

# **Market linkages and pathway towards commercialization for empowering tribal women of Northeast states**

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## **Abstract:**

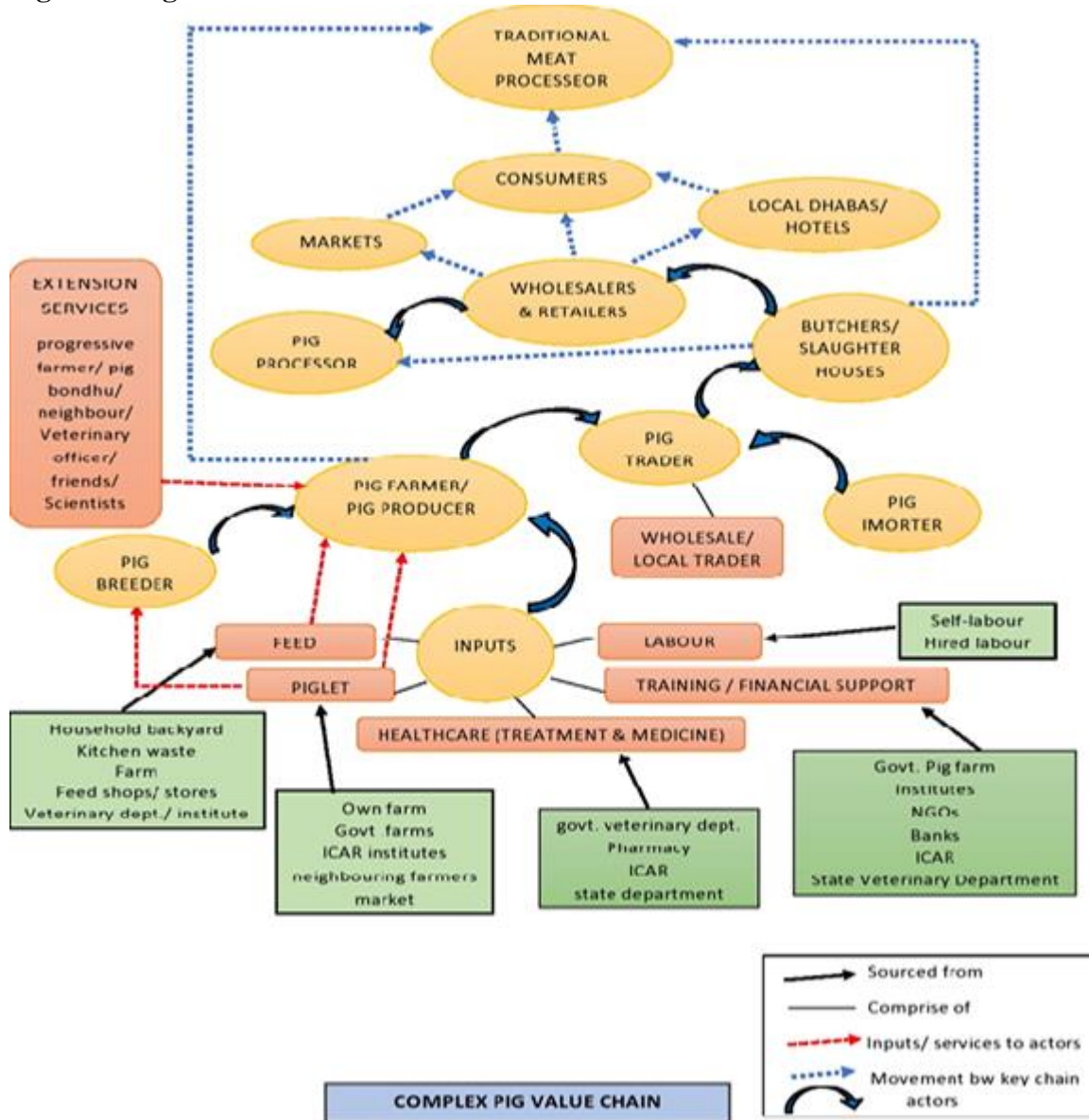
The dearth of enabling environment is responsible for the sluggish growth of commercial livestock farming in Northeast India. To resolve this grave problem the study proposes three broad areas of intervention; a) Capacity enrichment in digital platforms, entrepreneurship, and credit market; b) Skill development on specialized local value-added products and c) Institutional involvement with the Public Private Partnership as a likely model for sustainable growth. The study suggests capacity enhancement programs based on gap analysis with due consideration to the socio-cultural background. Furthermore, outcome-driven programs are to be designed based on the broad area of interest of identified beneficiaries. Digitization, Processing and Packaging, Waste management, Biosecurity measures, Entrepreneurship and Financial literacy are identified gaps for increasing market participation through forward and backward market linkages. The sector's profitability depends on efficient backward linkages through aggregators operating in the B2B model. Changing consumer choices on one hand and the limitations of producers to meet the benchmark by quality and standards, have resulted in opening out the large scope of online trading agents. Recent initiatives in forming FPO/cluster in rural areas can sustain when it is aligned with the market profitable model. It requires support to new ventures working on food, fodder, and veterinary services for efficient backward linkages and managerial efficiency.

*Keywords: PPP model, ventures, aggregator, forward-backward linkages, commercialization, pathway.*

Northeastern states can be the first brand ambassadors for Indian Organic Agricultural Produce especially in meat market. This will help to take the growing competitive advantage by increasing profitability and providing a sustainable source for the livelihood of tribal women. The paper aims to identify the opportunity of the meat market, especially pork in North-eastern states, and give a suggestive framework for the sustainable livelihood of the producers and chain actors with special reference to the tribal women. Generally, we find 'attitude' as a key factor in the literature for which the tribal women do not want to transform and are content with the present level of living. On the contrary, a recent project funded by NASF, ICAR in three Northeast states (Assam, Meghalaya and Nagaland) presents a very clear and vivid

picture where young girls and middle-aged women showed a strong desire to align with the vision of commercializing and participating in the mission of transforming traditional agriculture.

**Figure 1: Pig Value Chain in Northeast India**



Source: Compiled and constructed through a primary survey by authors.

The complex pig value chain ensures the interaction of producers and consumers for the live pig and pork products at various layers. The stock of live pigs enters the market from three key sources- Backyard farmers, breeders and importers in almost uniform prices. Traders are important agents which connect both the value-added actors through slaughterhouses/ butchers and retailers. In this totally unorganized market, each channel does not have a defined source of intake for which aggregation is not possible. It finally restricts quality maintenance which limits the value addition leading to a non-commercialized scale of trading and marketing.

**Table 1 : SWOT analysis of pig market in North East states**

S.No.	Strengths	Weaknesses	Opportunity	Threat
1	<b>Good Networking</b> among the value chain actors.	<b>Less awareness of diseases and vaccinations</b> among all the value chain actors.	Enhancing networking through <b>digital literacy</b>	<b>Losing a batch of pig</b> due to breakout of virus (improper sanitation/ vaccine)
2	<b>Market Information Symmetry</b> (as prices are regulated)	<b>Frequent fluctuation in prices</b> (esp. in Assam) leading to shutting down of businesses.	<b>PROCESSING:</b> Processed pork products which are highly preferred but not readily available in the market	<b>Massive imports</b> of pork from South east Asian countries and other north Indian states into NE region
3	<b>High preference</b> for value added products of pork.	<b>Less participation of women</b> in value trading chain.	Business enterprise: <ul style="list-style-type: none"> <li>• <b>Product processing &amp; packaging</b></li> <li>• <b>Waste management &amp; bio-treatment</b></li> </ul>	<b>Frequent changes</b> in pig price due to insufficient supply
4	<b>Willingness to innovate and incorporate their entrepreneurial skills</b> in pork business.	<b>Lower availability of logistics</b> making it unpopular among youth	Establishing a link between <b>forward and backward linkage actors</b> for better pork products	
5	Women are <b>organized through SHGs</b> .			

*Source: Compiled and constructed through a primary survey by authors.*

The detailed survey in three selected areas of Northeast States (Assam, Meghalaya and Nagaland) clearly identified the areas in which intervention is required and the pathway to be framed. Activities to be carried out for the objective of empowering women with higher profitability from pig farming are identified (Table 2). Massive imports of pork from Southeast Asian countries and other north Indian states are making the livelihood of indigenous population at stake. The products coming from these regions are neither standardized nor competitive. The failure of the unorganized market chain due to the non-availability of aggregators and the increasing demand for pork in Northeast states is creating a wide scope of agribusiness through the pork market in the given region.

The capacity enhancement program requires to be designed based on gap analysis with due consideration to the socio-cultural background. In place of general capacity development programs for all, an outcome-driven program must be planned which are designed by categories on the basis of their (targeted population) broad areas of interest. Based on the gap analysis the area of capacity development programs in Northeast states were grouped under the following broad categories:

**Table 2: Key areas identified for capacity-building activities for empowering tribal women**

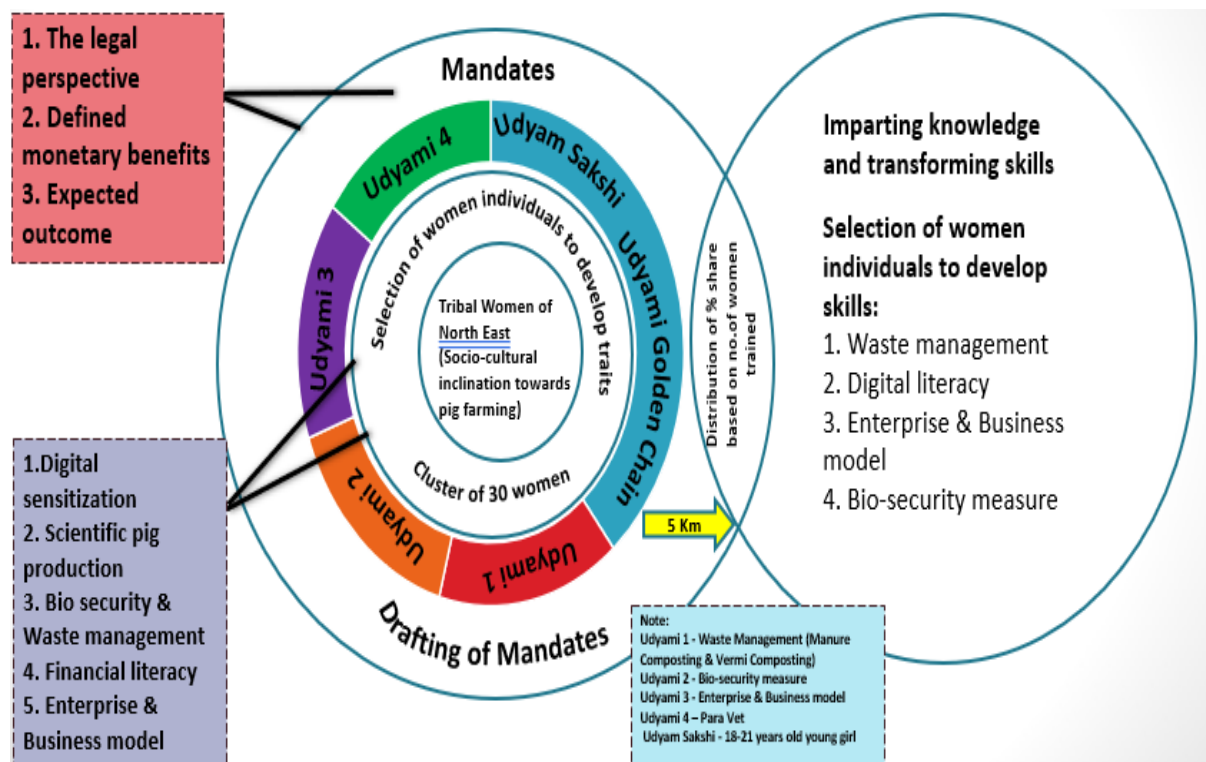
S.No.	Categories	Activities to carry out for the Capacity building program
1.	Digital sensitization	Training
2.	Scientific pig production	Artificial Insemination, deworming. Certified Pig Bondhu (para vets).
3.	Biosecurity & waste management	Training & Awareness programs, Knowledge product
4.	Financial Market Literacy	Training
5.	Enterprise and Business model	Linking the forward and the backward linkage actors through pig bondhus
6.	Packaging & Processing	Link with the existing local program/ projects

*Source: Compiled and constructed through a primary survey by authors.*

At the micro level mentoring and handholding, of the micro-entrepreneur or start-up especially in the area of marketing management and biosecurity measures are the pre-requisite in the present scenario to increase production for commercial purposes. For a profitable market, the demand especially from HORECA (Hotel, Restaurant and Cafeteria) sectors to be channelled through regulated aggregators. The presence of technologically equipped aggregators in this stage will operate to link the semi-medium and medium-sized producers with organized consumers from restaurants, processing units and other small-sized food-based entrepreneurs can give the desired outcome. Linkages in both forward and backward will stimulate the growth of non-farm sectors, simultaneously giving the required outcome of increasing income. The participation of the community at the micro level and public and private sector participation at the macro level through aggregators and region-specific research (ICAR, Agriculture University, Veterinary Institute) can increase income with equity.

The study suggested that if a team of ‘capacity enhanced women’ work in a cluster together under a formal registered group/FPO then the income of all women can be enhanced and the vulnerability due to risks can be minimized. The suggestive clustering of women (Figure 2), into ‘Udymai’s’ around the pre-identified areas of capacity building clearly depicts how clustering small groups of women together, can be an effective tool in empowering them even at the grassroot level. The study suggests that among a cluster of 30 women in a village, training and capacity building of women through ‘piggery farmer field school’ be performed. Among these women role models/Udymai’s be identified who can then impart these skills and knowledge among other nearby clusters of similar women, making it a sustainable model.

**Figure 2: Model Village approach for creating Udyami's through capacity building**



*Source: Compiled and constructed through a primary survey by authors.*

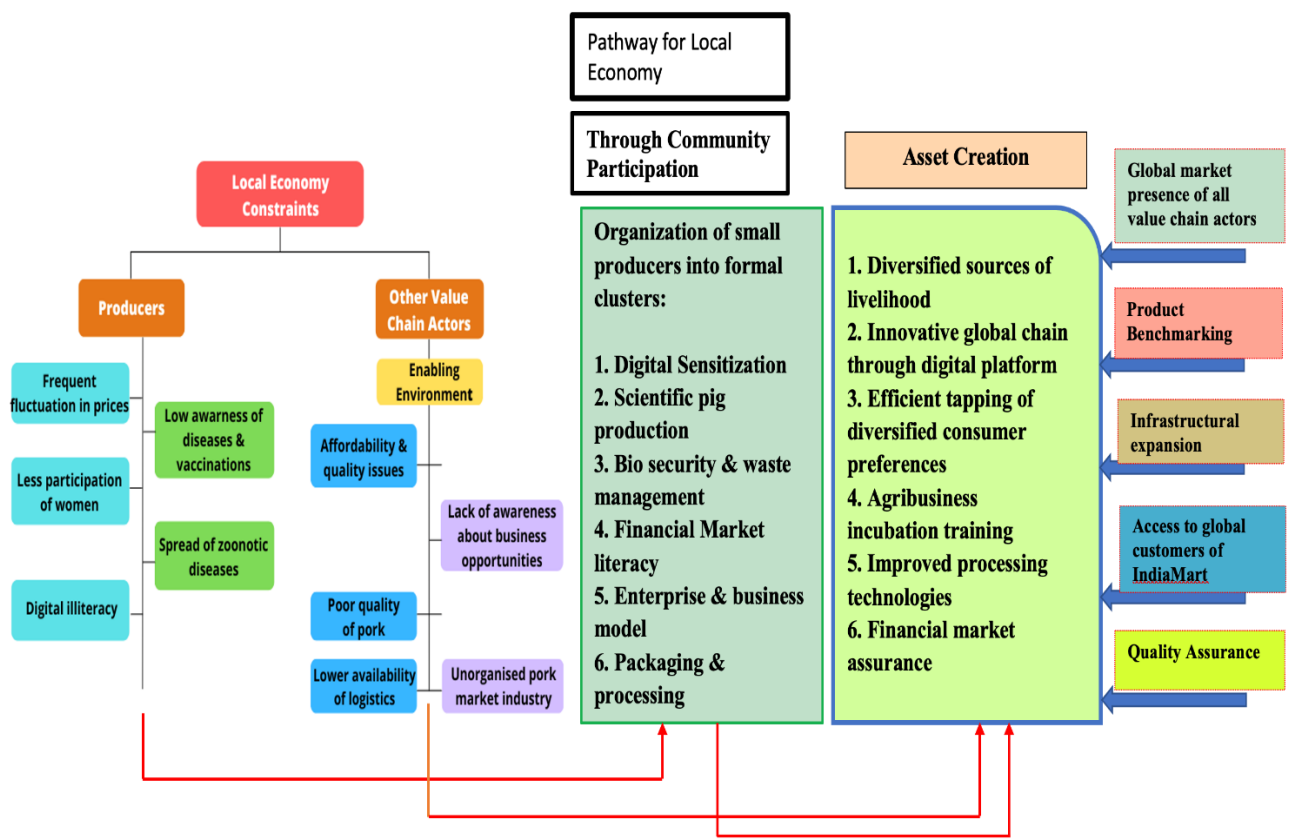
Furthermore, in the Northeast women are generally found to be very active in the Village group or Women Associations, but the area of operations within this group is limited. It needs to be explored with constant hand-holding and motivation by experts or extensions from research /academic institutions. This will help to apply the pathway designed to transform backyard pig farming towards commercialized farming.

### **Pathway for Local Economy Towards Commercialization through Backward and forward linkages**

A pathway for the local economy is designed based on the defined issues and strengths. The flowchart of the pathway is divided into two sections (Figure 3). The left section gives the vicious circle of factors that operate as constraints in the local economy for the producers and other value chain actors. For the producers, the key challenges are less awareness of biosecurity measures and almost absence of participation in digital platforms along with others like price fluctuations and insignificant participation of women in the supply chain. The value chain actors are more surrounded by issues of quality and logistics management. These challenges restrict the market to discriminate around prices and differentiate products around the consumer's choice to earn profit.



**Figure 3: Pathway for Local Economy Towards Commercialization**



*Source: Compiled and constructed through a primary survey by authors.*

The study suggests that a balance between technological upgradation and financial market assurance can ensure agribusiness opens diversified sources of income. An organized chain through aggregators will work to push the market towards competitiveness. But in the process, constant handholding, and motivation to the prospective farmers on biosecurity measures and management for certification and other value-added processes through a public-private partnership can give a self-sustained model at a small level in the initial stages. The model can evolve for the sustained livelihood of tribal women in the time path with the required edition.

## Conclusion

The tribal women of Northeast India hold the willingness and eagerness to learn and grow. Even though the region holds high demand for pork consumption, its supply is being largely fulfilled through imports- creating a big threat for locals, especially women who earn a livelihood through backyard farming activities. The study draws its key framework from the work performed under the NASF-funded project on tribal women and suggests that a cluster-based approach be used to develop the basic skills needed among tribal women around six key areas of- biosecurity, digital sensitization, scientific pig production, finance, enterprise & business model and processing & packaging. The study recommends that among the cluster of women, at least six Udyami's be groomed and taught the skills necessary through capacity-building programs and training. These skilled women, each holding a unique skill set can then act as diffusers of knowledge among their peers and neighbors which eventually will create a

sustainable model of skill development and livelihood at the grassroot level. Furthermore, the study acknowledges that with the help of aggregators and effective market linkages- both forward and backward, the tribal women of Northeast India can turn backyard farming activities into a successful agribusiness model.

#### ACKNOWLEDGEMENTS

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