Study to Select Value Chain and Analyze Selected Value Chain

Presentation on Value Chain Assessment

Phase 2: 'Assessment of Selected Value Chains'
Southeast Zone – 1







Study Objectives

Value Chain Selection



Analysis of Selected Value Chains



Ensure Sustainable Livelihoods to the project beneficiaries



Reduce pressure on Natural Resources





Specific Objectives

The study was conducted in two phases:

Phase 1: Value Chain Selection

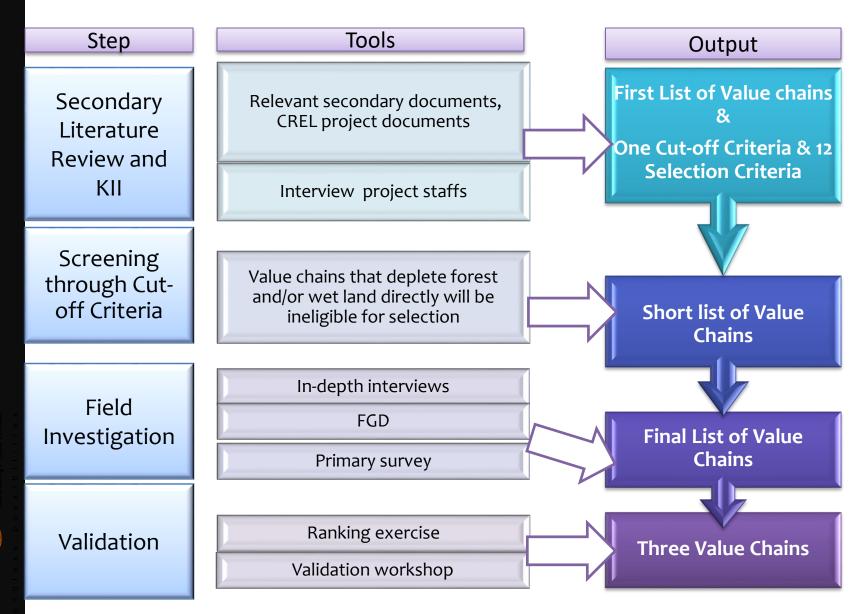
• Output: Select three value chains

Phase 2: Value Chain Analysis

Output: Detail Value
 Chain Analysis of three
 selected value chains

Market Study for Ecotourism

Process of Value Chain Selection

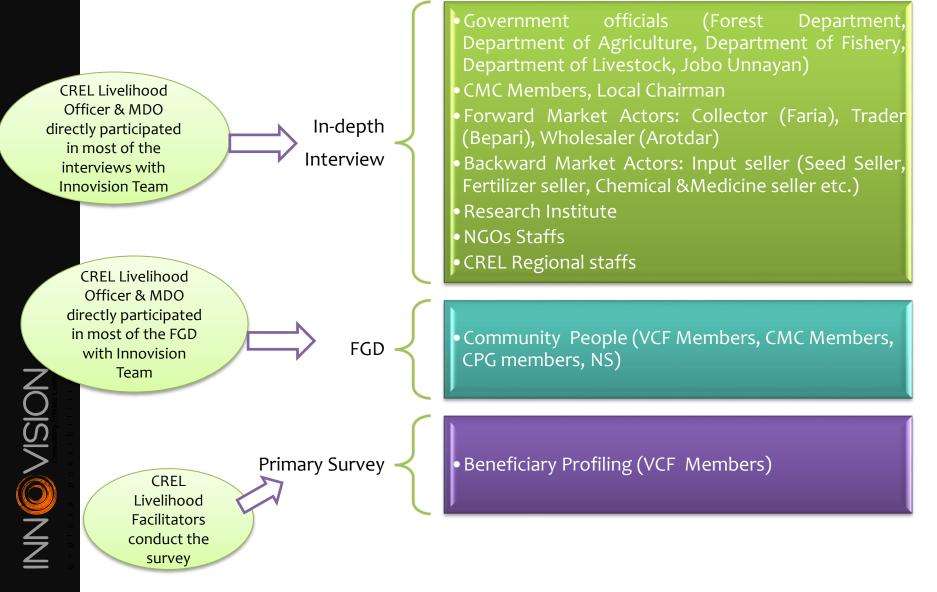




Value Chain Selection Criteria

Criteria	Weight	Criteria	Weight
Climate Tolerance (Low tolerance=1, High tolerance=5)	3	Income (Low income increase=1 High income increase=5)	5
Climate Resiliency (Low resilience=1, High resilience=5)	3	Private sectors participation (Low interest=1, High interest=5)	3
Resource Extraction Minimization (Not minimized=1, Highly minimized=5)	5	Development priorities and favorable policy of government (Low priority & favorability=1 High priority & favorability=5)	3
Women and Youth Inclusion (Low inclusion=1, High inclusion=5)	5	Synergy and potential collaboration (Low synergy=1, High synergy=5)	3
Outreach (Low outreach=1, High outreach=5)	2	Risk (High risk=1, Low risk=5)	4
Growth potential (Low growth=1, High growth=5)	5	Scope for value addition (Low scope=1, High scope=5)	3

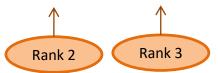
Tools for Data Collection & Respondents in Phase 1



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Ranking Exercise for Southeast Zone 1

Criteria	Weight	Fruits	Vegetables & Medicinal Plants	Homestead Poultry	Fish farming	Handicrafts
Climate Tolerance	3	3	3	3	4	3
Climate Resiliency	3	3	3	3	4	3
Resource Extraction Minimization	5	3	3	3	2	3
Women and Youth Inclusion	5	4	4	4	1	5
Outreach	2	3	4	2	2	3
Growth potential	5	4	4	3	4	4
Income	5	4	3	3	4	4
Private sectors participation	3	4	4	2	3	4
Development priorities and favorable policy of government	3	4	3	4	4	3
Synergy and potential collaboration	3	2	3	4	4	3
Risk	4	2	2	1	2	3
Scope for value addition	3	3	3	2	3	4
Total Weightage Score		146	143	127	133	158





Process of Value Chain Analysis

Literature Review

Secondary literature,
Project document

In-depth Interviews

Key informant interviews, forward/ backward market actors, private sector

CREL Livelihood
Officer & MDO
directly participated
in most of the
interviews with
Innovision Team



Questionnaire Surveys

Producers of selected value chains, project beneficiaries

CREL Livelihood
Facilitators
conduct the
questionnaire
surveys

Strategy Workshop

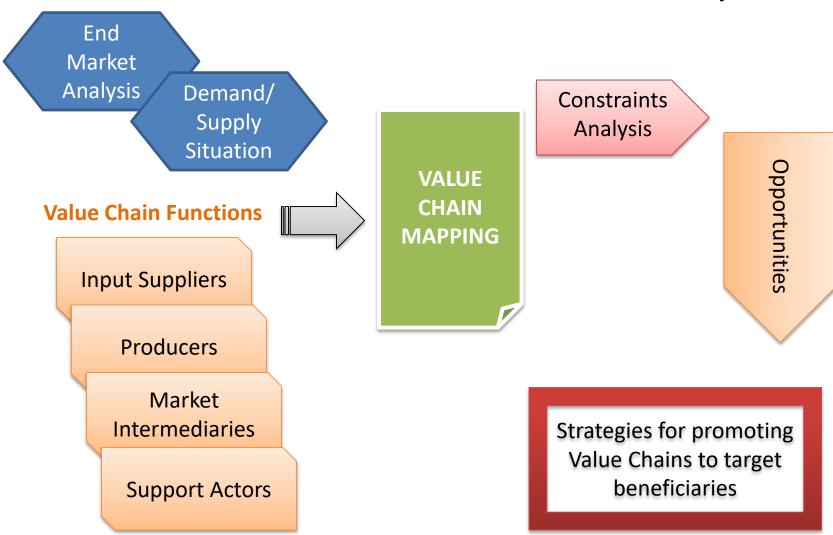
Findings sharing, Strategy Discussion



Case analysis, tabular analysis, averages, extrapolation, etc.



Outcome of Value Chain Analysis





Southeast Zone 1



Outline

- Geographic scope
- Tools for data collection and Respondents
- People we have interviewed
- Beneficiary mapping
- Value Chain Analysis: Vegetables & Medicinal Plants,
 Fruits, Handicrafts and Handloom
- Analysis of Eco-tourism
- Potential Trades
- Tentative Outreach through the value chains

Geographic Scope

Sites	Dhopachari-Dudpukuria WS		Chunati WS		Kaptai National Park	
Ranges	Dhopachari	Dudpukuria	Chunati	Jaldi	Kaptai	Karnaphuli
No. of VCF	13	19	34	26	22	17
VCF Members (HHs)	390	534	1810	1485	1045	835
Upazila	Rangunia and (Chandanaish	Banskhali, Chokoria	Lohagara,	Kaptai	
District	Chittagong	gong		and Cox's	Rangamat	i



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Tools for Data Collection & Respondents

In-depth Interview

- CMC Members
- Forward Market Actors: Collector (Faria), Trader (Bepari), Wholesaler (Arotdar), Retailer
- Backward Market Actors: Input seller (Seed Seller, Fertilizer seller, Medicine seller, bamboo-cane supplier etc.)
- Private Companies: Fruit and Vegetables processor, Handicrafts enterprise etc.
- NGOs Staffs
- CREL Regional staffs



- Producers of the selected value chains
- Extractors of Forest Resources



• Government officials (Department of Agriculture, Department of Forest, BARI, Upazila Jubo Unnayan Officer etc.)

People We have Interviewed

Backward Linkage

- Vegetables & Medicinal Plant
 - 4 seed, fertilizer & chemical retailers
- Fruits
 - 3 seed, fertilizer & chemical retailers
 - 2 nurseries
- Handicrafts
 - 2 Input suppliers
- Eco-tourism
 - 2 Eco-site Administrators
 - 4 Rangers (Forest)
 - 1 Resort owner

Producers

- Vegetables & Medicinal Plant producers (18)
- Fruit producers (17)
- Handicraft producers (15)
- Tour guides (2)

Forward Linkage

- Vegetables & Medicinal Plant
 - 3 Retailers
 - 2 Arotders
 - 2 Paikers
 - 4 Beparis
- Fruits
 - 2 Retailers
 - 2 Arotders
 - 3 Paikers
 - 3 Beparis
- Handicrafts
 - 2 Showrooms
 - 2 Beparis

Support Function:

UN Agriculture officer (4), UN Jubo Unnoyon officer (3), BARI Researcher (1), NGOs: SHED, Practical Action, UNDP (local officer)

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65% (3250 HHs):

value chains

farming

for commercial

Can use agricultural

and/or homestead

Beneficiary mapping

High extraction 3% 35% 32% No extraction Moderate extraction Low extraction 30%

10% (500 HHs):

Can only rely on trade and other capacity building livelihood options

25% (1250 HHs):

Has homestead space, can be used for farming; also require trade and other capacity building livelihood options





Value Chain Analysis: Vegetables and Medicinal Plants

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Rationale for Value Chain Selection

Vegetables

- Vegetables are widely cultivated in the region all year round
- Women are more comfortable in vegetable farming than in conventional farming of cereal crops
- Low requirement of working capital
- High market demand
- Early variety vegetables get higher price
- Less irrigation required in comparison to other common crops like paddy, potato etc.
- Improved packaging can increase value addition opportunity
- It has no adverse impact on environment

Medicinal Plants

- Market demand and profitability of medicinal plants are very high
- Cultivation can be incorporated in the Social Forestry using the same land, as the medicinal plants can grow under shade
- Along the embankments and in relatively arid soil, medicinal plants can easily be grown
- It can be cultivated in homestead lands and also as fencing of other crop fields

Types of vegetables* and Medicinal Plants

Vegetables	Demand	Land required	Availability
Brinjal	Local &National	Flat	Throughout the year
Gourds (Teasle/ Bitter/ Snake etc.)	Local &National	Flat	Throughout the year Teasle: Apr - Oct
Chili	Local &National	Flat/ Slope	Throughout the year
Potato	Local &National	Flat/ Slope	Throughout the year
Bean	Local &National	Flat	Oct - Jan
Aroid/ Eddoe	Local &National	Flat/ Slope	Throughout the year Eddoe: Jun - Nov
Tomato	Local &National	Flat/ Slope	Nov - Apr
Okra	Local &National	Flat	Throughout the year
Medicinal Plants	Demand	Land required	Cycle/year (Duration)
Neem	Local &National	Flat/ Slope	Throughout the year
Basak	Local &National	Flat/ Slope	Throughout the year
Haritoki	Local &National	Flat/ Slope	Throughout the year
Aloe vera	Local &National	Flat/ Slope	Throughout the year

^{*} Listed vegetables include both local and hybrid varieties

End Market Analysis

	D-D WS	Chunati WS	Kaptai NP
Main Market	Local: Dhopachari, Bangalhalia, Rajar hat Regional: Reazuddin bazar, Khatungonj	Local: Chunati, Amirabad, Miabazar, Adhunagar, Time bazar Regional: Bahadder hat, Reazuddin bazar, Khatungonj	Local: Chikmarom, Kaptai, Natun bazar Regional: Bahadder hat, Reazuddin bazar, Asadgonj, Bakshirhat
Buyers	Households, retailers, restaurants	Households, retailers, restaurants	Households, Herbal Medics & agents
Demand/ Supply	Local demand is met by ample supply; High transport cost affects supply in regional markets	Local demand is met by ample supply	Local demand is moderately met; some are imported
Market Opportunity	High unmet regional and national demand; High market price	High unmet regional and national demand; High market price	High unmet regional and national demand; High market price



Input Suppliers

- All the major markets have small input retailers (seeds, fertilizers, pesticides, etc).
- Retailers have a moderate linkage to input companies. Top suppliers are Laal Teer, Supreme, Everest, ACI, Syngenta etc.
- Retailers are providing basic information about how to use their inputs, but they lack in appropriate know-how of cultivation techniques.
- Agro-machineries like tractors, sprayers etc. are not available.
- Mobile seed vendors and mobile seedling sellers tend to sell non-branded products.
- Input retailers sometimes struggle with low-quality seeds, chemicals and fertilizers provided by the companies.

Producers

D-D WS	Chunati WS	Kaptai NP
• 90% has 32 dec land.	• 65% has 15 dec land.	75% has 13 dec land.20% has 140 dec forest land
 Most beneficiaries have cultivable land for commercial use Soil is very fertile Homestead spaces are available 	 Soil is very fertile Most beneficiaries have cultivable land for commercial use Homestead spaces are available 	 Most beneficiaries have cultivable land for commercial use Homestead spaces are available Jhum cultivation is seen in this area



Producers cost-profit analysis

Particulars/dec	Amount
Total Cost	BDT 585
Total Production (Sold)	91 Kg
Average Price/Kg	BDT 23
Revenue	BDT 2065
Net Profit	BDT 1480

Total cost includes land preparation, seed, fertilizer, pesticide, labor, transportation etc.



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Cost-profit analysis of Medicinal plants

Particulars/dec	Amount
Total Cost	BDT 130
Total Production	12 Kg
Average Price/Kg	BDT 36
Revenue	BDT 432
Net Profit	BDT 302

Total cost includes land preparation, seed, fertilizer, pesticide, labor, transportation etc.

Traders

- Bepari/Farias have direct linkage with the local producers to source from them.
- Small producers sell approximately 10% of their produce (after own consumption) at the arots local hats and bazaars.
- Large vegetable farmers are able to sell up to 85% of their produce to regional paikers.
- Farias usually collect the produces during the weekly market day of the local bazaar. Then they supply the same to paikers in larger local markets or to arotders in regional markets like Reazuddin bazaar, Bahadderhat etc. in Chittagong.
- Arotders purchase the vegetables at commission basis from the farias.
- Farias usually pay the producers upfront during the purchase.
- For medicinal plants all the agro produces are acquired by processors.

Support Functions

- Government is working to promote vegetable cultivation in the landscape and slopes of the forest.
- Input companies are moderately active in marketing their products.
- Crop-based micro-finance is limited to the producers.
- Transportation services involve high cost due to poor Infrastructure and communication systems.
- Herbal medics and medicinal companies are interested to provide supports in extension of medicinal plant cultivation in the area.

Value Chain Mapping

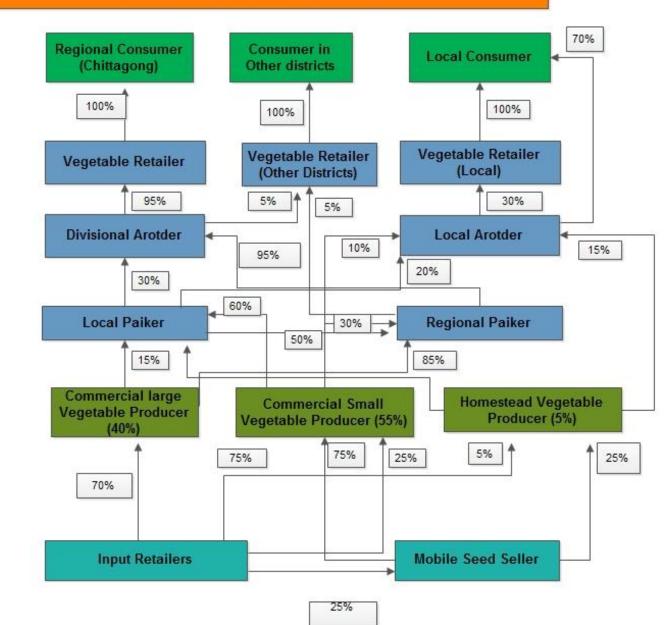
Value Chain Map (Vegetable)

Consumption

Trading

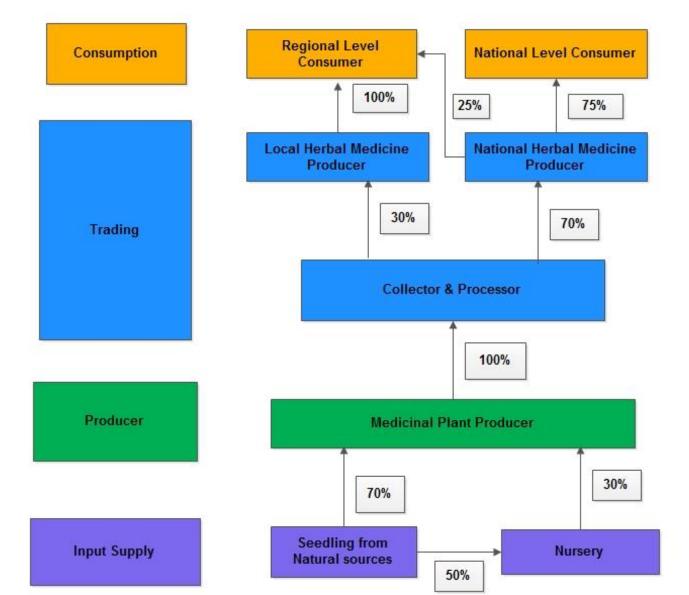
Producer

Input Supply

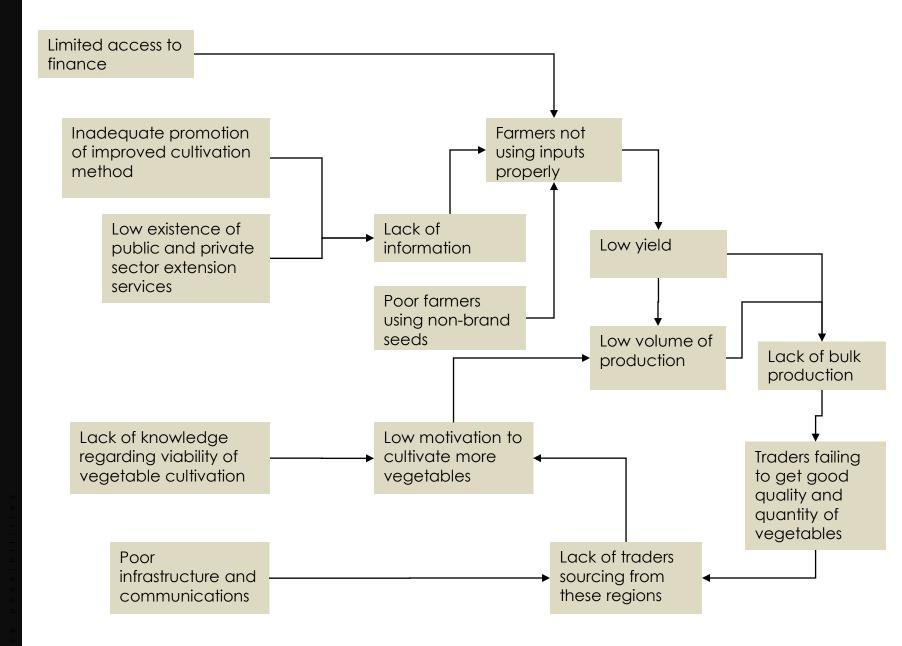


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Value Chain Map (Medicinal Plants)



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Constraints Analysis

Opportunities

- The soil is highly fertile for vegetables and medicinal plant production in the area.
- There is a growing trend in using proper inputs.
- At least 75% of beneficiaries have cultivable land.
- Productivity of vegetables can be increased by using proper cultivation techniques.
- Land is available for leasing.
- Input suppliers are already present, they can be trained to provide information to the farmers about better cultivation techniques.
- Traders are well-connected with regional and even national markets. So, with increased supply of vegetables, the opportunity for vegetable traders will increase.
- Women can potentially be involved in production of vegetables.

Discussion on Strategies

- Promoting Profitable Cropping Patterns
- Mobilizing Producers into Cluster-based cultivation and Trading
- Improving Linkage between Producers and Input Companies through Capacity Development
- Improving Access to Market





Value Chain Analysis: Fruits

Rationale for Value Chain Selection

Fruits

- It includes short-term fruits such as amropali, banana, pineapple, papaya, strawberry, watermelon
- It has no direct impact on Climate, but can positively reduce pressure on forest by engaging the extractors in cultivation
- Cultivation can improve nutrition intake of women; furthermore can be produced in the homestead which would increase potential for inclusion of women beneficiaries under CREL
- Increase in production will create additional jobs for youth across the value chain
- Favorable growth trend; increasing number of farmers getting engaged
- Favorable geo-climatic condition resulting in better produces and better price
- Government is promoting cultivation of different kinds of suitable fruits as saline tolerant crops especially in the coastal regions
- High market demand and stable market price

Types of Fruits

Fruits	Demand	Land required	Availability
Papaya	Local &National	Flat/ Slope	Throughout the year
Banana	Local &National	Flat/ Slope	Throughout the year
Amropali	Local &National	Flat/ Slope	May - Aug
Watermelon (hybrid)	Local &National	Flat/ Slope	Throughout the year
Pineapple	Local &National	Flat/ Slope	May - Jul
Strawberry	Local &National	Flat/ Slope	Jan - Mar
Guava	Local &National	Flat/ Slope	Jul - Sep



End Market Analysis

	D-D WS	Chunati WS	Kaptai NP
Main Market	Local: Dhopachari, Bangalhalia, Rajar hat Regional: Reazuddin bazar, Khatungonj	Local: Chunati, Amirabad, Miabazar, Adhunagar, Time bazar Regional: Bahadder hat, Reazuddin bazar, Khatungonj	Local: Chikmarom, Kaptai, Natun bazar Regional: Bahadder hat, Reazuddin bazar, Asadgonj, Bakshirhat
Buyers	Households, retailers, restaurants	Households, retailers, restaurants	Households, Herbal Medics & agents
Demand/ Supply	Local demand is met by ample supply; High transport cost affects supply in regional markets	Local demand is met by ample supply	Local demand is moderately met; some are imported
Market Opportunity	High unmet regional and national demand; High market price	High unmet regional and national demand; High market price	High unmet regional and national demand; High market price



Input Suppliers

- All the major markets have small input retailers (seeds, saplings, fertilizers, pesticides, etc).
- Retailers have a moderate linkage to input companies. Top suppliers are Laal Teer, Supreme, Everest, ACI, Syngenta etc.
- Retailers are providing basic information about how to use their inputs, but they lack in appropriate know-how of cultivation techniques.
- Producers prefer saplings to seeds as their input.
- Input retailers sometimes struggle with low-quality seeds, saplings, chemicals and fertilizers provided by the companies.

Producers

D-D WS	Chunati WS	Kaptai NP
• 90% has 32 dec land.	• 65% has 15 dec land.	75% has 13 dec land.20% has 140 dec forest land
 Most beneficiaries have cultivable land for commercial use Soil is very fertile Homestead spaces are available 	 Soil is very fertile Most beneficiaries have cultivable land for commercial use Homestead spaces are available 	 Most beneficiaries have cultivable land for commercial use Homestead spaces are available Jhum cultivation is seen in this area



Producers cost-profit analysis

Particulars/dec	Amount
Total Cost	BDT 1080
Total Production (Sold)	58 Kg
Average Price/Kg	BDT 50
Revenue	BDT 2900
Net Profit	BDT 1820

Total cost includes land preparation, saplings, fertilizer, pesticide, labor, transportation etc.



Traders

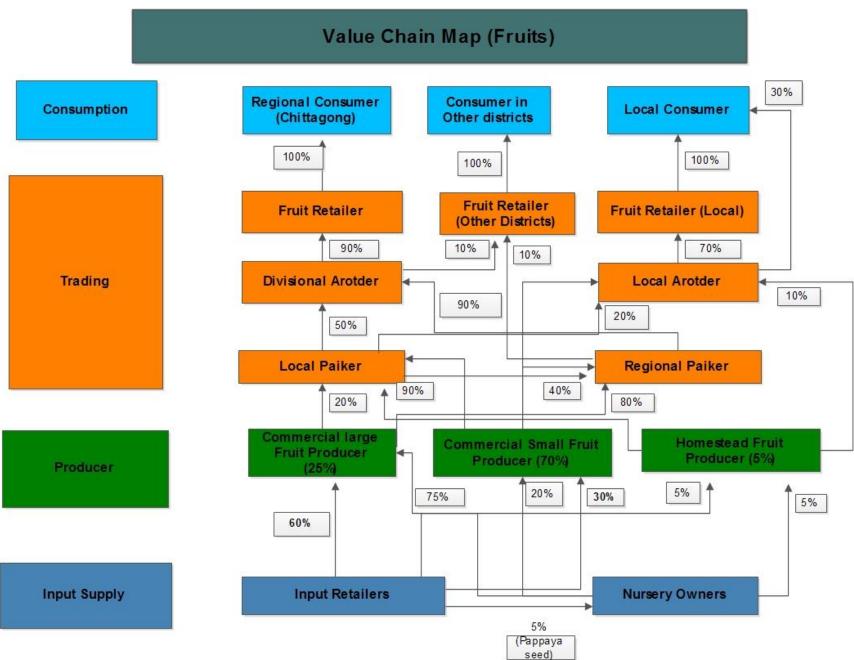
- Bepari/Farias have direct linkage with the local producers to source from them.
- Small producers sell approximately 10% of their produce (after own consumption) at the local hats and bazaars.
- Commercial farmers are able to sell 80% of their produces to regional paikers and the rest 20% to local paikers.
- Farias usually collect the produces during the weekly market day of the local bazaar. Then they supply the same to paikers in larger local markets or to arotders in regional markets like Falmundi, Reazuddin bazar, Bahadderhat etc. in Chittagong.
- Arotders purchase the fruits at commission basis from the farias.
- Farias usually pay the producers upfront during the purchase.

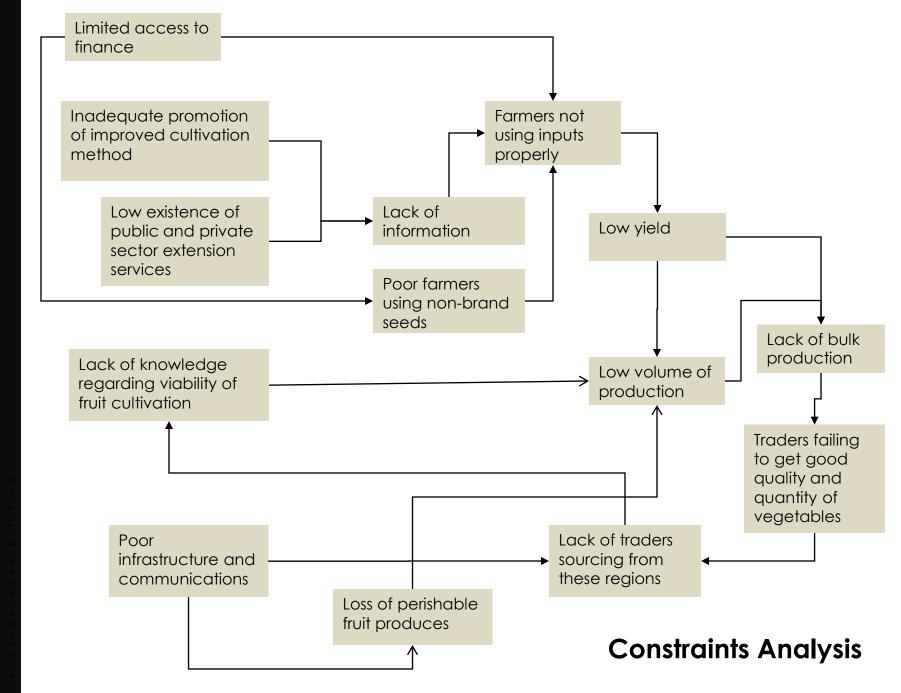
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Support Functions

- Government is working to promote mixed fruit cultivation in the landscape and slopes of the forest.
- Input companies are moderately active in marketing their products in this region.
- Microfinance for fruit cultivation is almost absent.
- Transportation services involve high cost and production loss due to poor Infrastructure and communication systems.

Value Chain Mapping





Opportunities

- The soil is highly fertile for fruit production in the area.
- There is a growing trend in using proper inputs.
- At least 75% of beneficiaries have cultivable land.
- Productivity of fruits can be increased by using proper cultivation techniques and cropping pattern.
- Land is available for leasing.
- Input suppliers are already present, they can be trained to provide information to the farmers about better cultivation techniques.
- Traders are well-connected with regional and even national markets. So, with increased supply of fruits, the opportunity for fruit traders will increase.
- Women can potentially be involved in production of fruits.

Discussion on Strategies

- Promoting Profitable Cropping Patterns
- Mobilizing Producers into Cluster-based cultivation and Trading
- Improving Linkage between Producers and Input Companies through Capacity Development
- Improving Access to Market





Value Chain Analysis: Handicrafts

Rationale for Value Chain Selection

Handicrafts

- Women are more comfortable in handicraft in comparison to on-farm activities.
- Women have traditional skill to produce handicrafts.
- Requirement of working capital is not very high.
- Due to poor market access, beneficiaries can not increase their production in spite of having highly potential productivity.
- Necessary inputs are available in local markets.
- No land required
- Government is promoting handicrafts and providing trainings and easy loans for the respective trainees.

Types of Handicrafts

Fruits	Demand	Land required
Bamboo products (Lai, tukri, basket, mora, dula, kula, fish trap etc.)	Local &National	Homestead
Handloom products (Kantha, lungi, gamchha, thaan etc.)	Local &National	Homestead
Fishing nets	Local &National	Homestead



End Market Analysis

	D-D WS	Chunati WS	Kaptai NP
Main Market	Local: Bangalhalia, Rajar hat Regional: Rangamati, Chittagong	Local: Amirabad, Miabazar Regional: Khatungonj	Local: Chikmarom, Kaptai, Natun bazar Regional: Rangamati, Chittagong
Buyers	Local households, Agents, Showrooms	Local households, Agents	Local households
Demand/ Supply	Local demand is low	Local demand is low	Local demand is moderately higher and met by the supply
Market Opportunity	High unmet regional and national demand; High market price	High unmet regional and national demand; High market price	High unmet regional and national demand; High market price



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Input Suppliers

- Input Suppliers provide different types of bamboo, cane, threads, dye, accessories etc. to the handicraft producers
- They sometimes also appear as the traders of the finished goods.
- In some cases, provide credit facilities and/or, technical supports to the producers

Producers

D-D WS	Chunati WS	Kaptai NP
• 90% has 32 dec land.	• 65% has 15 dec land.	75% has 13 dec land.20% has 140 dec forest land
 Homestead spaces are available Women possess traditional skills Producers are interested to increase their skill 	 Homestead spaces are available Women possess traditional skills Producers are interested to increase their skill 	 Homestead spaces are available Women possess traditional skills Producers are interested to increase their skill



Traders

- Bepari/Farias have direct linkage with the local producers to source from them.
- Small producers usually do not sell the products commercially.
- Some occasional and professional manufacturers sell their handicrafts either directly at the bazar, showroom or through farias/ agents.
- Agents usually contact for supply and collect the products. Then
 they supply the same to paikers in larger local markets or to
 arotders in regional markets like Khatungonj, Reazuddin bazar,
 and in some showrooms. in Chittagong, Rangamati, Banderban,
 Cox's Bazar.
- However, in most cases, the showrooms or handicraft traders avoid intermediary agents. They prefer to purchase directly from the producers.
- In many situations, Handicraft showrooms or enterprises provide credit facilities and/or, technical supports to the producers

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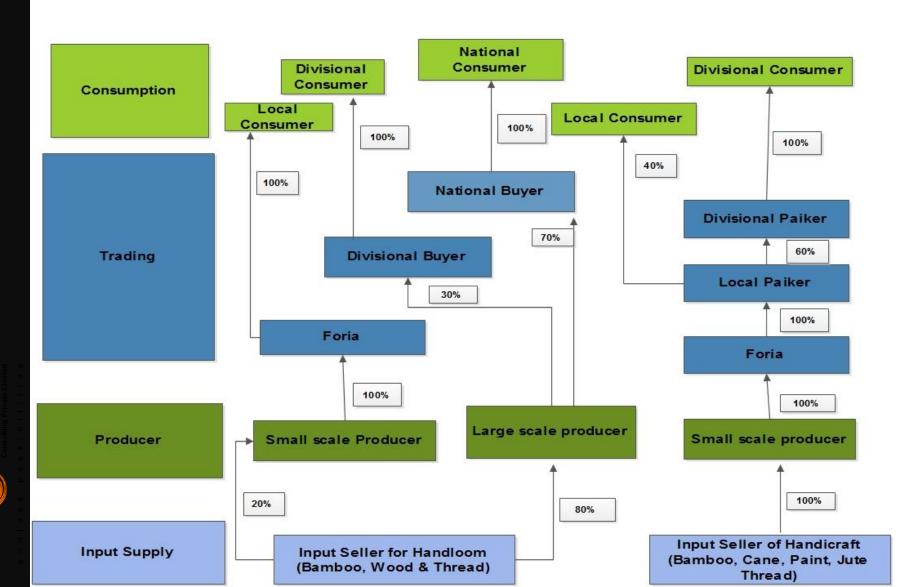
Support Functions

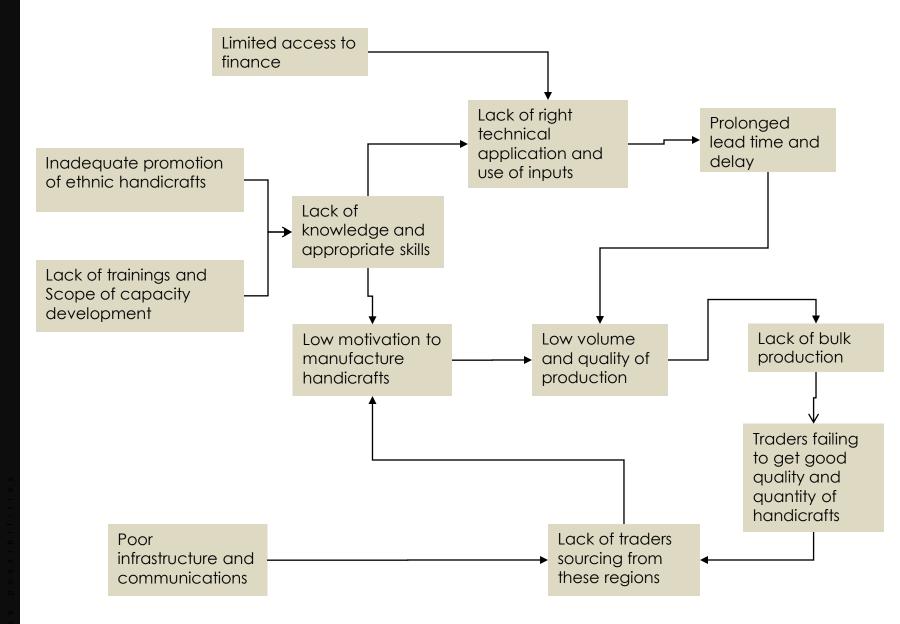
- Different private companies are interested to broaden their portfolio by including regional handicrafts
- Access to finance for handicraft production is not satisfactory
- No training facility is available to develop the capacity of the existing and potential producers
- Transportation services involve high cost in input sourcing and production due to poor Infrastructure and communication systems.

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Value Chain Mapping

Value Chain Map(Handloom and Handicraft)





Constraints Analysis

Opportunities

- Traditional practices for homemade handicrafts prevail.
- Natural sources of raw materials for bamboo, cane, thread etc.
- Locally produced handicraft products have both ethnic (hand woven clothes, show pieces, ladies ornaments etc.) and functional (carry basket, fences, fishing net etc.) utilities.
- Supply-demand gap in countrywide ethnic product market offers a great promise for product placement. Additionally these can be exported to the international market of ethnic products.
- Functional products can be consumed in local markets within the region, in place of products from other regions of the country.

Discussion on Strategies

- Promoting and Branding of Ethnic and Rural Handicrafts
- Improving Linkage between Showrooms/Exporters and Producers through Capacity Development





Value Chain Analysis: Eco-tourism

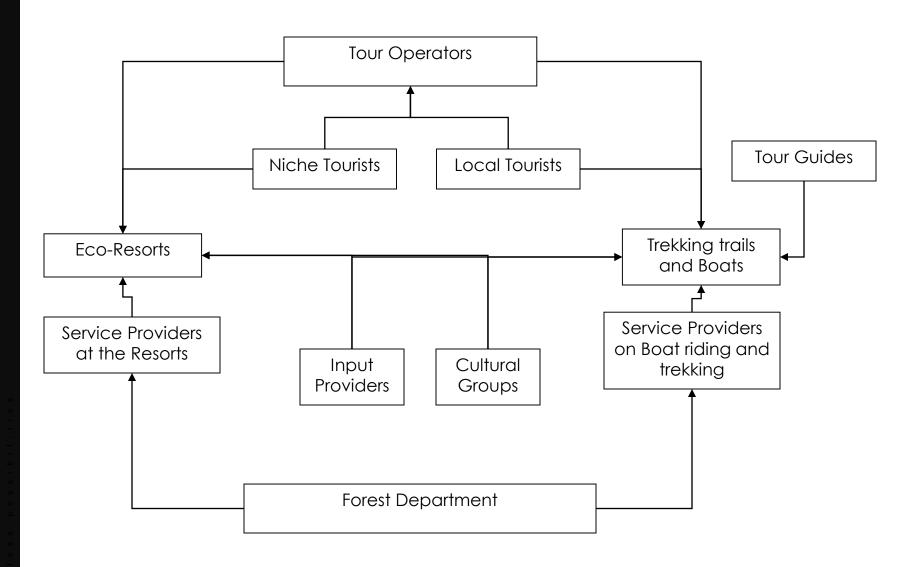
Priority Sites

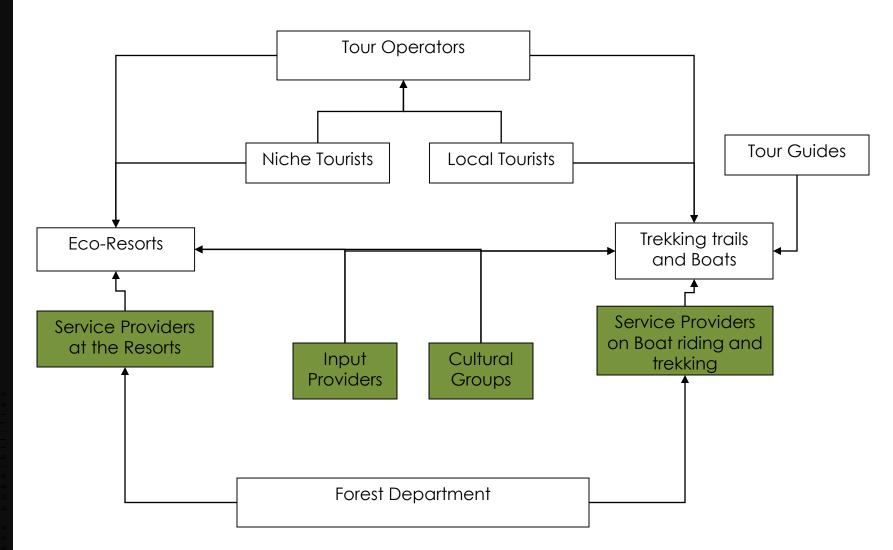
D-D WS	Chunati WS	Kaptai NP
Eco-cottageTrekking (hilly) trailObservation towerBoat trip in Sanguriver	 Trekking (hilly) trail Observation tower Banskhali Eco park Observation tower Boat trip in lake 	Trekking (hilly) trailObservation towerBoat trip in Kaptai lake



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Mapping of Actors





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Community Engagement Areas

- Eco-cottage (DDWS, CWS)
- Food services, restaurant (CWS, KNP)
- Guides (DDWS, CWS, KNP)
- Souvenir making handicrafts (pottery, bamboo-cane products, loom products etc.)
- Eco-villages (DDWS, KNP)
- Eco-resorts
- Cultural performances by folklore groups (DDWS, KNP)

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Market Opportunities

- Private sector engagement possibilities:
 - Infrastructure/ facilities development
 - Promotional activities
 - Linking guide operators to tour guides (licensed guides as a mandate)
 - Develop service provisions like eco-villages, cultural groups
- Facilities development
 - Trails inside the forest
 - Shelter from rain
 - Waste disposal
 - Riverbank or lakeside food services/ restaurants
 - Souvenir centers
 - Rest rooms
- Financing opportunities
- Promotional activities
 - Exclusivity of eco-tourism compared to mass tourism











Potential Trades for the Beneficiary

Potential Trades

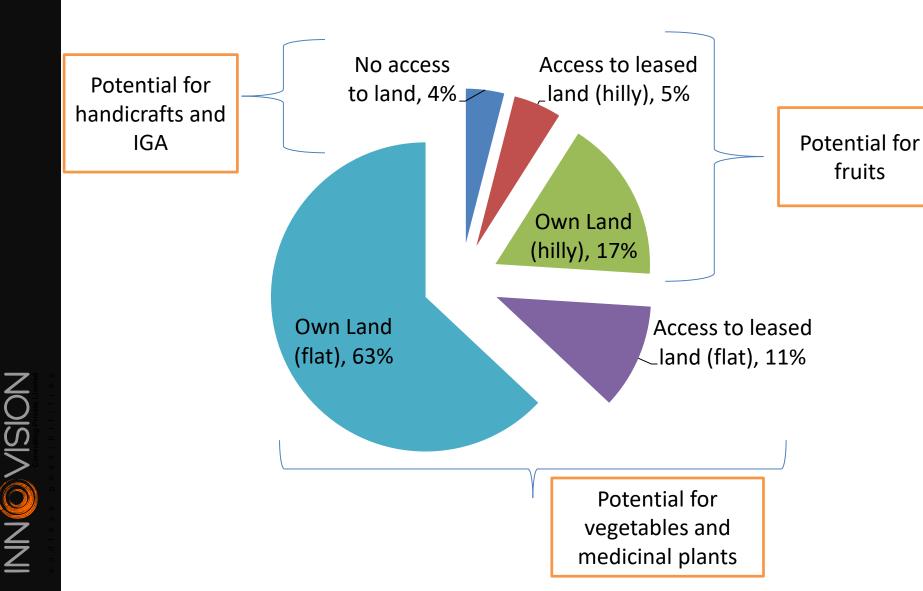
- Small Scale Poultry:
 - Set up small scale poultry production
 - Develop beneficiary households or groups to rear poultry
 - Interventions to provide trainings, develop linkages with input providers, facilitate linkages with traders, financial institutions, traders, etc.
- Small Scale Fisheries
 - Introduce 'Green water pond fisheries' at a minimal investment
 - Interventions to provide trainings, develop linkages with input providers and traders, financial institutions, traders, etc.
- Van/ Human-hauler/ Pick-up Driving and repairing:
 - High use of these vehicles
 - Involving target beneficiaries who are landless
 - Intervention to provide training, promote services
 - Government Youth Department has provision for training

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Potential Trades

- Eco-friendly stove Servicing/ Repairing:
 - Use of eco-friendly stove is getting high. High potential for the demand for servicing and repairing of these stoves.
 - Involving target beneficiaries who are landless
 - Intervention to provide trainings, promote the service
- Tailoring (Clothes, tupi etc.)
 - Many are more interested in home-based activities
 - Involving target beneficiaries who are landless
 - Intervention to ensure capacity development, facilitate linkage between traders, financial institutes and beneficiary groups, provide trainings.

Tentative Outreach Through The Selected Value Chains

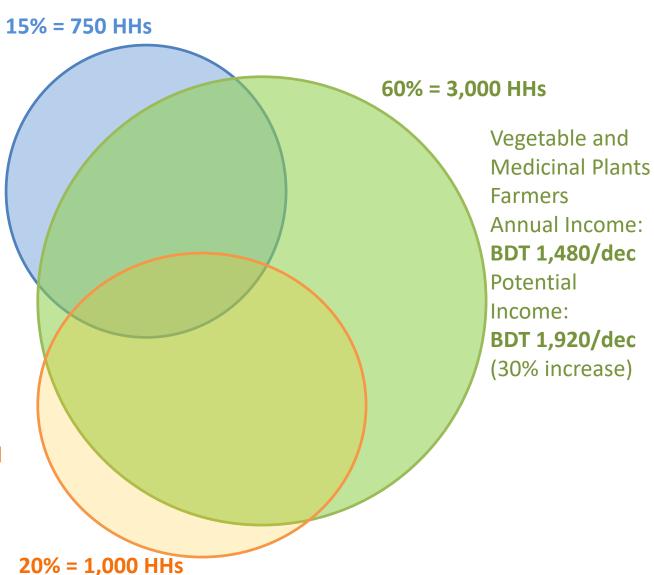


Outreach

Fruits Farmers
Annual income:
BDT 1,820/dec
Potential Income:
BDT 2,366/dec
(30% increase)

Landless &
Depended on
Handicrafts
Potential Increased

Income: **BDT** 32,000/year



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Thank You!