political alignment in the entrepreneurship ecosystem

Top - 3

Agri Allied and Food Processing
Stitched Apparel
IT and ITes

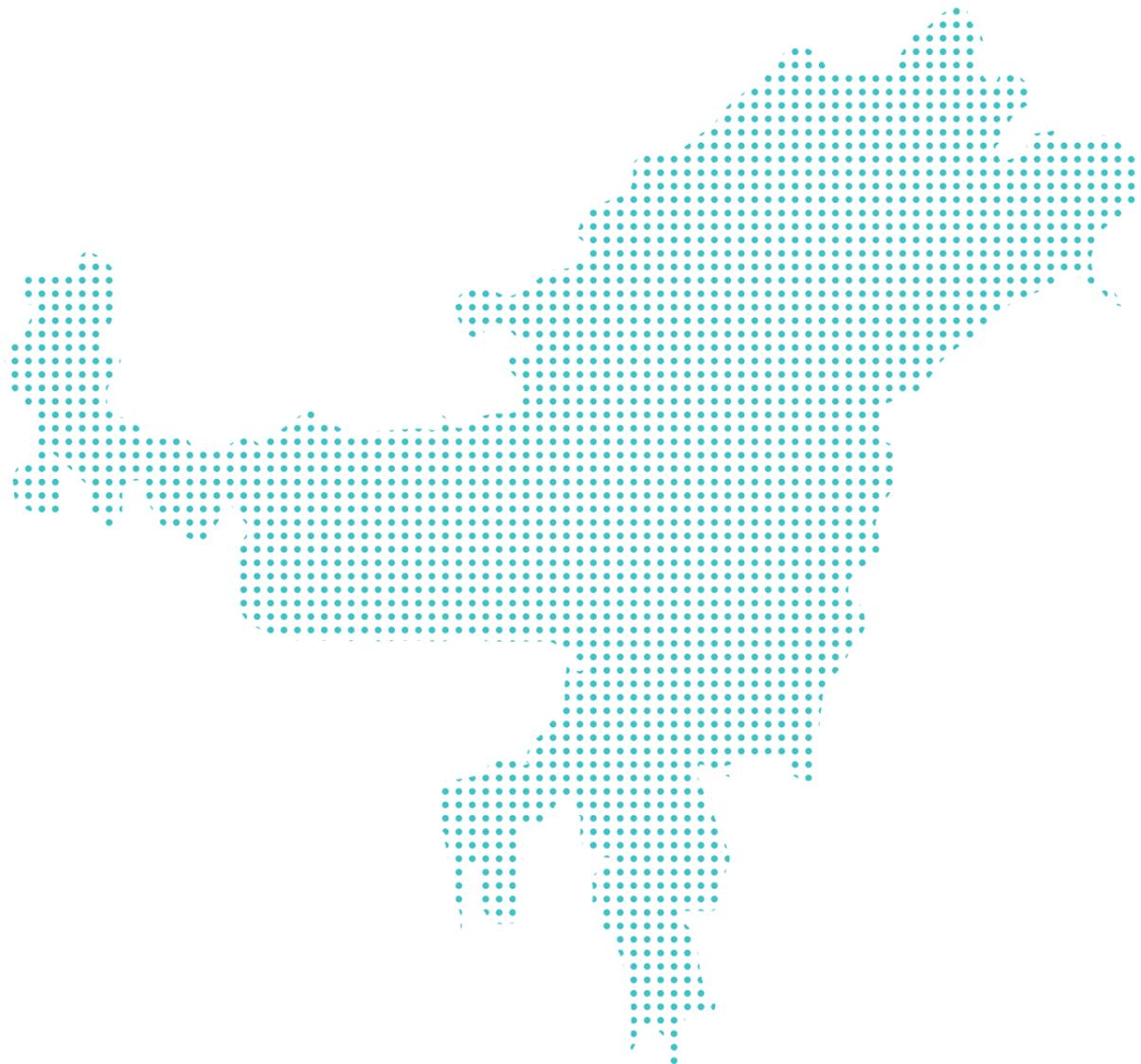
Close - 2

Education
Life Science

Emerging - 1

IT and Life Science

The North-East Region



General Introduction on the North-East Region

The eight states that comprise the North-East Region (NER) of India have significant ethno-geographic and agro-climatic diversity. The region is characterised by very heavy rainfall, rich flora (51 forest types, 8000-15000 species of flowering plants) and fauna, fertile stretches of lands, hills and rivers and is an international border to five countries.



Total Geographic Area
262190 sq km.



National Parks
17



Population
45772188



Major cities
Guwahati, Agartala, Imphal, Dimapur, Shillong, Aizawl, Silchar, Dibrugarh.



Agro-climate Zones
1, sub- agro-climatic zones- 5.



Airports
2 International Airports (Guwahati and Imphal), other airports/ military or private airstrips- 13.



Method of cultivation
Jhoom (shifting agriculture) in hills, 2 times crop in the plains.



Nearest Port
Hoogly (Kolkata) and Chittagong Port (Bangladesh)



Major Rivers in the North-East Region
Brahmaputra and its tributaries. High Seismic Risk Zone and a part of the Indo- Burma Hotspot, the second largest hotspot in the world.



Ethnic groups
220

Sectors of Importance

- | | |
|-------------------------------------|---|
| 01 Agro-based Industry | 07 Forest and mineral based industries |
| 02 Tea | 08 Engineering industry |
| 03 Food Processing | 09 Chemicals |
| 04 Crude oil and Natural Gas | 10 Handicrafts and textile |
| 05 Petrochemicals | 11 Tourism and hospitality industries |
| 06 IT/ITeS | 12 Horticulture |

Economy of the North-East Region

- + As a gateway to the Southeast Asian economies, the NER is currently in focus for the Act East Policy (AEP), 2015.
- + The AEP stresses the promotion of economic, cultural and strategic cooperation with the countries in the Asia-Pacific Region and the the Northeastern states.
- + The NER has great economic potential, given its abundance of natural resources, to become not only self-sufficient in production but also a major exporter of products unique to the region.
- + There is a need for better roads connectivity within the states, with the mainland and with other countries as well.
- + There is scope for value addition to the existing production in the NER and cross border collaboration. All the states are experiencing a growth in the SDPs within the range of 12-16%.

Gross State Domestic Products (GSDP at current prices and their National Ranks):

States	2017-18 SDP (CR)	2017-18 SDP growth over the previous year	Overall Country Rate
Assam	288494	14.78	17
Tripura	46133	16.00	24
Meghalaya	30790	12.00	27
Nagaland	24281	12.00	28
Manipur	23968	13.00	29
Sikkim	23495	13.00	30
Arunachal Pradesh	22045	13.37	31
Mizoram	19457	13.00	32

Source: MOSPI and DES- State Governments.

Major Export from the NER

- + Passion fruit in Mizoram and Nagaland
- + Safed Musli in Assam
- + Ginger in Manipur and Nagaland
- + Cluster development of farms for organic farming in Nagaland and Tripura
- + Agri Export Zones (AEZs) set up in Tripura for pineapples, Sikkim for floriculture, orchids, ginger and cherry and Assam for fresh and processed ginger.
- + Handloom and handicraft from Assam and Nagaland

Challenges

- 01 Poor and developing market linkages
- 02 Lack of infrastructure
- 03 Unorganised and non-commercialized cultivation
- 04 Lack of awareness
- 05 Trade competition with a major exporter such as China
- 06 Lack of availability of facilities such as storage, warehousing
- 07 Inadequate marketing leading to excess supply of goods in the region

Sectors of focus for women entrepreneurs

The three sectors in the NER that have potential for this project were primarily the ones that either already have a high concentration of women entrepreneurs or show potential opportunities for women entrepreneurship. The sectors are:

- 01 Tourism
- 02 Handloom and Handicraft
- 03 Agri- allied and Food processing

Sunrise Sectors for women entrepreneurs

- + Apiculture
- + Floriculture
- + Fisheries
- + Beauty and Wellness
- + Sports and Fitness
- + Herbal Cosmetics



Gender Narrative

The North-East Region, which has a variety of cultural backgrounds and a predominantly tribal population, has a complex but more favourable understanding of women's participation in the economy.

While the matrilineal societies of Meghalaya allow for land ownership by women, it is a challenge in the other states. This often, but not always, reflects in the ease of doing business for and general acceptability of women in the market environment.

But nonetheless, women involvement in the labour force (mainly informal) and the self-employment sector is high, with the latter being highly concentrated in Meghalaya, Manipur and Assam.

Top 3 Sectors for Women Entrepreneurs



Tourism



Agri-allied and Food processing



Handlooms and Handicraft



Tourism

The North-East Region accounts for less than one percent of India's tourism industry, of which a major chunk is from local tourism but is steadily increasing in foreign tourism. The following table gives the absolute numbers and growth rate of domestic and

foreign tourism in the seven states for 2016 and 2017. As the data below highlights, the number of foreign tourists to the region is seeing a marginal uptick, with Meghalaya and Tripura seeing significant growth.

Domestic Tourists

Foreign Tourists

Arunachal Pradesh

2016	2017	2016	2017
385875	444005	6598	7147
Growth Rate 15.1		Growth Rate 8.3	

Assam

2016	2017	2016	2017
5160599	6052667	19456	21760
Growth Rate 17.3		Growth Rate 11.8	

Manipur

2016	2017	2016	2017
150638	153454	3064	3497
Growth Rate 1.9		Growth Rate 14.1	

Meghalaya

2016	2017	2016	2017
830887	990856	8476	12051
Growth Rate 19.3		Growth Rate 42.2	

Domestic Tourists

Foreign Tourists

Mizoram



Nagaland



Tripura



Source: MOSPI and DES- State Governments.

Year-wise Foreign Tourists Visit to State/UT's

Duration 2005-2017



State-specific Observations:



Main Players

- + State Tourism Department

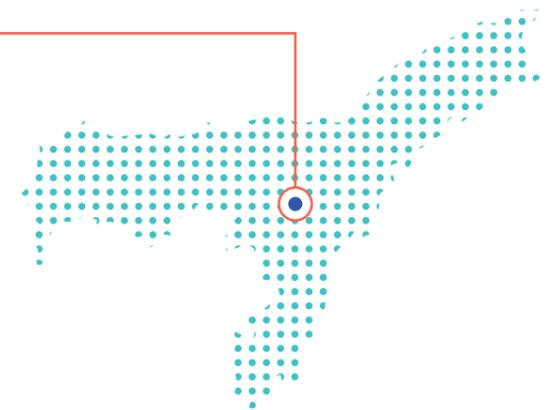


Current Model of Operations

- + Independent Small Businesses

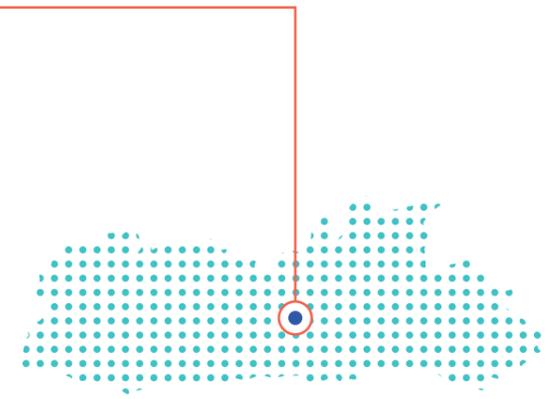
Assam

- + Type of Tourism
 - Forest and tea tourism
 - Cultural tourism
 - Eco-tourism
- + Moderate involvement of women in tourism due to land and property rights that rest traditionally with male members.
- + The concentration of women is high in the handicrafts, handlooms and food & beverages segment of the tourism value chain.



Meghalaya

- + Type of Tourism
 - Forest tourism
 - Eco-tourism
 - Music and cultural festivals
- + High involvement of women in the tourism sector, which is also a priority sector for the government.
- + Land and property rights enable the women to take ownership of businesses.
- + High involvement of women in the handlooms, handicrafts, ownership of Bed & Breakfasts, eco-tourism and adventure tourism. There is also a rise in the number of women travel and trek guides.



Arunachal Pradesh

- + Type of Tourism
 - Culture tourism
 - Adventure tourism
- + Involvement of women in entrepreneurship is high but tourism is seasonal and focused on festivals.
- + Untapped potential for developing the state as a health and wellness tourism destination, given its proximity to Myanmar.



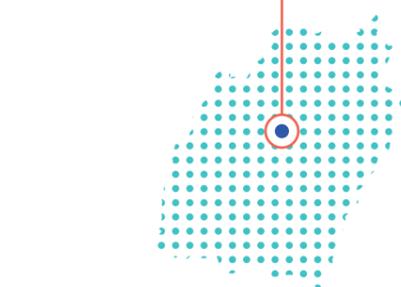
Tripura

- + Type of Tourism
 - Historical sites
 - Heritage tourism
 - Adventure tourism
- + While entrepreneurship is under-developed in the state, the tourism department is now taking steps to promote eco-tourism.
- + With an abundance of historical and archaeological spots, the state could be developed into a heritage tourism destination.



Manipur

- + Type of Tourism
 - Golf tourism
 - Eco tourism
 - Heritage tourism
- + Involvement of women in entrepreneurship is high but tourism as a sector is still in early stages of development.
- + Women mostly involved in food, beverages, handlooms and handicrafts.
- + Huge potential for health and wellness tourism, given its proximity to Myanmar, which has a poor healthcare infrastructure. With its



abundance of herbs and plants that find application in alternative medicine, the state could be developed into a wellness tourism destination.

Government Schemes to Promote Tourism in NER:

Arunachal Pradesh

- 01 Deen Dayal Upadhyay Swavalamban Yojana

Mizoram

- 01 Rural Homestay Scheme

Tripura

- 01 Paryatan Sahayak Prakalp

Meghalaya

- 01 Meghalaya Tourism Development
- 02 And Investment promotion Scheme, 2012

Assam

- 01 Amar Alohi Scheme (home stay)
- 02 Punya Dham scheme
- 03 Assam Bikash Yojana (2015-2016)

Schemes, Strategies and Other Information

- + The main concerns in this area on tourism are:
 - Inadequacy of accommodation
 - Underdeveloped tourist destinations and tour circuits
 - Food stalls and other amenities while doing long distance travels
 - Roads and communication services need improvement
- + Creating and promoting tourism circuits connecting the major cities and the tourism

attractions in between. Multiple circuits have been presented in various reports and it has been also observed that amenities as mentioned above need to be built, promoted, and general public trained for this purpose.

- + Tourism festivals in the North-East Region draw audiences interested in culture and music. Below is a non-exhaustive list of cultural festivals that happen in the various states of the North-East Region.

Tourism Festivals in the North-East Region:

Arunachal Pradesh

- + Ziro Festival of Music
- + Myoko Festival
- + Orange and Tourism Festival
- + Tawang Festival

Meghalaya

- + Wangla Festival
- + NH7 Weekender
- + Shillong Autumn Festival
- + Monolithic Festival

Arunachal Pradesh

- + Majuli Festival
- + Elephant Festival
- + Dwijing River Festival
- + Brahmaputra Beach Festival
- + Jonbeel Mela

Mizoram

- + Mizoram Christmas Festival
- + Chapchar Kut
- + Mim Kut

Nagaland

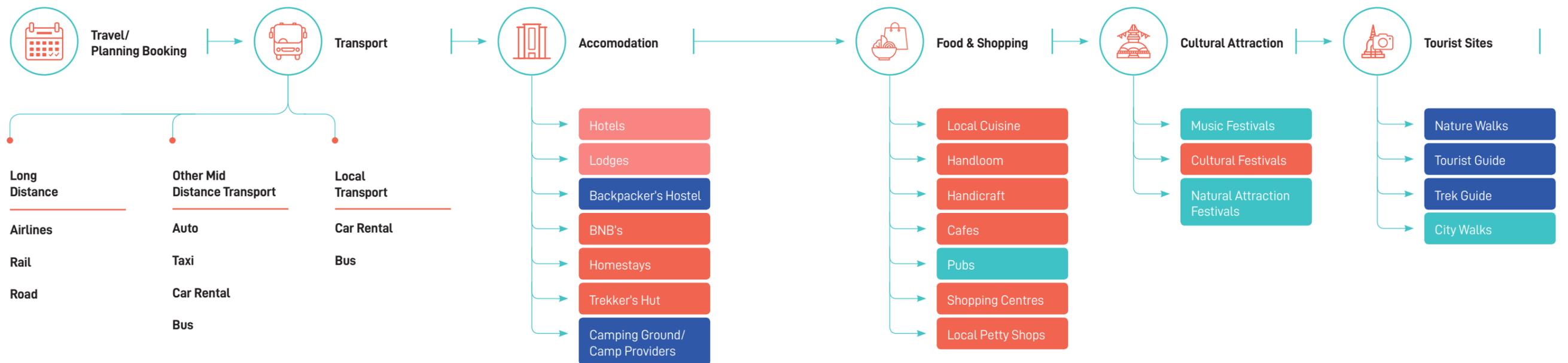
- + Hornbill Festival
- + The Aoling Festival

Manipur

- + Manipur New Year Festival
- + Kaongamdraba Eshei
- + Heirku Hindongba (boat race)
- + Manipur Sangai Festival



Tourism



Services



Women Entrepreneurs

- High Concentration
- Low Concentration
- Potential Areas

Women Workforce

- High Concentration
- Low Concentration



Eco-Tourism

Investments and Returns

- + The unmet demand in this region presents an opportunity with potentially high returns.
- + Homestays are easy to open and maintain. However, good connectivity and centralised booking systems are required.

Opportunities

- + The hilly NER is home to several national parks, dense forests, clean air, a thriving agro-economy and wide cultural diversity. Eco-tourism is a potential area for growth in many states.
- + Nature appreciation hikes and adventure tourism can be made into tourist attractions.
- + The region hosts a number of music and cultural festivals in remote locations. Establishing eco-tourism hot spots near these festival circuits could boost the attractiveness of the North-East Region as a tourist destination.
- + The prevalence of English as a spoken language, even in remote locations, reduces barriers to communication with foreign tourists.

Challenges

- + Social acceptability of entrepreneurship as a career option is low, while capital ownership is uniformly low (with the exception of Meghalaya).
- + Dependency on government for job creation.
- + Preference towards the risk-averse option of being a job-holder than being a job-creator.
- + Political instability in certain areas.



Adventure Tourism

Investments and Returns

- + The unmet demand in this region presents an opportunity with potentially high returns.
- + Homestays are easy to open and maintain. However, good connectivity and a centralised system for booking is required.

Opportunities

- + Emergence of the North-East Region as an adventure destination.
- + Better internet connectivity (for booking)
- + Improved air connectivity
- + Unexplored natural beauty in all eight states
- + Prevalence of English speakers and high education levels enables ease of transaction.
- + Uptick in local tourism
- + The North-East Region is considered women-friendly and safe for solo travelling. Women tour guides and homestays could enhance the USP.
- + Bike and car rental services: While the transport sector has traditionally excluded women, rental services could be an attractive space for women entrepreneurs in the region

Challenges

- + Given the associated constraints, revenue potential from foreign tourists is low.
- + Relatively fewer designated trek circuits.
- + Fewer options for homestays or trekkers' huts.
- + Lack of decent traveller's hostels.



Cultural Tourism

Investments and Returns

- + Cultural and music festivals, such as the NH7 Weekender and The Hornbill Festival, attract a high number of tourists. Currently, these are concentrated in the November-February period. Designing such experiences over a longer window could create a steady stream of tourism revenue.

Opportunities

- + Festivals designed around music, tribal cultures and nature requiring a dedicated tourist crowd.
- + As a zone of convergence for diverse ethnic stocks, the variety could be used to project new festivals.
- + A lot of the cultural festivals could be tied to trading of local commodities and produce (like orange, pineapple, handloom festival etc).

Challenges

- + Not enough participation by the private sector; most initiatives in this space are still government-led.
- + No specific measures to encourage participation from women.

Potential Avenues for Women-Led Entrepreneurship

There is a high concentration of women entrepreneurs providing home based accommodation services (BnBs, homestays and trekkers' huts) and food & shopping opportunities (especially traditional crafts and cuisine). Their participation is also high during cultural festivals. Though the concentration of women entrepreneurs in areas like music festivals, city walks and support services like web designing and tour aggregation is low, there is scope to increase women participation in these businesses. Women-led businesses managing backpackers' hostels, camping sites, nature walks and providing travel/ trek guides are areas with great but untapped potential.

Recommendations

Skill building initiatives focussing on preparing women as naturalists and guides can enhance their participation in tourism value chain. Government schemes that promote community based tourism could ensure leveraging community owned assets for business expansion.



Agri-allied and Food Processing

India is the world's largest producer, consumer and exporter of spices and the second largest producer of food grains, fruits and vegetables. Food processing has been hailed as the "sunrise sector" for India with huge opportunities for investments and high expected growth. 42 Mega Food Parks (MFPs) are to be set up across the country under the MFP scheme, out of which 17 are now functional.

The sector allows 100 percent foreign direct investment (FDI). Implementation of the MFP scheme is being done through the special purpose vehicle (SPV) mechanism in which government agencies, financial institutions/banks, organised

retailers, food processors, service providers, producers, farmer organisations are the equity holders. The Scheme is under the purview of the Ministry of Food Processing Industries (MoFPI).

The food processing sector has 11.6 percent share in total employment, 10.70 percent share in India's total exports and has a 142 percent cropping intensity (Invest India Report). The NER has potential to become a niche supplier of highly valued products such as indigenous varieties of spices, as well as pineapple, kiwi, chilli, turmeric, cardamom and walnut.

Name of the Fruits Produced in the North-East States

Arunachal Pradesh	+ Apple, Kiwi, Walnut, Sugarcane
Assam	+ Mango, Pineapple, Papaya, Litchi, Banana
Manipur	+ Pulp, Orange, Pineapple
Meghalaya	+ Apple, Orange, Banana, Pineapple, Tapioca
Mizoram	+ Tapioca, Orange, Banana, Pineapple, Sugarcane
Nagaland	+ Pineapple, Banana, Sugarcane, Cashew
Tripura	+ Jackfruit, Banana, Pineapple

Food Processing Units of North-East States



Main Players

- + Private organisations
- + Non-profit organisations
- + NERAMAC
- + NHB
- + Spices Board of India
- + APEDA



Current Model of Operations

- + In the food processing industry, usually an aggregator and or food processing company collects raw materials directly from the farmer, processes the raw materials and sells a value-added product in the market at a significantly higher price.
- + In the spices industry, farmers are mostly arranged in cooperatives or Self Help Groups.
- + Pig breeding is mostly unorganised with small entrepreneurs independently breeding and selling the produce. Very few industries provide monetary support to breeders and rearers, who return the pig to the investor after raising it.

Assam

- + Rice mills, Flour mills
- + Fruits & vegetable processing
- + Spices processing
- + Bakery, biscuits, and cakes
- + Ready to eat foods



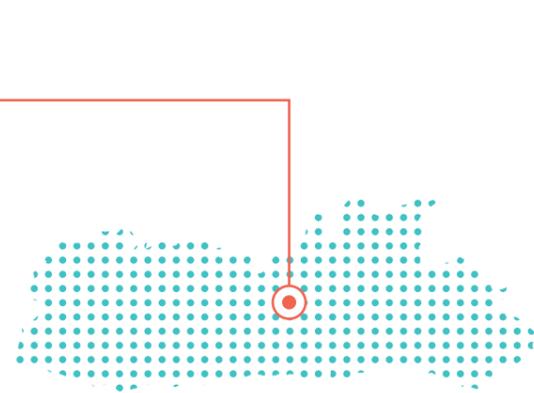
Arunachal Pradesh

- + Ginger products & processing
- + Vegetable processing
- + Fish & fisheries products
- + Sugarcane products
- + Rice mills
- + Cereals processing, Kiwi wine



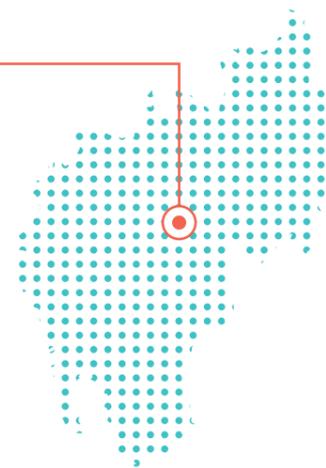
Meghalaya

- + Spices & condiments processing
- + Milk processing
- + Honey processing
- + Fruits & vegetables
- + Beverage & bakery products



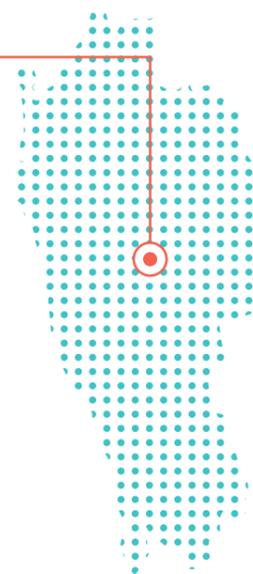
Tripura

- + Rice processing
- + Confectionary
- + Fruits & vegetables
- + Bakery products
- + Cereals & cereals products
- + Beverages
- + Fisheries



Mizoram

- + Spices & condiment
- + Milk processing
- + Bakery product
- + Turmeric
- + Ginger
- + Mandarin orange
- + Birds eye chilli
- + Tea
- + Beverage



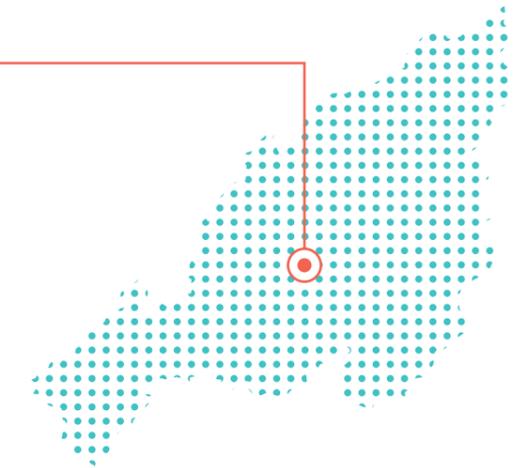
Manipur

- + Fruits processing
- + Ginger products



Nagaland

- + Paddy processing
- + Sugarcane processing
- + Maize processing
- + Fruits processing
- + Milk processing
- + Bakery
- + Tea & ginger
- + Soyabean & edible oil



Geographical Indication Tags

Naga Tree tomato

Nagaland

Arunachal Orange

Arunachal Pradesh

Mizo Chilli

Mizoram

Karbi Alnglong Ginger

Assam

Tripura Queen Pineapple

Tripura

Memong Narang (Citrus Fruits)

Meghalaya

Tezpur Litchi

Assam

Joha Rice

Assam

Kasi Mandarin

Meghalaya

Kachai Lemon

Manipura

Lakadong/ Megha Turmeric

Meghalaya



Gender Narrative

Aside from transport, women do most of the work down the agriculture value chains.

Due to the proximity of the producers to local selling-points, there are no aggregators operating at a small scale.

The value chain for agriculture and allied sector products usually has only one entrepreneur, who procures the raw material from the farmers, provides it to the secondary processing units and after receiving the final product, sells in the market or exports.

There are many nano-entrepreneurs who do home-based processing and sell in petty shops.

Most of grading, sorting and grinding work is done by women.



Piggery

Assam, Meghalaya, Nagaland and Tripura are home to 72.6 percent of the total pig population in India (19th Livestock Census, 2012). Additionally, out of the seven pig breeds that are found in India, four are indigenous to the Northeast. The Indian market for processed pork products is small and the majority of this market is supplied through imports. Some local companies manufacture processed products such as sausages and bacon, although this industry is still nascent.

According to the MoFPI, there are 3600 slaughterhouses, or abattoirs, in India. The majority of these facilities do not export. There are only a small number of abattoirs in India that meet international standards. None of these facilities process pork meat. For the majority tribal population, raising livestock, especially pigs, is integral to their way of life. There is a growing demand for pork due to increasing per capita income, urbanization and changes in lifestyle and food habits. Much of this demand is met from imports from other states in India and from Myanmar.

North-East India has much higher pork consumption than the rest of the country. Of these states, Nagaland has the highest per capita consumption (DoC, APEDA). The tribal population in particular appears to consume more pork on average than other groups (Overview of Piggery Sector, DAHD). Traders in both Assam and Nagaland reported that the demand for pork was increasing along with prices.

Name of the Indigenous Breed

- + Zovawk (Mizoram)
- + Niang Megha (Meghalaya)
- + Tenyi Vo (Nagaland)
- + Doom (Assam)

Cross Breed in North-East

- + Hampshire cross
- + Large white yorkshire (Mizoram and Tripura)
- + Triple cross with Duroc as terminal sire
- + Large black cross

Pig Population of India

States	Indigenous Female Pig	Exotic Female Pig	Total Pig
Assam	493443	297468	16360022
Manipur	45038	90050	277215
Mizoram	16243	97762	245328
Meghalaya	196691	63594	543381
Arunachal Pradesh	158318	14546	356345
Tripura	73984	101620	362534
Nagaland	55239	178001	503688

19th Livestock Census, 2012

Potential Avenues for Women-Led Entrepreneurship

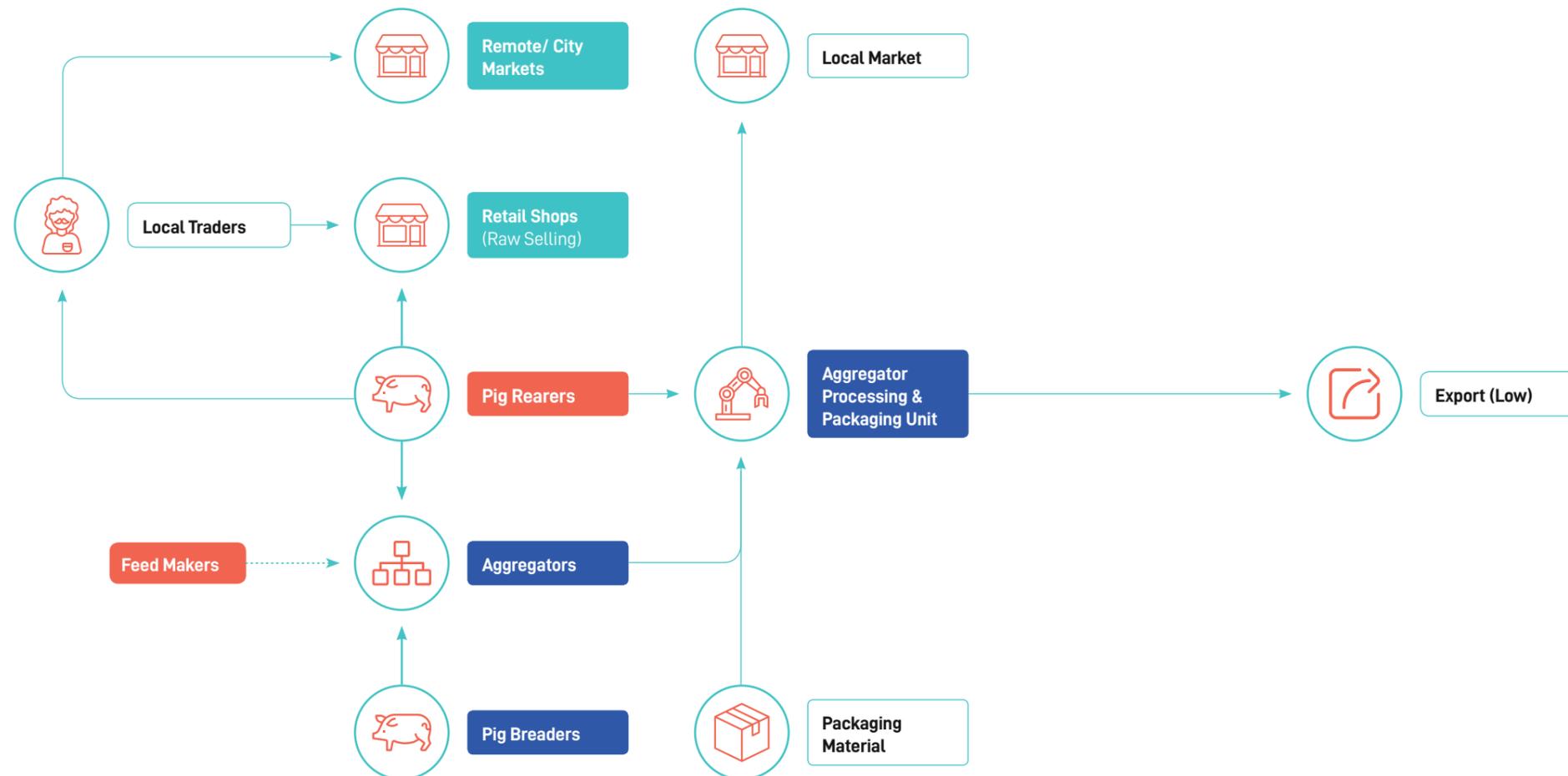
Women entrepreneurs are largely concentrated in the area of animal rearing and feed preparation. While there is scope to increase the participation of women entrepreneurs in the sales and distribution channel of raw meat, there is also immense potential

in building women led businesses in aggregation of small rearers and processing/packaging of raw meat. This would not just ensure increased opportunities for women entrepreneurs but also move them up the value chain resulting in better returns.

Recommendation

Equipping women rearers and feed makers in the value chain to explore forward linkages could strengthen their presence in the value chain. With increased impetus on rural livelihoods programmes by the Government in the past few years, piggery

has been promoted as a livelihood activity amongst women's groups. This provides a ready base for women aggregators and processors in the value chain.



Investments and Returns

- + The pig rearing business has great potential if beyond the traders, the reares can connect directly to customers.
- + Capital investments required for processing and packaging units as returns will be significantly higher.

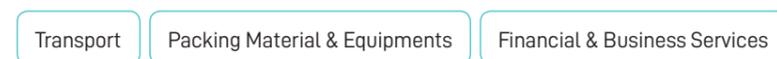
Opportunities

- + Local demand for pork high and unmet. Mainly met through imports from abroad and from other states in India.
- + Potential growth in processed meats industry.
- + Increasing demand for pork from other parts of the country.
- + Most pig rearing done locally with no artificial feed, making it attractive to high end markets as well.

Challenges

- + Processing units cannot operate on a very small scale.
- + Food quality for exports are not often met by small producers; need for training, awareness and appropriate infrastructure.
- + Small farmers or livestock rearers are not yet integrated in other parts of the value chain.

Services



Women Entrepreneurs

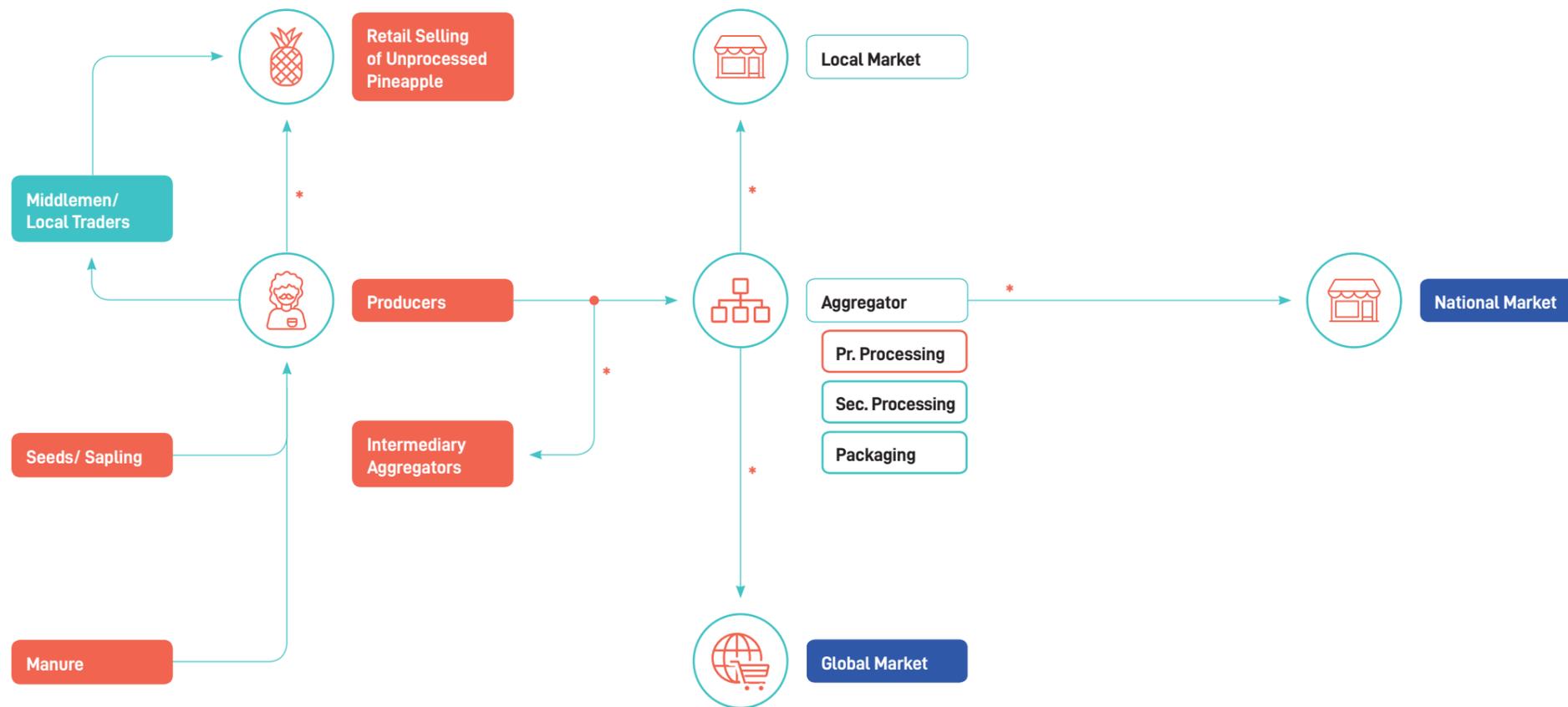
- High Concentration
- Low Concentration
- Potential Areas

Women Workforce

- High Concentration
- Low Concentration



Processing of Pineapple and Other Citrus Fruits



North-East Region is a major producer of the pineapple fruit (cultivars such as "Giant Kew" and "Queen Pineapple"). Pineapples produced from this region are known for their sweetness (high TSS) and less fibre. The quality of the fruit comes from the organic mode of production and abundant rainfall in the region. Modern HDP techniques are also being adopted. The Government of India, having identified the potential of the region for horticultural crops, started a project called "Horticulture Technology Mission" in 2001. This project resulted in 140.7% increase in the area and production of pineapple. The region contributes to more than 40 percent of the pineapple production in India and 90 to 95 percent of the produce is organic.

General Mode of Operation: Primary producers are independent and not organised. Entrepreneurs, due to proximity to agricultural fields, often have direct linkages to producers. They collect and process the fruit and are responsible for branding and marketing. Few large-scale companies also procure from the producers and export.

Type of products:

- + Fruits
- + Juice
- + Pulp
- + Rings
- + Candy
- + Powder

Services

- Transport *
- Equipments, Spare Parts
- Packaging Material
- Financial & Business Solutions

Women Entrepreneurs

- High Concentration
- Low Concentration
- Potential Areas

Women Workforce

- High Concentration
- Low Concentration

Potential Avenues for Women-Led Entrepreneurship

Women entrepreneurs are concentrated in early parts of the value chain as producers and primary processors. This also reflects in their less than optimal participation in local markets and as

aggregators and secondary processors. Women-led businesses in processed fruit could potentially harness opportunities in national and global markets.

Recommendation

A huge and ready international market for raw and processed pineapple fruit can be tapped by government and private investment in supply chain infrastructure including cold chains and

freight transport. Adequate incentives for women entrepreneurs in these areas could see an improvement in participation of women in the value chain.

Investments and Returns

- + Higher investments needed for aggregators
- + High margins on value-added products, lower margins when traded as a commodity
- + Value-added and processed products need low-to-medium investments in terms of machinery and working capital

Opportunities

- + Unique variety of pineapples and other exotic agriculture products present in various parts of the region
- + Raw and processed fruit can be exported to markets in the Middle East
- + Huge demand for processed pineapple in the European and US markets

Challenges

- + Seasonality of fruits is a challenge without the presence of cold storages or staggered processing of multiple fruit varieties throughout the year
- + Marketing and transport to mainland India or foreign countries
- + Fear of quality check and registration leads food processing companies to remain at a small scale.



Spices- Turmeric, Pepper, Chilli and Large Cardamom

The NER is home to some niche spice crops such as Lakadong turmeric, Bird's eye chilli, King chilli and Nadia ginger, all of which have high market demand across India. The Lakadong turmeric, grown in the Jaintia hills, has a very high curcumin content, which

results in both health benefits and capacity for use as a natural dye. The various kinds of chillies produced in the region rank among the spiciest in the world and are often used for preparation of sauces and pastes.

Potential Avenues for Women-Led Entrepreneurship

There is a high concentration of women in the traditional spice value chain of growing, primary processing and selling in the retail market. However, there is scope to increase women's participation

in aggregation and processing businesses. The rising demand for herbal (plant based) medicines and cosmetics is a potential area for women entrepreneurs to venture in.

Recommendation

Bridging knowledge and skill gaps in legal and trade certifications could go a long way in encouraging women entrepreneurs in the region to set up businesses manufacturing plant based medicines and cosmetics. Women in these businesses would

have a natural advantage of leveraging indigenous knowledge and local resources to exploit a market opportunity. Branding of indigenous spices at a state or regional level could enhance the competitiveness of existing women entrepreneurs in the sector.

Major Spices in NER:

Spice	Origin
Chilli	
Bird's Eye Chilli	+ Mizoram
Bhut Jolokia/ Naga King Chilli	+ Nagaland, Assam, Manipur, Arunachal Pradesh
Local Chilli	+ Assam, Meghalaya, Arunachal Pradesh
Rhizomes and Root Spices	
Ginger	+ Assam, Meghalaya, Arunachal Pradesh, Manipur
Lakadong Turmeric	+ Meghalaya
Local Turmeric	+ Assam, Meghalaya, Manipur, Mizoram, Nagaland

Seed/ Fruit Spices

Large Cardamom	+	Sikkim, Arunachal Pradesh, Manipur
Long Pepper	+	Meghalaya, Manipur
Black Pepper	+	Assam, Meghalaya
Black Sesame	+	Assam
Coriander	+	Assam
Mustard	+	Assam

Leaf Spices

Bay Leaf	+	Meghalaya
-----------------	---	-----------

Annual Production of Spices (Areas in '000 Hectares)

States	2014 - 15	2015 - 16	2016 - 17	2017 - 18
Assam	98.6	100.53	119.99	101.6
Arunachal Pradesh	10.17	11.44	11.44	11.4
Manipur	10.47	10.47	10.47	10.5
Mizoram	23.3	24.57	24.81	27.7
Meghalaya	17.5	18.37	18.61	18.7
Nagaland	9.77	15	15.69	9.9
Tripura	5.69	5.69	5.69	6.66

Source: Databank, NEDFI

Investments and Returns

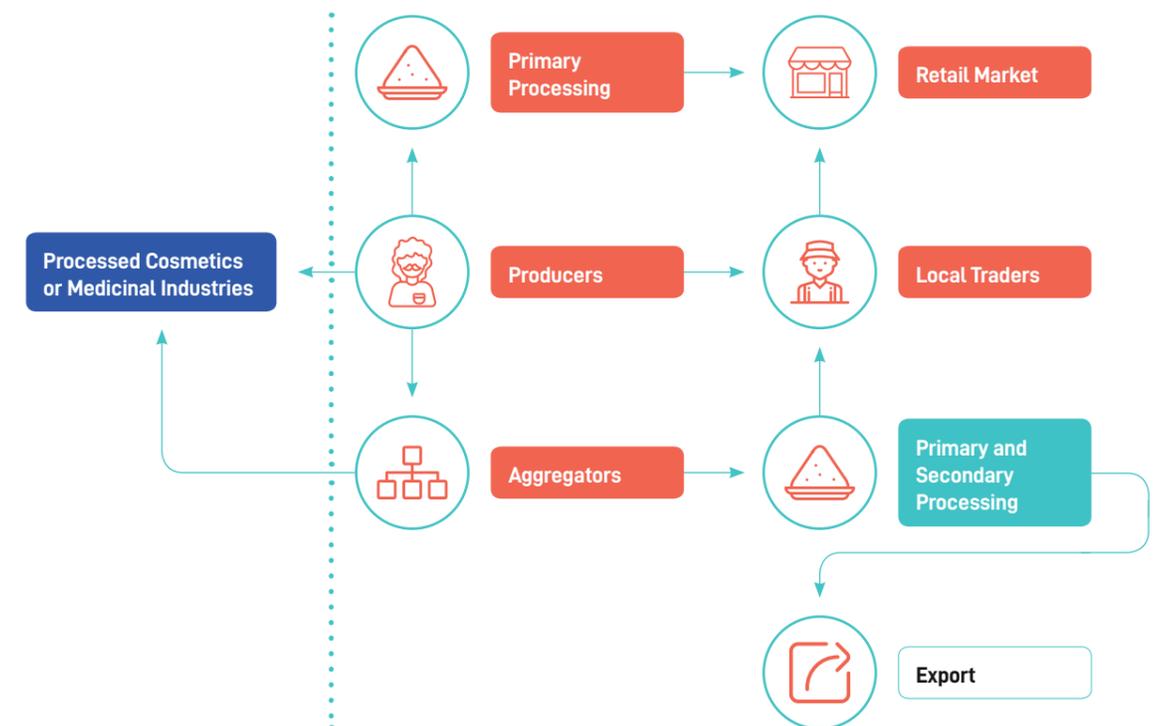
- + Very high margins/returns at all levels in the spices value chain
- + Low investments for primary processing

Opportunities

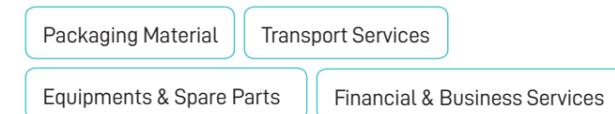
- + Organically grown; potential for certification and sale in high-end markets
- + Organised as SHGs thereby protecting producer benefits
- + Unique and highly marketable: Turmeric rich in curcumin content; Spiciest chillis in the country
- + Can be operated as small, medium or large scale enterprises
- + Low production costs at the farm-level: traditionally grown in mixed cropping patterns
- + Turmeric can be diverted to the cosmetic or medicinal industry

Challenges

- + Marketing and transport to mainland India or foreign countries
- + Seasonality of fruits is a challenge without the presence of cold storages or staggered processing of multiple fruit varieties throughout the year
- + Fear of quality check and registration leads food processing companies to remain at a small scale.



Services



Women Entrepreneurs

- High Concentration (Red box)
- Low Concentration (Teal box)
- Potential Areas (Blue box)

Women Workforce

- High Concentration (Red box)
- Low Concentration (Grey box)



Handloom and Handicrafts

Handloom and handicrafts (H&H) are two of the oldest cottage industries in India, which also preserve and hold the rich traditional heritage of India. Indian weavers are recognised worldwide for their hand spinning, weaving and printing.

As per available data, the production and export of handloom cloth and garments in 2015-16 was Rs. 720 crore and Rs. 2353 crore respectively. In 2015-16, it is estimated that total production of handicrafts including handmade carpets was Rs. 41418 crore and export of handicrafts was Rs. 30939 crores (Ministry of Textiles, 2017).

The NER's handloom and handicraft industry owes its thriving art to the vast diversity within the region and predominance of tribal communities. These products are being diversified and designed to gain a huge market outside the local base. For example, traditional Phaneks and Chadors are being marketed as shawls and dupattas in other parts of India. Weaving is generally done in handlooms or loin looms, which also form a part of the socio- cultural narrative of the region. Although traditionally these clothing items are made for self and home use, families have slowly begun to sell these products in the market and generate income for their households.

Schemes, Strategies and Other Information

- + Scheme for North East Handloom And Handicrafts (SNEHH)
- + The Manipur Use and Procurement of Local Handlooms and Handicrafts Products Policy, 2017
- + National Handloom Development Program (NHDP)
- + Yarn Supply Scheme (YSS)
- + Handloom Weavers Comprehensive Welfare Scheme (HWCWS)
- + Comprehensive Handloom Cluster Development Scheme (CHCDS)
- + Ambedkar Hastshilp Vikas Yojana
- + Marketing Support & Services Scheme (Handicrafts)
- + Research & Development Scheme (Handicrafts)
- + Mega Cluster Scheme (Handicrafts)

Geographical Indication Tags for this Region

Muga silk

Moirang Phee

Shaphee Lanphee

Chakesang shawls

Wangkhei Phee

Types of Handlooms and Handicrafts in the Region



Main Players

- + Central and Respective State Governments
- + Northeastern Handicrafts and Handlooms Development Corporation Ltd.
- + Non-profit organisations
- + Cooperative societies
- + State Handloom Societies
- + SIDBI
- + Export Promotion Council for Handicrafts.

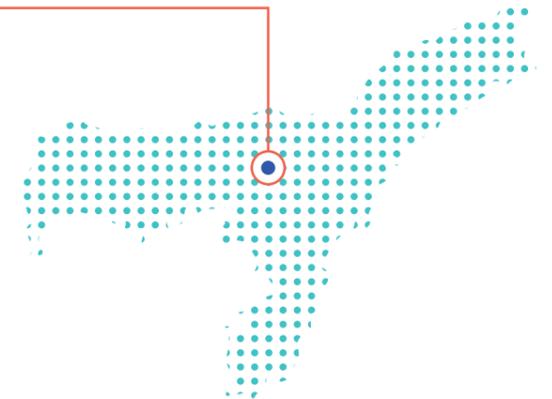


Current Model of Operations

- + Weavers are generally connected to one designer-entrepreneur who provides the weavers with raw material and design template. The finished products are returned to the designer-entrepreneurs, who then market the product. In a few states, the government also procures from the weavers.

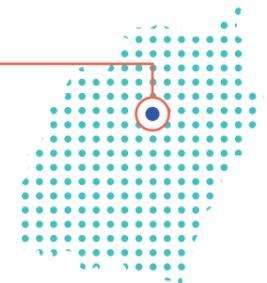
Assam

- + Bamboo crafts
- + Bamboo nesting
- + Brassware
- + Coiled cane work
- + Silk spinning
- + Flattened bamboo mat
- + Sheetalpati reed mat
- + Cane furniture



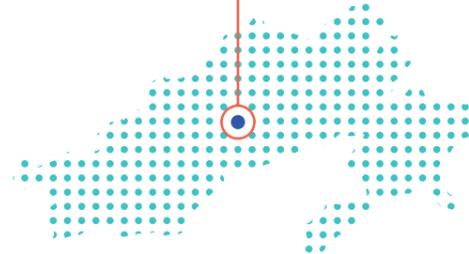
Manipur

- + Bamboo and reed products
- + Thongjao pottery
- + Bell metal works



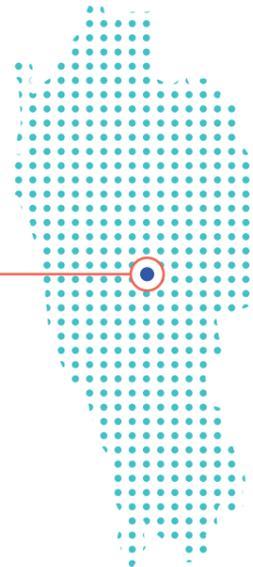
Arunachal Pradesh

- + Wood carving
- + Bead craft
- + Cane haversacks
- + Subansiri coiled cone hats
- + Flattened bamboo containers
- + Apatani bamboo products
- + Pottery
- + Carpet weaving
- + Textile and handlooms



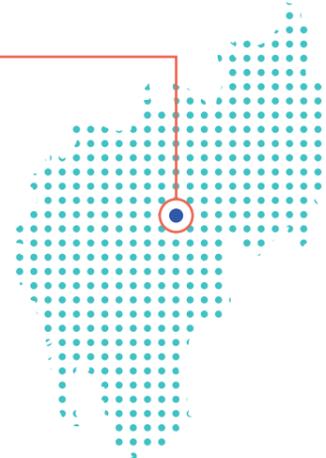
Mizoram

- + Traditional bamboo products
- + Thongjao pottery
- + Reed mats- Kauna Phaks
- + Bell metal works



Tripura

- + Traditional bamboo products
- + Bamboo furniture- Katlamara
- + Bamboo crafts
- + Pressed clay works
- + Bamboo fences
- + Textiles



Meghalaya

- + Bamboo rain shields
- + Garo bamboo house- Nokachik
- + Bamboo carrying baskets



Nagaland

- + Wood carving
- + Kophi- cane baskets
- + Loin loom weaving
- + Pottery



Schemes, Strategies and Other Information

While silk is one of the main fibres for the region (owing to sericulture practices and the unique Muga silk from Assam), the value chain has been studied for the handloom industry for all type of yarns.

Potential Avenues for Women-Led Entrepreneurship

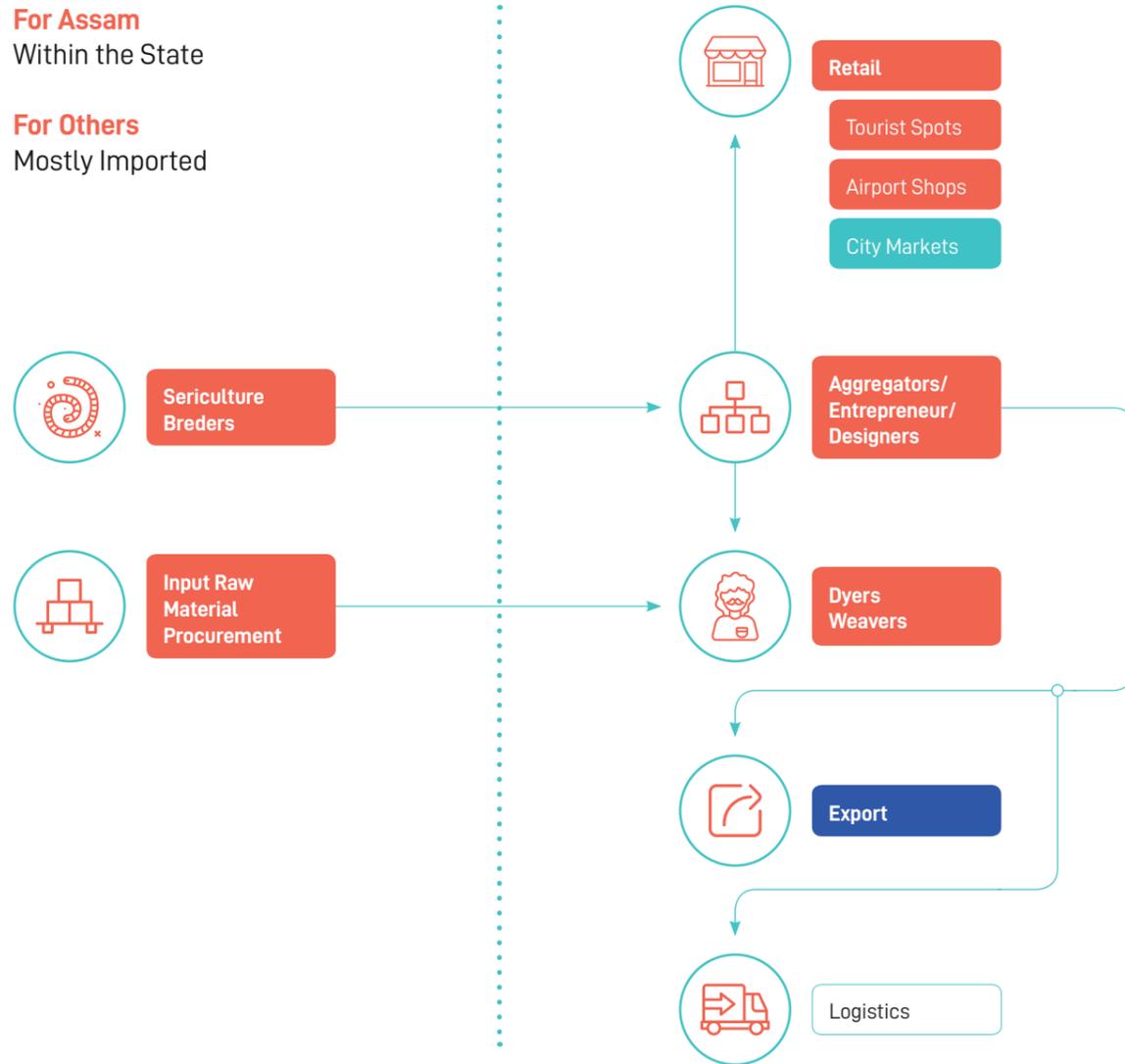
The handlooms sector has traditionally been women centric witnessing high concentration of women in most parts of the value chain. Textiles and weaves from the region have an ethnic value generating a huge demand in the international market. This is a potential area of growth for women entrepreneurs operating in the sector.

Recommendation

The current state interventions in the handloom sector are oriented at the producer level with most schemes targeting rural weavers. Incentives and capacity building of small women entrepreneurs operating as a crucial link between the rural weavers and the market would not just generate economic benefits but also social benefits for the region. A clear definition and explicit framework governing social enterprises in India is certain to benefit this and many other sectors working on production-by-masses model.

For Assam
Within the State

For Others
Mostly Imported



Investments and Returns

- + Low investments in terms of capital but high in terms of working capital invested
- + Weavers get the least margins in the value chain, retailers enjoy the highest margins despite very high shelf life
- + Scale remains small due to low margins for the weavers

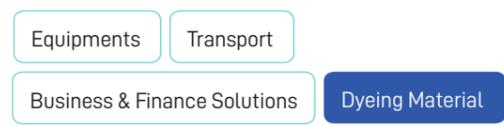
Opportunities

- + No additional training or skills required as it is a skill passed down by generations of women
- + Vast diversity of tribal communities produces an equally great diversity of patterns and designs
- + Scope for product differentiation away from traditional dresses to weaving sarees, curtains, throws and other accessorising products
- + Highly skilled designer-entrepreneurs with adequate knowledge of the market; less handholding required to scale up the product
- + Sericulture adds to the benefit of the product. A specific kind of silk called "Ahimsa Silk" is being marketed where the pupa of the silkworm is not killed. This is capturing niche European markets and Buddhist monks.
- + The sector can absorb more students of design and visual arts.

Challenges

- + The sector has yet to fully transition from self-consumption to marketing and sale. Hence the value chain, which is dependent on home-based producers often suffers due to the non-market orientation of the weavers, who primarily operate on an incentive or wage basis.

Services



Women Entrepreneurs

- High Concentration
- Low Concentration
- Potential Areas

Women Workforce

- High Concentration
- Low Concentration



Bamboo and Cane Handicrafts and Furniture

Bamboo is one of the few products that has cross-sectoral usage in the NER. It is used as a material for buildings, baskets, utensils, furniture, bamboo blinds and many other products. Bamboo shoot forms an important part of Northeastern cuisine. Similarly cane also finds use in various forms. The products exhibit the fine workmanship and skills of the artisans in this region. Intricate structures and

myriad cuts and profiles made from myriad types of chisels are richly illustrated through the various types of bamboo crafts that these artisans make.

Bamboo is also an eco-friendly product, which is replacing plastic (like in the marketing of bamboo toothbrushes, straws, etc.).

Type of products:

- + Furniture
- + Walking sticks
- + Wall hangings and decorative items
- + Lampshades
- + Utensils: trays, plates, cooking equipments
- + Baskets
- + Bamboo wood/ pressed
- + Bamboo cloth

Potential Avenues for Women-Led Entrepreneurship

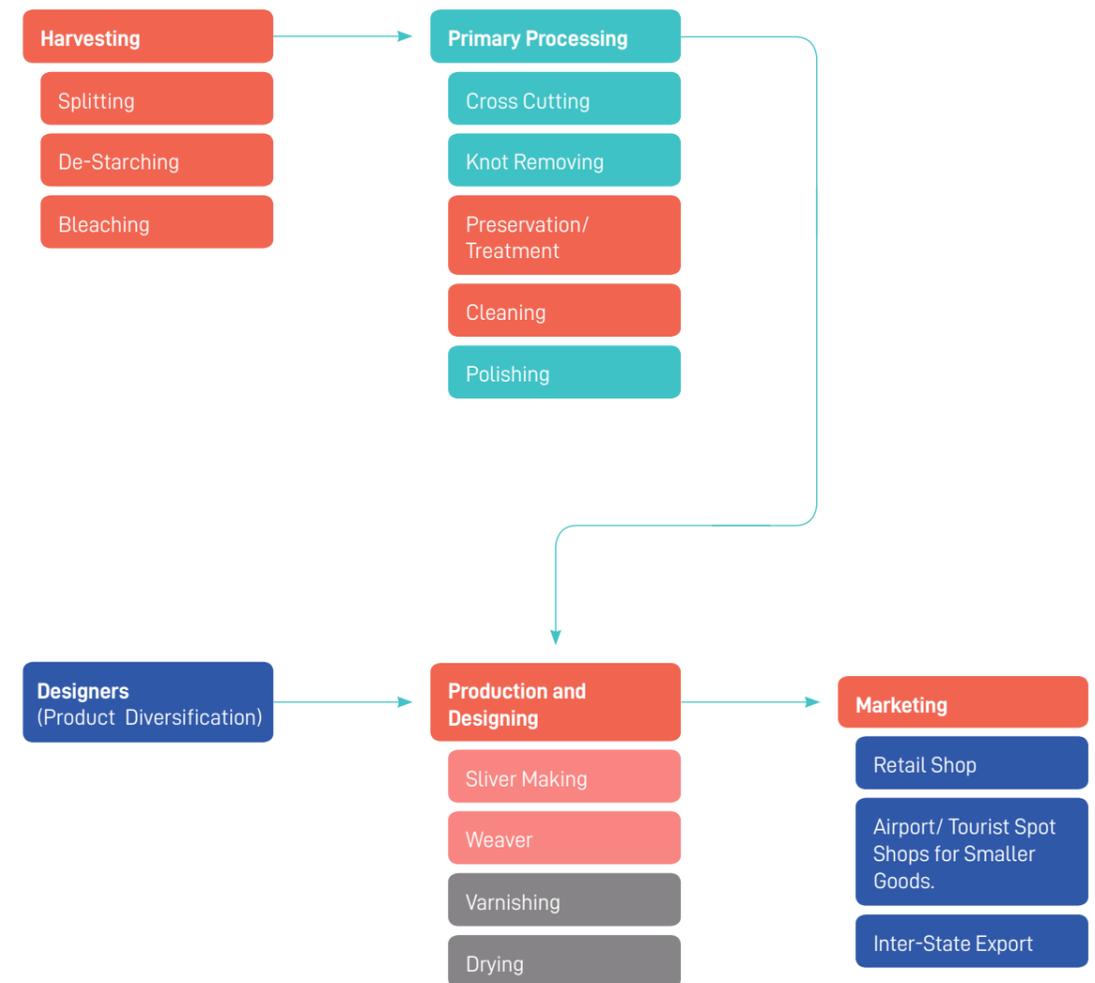
Though bamboo and cane are one of the most prominent natural materials available in the region, women entrepreneurs have not been able to benefit from this vast natural capital. Women entrepreneurs are limited to primary activities of harvesting and to some extent primary processing while production

and designing has been dominated by male members of the community. There is a huge potential for women to move up the value chain and set up designing and manufacturing facilities.

Recommendation

The region invests large resources on bamboo related research with institutions like National Bamboo Mission (NBM) and National Mission on Bamboo Applications (NMBA) developing new technologies from plantation to post harvest applications. Establishing better linkages between

this resource pool and existing and aspiring women entrepreneurs could optimise the results from the research and provide growth opportunities to women entrepreneurs.



Services

- Transport
- Marketing and Financing Support

Women Entrepreneurs

- High Concentration
- Low Concentration
- Potential Areas

Women Workforce

- High Concentration
- Low Concentration

Investments and Returns

- + Low to medium investments at all levels in the value chain
- + Average margins at all levels in the value chain
- + Investments need to be done in product development to move from a pure craft to a utility craft

Opportunities

- + Huge possibility of product diversification
- + Abundant availability in most states of the NER and multiple usages
- + Low input costs; raw material grows wild

Challenges

- + Product differentiation into smaller products could bring in more women participants in the business.
- + Traditionally a male oriented sector in case of bigger furniture and large products.



Grass and Reed Handicrafts

Grass and reed products, in particular Kauna Grass and Water Hyacinth, are unique to the North-East. A large number of products are being made using Kauna Grass (indigenous to Manipur) and Water

Hyacinth. The eco-friendly product, which is strong and malleable, with a natural colour of dried grass is capturing the market easily. The raw material is cheap and easily available.

Type of products:

- + Furniture
- + Walking sticks
- + Wall hangings and decorative Items
- + Lampshades
- + Utensils: trays, plates, cooking equipments
- + Baskets
- + Bamboo wood/ pressed
- + Bamboo cloth

Potential Avenues for Women-Led Entrepreneurship

Grass & reed handicrafts is a women dominated sector for most parts of the value chain. The skill used in making the handicrafts is indigenous and passed on from generations thereby making it an

important part of the community culture. However, the sector can benefit from better understanding of user experience to increase its market potential.

Recommendation

Training and investing in designpreneurs (design entrepreneurs) who combine design, usability and

functionality could open up a whole new range of market opportunities for women.

Investments and Returns

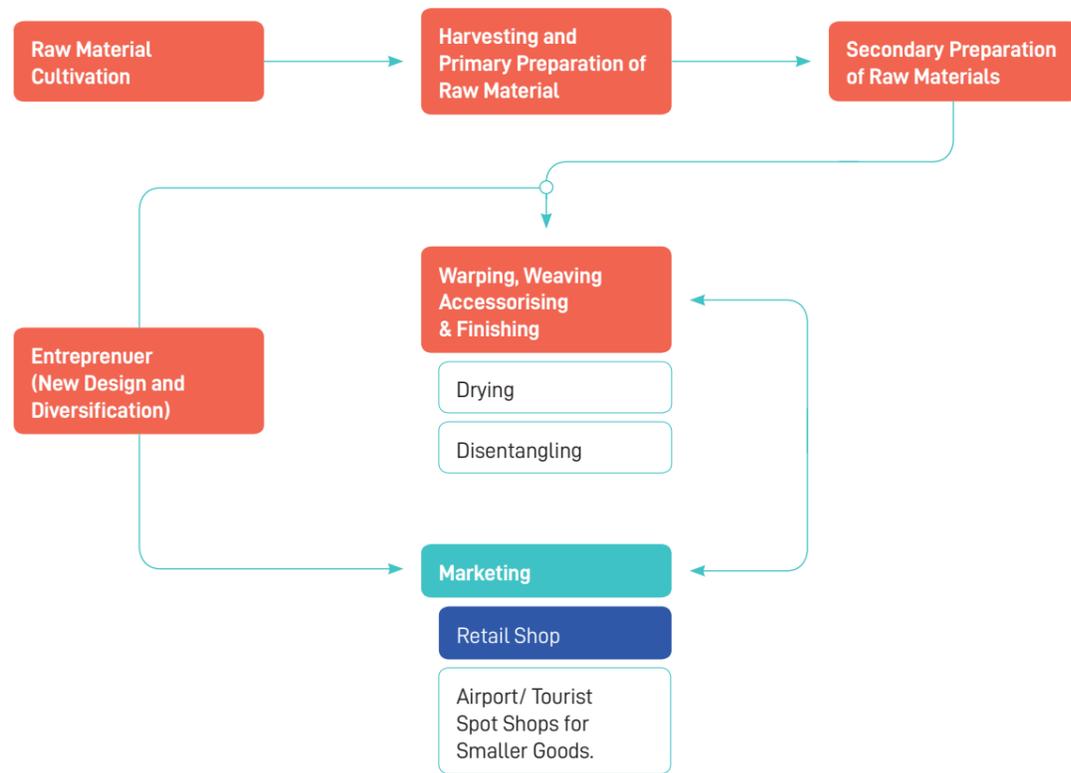
- + Low investment required
- + Low margins for products for women until value addition, such as in weaving
- + High margins in retail sales

Opportunities

- + Designers well connected to market
- + Strong, malleable material that can produce a wide variety of products such as baskets, lamp shades, bags, laundry bags, yoga mats, curtains and light furniture
- + Skills among women are already established; designers are already diversifying products
- + Niche market; only available in the Northeastern states

Challenges

- + Since it is a high revenue product, it has been reported that many farmers shift their paddy cropping to growing Kauna grass, which might prove unsustainable in the future.
- + Currently restricted to small geographic pockets



Services

- Transport
- Marketing and Financing Support

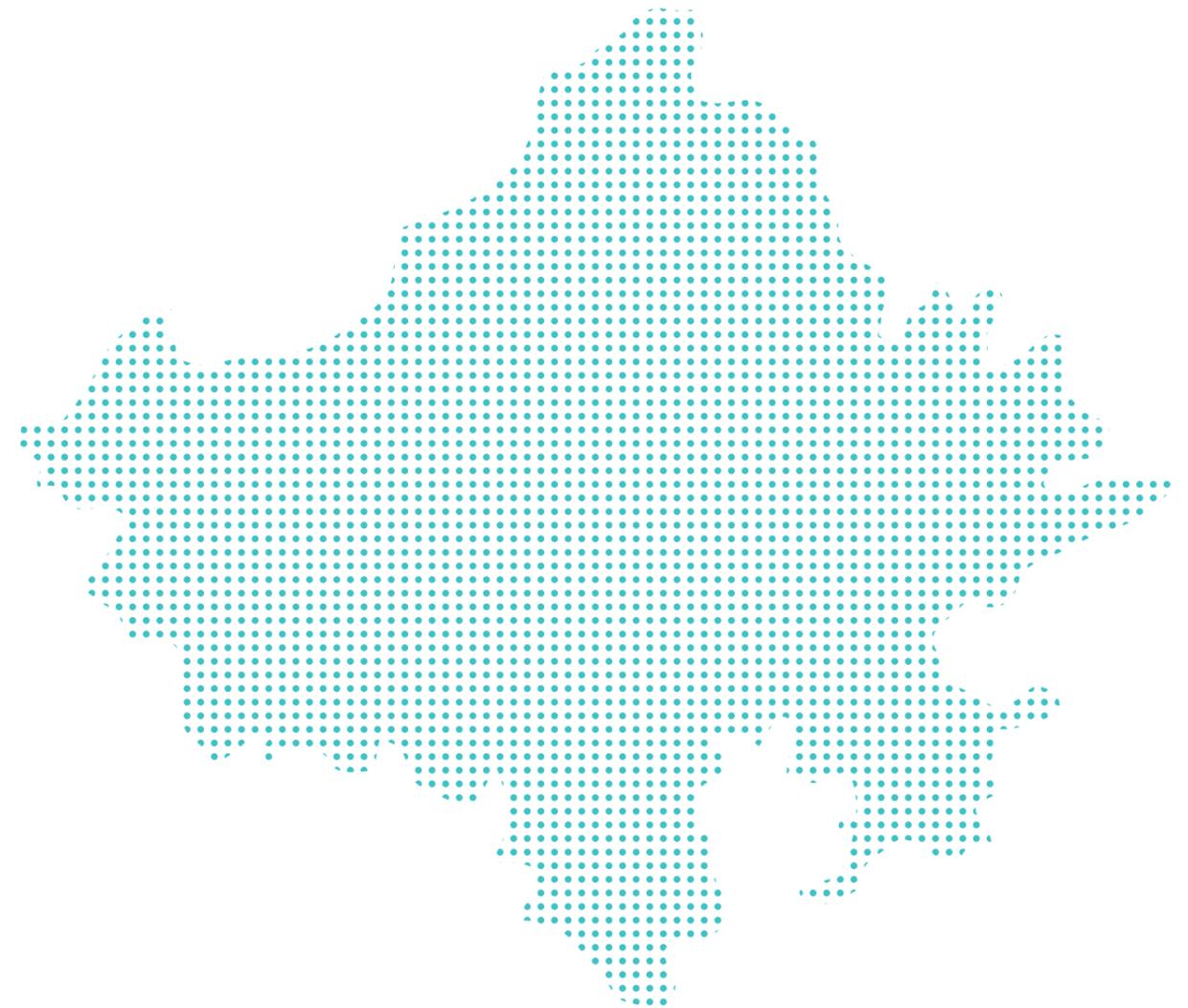
Women Entrepreneurs

- High Concentration
- Low Concentration
- Potential Areas

Women Workforce

- High Concentration
- Low Concentration

Rajasthan



General Introduction on Rajasthan

Rajasthan literally means "Land of Kings" or "King's Abode" (from raja "king" and - sthan land, abode" from Sanskrit sthāna). Rajasthan has the ninth largest state economy in India with ₹9.24 lakh crore (US \$130 billion) in gross domestic product (GDP) and a per

capita GDP of ₹108,000 (US \$1,600). Rajasthan ranks low, 22nd among all Indian states, in the human development index (HDI).

(Source: <https://en.wikipedia.org/wiki/Rajasthan>)



Total Geographic Area
3,42,239 sq.km



National Parks
5



Population
6.86 Crores



Major cities
Jaipur, Udaipur, Jodhpur, Kota, Jaisalmer, Bikaner.



Agro-climate Zones
10 agro-climatic zones



Airports
1 International Airport (Jaipur), other airports/ military or private airstrips- 5.



Method of cultivation
There are mainly two cropping seasons. The water for irrigation comes from wells and tanks. The Indira Gandhi Canal irrigates northwestern Rajasthan.



Nearest Port
Kandla and Mumbai



Major Rivers in Rajasthan
Banas, Mahi, Sabarmati and Luni



Ethnic groups
Rajasthanis form an ethno-linguistic group that is distinct in its language, history, cultural and religious practices, social structure, literature and art. There are around 25 major ethnic sub-groups.

Sectors of Importance

01 Garments and knitwear

02 Gems and jewellery

03 Textiles

04 Electronics and telecommunication

05 Information Technology

06 Automobile components

07 Footwear and leather goods

08 Dimensional stones

09 Cement

10 Glass and ceramics

11 Agro-processing

Economy of Rajasthan

- + Rajasthan's economy is primarily agricultural and pastoral. Wheat and barley are cultivated over large areas, as are pulses, sugarcane, and oilseeds. Cotton and tobacco are the state's cash crops. Rajasthan is among the largest producers of edible oils in India and the second largest producer of oilseeds.
- + Rajasthan is also the biggest wool-producing state in India and the main opium producer and consumer.
- + The main industries are mineral based, agriculture-based, and textile based. Rajasthan is the second largest producer of polyester fibre in India. Rajasthan is pre-eminent in quarrying and mining in India
- + Jodhpur sandstone is mostly used in monuments, important buildings and residential buildings. This stone is termed as "chittar patthar." Jodhpur leads in the handicraft and guar gum industry.

MSME Sector:

- + The MSME sector in Rajasthan cumulatively employed 0.72 million people and cumulative investment in the sector amounted to about INR 273 billion till March 2018.
- + The three districts of Alwar, Jaipur and Udaipur account for about 50 percent of investment in MSME sector while the districts of Jaipur, Alwar and Jodhpur employ about 45 percent of MSME workforce.
- + The small-scale industry is spread across various key clusters in the state. Some of the key clusters are:
 - Auto components (Alwar)
 - Handicrafts (Dausa, Jaipur, Bagru)
 - Pottery (Udaipur)
 - Terracotta (Dungarpur, Rajsamand, Sirohi)
 - Textile (Sikar, Jodhpur, Kota, Bikaner and other cities)

(Source: *Rajasthan Investment Brochure 2019*)



Gender Narrative

Rajasthan has traditionally seen low participation of women in the formal economy.

Women are labourers but enterprises are run by men.

Very few women own land and property and are mainly involved in low investment, skill-based activities.

Gross State Domestic Products (GSDP at current prices and their National Ranks):

GSDP* growth rate	Per Capita GSDP*	NSDP*	Per Capita NSDP*	Registered MSEs**
10.67%	US\$ 1,723	US\$ 116.97 billion	US\$ 1,553	Total no - 3.19 lakhs Investment - INR 8888.20 Cr Employment - 13.16 lakhs

Source: MOSPI and DES- State Governments.

Challenges

- 01 Geographically dispersed
- 02 Highly paternalistic society
- 03 Lack of awareness
- 04 Unorganised and non-commercialised cultivation
- 05 Facilities like storage, warehousing need more investment

Number of Establishments Under Women Entrepreneurship by Major Source of Finance

Total **182371**

182371 Self-finance	7912 Financial Assistance from govt. sources	2599 Borrowing from financial institution
1325 Borrowing from Non- institutions/ Money Lender	387 Loan from Self Help Group	53398 Donations/ Transfers from other agencies

Sectors of Focus for Women Entrepreneurs

The three sectors that emerged in Rajasthan were primarily the ones that either have a current high concentration of women entrepreneurs or have such a possibility. The sectors are:



Textile and Stitched Apparels

The textile and garments industry in Rajasthan is highly diversified with businesses ranging from traditional home-based handloom and handicraft making to an organized textile industry. The organized textile industry uses capital-intensive technology for mass production of textile products and includes

spinning, weaving, processing, apparel and garments.

Textile is one of the most vibrant expression of Rajasthani culture and heritage. In the villages of Rajasthan, textile traditions are passed on spanning countless generations.



Main Players

- + Fab India
- + Anokhi
- + RSWM Limited
- + Aman Exports International
- + Jain Cloth House
- + Cheer Sagar
- + Sutlej Textiles and Industries Limited

Size and Growth

The domestic textile and apparel industry contributes to two percent of India's GDP, ten percent of industrial production, 27 percent of the country's foreign exchange inflows and 11 percent of the country's export earnings.

agriculture sector in terms of employment.

- FDI in the textiles and garments industry has reached \$3.1 bn during 2018-19
- Exports in the textiles and garments industry are expected to reach \$300 bn by 2024

(Source: <https://www.investindia.gov.in/sector/textiles-garments>)

The textiles and garments industry in India employs 45 million people and is second only to the

Demand (Local, National and Global)

Exports of \$40 billion were sold as:

- + Textiles: \$100 bn
- + Apparel: \$40 bn

Domestic sales of \$100 billion were primarily to:

- + Households : \$81 bn
- + Technical textiles : \$19 bn

The domestic textile and garments industry stood at USD \$140 billion in 2018:

- + Domestic : \$100 bn
- + International : \$40 bn

Growth Drivers

Higher disposable incomes and preferences for brands

Organized retail landscape and e-commerce

Rising per capita income

Favourable demographic trends

Changing lifestyles

Production

Hand block printing and decorative textile is done mainly in the state of Rajasthan as there is good availability of skilled labour. Stitched apparels are also a booming industry in the state. Some of the master tailors (who help in creating the first prototype of the

design on paper and specialise in sizing of clothes) may be migratory labourers from the nearby state of Uttar Pradesh but there is no dearth of designers and general tailors in the state.

Potential and Offerings

Rajasthan has a well-developed social, physical and industrial infrastructure as well as good virtual connectivity. The majority of the factories are located in designated industrial areas and Export

Promotion Industrial Parks (EPIP), resulting in availability of integrated infrastructural facilities in an integrated manner.

- + Experience in trade: The garment manufacturing industry has been flourishing in the state for more than 35 years, resulting in a trained pool of human resources and expertise in manufacturing garments.
- + Printing, dyeing and tie-dye: Rajasthan is a major producer of printed and dyed fabric as well as tie-dye for the fashion garment industry and the typical Rajasthani prints of Bagru and Sanganer have international recognition.
- + Embroidery, embellishment and value addition: The manufacturers have superior design

capabilities and specialize in embroidery, hand embellishment by bead and sequance, lace work and patchwork.

- + Variety of fabrics - Manufacturers work with all kinds of woven and knitted fabrics such as cotton, blends, viscose, voiles, crepes, georgette, chiffons, velvet, jacquard, dobby, linens, cotton jersey, viscose jersey, melange, etc.

Small Minimum Order Quantities (MOQs):

- + Companies are doing small order quantities per style to meet the demand of boutique and high value customers.

Input/ Source

The small and medium enterprises for stitched apparels, hand block printing and decorative textile procure input material (cloth, yarn, colours, thread,

buttons, etc.) not only from Rajasthan but also from other states depending on the quality and cost of the material required.

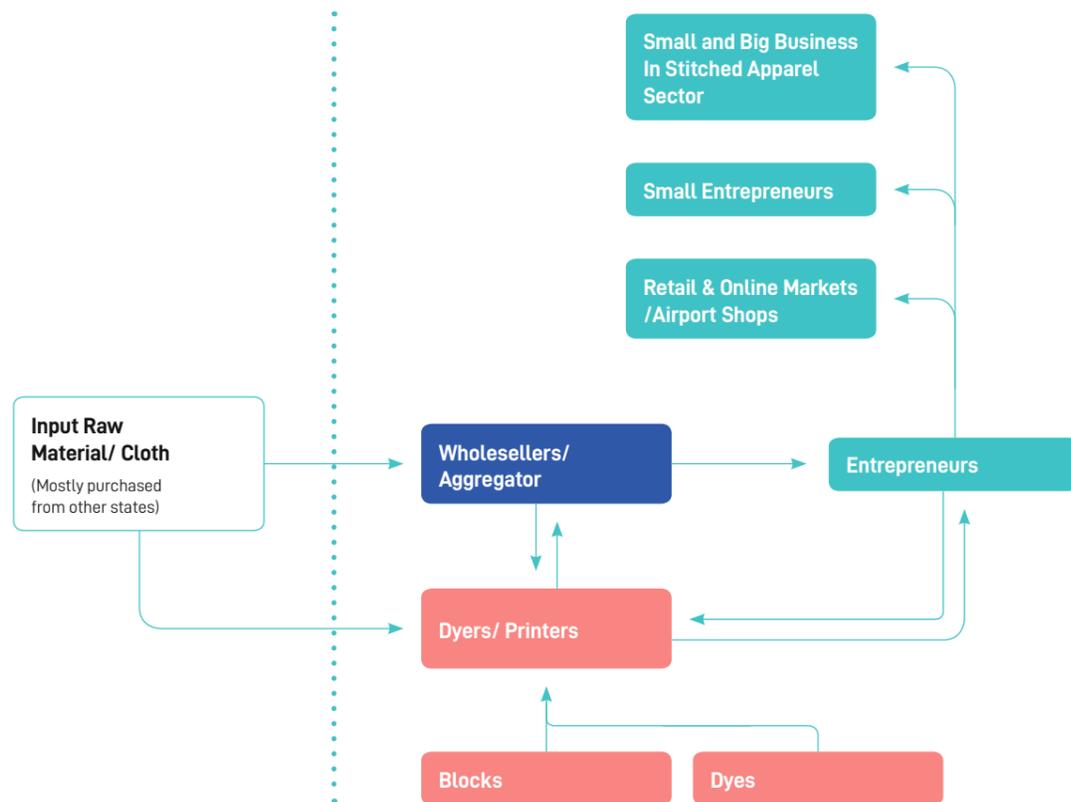
Regulatory Structures

- + Some major setbacks to expanding and globalizing this sector are the regulations regarding hiring of labour and reporting requirements with onerous transaction costs. This is specifically true of the labour-intensive segments of the value chain.
- + The Ministry of Textiles has a large number of schemes and programmes for the textile and apparel sector.
- + These contribute to the increasing growth and development of the sector.
- + Some of the flagship schemes are:
 - Technology Upgradation Fund Scheme (TUFS)
 - Scheme for Integrated Textile Parks (SITP)
 - Development of Mega Cluster Scheme
 - Integrated Skill Development Scheme (ISDS)
- + Substantial scale-up is required to achieve a successful growth in this industry. The businesses also require re-engineering and re-calibration to leverage opportunities for scale-up.

Scope and Stressors

- + The use of chemicals and dyes during the manufacture of textiles generates an enormous quantity of waste as sludge, fibres and chemically-polluted waters.
- + The chemically-polluted textile waste-water degrades the quality of the soil and water when it mixes with these natural resources and its dependent habitats and environment.
- + As a consequence, Textile industry is now one of the biggest sources of environment pollution.

Block Printing



Services & Other Equipment



Women Entrepreneurs

- High Concentration
- Low Concentration
- Potential Areas

Women Workforce

- High Concentration
- Low Concentration

Potential Avenues for Women-Led Entrepreneurship

Though there is a high concentration of women in workforce in this value chain, only a few are visible in the forefront managing these businesses. There

is a potential to increase women's entrepreneurship in consumer facing businesses like organized retail and e-commerce.

Recommendation

Investment in women entrepreneurship programmes that deal with socio-emotional and behavioural aspects as much as with business aspects could lead to increase in women-led businesses. Women

role models could lead to aspiration building resulting in more women exploring leadership and entrepreneurial roles.

Investments and Returns

- + Handicrafts and handlooms are labour and time-intensive in comparison to machine-made products
- + Capital is required for initial investment as the sector works on credit cycles (requires initial investment of 2-5 lakhs to make a 6 metre long table for block printing)
- + The profit margin varies depending on the business model (B2B or B2C) and customer segment (domestic or international)
- + The margin per meter ranges between 10-15%

Opportunities

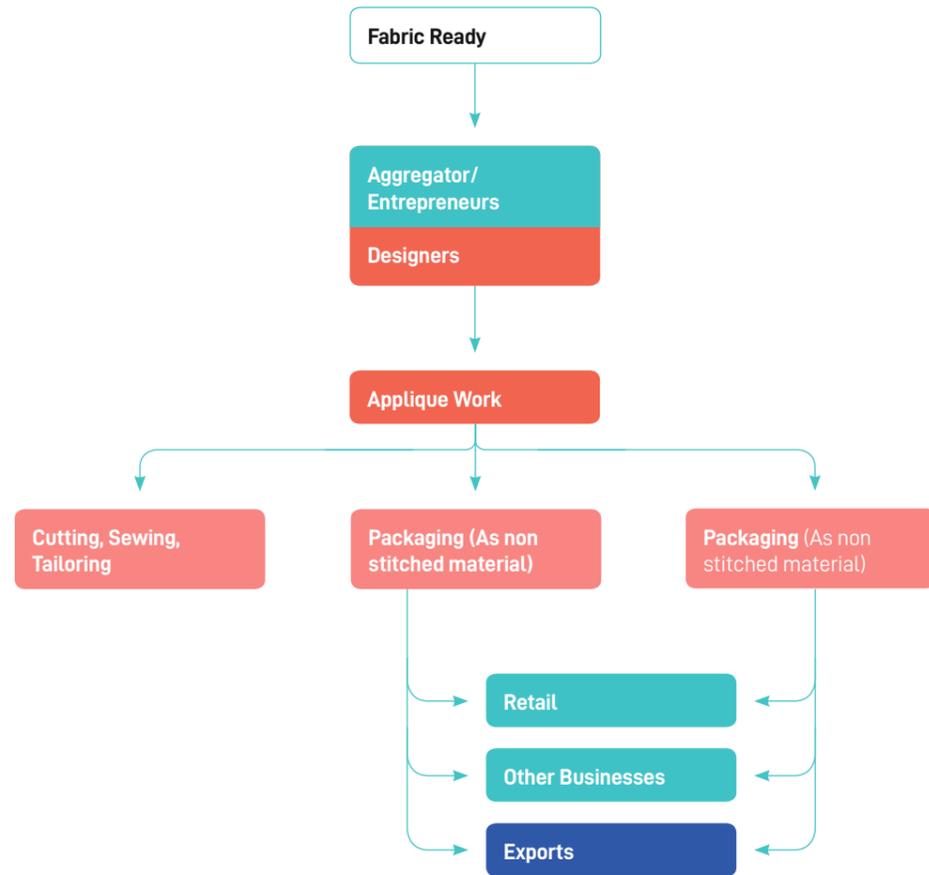
- + Foreign tourists are prominent buyers of the products
- + Presence of retail outlets such as FabIndia and Anokhi as some of the biggest customers (B2B) of hand printed textiles
- + Huge demand from countries like Japan
- + Increasing emphasis on product development and design upgradation
- + New entrepreneurs coming up in the space act as aggregators or buyers of the product.

Challenges

- + Labour-intensive process and time-intensive compared to machine-made clothes
- + Limited research and development (R&D) in the sector; limited innovation in design
- + Seasonal: Printing cannot be done during the monsoon season
- + Organic colouring processes are costlier and more time consuming than chemical colouring
- + Handprinted textiles do not appeal to the youth
- + Due to the socio-cultural factors, fewer women are at the frontend of the value chain.
- + Limited and niche customer segment



Applique



Services & Other Equipment



Women Entrepreneurs

- High Concentration (Red)
- Low Concentration (Teal)
- Potential Areas (Dark Blue)

Women Workforce

- High Concentration (Red)
- Low Concentration (Grey)

Potential Avenues for Women-Led Entrepreneurship

Most applique artisans and designers are women and there is scope to increase their presence as aggregators and consumer facing businesses. There is a large concentration of women workforce in product finishing and packaging activities some of which can be transformed into women-led businesses.

Recommendation

Design labs could be set up to serve as common resources for women-led businesses helping them develop high quality products for export market. Women-led businesses providing packaging solutions could be incentivised.

Investments and Returns

- + Applique work works as a value-add and does not sell as a standalone product.
- + Investment amount depends on whether the applique work is handmade or machine-made.
- + Applique requires less investment and less time compared to the hand-printing techniques.
- + Returns on products with applique work are higher than for products without applique (applique is an attractive value-addition to any product)

Opportunities

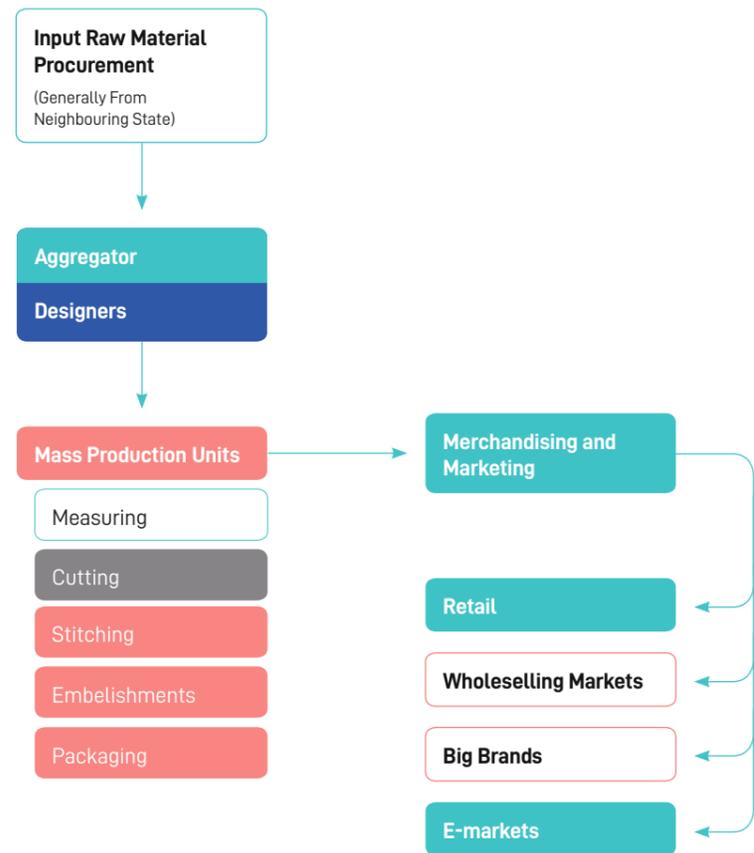
- + Apparels such as party-wear, office-wear and semi-formals; increasing share of ethnic-wear and designer-wear are expected to increase consumer demand
- + Mass customization to drive demand and increase per capita consumption
- + Tapping into newer export markets offsets the effects of both saturation and increased competition in the traditional export markets
- + Use of applique on non-traditional products (garments, shamiana or tents, cushion covers, curtains, bed covers, wall hangings, and handbags, etc)

Challenges

- + Maintaining high quality work to remain competitive in the market
- + High cost of fashion designers is a hindrance to producing new designs continuously



Stitched Apparels



Services & Other Equipment



Women Entrepreneurs

- High Concentration (Red)
- Low Concentration (Teal)
- Potential Areas (Dark Blue)

Women Workforce

- High Concentration (Red)
- Low Concentration (Grey)

Potential Avenues for Women-Led Entrepreneurship

Most women in the value chain are either employed as workforce or are a part of family run ventures where they have limited visibility and opportunity to lead. Hence they continue to constitute the hidden

entrepreneurial talent in these value chains. While there is some concentration of women entrepreneurs in the areas of designing and marketing, there is scope to explore this potential further.

Recommendation

An impetus from the ecosystem is needed to transform the hidden entrepreneurial talent into a potential avenue for economic and social growth. From government schemes to incubation/

acceleration programs, support will be needed to enable women take up leadership roles in entrepreneurial ventures.

Investments and Returns

- + Good quality product assures 20-50 percent Return on Investment (ROI) in the first year itself
- + Minimum investment of five lakh rupees needed

Opportunities

- + Rise in disposable income amongst the younger population increases ability to consume
- + Increase in organized retail has led to the rise of private labels with Ready to Wear (RTW) rather than Ready to Stitch (RTS) clothing options
- + Cashless economy leading to impulsive buying behaviour amongst the Indian consumers
- + Intensifying urbanization leading to demand of varied goods and services
- + Growth of Internet penetration and rise of e-commerce as a viable alternative sales channel

Challenges

- + First-generation entrepreneurs need a lot of support
- + Retail spaces are usually very expensive for a new entrepreneur and online selling is not as popular as customers purchasing in stores
- + Seed funds required to start and sustain new ventures
- + Product differentiation and ensuring that the product is market-relevant
- + Handholding required for developing a business plan and assisting with marketing in the early phase of business



Food Processing

Rajasthan is the largest state in India and is rich in production of raw material for the agro-processing industry. The diverse agro-ecological conditions of the state are ideal for the production of fruits, vegetables, spices, flowers, roots, medicinal and aromatic plants. Agriculture and allied activities make up for 24 percent of the state's GDP and

62 percent of the state's working population are dependent on this sector for their livelihood. The state has the largest population of cattle, sheep and camels and contributes 12 percent of milk, 35 percent of goat meat and 40 percent of wool to the country's overall production.

- + 10 agro climatic zones and a diverse portfolio of products
- + Top contributor of spices, milk and nutri-cereals in India
- + 40% of Delhi Mumbai Industrial Corridor (DMIC), India's biggest infrastructure transformation project, passes through Rajasthan
- + Rajasthan's economy is primarily agricultural and rural. Agriculture contributes 26% of gross value added in the state. The diversity of land, soil and climate makes the state distinctly different from other parts of India.
- + Rajasthan accounts for 70% of the total arid and semi-arid zone in India and these arid zones are concentrated mostly in the western part of the state.
- + Rajasthan is the largest producer of rapeseed, bajra, guar seed, spices such as fenugreek, coriander, cumin, fennel and mustard.
- + It is the second largest producer of oilseeds and spices and the third largest producer of soya bean and coarse cereals in India.
- + The state offers opportunities in areas of organic farming and contract farming as well as the creation of post-harvest infrastructure, such as special warehouses and cold chain as well as testing and certification facilities.
- + Rajasthan has the largest population of sheep, cattle and camels.
- + Rajasthan has the third-largest cattle population in India, with some of the finest breeds of milch and draught cattle.
- + The state has eight different breeds of sheep that produce quality carpet wool, along with three breeds of goats.
- + During 2018-19, USD \$53.14 million was allocated for the state's animal husbandry sector.
- + The state is the second-largest producer of milk and the largest producer of wool in India.
- + Investment opportunities are available in areas such as establishing commercial dairy units, wool processing, carpet manufacturing, and poultry and piggery units.
- + Animal husbandry is the major economic activity contributing about 11% of the state's net Gross Domestic Product.

(Source - Rajasthan_Food Processing, Rajasthan IBEF 2017-2018)



Main Players

- + MDH
- + Patanjali
- + Paras
- + Amul
- + Real Juices
- + Tropicanna

Size and Growth

- + 312 million tonnes of horticulture crop production (2017-18)
- + The processed food market is expected to grow to \$543 billion by 2020 from \$322 billion in 2016, at a CAGR of 14.6%
- + Milk production of 176 million tonnes during 2017-18 with per capita availability of milk at a level of 375 grams per day in 2017-18
- + Egg production of around 95.2 billion during 2017-18
- + Total fish production was 12.6 million tonnes during 2017-18
- + Food retail market dominated by food grocery (growing at CAGR 25%) and food services (growing at CAGR 15%)
- + Around 20,000 agro-processing units in the state, making agro-processing the largest sector under MSMEs. Agro-processing units are also the largest contributors (25%) to exports for Rajasthan.

Major Strengths of Rajasthan's Food Processing Industry

- Nutri-cereals** + Pearl Millet (Bajra) & other Small Millets
- Pulses** + Green Gram (Moong), Chickpea, Moth Beans
- Seed Spices** + Cumin, Coriander, Fenugreek, Ajwain (Bishop Weed) & Fennel
- Medicinal crops** + Psyllium Husk (Isabgol), Indian Ginseng (Ashwagandha), Asparagus Racemosus (Satawari), Aloe Vera, Senna (Sonamukhi), Indian Gooseberry
- Oilseeds** + Mustard, Soyabean, Peanut oil
- Commercial crop** + Cluster bean
- Livestock** + Drought Hardy Milch Breeds (Rathi, Gir, Sahiwal and Tharparkar)
- Fruits** + Mandarin, Kinnow
- Vegetables** + Tomato, Green Chilies, Peas, Onion, Potato, Cauliflower, Carrot, Cabbage, Garlic

Growth Drivers

Demand for processed food rising with growing disposable income, urbanisation, young population and nuclear families

Changing lifestyle and increasing expenditure on health and nutritional foods

Launch of infrastructure development schemes to increase investments in food processing infrastructure

Household consumption set to double by 2020

Investments, including FDI, to rise with strengthening demand and supply fundamentals

Diverse agro-climatic conditions encourage cultivation of different crops

Demand (Local, National and Global)

India's food ecosystem offers huge opportunities for investment, particularly given growth in the food retail sector, establishment of favourable economic policies for investment and attractive fiscal incentives for businesses in the sector. The food and grocery market in India is the sixth largest in the world. The food and grocery retail market in India constitutes almost 65% of the total retail market in India. The Government of India through its Ministry of Food Processing

Industries (MoFPI) is also taking all necessary steps to boost investments in the food processing industry. The government has sanctioned 42 Mega Food Parks (MFPs) to be set up in the country under the Mega Food Park Scheme. Currently, 17 Mega Food Parks have become functional.

(Source: <https://www.investindia.gov.in/sector/food-processing>)

Indian food and retail market

- + Projected to touch **\$828.92 bn** by 2020.

Indian dairy industry

- + Expected to double to **\$140 bn** by 2020

Food Products manufactured or produced in India

- + **100% FDI** is allowed through government approval for trading, including through e-commerce

Indian annual household consumption

- + **Expected to triple**; making India the fifth largest consumer in the world

Food processing industry

- + Will potentially attract **\$33 bn investments** and generate **employment for 9 mn** people
- + **100% FDI** is permitted under the automatic route

Potential and Offerings

- + Rajasthan has tremendous possibilities in the development of agro-processing, food processing, integrated cold chain, primary processing centres and milk processing facilities, etc.

- + Most of the agro-production from the state is being exported to other states or abroad in the raw form.

Regulatory Structures

Food Quality Regulation: There are several norms, laws, and regulations, which suggest various standards regarding food additives, contaminants,

food colours, preservatives and labelling (Meeta Punjab, 2007).

- + The Prevention of Food Adulteration Act (PFA), 1954 implemented primarily on the establishment of regulatory standards for primary food products, which constitute the bulk of the Indian diet.
- + The Standards of Weights and Measures Act, 1976 and standards of Weights and Measures (Packaged commodities) Rules, 1977 are legislative measures designed to establish fair trade practices with respect to packaged commodities.
- + Milk and Milk Products Order, 1992 order regulates the production, distribution and supply of milk products; establishes sanitary

requirement for dairies, machinery, premises; and sets quantity control standards for milk and milk products.

- + The fruit and vegetable processing sector is regulated by the fruit products order, 1955 (FPO), which is implemented by the Department of Food Processing Industry.
- + The destructive Insects and Pests Act, 1914, and Plants, Fruits, and Seeds (Regulation of Import in India) Order 1989 regulate imports of planting seeds into India, and prohibit imports seeds for sowing and planting materials without a valid permit.

Generic Value Chain for the Sector

The value chain can be divided into three phases:

Primary Phase

Cleaning/ grading/ segregation of raw material (fruits, vegetables, etc.)

Tertiary Phase

Processing of multiple ingredients for one product and usually involves multiple-steps. For example, wheat is changed to flour and then made into pasta.

- + Primary phase has low margin and needs low level of technology; secondary phase has a medium margin and requires medium level of technology; tertiary phase has the highest margins and requires the highest level of technology
- + Fruits and vegetables have scope at all three levels (primary, secondary, and tertiary phase)

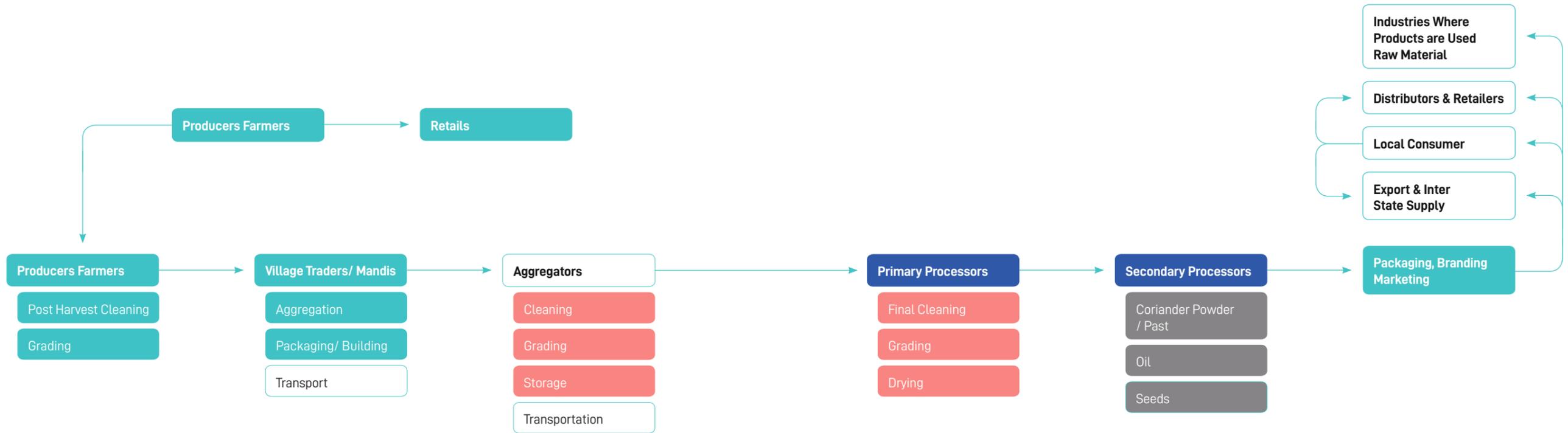
Secondary Phase

Processing of raw material that results in change of form (wheat to flour)

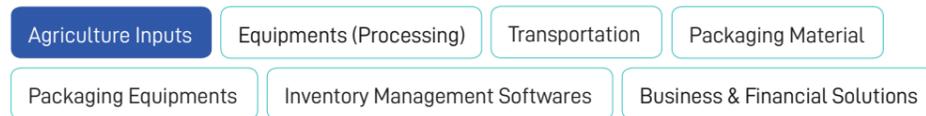
- + Risk bearing will be low in well-established products.
- + Aggregation business is traditional and functions over generations



Spices (Coriander)



Services & Other Equipment



Women Entrepreneurs

- High Concentration
- Low Concentration
- Potential Areas

Women Workforce

- High Concentration
- Low Concentration

Potential Avenues for Women-Led Entrepreneurship

The women entrepreneurs in the value chain have some presence at the producer level though it can be deepened. While there is a high concentration of women in some parts of the value chain, that

is in the form of workforce. There is potential to build women-led businesses at the primary and secondary processing levels and also in providing agricultural inputs.

Recommendation

Mechanization and introduction of modern processing technologies would bring viability to processing based businesses and attract women entrepreneurs to it. Skill building initiatives on these

technologies would also help in popularizing these as venture ideas amongst women.

Investments and Returns

- + Investment and profit margin mainly depends on the value addition/ processing done to the product;
 - Primary phase has low margin and needs low level of technology;
 - Secondary phase has medium margin and medium level of technology required;
 - Tertiary phase has highest margins and high level of technology is needed.
- + The price spreads and values accrue to stakeholders across the chain and so the profit margins accrue to different stakeholders. Much of the value accruals are accrued to processors and retailers. Producers' incomes are dependent on yield as well as on the type of end product. (eg. Spices, puree, paste, oil etc.)

Opportunities

- + Vast domestic market
- + Global supermarket majors looking at India as a major outsourcing hub
- + Scope for tie up of FPOs through CFC with firms like Patanjali, MDH, Catch; coriander processing units/ MSME firms; and retail outlets ;
- + Facilitation of start-ups from FPOs or individual entrepreneurs, in secondary processing of value added products such as coriander powder, blends, roasted coriander, etc.
- + Citronelol, a component of essential oils in coriander, is an excellent antiseptic. Coriander, has a rich aroma due to its essential oils.

Challenges

- + Capital-Intensive: High investments are required to set up processing units; this acts as an entry barrier for new players
- + Fluctuation (delay) in sowing due to climate change
- + Limited processing units for coriander and its by-products (such as a coriander powder unit) with inadequate grading and sorting facilities.
- + Lack of appropriate storage facility
Obsolete techniques are used in processing, which reduces the output.
- + Most of the seeds are converted into powder and hardly any quantity goes for oil extraction.



Dairy Products

Potential Avenues for Women-Led Entrepreneurship

While women entrepreneurs are present in most parts of the value chain, there is potential to strengthen their participation.

Recommendation

Milk being a perishable commodity, public investment in supply chain infrastructure and

adequate availability of working capital could increase the viability of women led processing units.

Investments and Returns

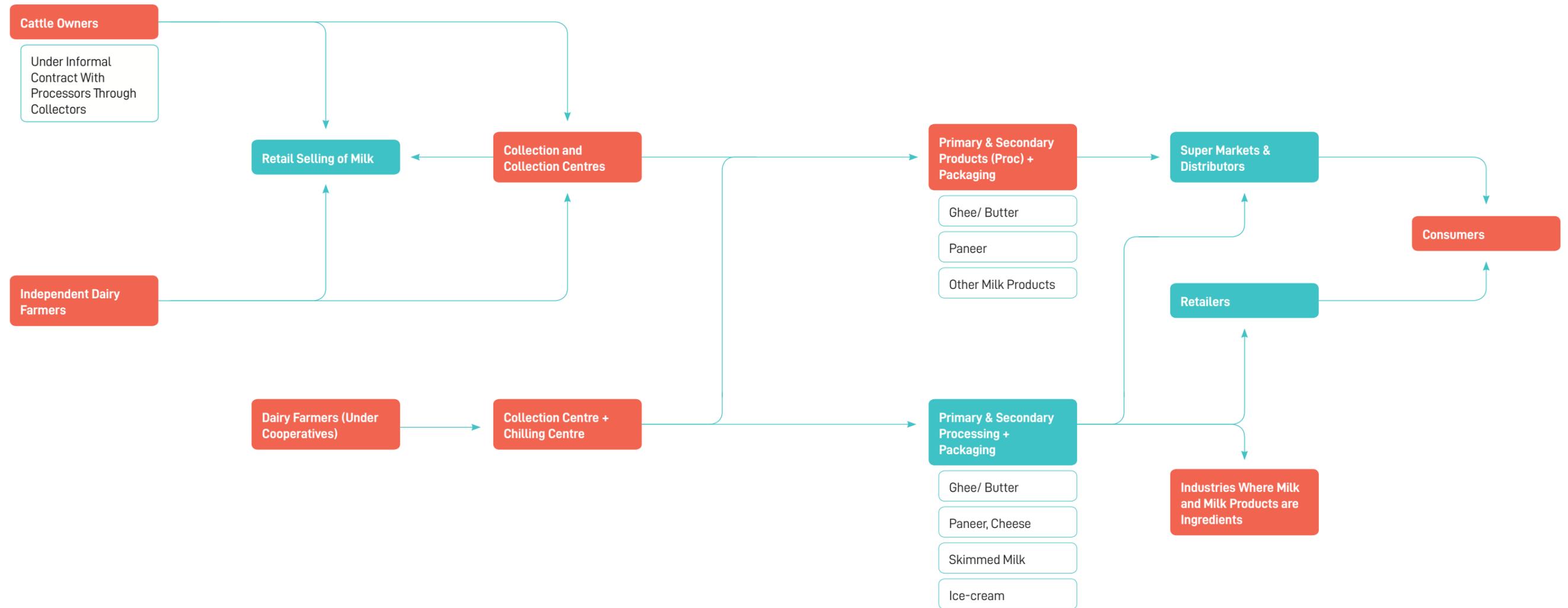
- + Investment and profit margin mainly depends on the value addition/ processing done to the product;
 - Primary phase has low margin and needs low level of technology;
 - Secondary phase has medium margin and
- + Processing and value addition ensures 30-40% higher returns than primary product
- medium level of technology required;
 - Tertiary phase has highest margins and high level of technology is needed.

Opportunities

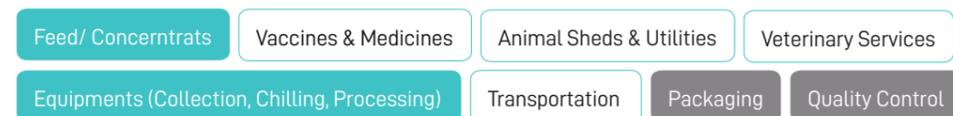
- + Strong demand growth; household consumption set to double by 2020
- + Food parks – a unique opportunity for entrepreneurs, including foreign investors to enter in the Indian food processing sector
- + Increasing demand for fluid milk as well as value-added products
- + Very large number of animals and huge scope to enhance productivity
- + Strengthening the link between rural production areas and urban markets

Challenges

- + Brand loyalty towards existing businesses, such as Amul in the case of butter
- + High working capital requirement for processing units
- + Inadequately developed links between R&D labs and industry
- + Difficulty in storage and maintenance of quality of raw materials and perishable produce
- + Seasonal fluctuations in the milk production pattern



Services & Other Equipment



Women Entrepreneurs

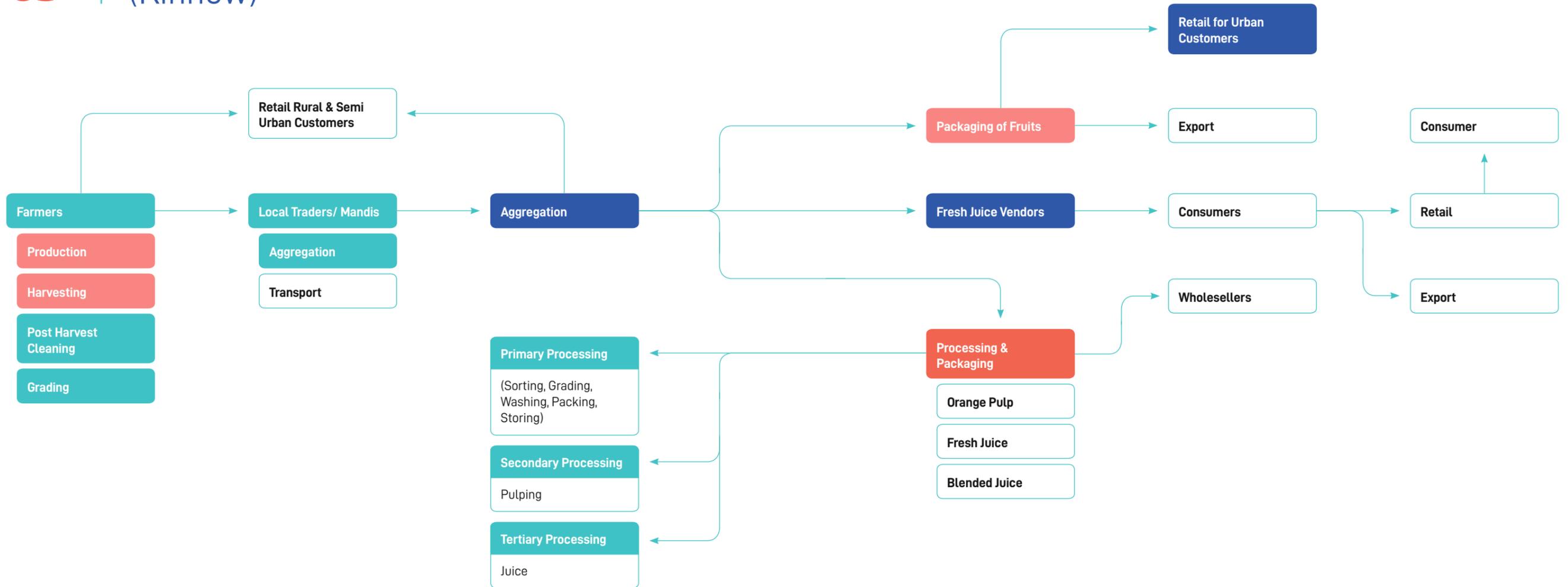
- High Concentration (Red)
- Low Concentration (Teal)
- Potential Areas (Blue)

Women Workforce

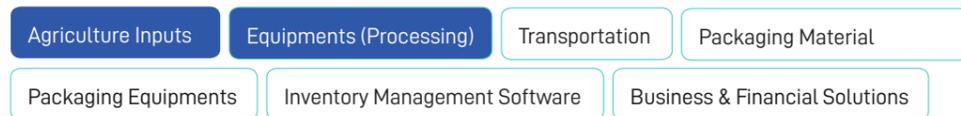
- High Concentration (Red)
- Low Concentration (Grey)



Fruits (Kinnow)



Services & Other Equipment



Women Entrepreneurs

- High Concentration
- Low Concentration
- Potential Areas

Women Workforce

- High Concentration
- Low Concentration

Potential Avenues for Women-Led Entrepreneurship

Though there is some concentration of women entrepreneurs in early stages of the value chain, there is potential to strengthen their engagement. There is

also scope for increasing women's entrepreneurship in primary processing and retail selling of fruit.

Recommendation

Government initiatives to promote women-led processing units and to link women producers to the

retail consumer could provide the required impetus for women entrepreneurship in the sector.

Investments and Returns

- + Much of the value accruals reach processors and retailers. Producers' incomes are apparently dependent on yield as well as dependency on the type of end product (juice, jam, jelly etc.).
- + Farmers' share of the consumer price is very low for oranges as well as other fruits and vegetables. Fruits are perishable and require cold storage; the lack of availability of cold storage hinders the farmer's ability to back stock and wait till prices rise.
- + The share of local commission agents is 6%, trader-6%, wholesaler-10% and retailer 50% over total consumer rupee paid. However, the retailer has to keep adjusting the prices from Rs. 50 per kg to even Rs 30 per kg depending upon the demand in the market to maintain his profitability.

Opportunities

- + Oranges/kinnow are widely consumed around India and abroad
- + Scope of establishing FPCs will open up avenues for direct market linkage of farmers with larger mandis around India
- + Intervention of RACP and associated agencies in the crop would create new opportunities
- + Apart from good demand of fresh oranges in the market it has good scope of value addition as pulp, juices etc.
- + Supply chain infrastructure – this niche has investment potential in food processing infrastructure, the government's main focus is on supply chain related infrastructure like cold storage, abattoirs and food parks.
- + Rising income levels and changing consumption pattern

Challenges

- + Long gestation period for fruit bearing
- + High cost of input and labour
- + Any sudden change in weather may impact the production of oranges
- + Perishability: Highly perishable product; in case of fresh fruit, sale of fruit orchard to happen 3-4 months before fruit maturity



Handicrafts



Main Players

- + Dwarka Gems Ltd, Jaipur
- + Kalajee Jewellery, Jaipur
- + Amprapali, Jaipur
- + Dhannu Jewellers, Ajmer
- + N D Diamonds, Bhilwara
- + Suranas, Jaipur
- + Mangi Chand Bhandari Jewellers, Jodhpur

The Rajasthan handicrafts sector is not only playing a significant role in the state's economy but also providing employment to a vast segment of people in rural and semi-urban areas. Aside from preserving cultural heritage, it is also attracting valuable foreign customers as the manufacturing is mainly

with indigenous raw material. The handicrafts of India, through the ages, fascinated the world by its creativity, aesthetics and exquisite craftsmanship. It is a highly decentralized activity and a shining example of using local resources, skills and initiatives to produce high quality items.

- + Gems and jewellery are second largest export items from Rajasthan.
- + More than 1,300 exporters in this segment employ two lakh people in the state.
- + Rajasthan is a store-house of many precious and semi-precious stones such as emeralds, aquamarines, heliodors, corundums, diamonds, epidotes, topazes, tourmalines, amethysts, crystal quartzes, garnets, and green and blue quartzites.
- + Rajasthan is the largest production centre of coloured precious and semi-precious stones as well as the largest manufacturer of cut and polished diamonds in the country.
- + The state has a wide pool of skilled manpower along with several training institutions.
- + The Government of India is planning to set up India's first gems bourse in Jaipur with an investment of US \$8.3 million to facilitate organised trading of gemstones.
- + Two special zones for gems & jewellery have been developed by Rajasthan State Industrial Development and Investment Corporation (RIICO) at the Export Promotion Industrial Park (EPIP) in Sitapura, Jaipur.
- + Jaipur and Jodhpur are rapidly emerging as export hubs for gems and jewellery.

Growth Drivers

- + Rich and diversified culture producing wide range of unique and exclusive handicrafts
- + Strong existing pool of skilled artisans
- + Wide range of traditional production skills derived from indigenous knowledge

Sales/ Marketing

- + The handicraft sector is usually a traditional family business in Rajasthan and some of them have well established retail outlets or function as aggregators.
- + The products are also sold to domestic and foreign customers at outlets in airports, local tourist-attracting markets, exhibitions, online markets and shared outlet space with other brands.
- + Some of the big brands are also customers of smaller entrepreneurs

- + According to EPCH estimates, 70 percent of Indian handicraft exports are made to compliance conscious markets. In major Western markets such as the US and EU, new laws and regulations governing quality of imports and their impact on consumer and environment are being created and enforced. Global buyers typically have well-defined minimum standards for environmental, social and labour conditions when purchasing products, materials and services.

- + Compliance to International Standards is emerging as a key determinant of the competitiveness of handicraft exports and the ability to access increased export opportunities. However, a substantial section of manufacturers in India have not yet been able to ensure compliance with overseas product safety standards and substance regulations.

Demand (Local, National and Global)

- + Handicraft exports increased by 1.65 per cent year-on-year during April-November 2018 to USD 2.42 billion. During this period, the exports of various segments registered positive growth such as shawls as artwares (77.5 percent growth), woodwares (24 percent) and miscellaneous handicrafts (20 percent).
- + Handicrafts from Rajasthan are exported across geographies, with the top 10 destinations being the US, the UK, the UAE, Germany, France, Latin American countries, Italy, the Netherlands, Canada and Australia.

(source - <https://www.ibef.org/exports/handicrafts-industry-india.aspx>)

Production

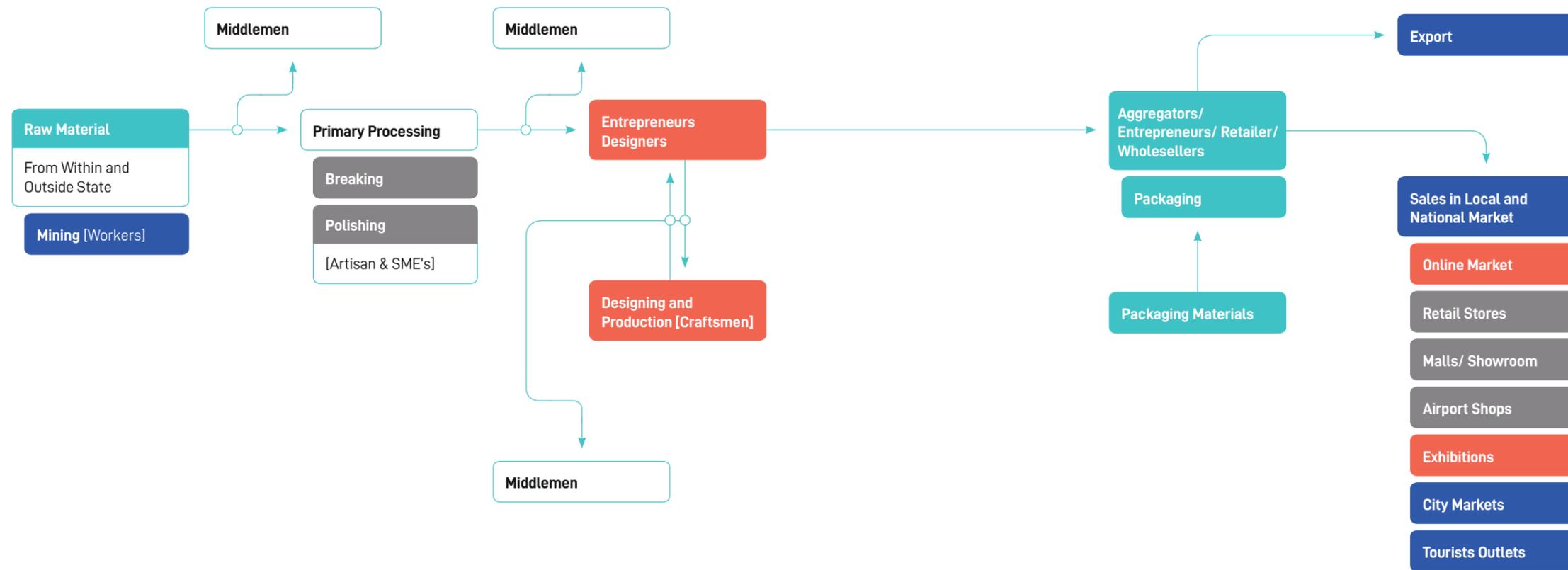
- + The jewellery industry in Rajasthan, in particular the handcrafted meenakari and stone setting, is very fragmented. There is a lack of organised business structures surrounding these techniques of jewellery making.
- + Most of the artisans are small-scale, home-based Karigars, either working independently, as freelancers for bigger jewellery makers, or full-time as specialists within a larger team of other specialists in a jewellery factory.
- + The number of individuals still undertaking these labour-intensive techniques is diminishing by the day, due to a multitude of factors such as the rise of machine-made jewellery and the resulting price competition, difficult working conditions and better paying unskilled jobs available in the city.
- + These techniques were traditionally handed down through generations. They say, especially in Rajasthan, that the karigars do not share the craft outside the family, and hence, if a family member becomes say, a driver, for its ease of working and better pay, the technique is lost forever.

Regulatory Structures

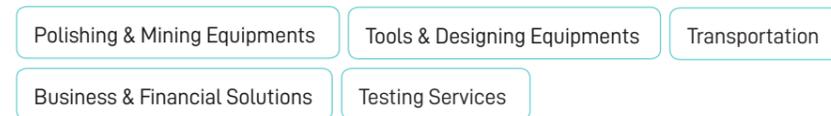
- + Within the market environment, compliance to international standards is emerging as a key determinant of the competitiveness of handicraft exports and the ability to access increased export opportunities. Global brands and buyers in key international markets increasingly require suppliers in developing countries such as India to adhere to fair labour practices, workplace standards and environmentally sustainable production.



Jewellery (Semi-precious Stones)



Services & Other Equipment



Women Entrepreneurs

- High Concentration
- Low Concentration
- Potential Areas

Women Workforce

- High Concentration
- Low Concentration

Potential Avenues for Women-Led Entrepreneurship

Women as designpreneurs are highly concentrated in this value chain. There is scope to increase women participation in aggregation businesses and create opportunities for women entrepreneurs to access national and international markets.

Recommendation

Opportunities for women entrepreneurs to access learning networks like trade associations and market networks like exhibitions/fairs are needed to strengthen women's participation in the value chain.

Investments and Returns

- + Significant financing required for initial investment in semi-precious stones, payment to designers and craftsmen and other expenses (including marketing, logistics, packaging). Profit margins are usually high.

Opportunities

- + Rising demand in domestic and traditional markets
- + Rising appreciation from consumers in western countries
- + Increasing flow of tourists to provide ready market for products
- + Unlike traditional jewelery, this type of jewelery is for daily fashion and therefore open to various designs

Challenges

- + Limited access to credit at an early level of business
- + Branding necessary to keep up with competition



Meenakari

Potential Avenues for Women-Led Entrepreneurship

There is a strong presence of women entrepreneurs in the production stage. Women as designpreneurs are also highly concentrated in this value chain. There is scope to increase women participation in aggregation businesses and create opportunities for women entrepreneurs to access national and international markets.

Recommendation

Opportunities for women entrepreneurs to access learning networks like trade associations and market networks like exhibitions/fairs are needed to strengthen women's participation in the value chain. Incentives to attract women entrepreneurs in specific locations like airports or tourist locations could boost their participation.

Investments and Returns

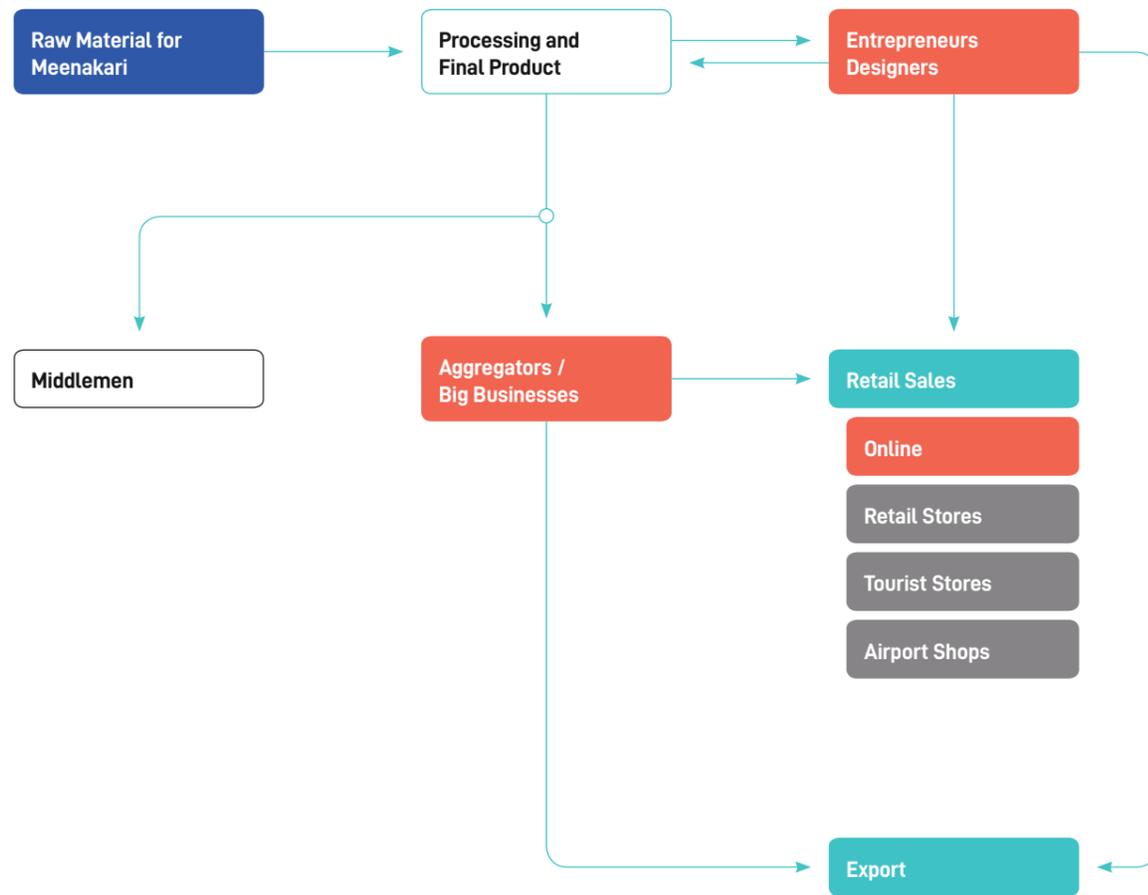
- + Low to medium investments with medium returns
- + Artisans receive lesser margins; high margins for retailers

Opportunities

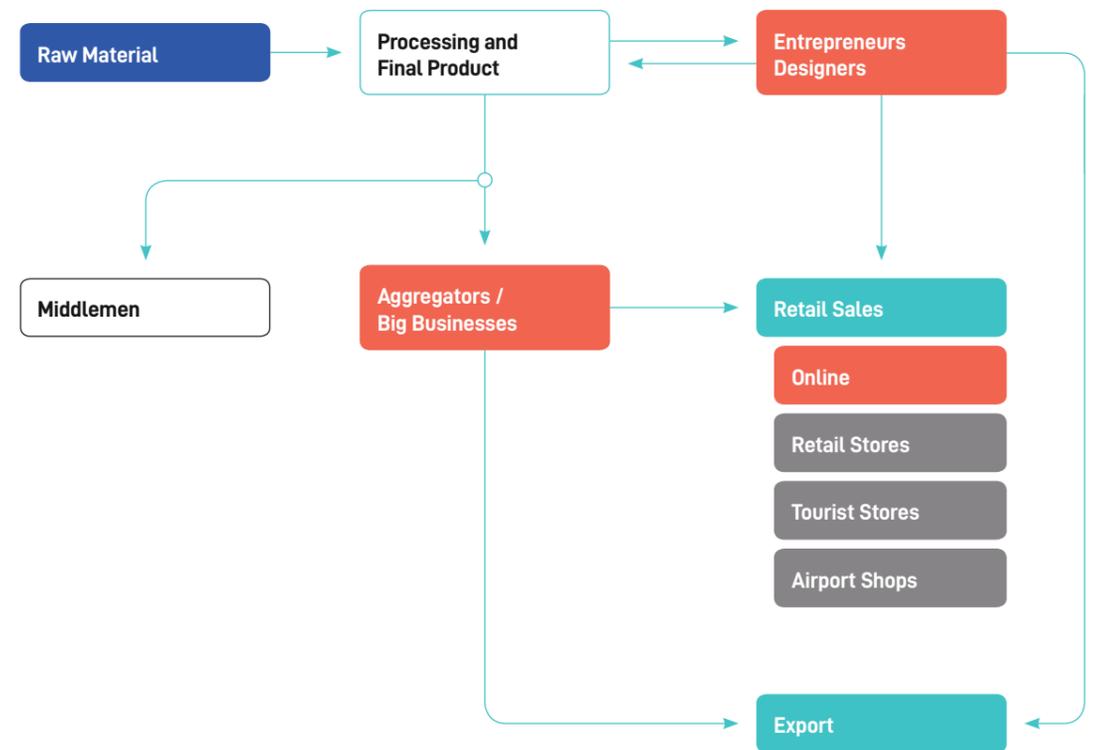
- + E-commerce and the Internet promising channels for marketing and distribution
- + Foreign tourists and export to developed countries
- + Aesthetic and functional qualities

Challenges

- + Limited national or international marketing
- + Product diversification as per consumer market
- + Limited pool of skilled workers
- + Unstructured and individualized production systems
- + Works on credit cycle



Thewa Art/ Lac Work



Services & Other Equipment



Women Entrepreneurs

- High Concentration
- Low Concentration
- Potential Areas

Women Workforce

- High Concentration
- Low Concentration

Services & Other Equipment



Women Entrepreneurs

- High Concentration
- Low Concentration
- Potential Areas

Women Workforce

- High Concentration
- Low Concentration

Potential Avenues for Women-Led Entrepreneurship

Concentration of women entrepreneurs is high in all parts of the value chain except at the sales and distribution end.

Recommendation

Innovations are needed to ensure that the scale of production increases while maintaining the authenticity of the craft. Experience centres and

workshops doubling as sales outlets could be set up and managed by women entrepreneurs.

Investments and Returns

- + Low to medium investments with medium returns
- + Artisans receive lesser margins; high margins for retailers

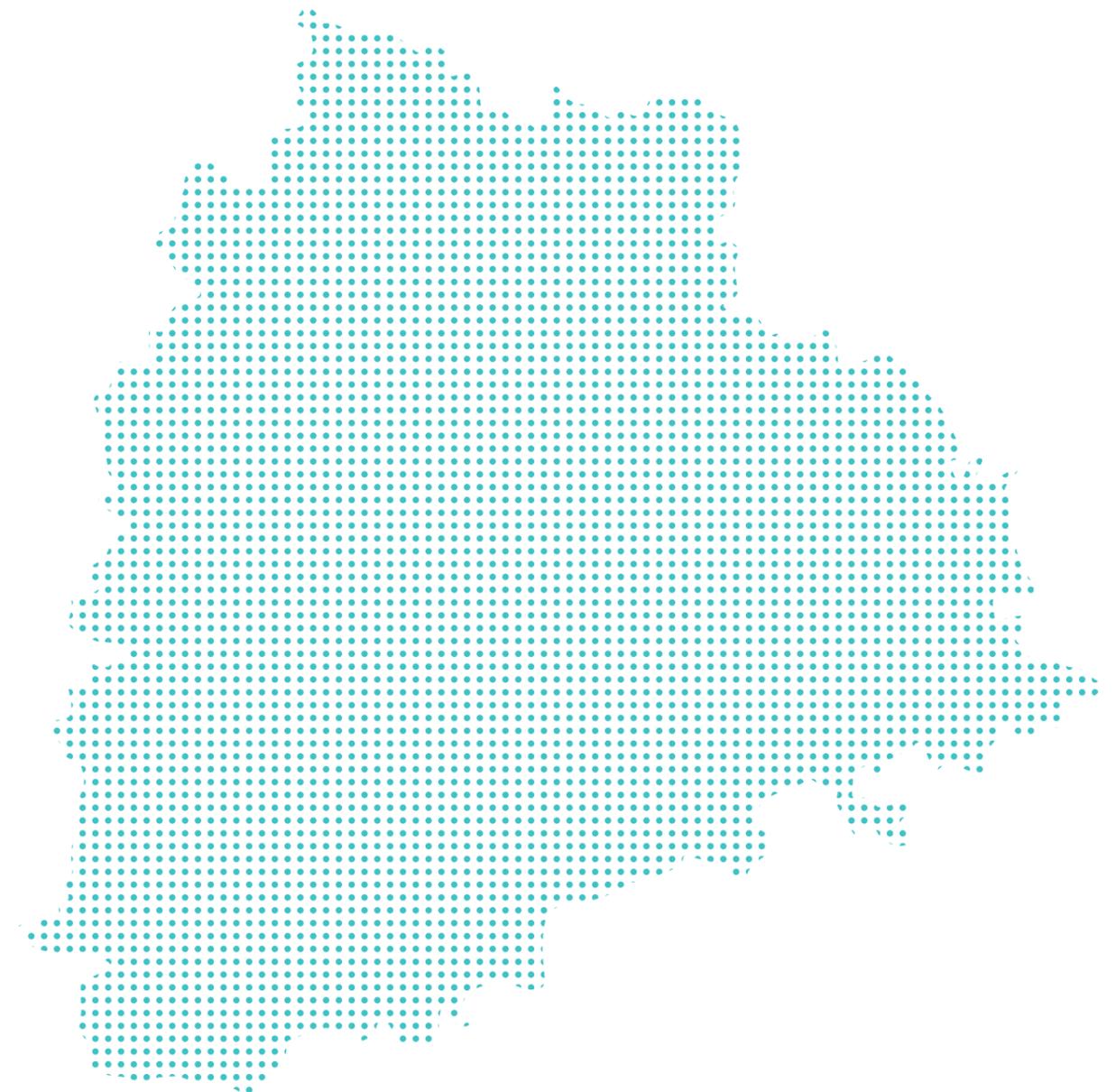
Opportunities

- + Rising demand for antiques and crafts
- + Fast developing fashion industry leading to increasing demand for handicrafts
- + Possibility to reposition as a fashion lifestyle product for the middle, upper middle and the elite consumer profiles
- + Lower cost compared to gold jewellery

Challenges

- + Product development & mass production
- + Lack of proper marketing and sales
- + Unstructured nature of work
- + Lack of design and innovation (the technique of thewa art is kept as a secret)

Telangana



General Introduction on Telangana

The youngest state in India, Telangana is one of the fastest growing and one of the few revenue surplus states in India. It is surrounded by Maharashtra and Chhattisgarh in the North; Karnataka in the West; and Andhra Pradesh in the South and East direction. A

popular etymology derives the word "Telangana" from Trilinga desa ("land of three lingas"), called because of the three important Shaivite shrines located in that region



Total Geographic Area
112077 sq km



National Parks
9



Population
3,51,93,978



Major cities
Hyderabad, Warangal, Khammam, Nalgonda



Agro-climate Zones
3 agro-climatic zones



Major Rivers in Telangana
Godavari, Krishna, Bhima



Airports
1 International Airports (Hyderabad), other airports/ military or private airstrips- 5.



Nearest Port
Vishakhapatnam

Thrust Areas and Core Sectors

Given its geographical location, available resources, skill-base, raw material availability, existing manufacturing practices and expertise in

opening up new opportunities, the Telangana state government recognizes the following 14 key sectors as thrust areas:

- + Life sciences
- + IT hardware
- + Precision Engineering
- + Food processing and nutrition products including dairy, poultry, meat, and fisheries
- + Automobiles, transport vehicles, auto components, tractors, and farm equipment
- + Textiles and apparel, leather & leather value added products like shoes, purses, bags, artificial material-infused and coated textiles
- + Paper and paper products
- + Plastics and polymers, chemicals and petrochemicals, glass and ceramics
- + FMCG & domestic appliances
- + Engineering and capital goods
- + Gems & jewellery
- + Waste management & green technology
- + Renewable energy & solar parks
- + Mineral & wood-based industries
- + Transportation – logistics Hub, inland port, container depot

Economy of Telangana

- + Telangana has the eighth-largest state economy in India with ₹8.66 lakh crore (US\$130 billion) in gross domestic product and a per capita GDP of ₹206,000 (US\$3,000).
- + Telangana ranks sixteenth among Indian states in the human development index. The state has emerged as a major focus for robust IT software, industry and services.
- + The state is also the main administrative centre of many Indian defence, aero-space and research labs like Bharat Dynamics Limited, Defence Metallurgical Research Laboratory, Defence Research and Development Organisation and Defence Research and Development Laboratory.

(Source: <https://en.wikipedia.org/wiki/Telangana>)

Challenges

- 01 High labour costs
- 02 Trade competition with a major exporter like China
- 03 Big players a challenge for micro enterprises
- 04 Unorganised and non-commercialised cultivation
- 05 Lack of awareness



Gender Narrative

Availability and access to education for women has led to a more vibrant and technically skilled women workforce.

High levels of skills and knowledge also a reason for higher propensity of women's involvement in trade and enterprise.

An empowered women workforce has kept pace with the rapid strides made by the state, especially in the IT sector.

Number of Establishments under Women Entrepreneurship

Without Hired Workers	With at least One Hired Worker	All	Percentage share of establishments in India
292512	63974	356486	4.43

Source: MOSPI and DES- State Governments.

Sectors of Focus for Women Entrepreneurs

The three sectors that emerged for Telangana were primarily ones that either have a current high concentration of women entrepreneurs or have a possibility of the same. These sectors are



Textiles and Stitched Apparels



Food Processing



Education



Handloom Stitched Apparel

Telangana is one of the most important states in the handloom industry and is famous for Pochampally Ikat, Gadwal, Narayanpet & Gollabama Sarees and Durries from Warangal. There are about 17,069 working handlooms. The estimated number of weavers and ancillary workers dependent on the industry is about 40,000. There are 336 Handloom Weavers Cooperative Societies in the state consisting of 259 cotton farmer-based cooperatives, 33 silk and 44 wool.

The textile and garments industry in India is highly diversified with a wide range of segments ranging from products of traditional handloom, handicrafts, wool and silk products to the organized textile industry. The organized textile industry is characterized by the use of capital-intensive

technology for mass production of textile products and includes spinning, weaving, processing, apparel, and garment.

The domestic textile and garments industry stood at \$140 billion in 2018. Out of \$140 billion, textile worth \$100 bn was domestically consumed while the remaining portion worth \$40 bn was exported to the world market.

Further, the domestic consumption of \$ 100 bn was divided into household consumption at \$81 bn and the technical textiles at \$19 bn. While exports comprised of textile exports at \$ 22 bn and apparel exports at \$18 bn.

(Source: <http://tshandloom.kdms.in>)

Size and Growth

India is among the world's largest producers of textiles and garments. The domestic textile and apparel industry contribute to 2 percent of India's GDP and accounts for 10 percent of industrial production, 27 percent of the country's foreign exchange inflows and 11 percent of the country's export earnings. The

Textiles & garments industry in India that employs 45 mn people in India is the second only to the agriculture sector in terms of employment.

(source: www.investindia.gov.in)

- + FDI in the Textiles & garments industry has reached up to \$ 3.1 bn during 2018-19
- + Exports in the Textiles & garments industry are expected to reach \$ 300 bn by 2024
- + Textile & garments industry in India is expected to reach \$ 223 bn by 2021 from \$ 137 bn in 2016.

Input Source

The major raw materials for the textile and apparel industry include cotton, jute, silk, wool and man-made fibre. Depending on the quantity and quality required, these raw materials are sourced from within and outside of the state.

Telangana is one of the largest producers of long staple cotton with production marked around 50 lakh bales per annum. The state stood third in the country in cotton production during the year 2014-15.

Sales and Marketing

- + The India Handloom Brand was launched to increase awareness about the exemplary advantages of using Indian handloom products including their quality with regards to raw materials, processing, weaving and also the environmentally friendly feature of handloom output.
- + The Brand is an initiative for positioning high quality handloom products with zero defects and zero effect on the environment, and is granted exclusively to superior quality products without any deficiency in standards.
- + The Handloom Mark was introduced to act as a guarantee regarding the genuineness of handwoven handloom products.
- + Woven fabrics of silk or of silk waste: With regards to the world export of handloom products, India was the third largest exporter globally, accounting for nearly 8.3% of world exports.
- + There exists opportunity for Indian handloom exporters to augment their exports in major markets such as Pakistan, France, Italy and Vietnam. China is a major competitor in the export of these products, and the Indian handloom exporters should enhance their focus on quality and design to have an edge over their Chinese counterparts.
- + For stitched apparels, sales and marketing of products usually occurs through the conventional channels like retail outlets, malls, wholesale markets, boutiques, big brands, online platforms, airport shops, fairs, exhibitions, and export markets.
- + Polyester is the most popular fabric used for fashion. But when polyester garments are washed in domestic washing machines, they shed microfibres that add to the increasing levels of plastic in our oceans.
- + Vibrant colours, prints and fabric finishes are appealing features of fashion garments, but many of these are achieved with toxic chemicals.

Regulatory Structures

- + A new textile policy called Telangana Textile & Apparel Policy (T-TAP). This policy would address the entire gamut of issues of the textile industry. It has great potential for employment generation and achieving balanced, increased and sustainable growth for the entire textile value chain from fiber to finished products by attracting national and international investment to the sector.
- + The textile and garment industry to be covered under this policy will include all units engaged in various value chain activities such as spinning, weaving (powerloom, handloom and pre-loom activities), knitting, processing, garmenting, home furnishing, units engaged in manufacturing technical textiles and all other supporting ancillary activities including textile machinery manufacturing.

Scope and Stressors

- + Textile dyeing is the second largest polluter of clean water globally, after agriculture. Greenpeace's recent Detox campaign has been instrumental in pressuring fashion brands to take action to remove toxic chemicals from their supply chains, after it tested a number of branded products and confirmed the presence of hazardous chemicals. Many of these are banned or strictly regulated in various countries because they are toxic, bio-accumulative (meaning that the substance builds up in an organism faster than the organism can excrete or metabolise it), disruptive to hormones and carcinogenic.
- + These microfibres are minute and can easily pass through sewage and wastewater treatment plants into our waterways, but because they do not biodegrade, they represent a serious threat to aquatic life. Small creatures such as plankton eat the microfibres, which then make their way up the food chain to fish and shellfish eaten by humans.

Handloom

Potential Avenues for Women-Led Entrepreneurship

The women entrepreneurs largely function as boutique owners and design-preneurs in the value chain along with those running dyeing units that

feed into the weaving set ups. There is scope to increase women-led businesses in all other parts of the value chain.

Recommendation

User centric design interventions could enhance the marketability of the products thereby making an attractive proposition for women entrepreneurs in

the sector. This could also lead to tapping into niche markets that have the capacity and willingness to absorb higher costs.

Investments and Returns

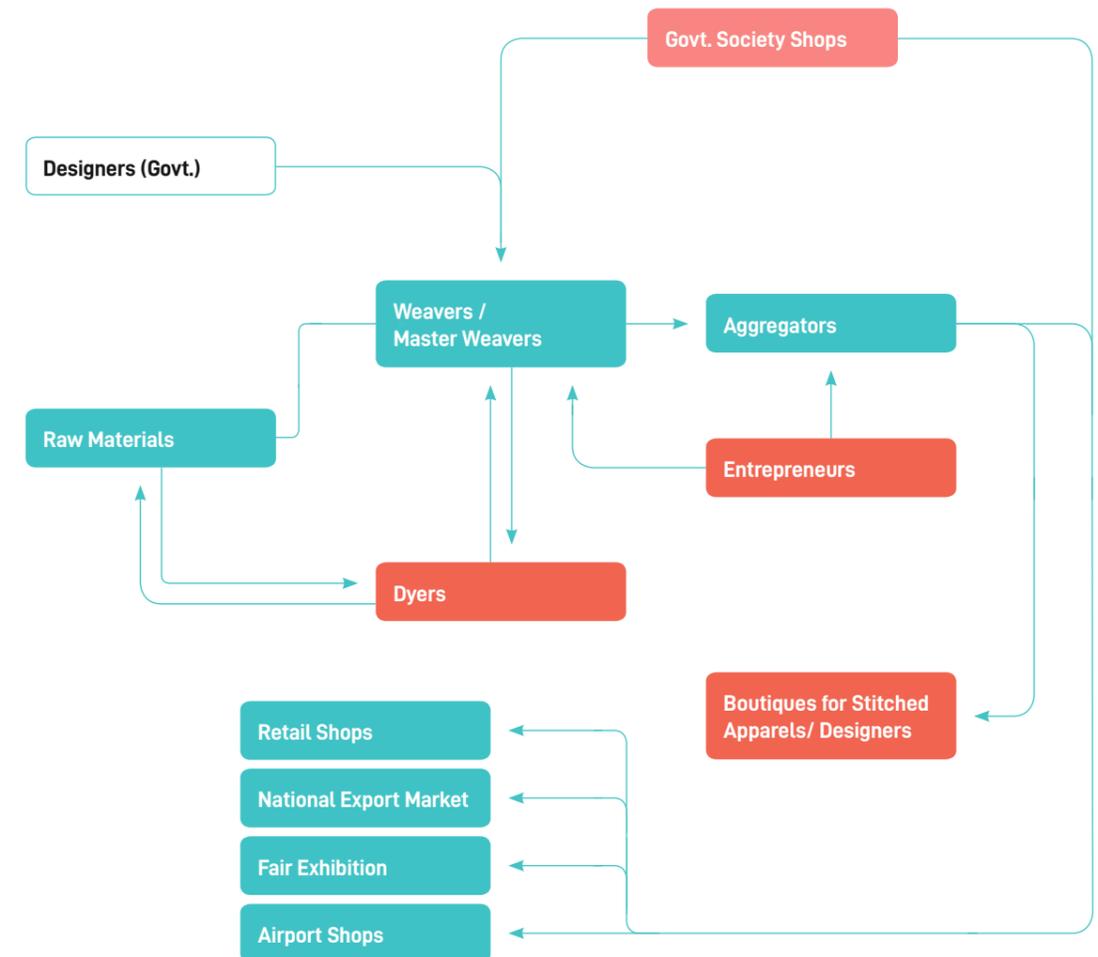
- + Initial investment is required on equipment and human resource
- + The returns vary depending on the quality of product and the market being captured

Opportunities

- + Demand for handloom high along with a renewed interest in handloom products
- + Government handloom departments have experts developing designs which are sold at cheap prices to weavers and master weavers
- + Government initiatives and societies promoting handloom
- + Products procured by government as well

Challenges

- + Expensive products being labour intensive and time consuming
- + High labour costs



Women Entrepreneurs

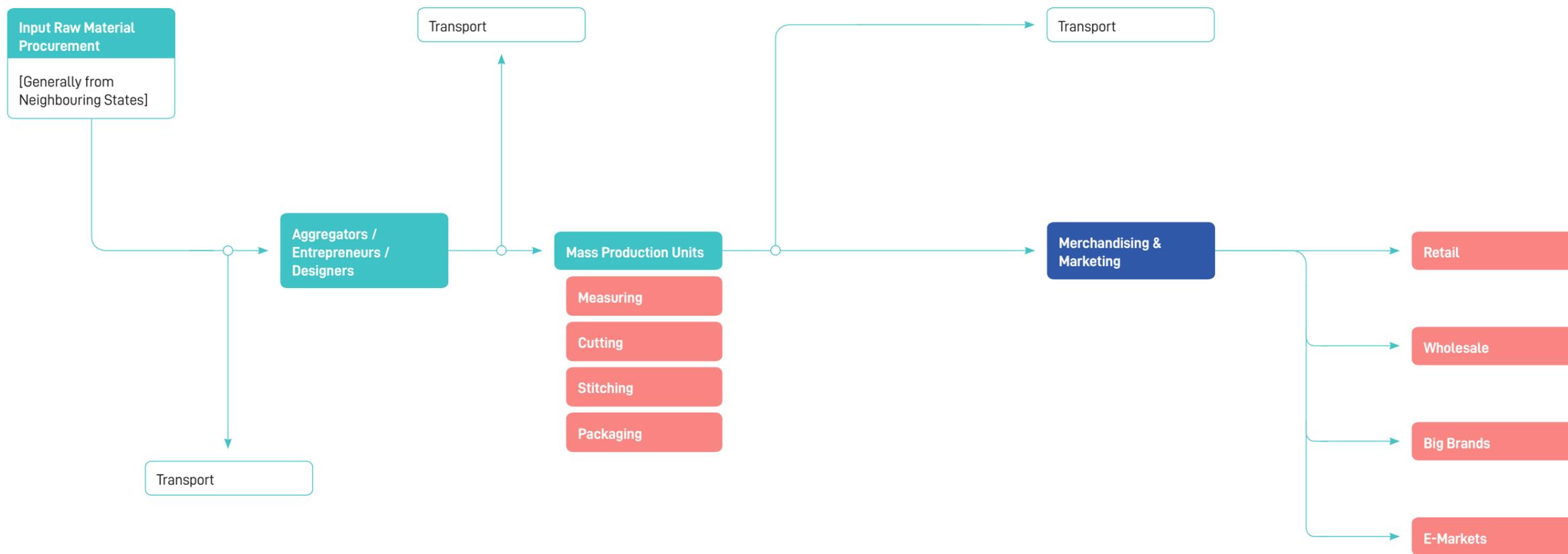
- High Concentration
- Low Concentration
- Potential Areas

Women Workforce

- High Concentration
- Low Concentration



Stitched Apparel (Mass Production)



Services & Other Equipment



Women Entrepreneurs

- High Concentration (Red)
- Low Concentration (Teal)
- Potential Areas (Dark Blue)

Women Workforce

- High Concentration (Red)
- Low Concentration (Grey)

Potential Avenues for Women-Led Entrepreneurship

The mass produced stitched apparel sector experiences a moderate engagement of women

entrepreneurs with potential to increase this engagement through increased business feasibility.

Recommendation

Marketing opportunities designed for women such as trade fairs and buyer-seller meets could be organized to increase their participation in the

value chain. Women-led businesses providing services such as logistics and financing need to be encouraged.

Investments and Returns

- + Investment is high for mass production of stitched apparels
- + The profit margins for each product are decent but bulk orders will yield higher profits

Opportunities

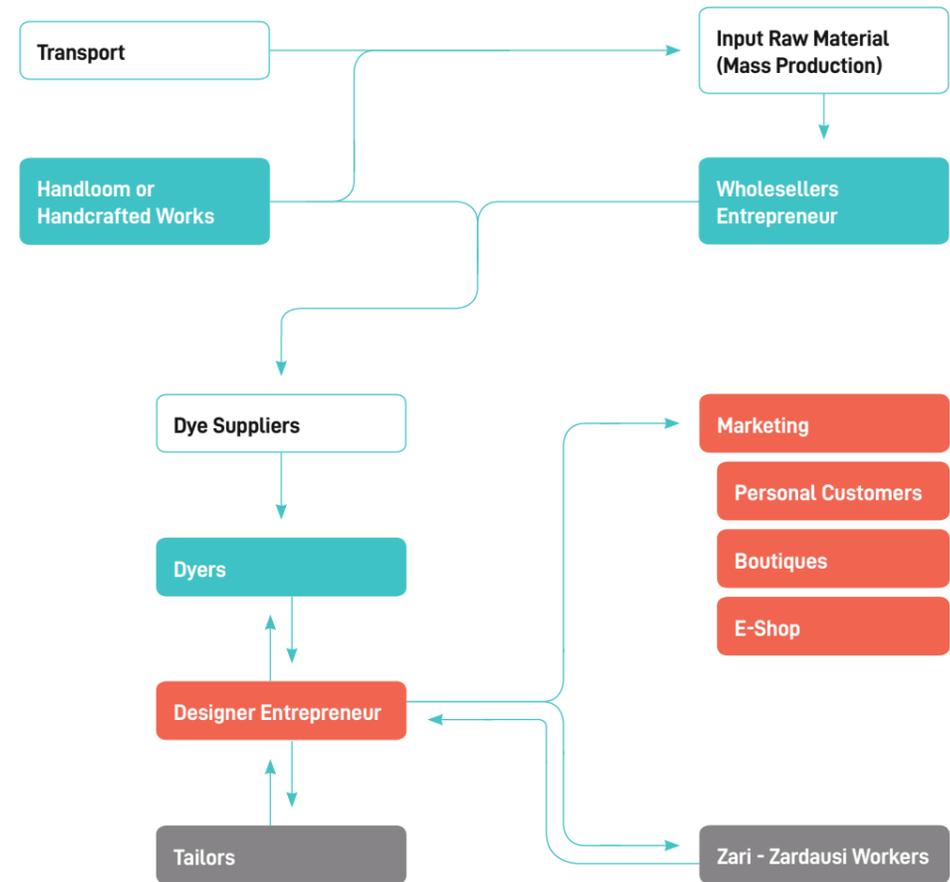
- + Mega-Stitched Apparel Hub to be set up
- + Uniforms manufacturing for government schools a huge market being served by MSME
- + All major players looking for outsourcing mass production

Challenges

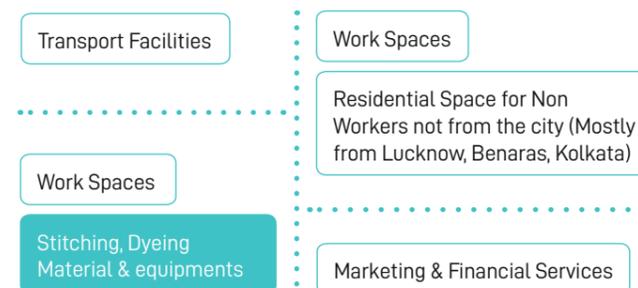
- + Cheaper substitutes from other states like Gujarat and West Bengal
- + Very low cost competitiveness compared to Sri Lanka and Bangladesh



Stitched Apparel (Designer/ Boutiques)



Services



Women Entrepreneurs

- High Concentration
- Low Concentration
- Potential Areas

Women Workforce

- High Concentration
- Low Concentration

Potential Avenues for Women-Led Entrepreneurship

There is a high concentration of women entrepreneurs towards the later part of the value chain with women engaging in design based or

consumer facing businesses. There is potential for women-led businesses in feeder businesses like stitching, dyeing and financing.

Recommendation

Interventions that can help women entrepreneurs diversify markets to deal with seasonality in

business would enhance business feasibility and attractiveness.

Investments and Returns

- + Investment is not very high for designer stitched apparels
- + The profit margin for each product is high if the brand gets established

Opportunities

- + Generally caters to the wedding market, which is a high demand sector
- + Increasing disposable income and standard of living creates a steady demand for designer dresses compared to ready-made ones
- + Market base extends to NRIs
- + Expanding beyond the niche-customer base
- + Employment for both traditional & nontraditional designers and artisans

Challenges

- + Very high fluctuation in frequency of orders between wedding and non-wedding seasons
- + High number of migrant workers from other cities who are traditionally known for their zari-work/weaving and stitching (Lucknow, West Bengal).
- + Male-dominated labor/artisan base
- + Women as entrepreneurs or designers



Food Processing



Main Players

- + MTR
- + KRBL Limited
- + Heritage
- + ITC

Food processing has been identified as one of the 14 thrust sectors for the state in the Industrial Policy Framework of 2014. The sector forms a key linkage between agriculture and industry. Food processing contributes both to agriculture and manufacturing. Apart from its high contribution in Gross Value Addition (GVA), the sector is highly employment intensive and helps generate jobs in the rural areas close to the agricultural produce. As per the annual report published by Ministry of Food Processing Industries (MoFPI) in 2016-17, the food processing sector generates the highest employment per unit

of capital invested as compared to all other major manufacturing industries. Telangana is an agrarian state with 54% of workforce employed in agriculture and allied activities. The sector contributed 13% to the state's GSDP.

Telangana is endowed with bountiful resources with good soil, diversified cropping pattern and major irrigation systems fed by rivers including Godavari and Krishna. The state's climate is well suited for horticulture and agri-research, thereby making the state the "seed bowl of India".

Size and Growth

- + One of the leading food producing states of India – largest cultivator of turmeric and sweet orange; second largest producer of dried chilies and maize, third largest producer of eggs.
- + The Agro-climatic Zones in the state provide a favourable ecosystem for cultivation of a multitude of crops, vegetables and fruits round the year.

Potential and Offerings

- + 3x potential increase in state's agro produce as "Mission Kakatiya" and other projects double area under irrigation
- + 2 times increase in state's milk production under "Ksheera Viplavam" initiative with upto 75% subsidy on milk animals
- + Developing air exports for high value produce and leveraging potential in global meat and halal market
- + Processing surplus commodities currently being exported from the state in unprocessed form
- + Leveraging its location advantage to establish food aggregation and distribution hub
- + Growing presence of large organized retail in state with 20% CAGR for food & beverages retail for the next 5 years

Input Source

Telangana is the largest producer of agro-products including fruits such as citrus limetta, mango, guava, papaya, pomegranate, sugarcane. Spices including tamarind, chilli and turmeric are extensively grown. Poultry and animal meat is also available in abundance. Some of the key production highlights (2015-16) of the state include:

- + Second largest producer of dried chillies (producing 227.61 thousand metric tonnes)
- + Ranked amongst top 3 in area and top 10 in total fruit production out all states of India- total fruit production at 4, 319.87 thousand metric tonnes over an area of 331.49 thousand hectares
- + Ranked third in production of eggs and ranked fifth in meat production amongst all states of India

Growth Drivers

- + Liberalization and the growth of organised retail has made the Indian market more attractive for global players.
- + With a large agricultural sector, abundant livestock, and cost competitiveness, India is fast emerging as a sourcing hub of processed food.
- + India's huge population, economic and cultural transformation, rising income level and changing consumer preferences, makes it a large market for consumption of processed food.

Demand (Local, National and Global)

- + India's export of processed food was USD 36.2 billion in the year 2016-17 which includes share of products like mango pulp, dried & preserved vegetables, other processed fruits & vegetables, pulses, groundnuts, guar gum, jaggery & confectionery, cocoa products, cereal preparations, animal products, alcoholic & non-alcoholic beverages and miscellaneous preparations.
- + Major destinations for exports of processed food from India are USA, Vietnam, Iran, Saudi Arabia and UAE.

Sales and Marketing

- + Chillies are sold at wholesale price in mandis; as packaged products or processed products in retail outlets, to restaurants, snacks manufacturing units, and exported.
- + Mangoes are usually sold in mandis, fruit stores, and to restaurants or other food chains, or exported. Processed mango is usually sold to big food companies or exported.
- + Poultry products are usually sold through wholesalers and retailers at grocery stores and small local shops.

Regulatory Structures

- + The Prevention & Control of Infectious and Contagious Disease in Animals Act, 2009 to regulate disease transmission from one state to other
- + Indian Veterinary Council Act, 1984 regulates Veterinary Practice and Education
- + Importation of Livestock and Livestock products are regulated by the Livestock Importation Act, 1898
- + Other Acts, Rules & Regulation
 - Food Safety & Standards Act, 2006
 - Quality Control of Food Products of Animal Origin (Export-oriented)
- + Residue Monitoring Plan (export-oriented)
- + Agreement on Sanitary and Phyto-sanitary Measures (Global Trade-Oriented)
- + Bureau of Indian Standards (BIS) & ISO 22000, 2005
- + APMC model Act, 2017
- + The Prevention of Cruelty to Animals Act, 1960
- + The Export (Quality Control and Inspection) ACT, 1963

Scope and Stressors

Poultry

Local disturbances and landscape degradation are typical local negative amenities in the surroundings of poultry farms. Pollution of soil and water with nutrients, pathogens and heavy metals is generally caused by poor manure-management and occurs where manure is stored. Manure is either recycled on

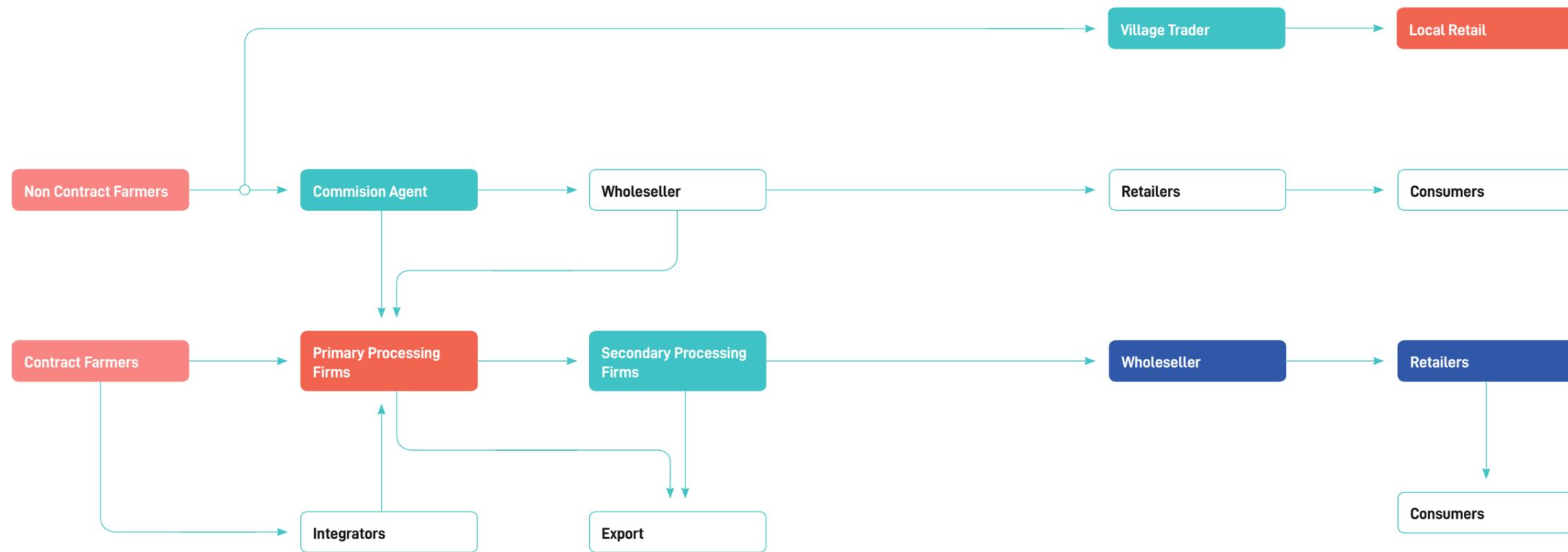
cropland belonging to the animal farm or marketed. Poultry facilities are a source of odor and attract flies, rodents and other pests that create local nuisances and carry disease. Flies are an additional concern for residents living near poultry facilities.

Chillies

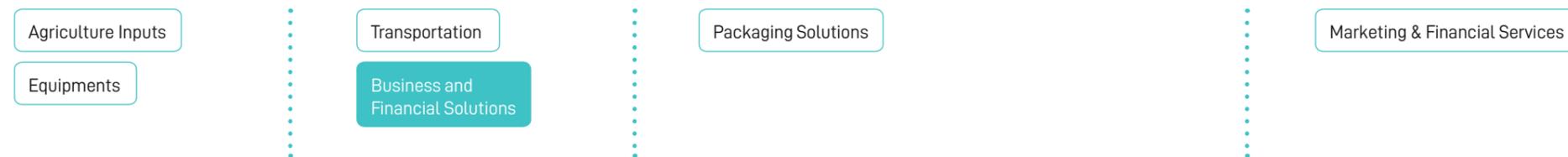
Aflatoxin is generated because of inappropriate drying method; agrochemicals remain because of poor farm management.



Chillies



Services & Other Equipments



Women Entrepreneurs

- High Concentration
- Low Concentration
- Potential Areas

Women Workforce

- High Concentration
- Low Concentration

Potential Avenues for Women-Led Entrepreneurship

There is concentration of women workforce at the initial stages (farming) of the value chain and a moderate engagement of women entrepreneurs in processing and trading activities. There is scope

for women led businesses in wholesale and retail markets. Ancillary businesses like agri-inputs and equipments, business and financial solutions have potential for engaging women entrepreneurs.

Recommendation

Adequate testing leading to state level branding can streamline demand for the produce. State level

interventions on linkages between various players in the value chain could generate positive results.

Investments and Returns

- + Special varieties or premium varieties sell at a higher price than common varieties. their purpose. Buyers purchasing directly from farmers tend to pay a premium on the market price.
- + Rejected, low-grade products (called white variety) are sold at a lower price than the common varieties. + Investment needed is high for producing high value-added products but also generates a good profit margin.
- + The major attributes of chilli are its pungency and colour. Buyers select varieties based on

Opportunities

- + Demand of chilli (whole/powder) in both domestic and international market is increasing + Price of dry chilli is competitive in international market
- + Demand of oleoresin, which is extracted from chilli, is increasing in international market.

Challenges

- + Indian chilli has negative reputation as unsafe (aflatoxin and agrochemicals) + Testing laboratories or testing kits for agrochemical residue and aflatoxin are limited
- + Linkage between farmers and processors is limited + Varieties for extracting colour are not cultivated



Poultry

Potential Avenues for Women-Led Entrepreneurship

Being one of the highest producers of eggs, the state witnesses huge concentration of women in the production end of the value chain. There is scope

to increase women-led businesses in trading and processing segments along with those providing services such as veterinary, equipments, packaging etc.

Recommendation

Government intervention is needed to streamline processes across the value chain from feed procurement to processing infrastructure. State incentives for women-led poultry farms can result in increased engagement of women in the value

chain. Increasing exposure of aspiring women entrepreneurs to innovative retail models such as egg cafes could result in opening up a prospective area for women entrepreneurs.

Investments and Returns

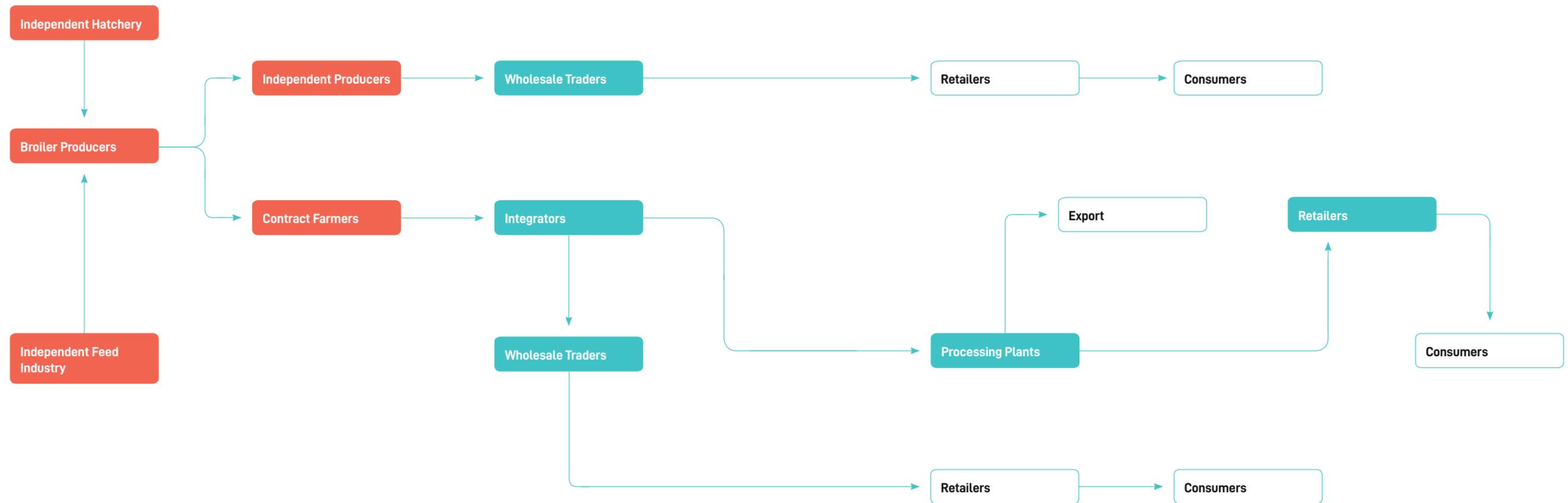
- + High initial investment to setup a medium sized poultry farm + Returns are slow but good profit margins.

Opportunities

- + Commercial poultry sector is flourishing in certain pockets, where amenable environment exists, along with backward and forward linkages. Unorganized sector is very dispersed and micro-fragmented which can be streamlined. + Low cost protein in the country
- + Consolidation of integrated operations would strengthen poultry supply chain + Increasing scope for value added products

Challenges

- + Lack of infrastructure facilities for value addition such as poultry processing, warehousing, cold storage, refrigerated vehicles + Small farms losing out on economies of scale and bio-security
- + High maize & soya price fluctuation leading to unreliable supply of poultry feed at reasonable prices + Lack of or undefined standards leading to impending cheaper imports



Services & Other Equipments



Women Entrepreneurs

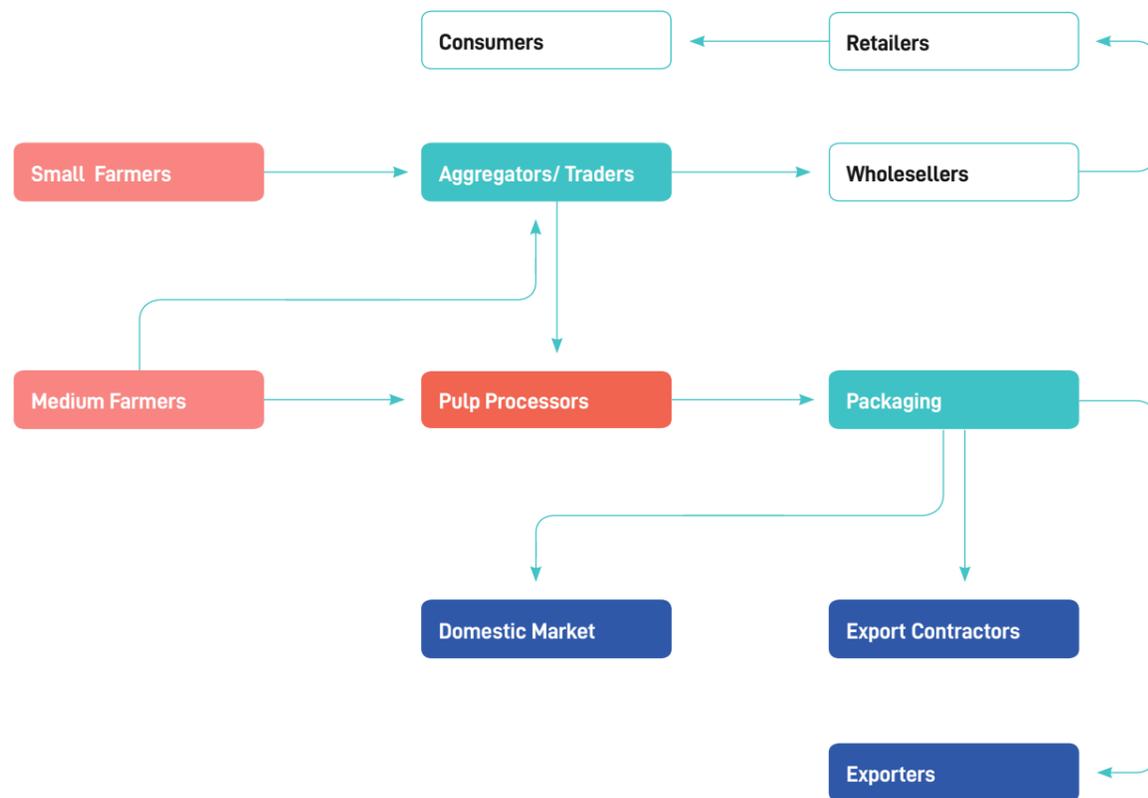
- High Concentration
- Low Concentration
- Potential Areas

Women Workforce

- High Concentration
- Low Concentration



Mangoes



Services & Other Equipments



Women Entrepreneurs

- High Concentration
- Low Concentration
- Potential Areas

Women Workforce

- High Concentration
- Low Concentration

Potential Avenues for Women-Led Entrepreneurship

Women entrepreneurs are mostly concentrated at the farm level and to some extent in trading and processing. There is scope to strengthen their presence in these areas and explore new opportunities

for women entrepreneurs as wholesalers of farm produce. There is also untapped potential for women entrepreneurs in catering to domestic market for processed fruit pulp.

Recommendation

Strengthening quality conscious markets would lead to increase in profitability and provide greater incentives for maintaining quality. Streamlining

linkages across the value chain would ensure higher market returns result in higher profitability of women producers.

Investments and Returns

- + High initial investment to setup a medium sized poultry farm
- + Returns are slow but good profit margins.

Opportunities

- + New technology in fruits & vegetables processing, cold storage, reefers, IQF, packhouses and ripening chambers
- + Increasing demand for high value fresh mango in domestic and international market
- + New and efficient packaging technology for enhanced shelf life, taste and texture retention
- + Large production volume

Challenges

- + Improper harvest and post-harvest technology
- + Weak linkage between farmers and high value market
- + Low incentive to improve quality
- + Weak linkage between farmers and processors



Education



Main Players

- + Kidzee
- + Eurokids
- + Akash Coaching Institute
- + TIME

Overall Description

- + With increasing awareness, private Indian players are collaborating with international brands to provide quality education conforming to international standards
- + Various operating models like a mix of franchisee and owned-schools are being used by the private players to ensure their economic viability
- + Minimal infrastructure requirements allow start-ups to venture into the pre-school and vocational study sector
- + Schools are investing in information and multimedia education technologies to provide better education to students. Increase in technology has also influenced the education sector due to which smart classes are gaining acceptance. Technology-driven learning is introducing a qualitative and quantitative difference to education.
- + The introduction of online learning in Indian education system has changed its scenario, with its reach and affordability.

Growth Drivers

- + Increasing disposable income and willingness of people to spend on education is a key driver for the Indian education industry
- + Increasing awareness on education in India is driving enrolments in private schools.
- + Coaching institutes are thriving because of higher competition for professional courses
- + Franchisee models and increasing awareness in tier 2 and 3 cities is driving the pre-schools sector.
- + The Indian education sector is set for strong growth, buoyed by a strong demand for quality education.

Potential Offerings

- + The government promotes Public Private Partnership (PPP) and tax concessions to encourage foreign players in the industry.
- + 100 per cent FDI (automatic route) is allowed in the Indian education sector.

Size and Growth

- + Currently, Pre-school segment was worth US\$ 2.1 billion, of which branded Pre-school segment was expected to contribute 33.83 per cent to the total Pre-school industry in India.
- + Pre-school segment in India is expected to grow from US\$ 0.75 billion in 2011 to US\$ 3.4 billion by 2020, exhibiting growth at a CAGR of over 17 per cent.
- + With growing awareness among tier 2 and tier 3 cities, penetration rate for the pre-school segment is expected to rise to 25 per cent in 2019
- + Number of recognised educational institutions stood at 15,16,800.
- + Private equity players have become bullish on the fast-growing education sector including vocational and supplementary training.
- + Indian education sector witnessed 42 private equity deals recording a total investment of US\$ 208 million, till October 2016.
- + Indian education sector market size is US\$ 97.5 billion in FY16.
- + Schooling segment in India is expected to reach US\$ 70 billion by 2019 end.
- + With the tutoring in the schooling segment expected to grow from US\$ 8 billion in 2011 to US\$ 26 billion in 2020, there lies a large and fast growing market for coaching and tutoring services imparted through innovative means, mainly the internet.

Regulatory Structures

The National Commission for Protection of Child Rights has, on January 2, 2017 released the "Regulatory Guidelines for Private Play Schools" ("Guidelines"). The objective of these Guidelines is to regulate private play schools (referred to by varied names such as play groups, play schools, pre-schools, nursery schools etc.) for children of the age of three to six years

Primary & secondary education in India is subject to regulatory control, and educational institutions need to comply with central as well as state-specific regulations (unless expressly excluded). The first and the foremost step toward providing primary & secondary education is to obtain necessary permissions from government authorities for setting up a school. Further, affiliation to one of the following

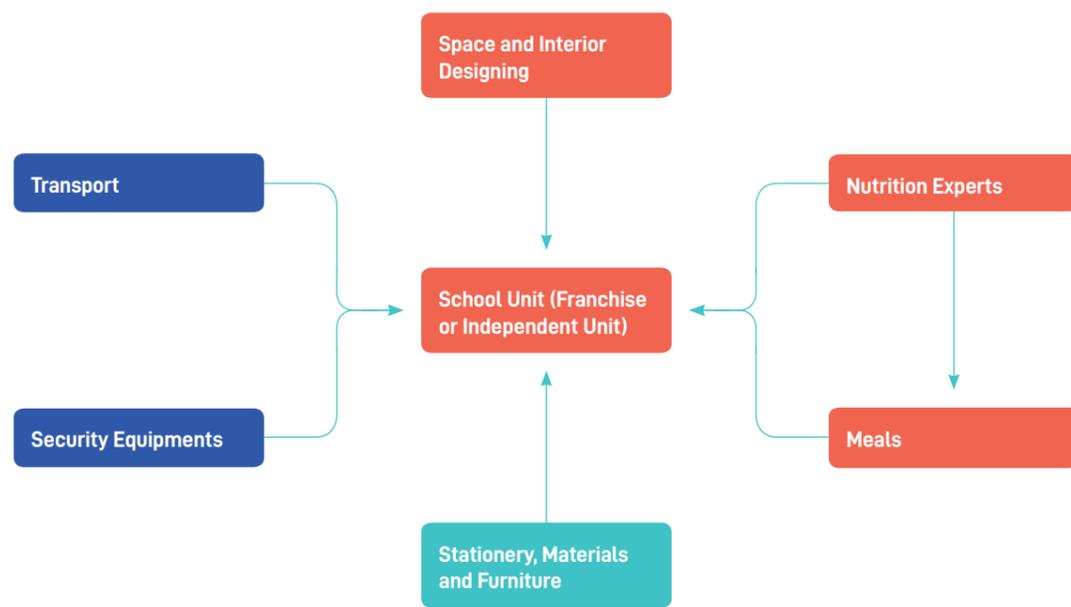
key boards/ authorities is necessary in order to ensure recognition of the education and qualification provided by the school.

- + Central Board of Secondary Education
- + Council for the Indian School Certificate Examinations
- + International Baccalaureate ("IB") from Geneva
- + State Boards

Under Indian laws, predominantly, an educational institution school can only be set up in the form of a non-profit entity i.e. either as a charitable trust or a society or a Section 8 Company (a non-profit company under the Companies Act, 2013), which are of a not-for-profit character.



Play School and Daycare



Women Entrepreneurs

- High Concentration (Red)
- Low Concentration (Teal)
- Potential Areas (Dark Blue)

Women Workforce

- High Concentration (Light Red)
- Low Concentration (Grey)

Potential Avenues for Women-Led Entrepreneurship

There is a high concentration of women in entrepreneurial roles in most parts of this value chain. There is an opportunity to explore untapped

areas like transport and security equipments for schools which is increasingly becoming a critical part of the insitutional set up.

Recommendation

Government can take measures to create and enforce security norms pertaining to transport and housekeeping services in play schools. Women entrepreneurs could be invited to set up and manage

businesses providing such services to play schools. Branded businesses catering to multiple play schools could be a potential opportunity given the fact that the market is booming.

Investments and Returns

- + Low initial investment especially for home based play schools or centres.
- + High expected returns with working couples forming a large part of the customer base.
- + Higher investments needed depending on the facilities being provided in play school

Opportunities

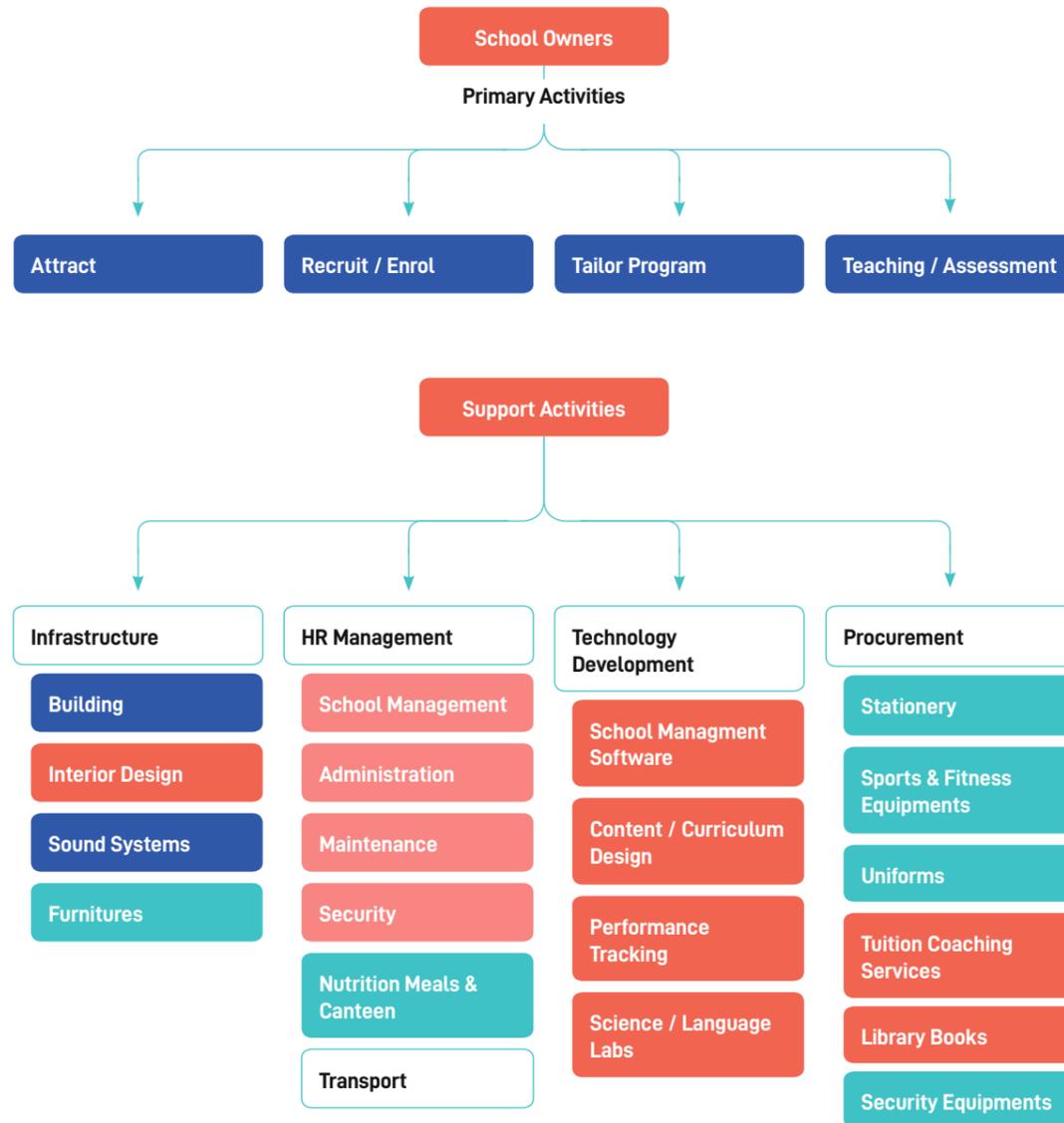
- + Urban population base consists of a large number of nuclear families with both parents working. This gives rise to a demand for play school and day-care facilities.
- + Due to the small scale of operations and the individual care that each student needs, the market for small institutions (within a 2 km radius) is always stable.
- + There are both franchisee and independent institutions.

Challenges

- + No financial assistance for opening up schools.



School and Related Services



Women Entrepreneurs		Women Workforce	
■	High Concentration	■	High Concentration
■	Low Concentration	■	Low Concentration
■	Potential Areas		

Potential Avenues for Women-Led Entrepreneurship

Most school owners in the state are women with high concentration also in provision of services such as technology development, procurement

of materials and infrastructure. Services like counselling and skill building also witness high participation from women entrepreneurs.

Recommendation

Education being a women centric sector, there is scope to increase women-led businesses in all parts of the value chain. Since schools in the country run under a non-profit model, there is no structured

financing mechanism for edu-preneurs aspiring to set up new schools. Developing mechanisms that address this gap could lead to a surge in women entrepreneurs in the sector.

Investments and Returns

- + Low investment with high returns in setting up enterprises providing ancillary services to schools

Opportunities

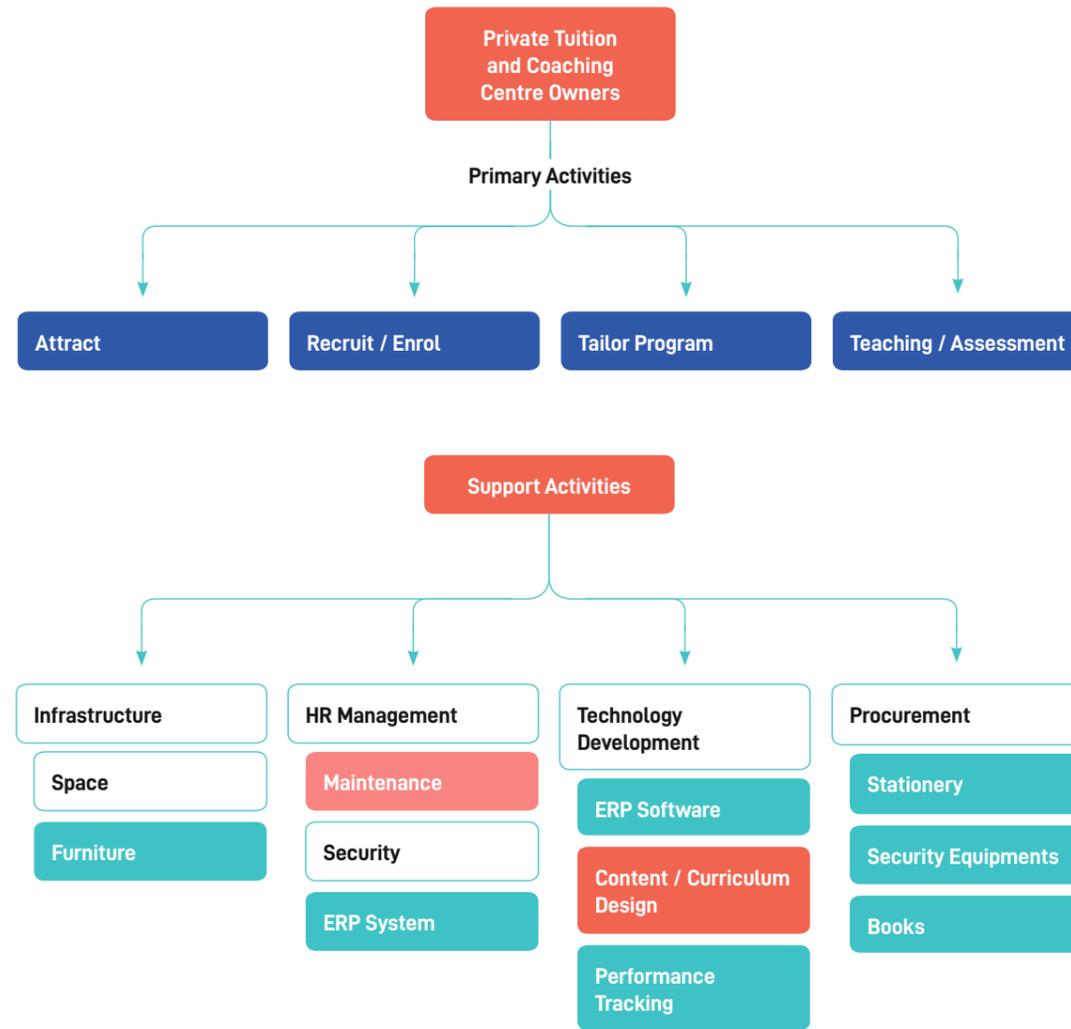
- + School and related services becoming a huge business
- + Schools have various attached businesses-like school management software, inventory management software, health & nutrition experts, science labs, counselling etc
- + Science labs operations in school is a new opportunity area
- + Schools have integrated system with extended coaching classes

Challenges

- + Physical infrastructure and location requires high investment
- + No financial assistance available for setting up schools



Tuitions / Coaching



Women Entrepreneurs		Women Workforce	
■	High Concentration	■	High Concentration
■	Low Concentration	■	Low Concentration
■	Potential Areas		

Potential Avenues for Women-Led Entrepreneurship

Though there is a high concentration of women workforce in this sector, very few women are in entrepreneurial roles. There is potential to leverage advantages like high education levels amongst

women in the state and the flexibility of the business model to invite more women players. Women entrepreneurs can also explore providing feeder services to existing coaching centres.

Recommendation

Hybrid models combining e-learning and classroom sessions could be promoted to attract women

trained in technology and exploring flexible career/business model.

Investments and Returns

+ On the other hand, formal coaching classes starting independently or as franchisees need high initial investment with potential for high profits over time.

+ Low investment model as tuition services can be provided at home or at students' home

Opportunities

+ Increasing population of young students
 + Increasing demand for tuitions because of limited support being available within nuclear working families

+ Online platform creation, stationery services, and in some cases transport are some other services that offer business opportunities.

Challenges

+ Strong existing players in the sector
 + Takes time to establish as a reliable brand name amongst parents

+ Some schools have started the concept of day schooling in which children study again after classes; it is an attempt to provide after school learning at the school itself.

Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH

B 5/1, Safdarjung Enclave, New Delhi 110029, India

T: +91 11 49495353, F: +91 11 49495391

W: www.giz.de/India | www.herandnow.in