

Chain analysis for Rubber in Vietnam and the two districts of TH & MH

Rubber Case Study
Analysis and Mapping



Production of Rubber in Vietnam

Area (ha) under rubber cultivation and total production

Sector	1999	2000	2001	2002	2003	2004	2005 ^[1]
State owned estates	287,432	277,285	274,748	281,159	285,382	284,995	
Percentage (%)	72.79	67.3	66.08	65.57	64.74	62.76	
Smallholdings	107,468	134,705	141,035	147,635	155,409	169,080	
Percentage (%)	27.21	32.70	33.92	34.43	35.26	37.24	
Total area	394,900	411,990	415,783	428,794	440,791	454,075	464,875
Total production (ton)	248,700	290,800	312,600	331,400	363,500	402,207	509,800

^[1] Estimation of Vietnam Rubber Association, October 2006

Political Target for Rubber Sub-Sector

- The development of rubber area in Vietnam is attributed to the expansion of the smallholding sector
- Its share in total rubber area increased from 27.2% in 1999 to 37.2% in 2004.
- With the target of 700,000 ha of rubber in 2020, the proportion of the rubber smallholdings will further increase:
 - Government policy will encourage the development of smallholdings,
 - High prices in recent years fostering farmers to plant more rubber, and
 - Shortage of land for large estates

Main Products of the Rubber Sub-Sector

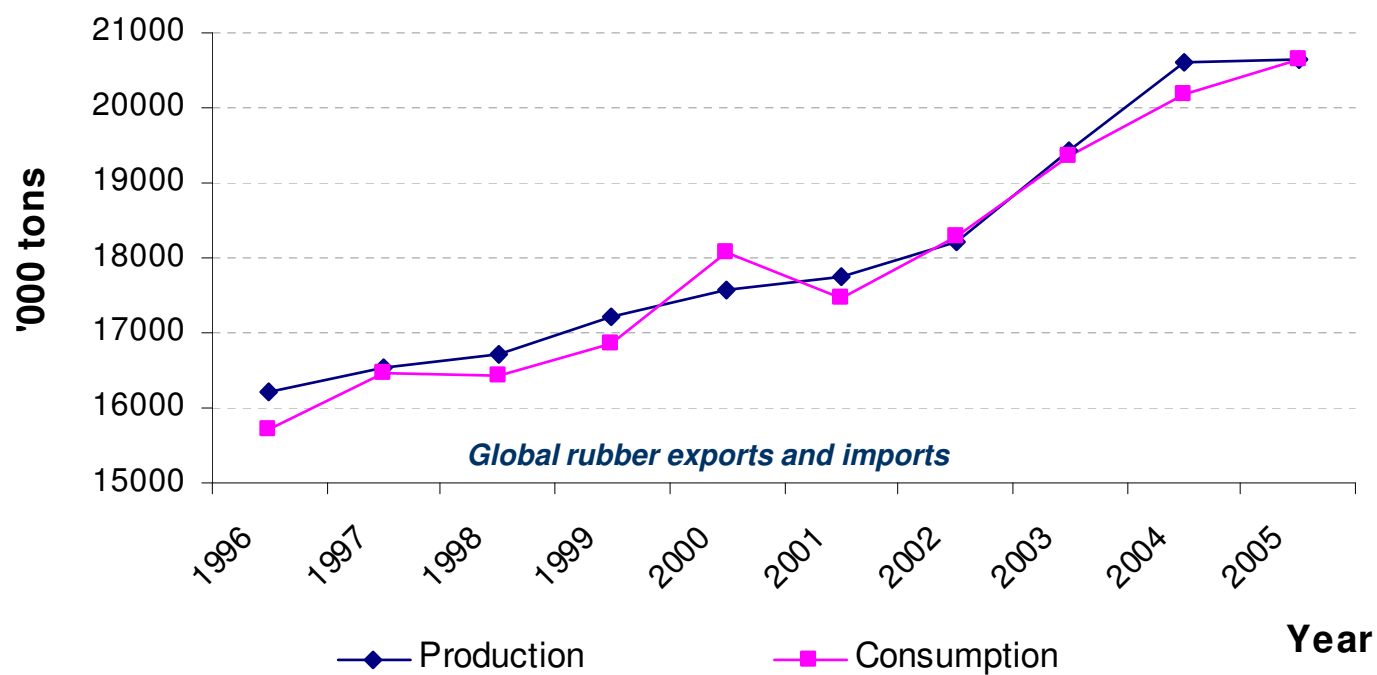
- Rubber clone (tree) & rubber planting materials;
- Latex Concentrates
- Technically Specified Rubber (TSR) - mostly known as Standard Vietnamese Rubber (SVR). This is major product category of the subsector;
- Rubber Wood-based products: table, chair, bed etc.;
- Tyres & tubes: for car, motorbike and bicycle;
- Non-tyre products: Rubber boots, gloves, rubber pipes, condom, conveyor belts, medical equipment, etc.

World Rubber Production

Year	Production		
	Natural Rubber	Synthetic Rubber	Total Rubber
1996	6,440	9,760	16,200
1997	6,470	10,080	16,550
1998	6,850	9,880	16,730
1999	6,872	10,336	17,208
2000	6,739	10,819	17,558
2001	7,261	10,485	17,746
2002	7,345	10,882	18,227
2003	7,992	11,448	19,440
2004	8,645	11,978	20,623
2005	8,682	11,965	20,647

World Rubber Production

Figure 4. World Rubber Production and Consumption 1996-2005



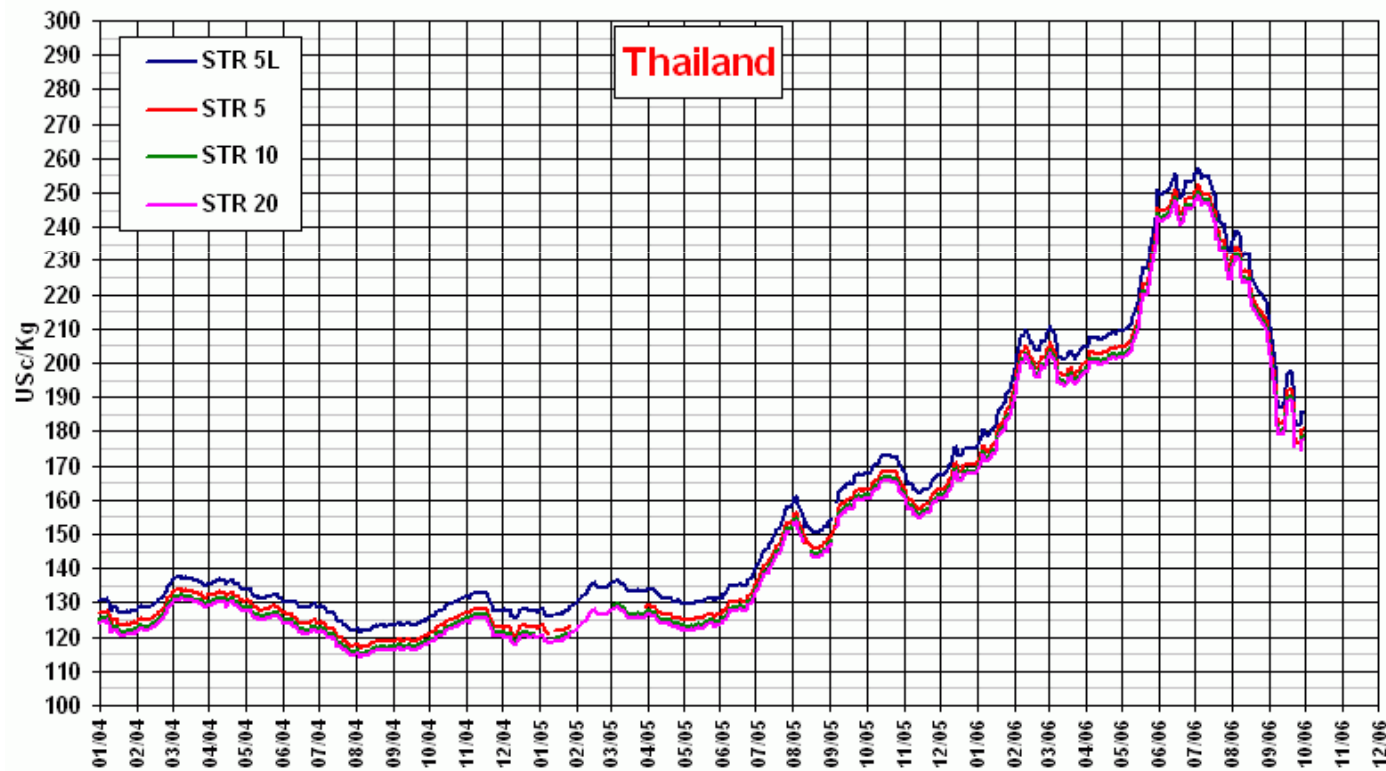
World leading natural rubber exporters (unit: USD '000)

#	Country	2000	2001	2002	2003	2004
1	THAILAND	1,510,091	1,321,163		2,796,774	3,400,000
2	INDONESIA	889,302	786,615	1,038,387	1,494,625	2,181,251
3	MALAYSIA	676,675	496,454	655,775	942,848	1,367,891
4	VIET NAM	166,019	165,970	270,890	377,693	579,000
5	SINGAPORE	208,671	146,579	159,419	194,593	285,649
6	COTE D'IVOIRE	78,040		86,155	122,623	
7	GUATEMALA	28,259	25,090		36,659	58,737
8	SRI LANKA		23,736	26,358	38,507	50,938
9	INDIA	3,216	3,403	29,230	55,247	46,142
10	GERMANY	23,550	18,096	22,788	28,817	43,189

Top 10 importers of Vietnamese Rubber in 2006

Importers	First 9 months of 2006	
	Volume (ton)	Value (USD)
China	338.688	633.014.879
Germany	19.809	40.272.787
Korea	22.741	37.411.088
Taiwan	16.934	34.720.251
Russia	15.304	32.846.300
Japan	8.564	17.971.143
US	9.375	16.506.796
Belgium	9.735	15.382.040
Malaysia	6.876	14.140.678
France	6.281	12.752.742

Rubber Price Development in Thailand



Top 10 exporters of Rubber to Vietnam in 2006

Importers	First 9 months of 2006	
	Volume (ton)	Value (USD)
Thailand	40.833	67.712.531
Campuchia	25.437	50.814.787
Indonesia	20.648	37.122.843
China	17.387	29.238.865
Korea	9.854	16.178.697
Taiwan	8.242	15.123.579
Japan	6.944	13.894.693
Malaysia	8.367	13.483.355
India	4.023	8.478.303

Source: Ministry of Trade

The Dilemma of the Rubber Sub-Sector

- Vietnam exported in 2005 574,000 tons of natural rubber, with value of USD 787 million.
- At the same time, the country imported 140,000 tons at USD 213 millions.
 - Average price for export = \$787 million/574,000 tons = \$1,371 per ton
 - Average price for import = \$213 million/140,000 tons = \$1,522 per ton
- Thus, the difference of price is \$151 per ton. This leads to a loss of $(140,000 \times 151) = \$21,14$ million in the year 2005.
- The loss will be continued this year (2006) due to the fact that import growth is higher than export growth.
- The reasons for this dilemma are:
 - Exporters/traders prefer exporting rubber instead of selling to domestic rubber processors.
 - (1) domestic processors normally buy small quantity of rubber while demanding high quality (exporting big bulk is better) and
 - (2) VAT for export is 0% while it is 5% for domestic consumption.

Production of Rubber in Quang Binh

Production of Rubber in Quang Binh

Sector	Areas (ha)			Productivity (kg/ha/year)	Production (tons)
	KTCB*	KD**	Total		
State own estates	1,677	2,484	4,161	1,100	2,732
<i>Percentage (%)</i>	<i>43.5</i>	<i>67.2</i>	<i>55.1</i>	-	<i>71.2</i>
Smallholdings	2071	1181	3252	910	1,104
<i>Percentage (%)</i>	<i>56.5</i>	<i>32.8</i>	<i>44.9</i>	-	<i>28.8</i>
Total	3,748	3,665	7,413	-	3,836

* KTCB: newly planted tree under 6 years old ** KD: tree over 6 years old to collect latex

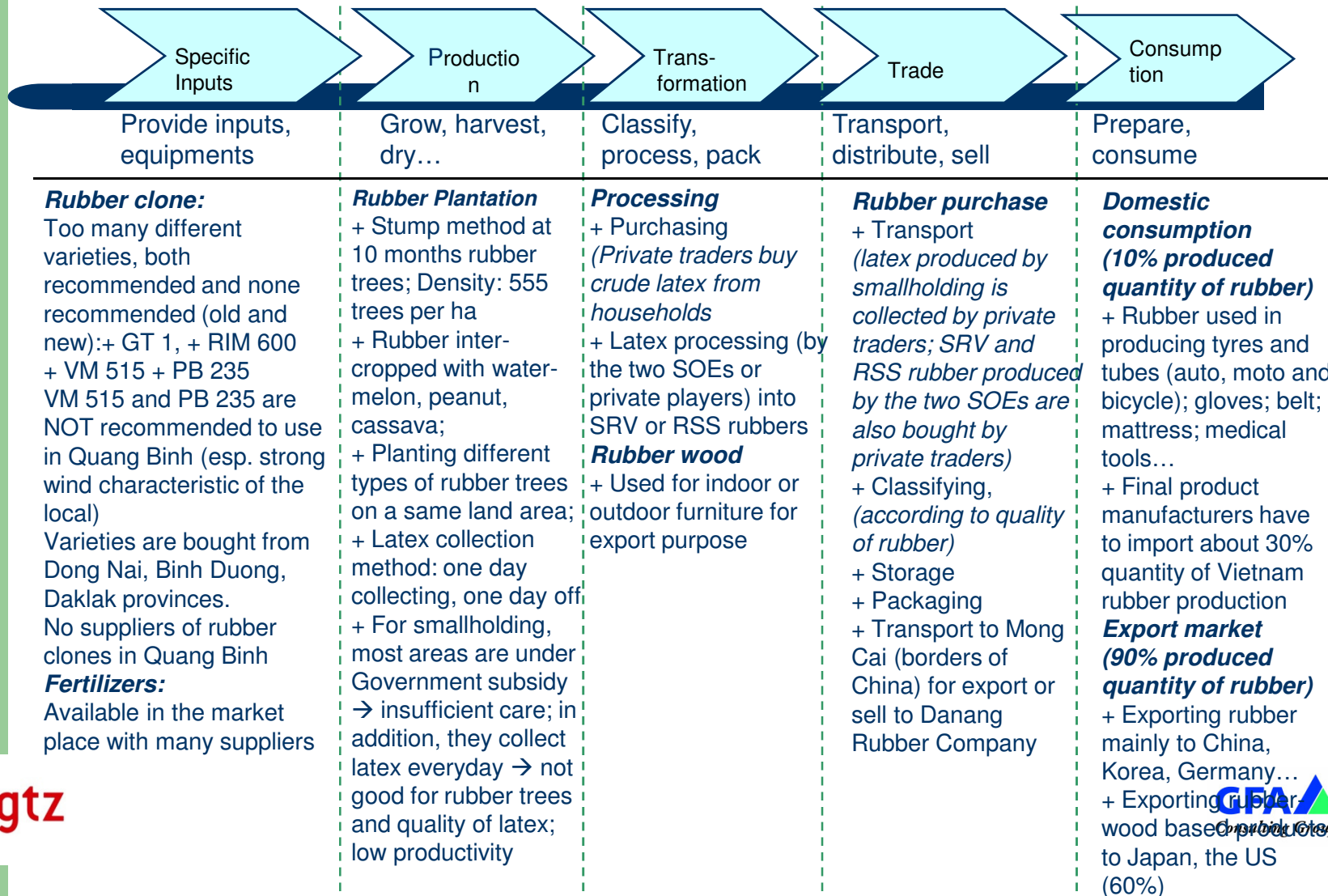
Production of Rubber in Quang Binh

Average rubber plantation/hh for the period 2000 - 2006 in Quang Binh

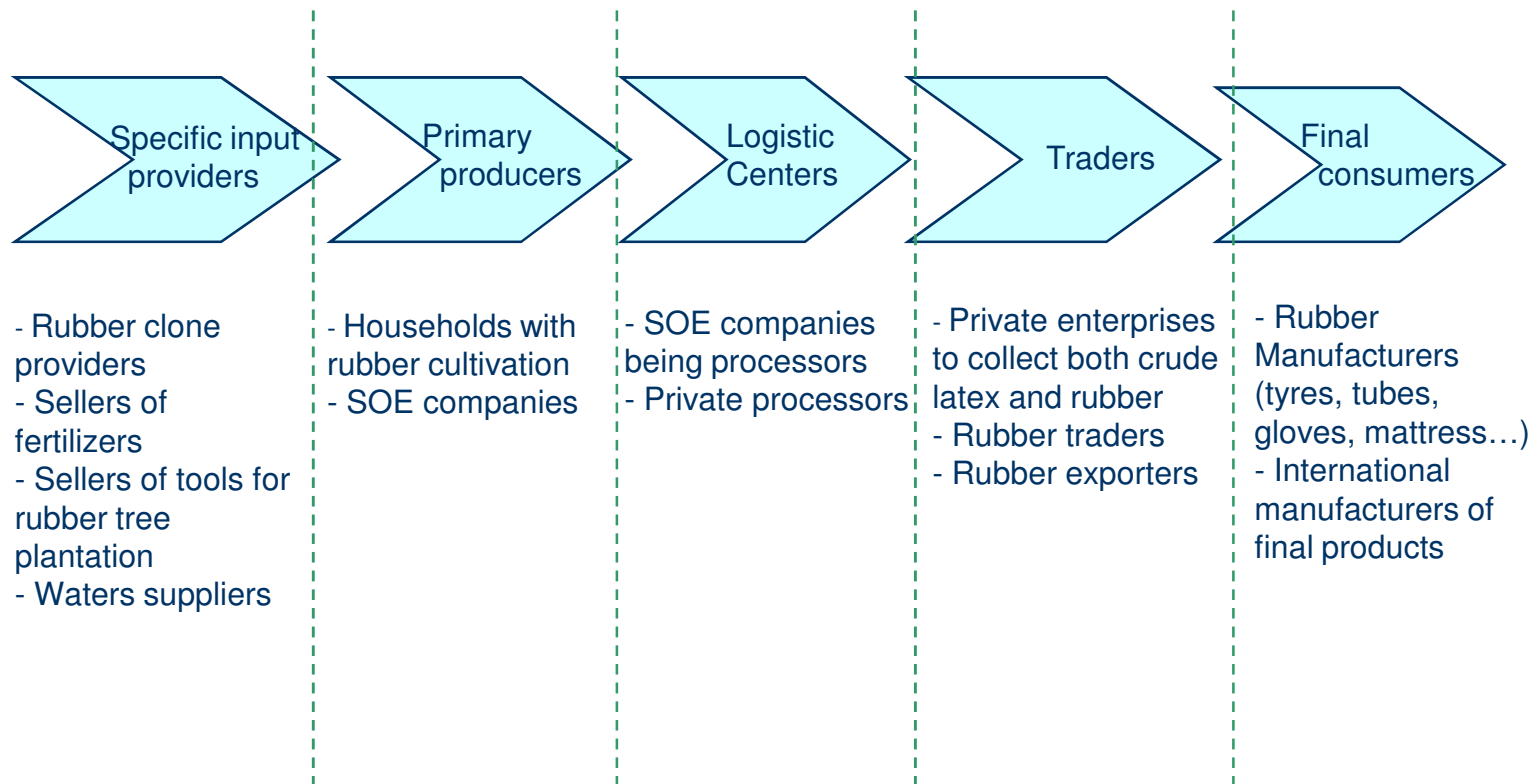
District	Number of participating households	Area	Area/household
Minh Hoa	390	214	0,55
Tuyen Hoa	742	523	0,70
Bo Trach	1131	1348	1,19
Le Thuy	54	86	1,59
Total	2317	2171	0,94

Source: Quang Binh Agricultural Diversification Project – ADP

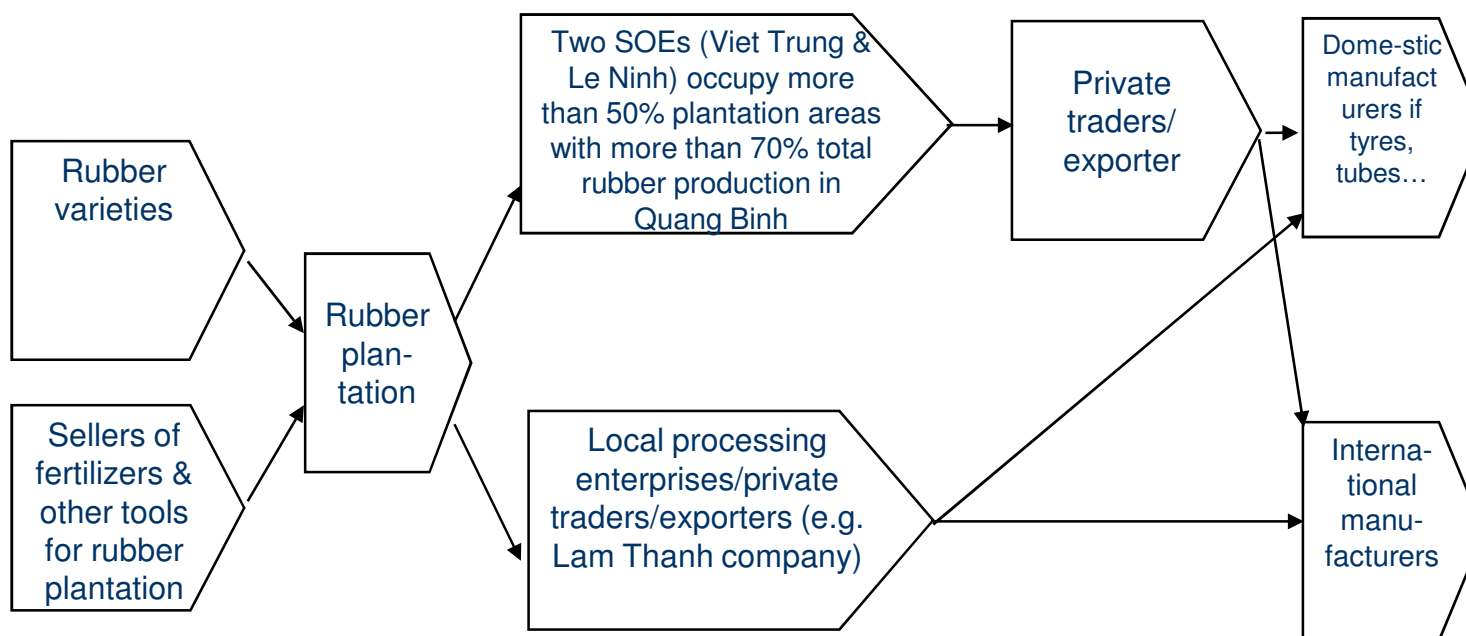
Chain mapping at micro level in Quang Binh



Chain mapping of actors (micro level) in Quang Binh categories of actors in value chains and their relations



Circuits of the chain in Quang Binh



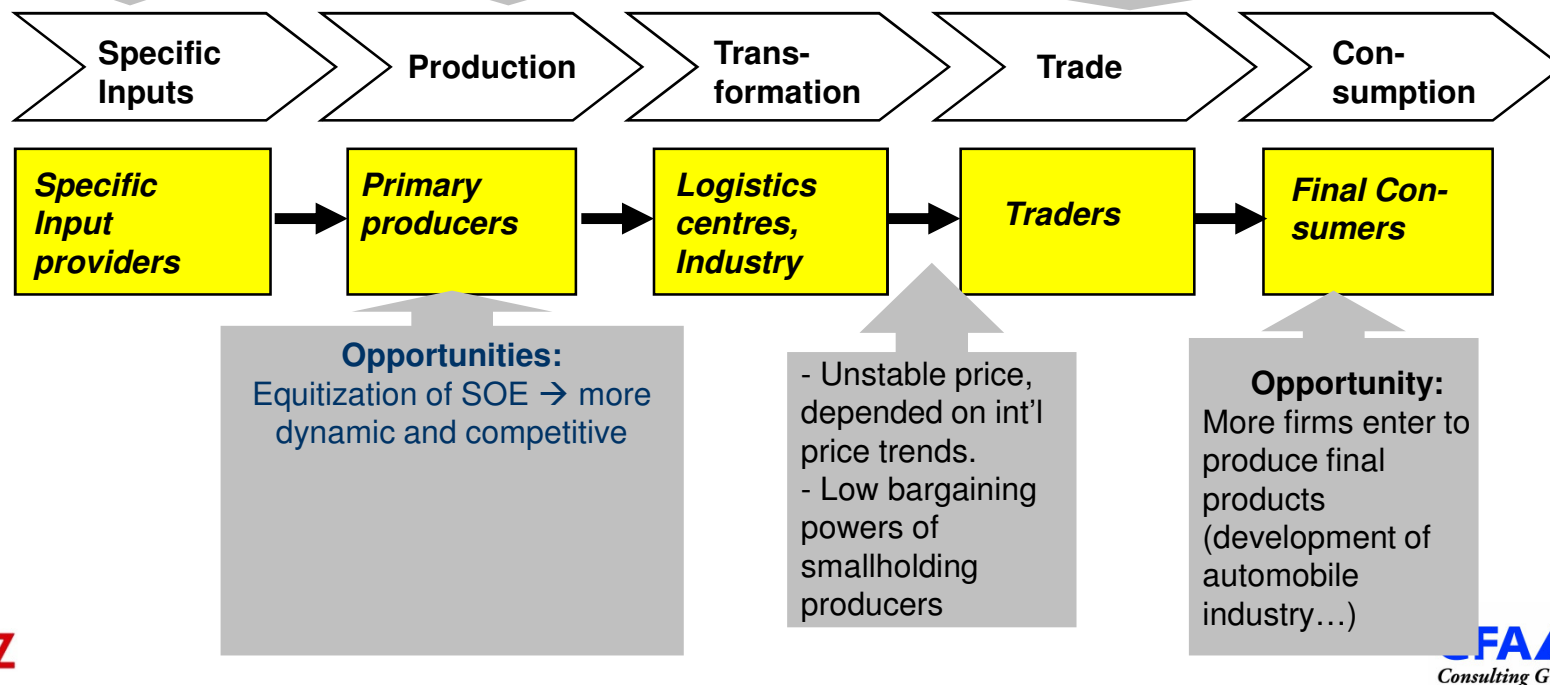
Constraints and opportunities of the subsector – micro level

Smallholdings: Lack of capital (got 3-years credit only); inconsistent rubber varieties; lack of technical assistance → collect latex from 35 cm of circumference (standard is 50cm) or hurting tree body during collection; S2d method (not recommended); low productivity;

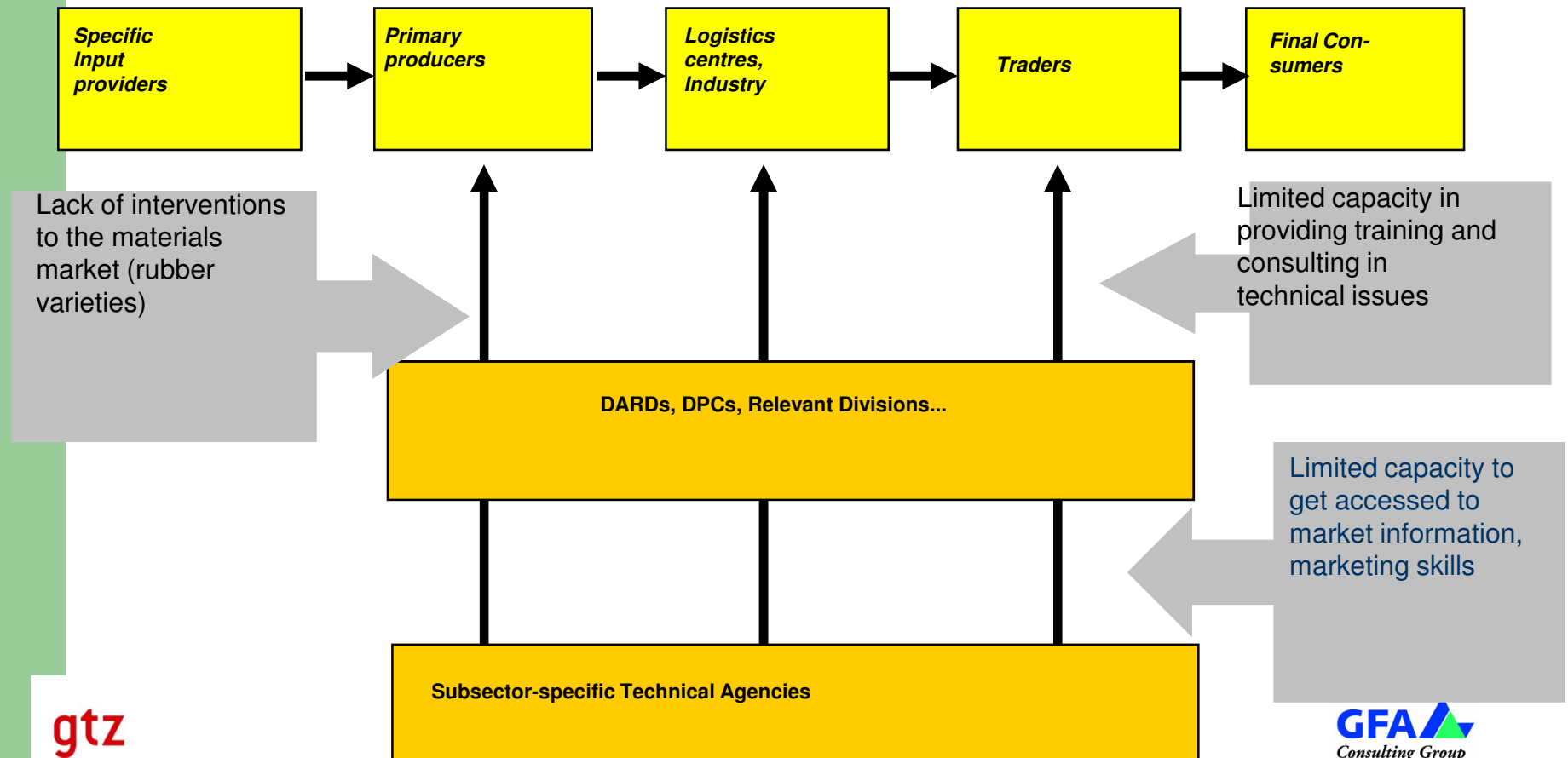
No control of quality as traders coming from different locals, lack of market access to Euro

Opportunity:

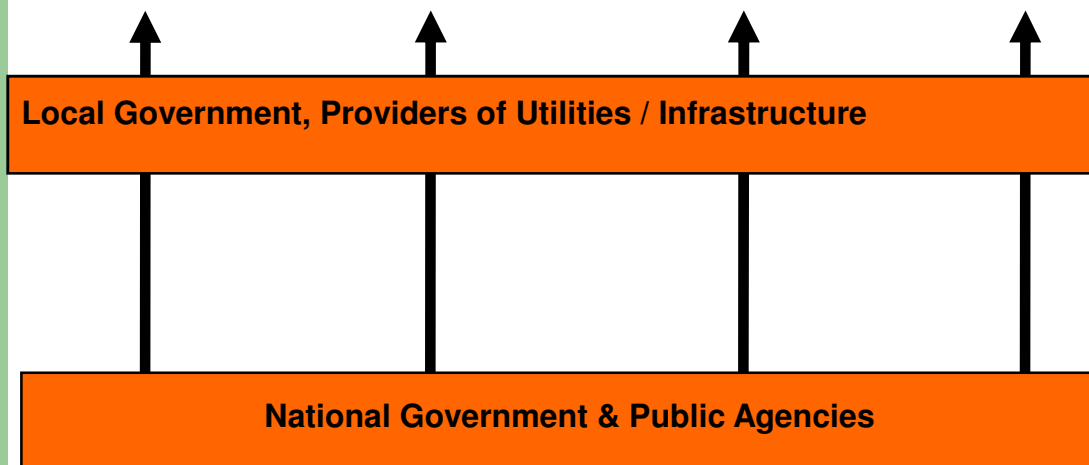
- Rubber price increase as world demand rise → exporting chance; domestic consumption augments
- Accessibility to markets and technologies to produce final products in QB



Constraints and opportunities of the subsector – meso level



Constraints and opportunities of the subsector – macro level



Lack of land for expansion of rubber plant areas,
Lack of sound subsector development plan

Opportunity: Rubber is considered as a strategic subsector; new action plans for 2006-2020 has been approved

Criteria and Reasons for Selection of Rubber Value Chain in Quang Binh

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Identified Constraints and Recommendations für Strategic Solutions in the Rubber Sub-Sector in Quang Binh

Recommendations für Strategic Solutions in the Rubber Sub-Sector in Quang Binh I

Constraints	Solutions	Doer	Supporter	Remarks
- Unavailable rubber varieties provision at the locality.	Establish nursery of rubber to produce high yield varieties and stump rubbers	Private companies, state-own companies	DARD, ADP, ODA Projects	
- Low bargaining power of smallholding rubber producers	Formation of Quang Binh Rubber Association	Private Companies and SOEs, smallholders	PPC, DARD and Department of Personals Affair	
- Limited technical skills for plantation of rubber trees and collecting latex	- Apply appropriate techniques through on topic technical training - Strengthen technical capacity of District commune extension officers	SOEs of Viet Trung and Le Ninh, households	-Economic Division, PAFEC, District Agri. Extension Station, SMNR - CV, ADB...	

Recommendations für Strategic Solutions in the Rubber Sub-Sector in Quang Binh II

Constraints	Solutions	Doer	Supporter	Remarks
- Wrong selection of rubber clones (i.e. VM 515 and PB 235)	- Buy recommended varieties that appropriate for Quang Binh weather - Varieties incubators in Quang Binh	<ul style="list-style-type: none"> Households and Economic Division 	<ul style="list-style-type: none"> Economic Division 	Recommended varieties such as GT 1 and RIM 600 Evaluate possibility to have rubber clone supplier in QB
- Low investment to production → low productivity for smallholding group	- Spend sufficient care taking, fertilizers for mulberry plantation	<ul style="list-style-type: none"> Households 	<ul style="list-style-type: none"> Two SOEs, fertilizer stockiest 	

Recommendations für Strategic Solutions in the Rubber Sub-Sector in Quang Binh III

Constraints	Solutions	Doer	Supporters	Remarks
- Limited access to new markets	- Enhance capacity in searching new markets, marketing skills...	<ul style="list-style-type: none"> SOEs and households 	<ul style="list-style-type: none"> Economic Division, ADB, SMNR-CV ... 	Access to update market information, learn negotiation skills, marketing skills.
- Lack of detailed land use planning for rubber plantation areas expansion	- Work out comprehensive planning, specific planning for rubber plantation at commune level	<ul style="list-style-type: none"> DPC 	<ul style="list-style-type: none"> DONRE, Economic Division, Finance and Planning Division, Infrastructure Division 	
Lack of manufacturers of final products	<ul style="list-style-type: none"> - Calling and launching investment projects in tyres, tubes production - Focusing on design of rubber wood based products; - Looking for export market of final products 	<ul style="list-style-type: none"> Private companies, SOEs 	<ul style="list-style-type: none"> PPC, Investment Promotion and Consulting Centre 	