



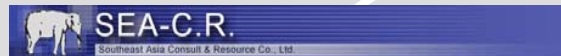
Presentation of Interim Report :

Market Survey of Thai Saa Paper

24 June 2005

Department of Environmental Quality Promotion
(DEQP) Bangkok

Prepared for DEQP/GTZ by
Southeast Asia Consult & Resource Company Limited (SEA-C.R.)



Interim Report: Market Survey on Saa Paper

Introduction I

- **Study objective:**
Analyze and outline the Thai Saa Paper Industry and their production chains with regard to export. Indicate strategies.

- **Number of target-groups and companies**
 - 19 export companies
(4 visited for **Semi Structured Interviews**)
 - 5 SME factories and exporters (5 visited for SSI)
 - 10 community groups/organizations with direct exporting activities (2 visited for SSI)
 - 7 community groups/organizations – no export activities (1 visited for SSI)

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Introduction II

- **Other groups/companies/organizations interviewed**
 - Industrial Promotion Center Region 1
 - Export Promotion Center (OTOP)
 - Northern Handicrafts Manufacturers and Exporters Association (NOHMEX)

- **Time-frame**

All interviews and visits conducted between the 23rd of May and the 15th of June 2005

- **Topics of interview**

The following main topics were discussed during the SSI:

 - Structure of the Saa paper market
 - Environmental factors of saa-paper production and sales
 - Available technologies for saa-paper production
 - Government and other agencies concerning saa-paper

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Assessment I:

Export developments expectations

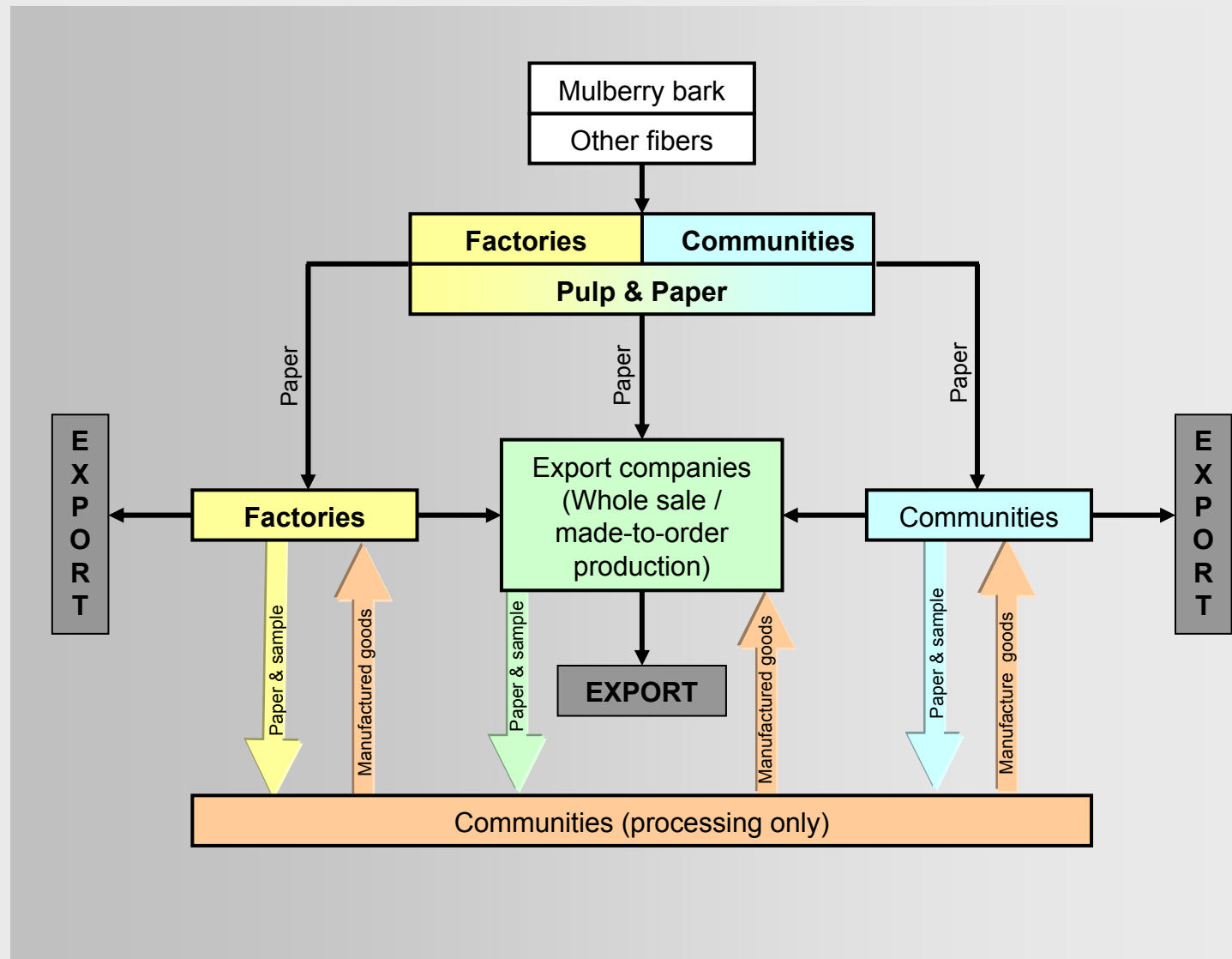
- Future saa paper export developments/expectations from a TSPI perspective

Product type	Very good		Good		Less than good
	Export	Total	Export	Total	
Paper-sheets					NONE
Set paper and gift items					
Interior design products					
Saa paper office/household products					

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Assessment II:

Structural outline of the Thai Saa Paper Industry



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Assessment III:

The importance of **environmental issues and priorities** for buyers i.e. importers of TSPI products

Environmental concern	Impact on customer purchase decision (export)				Reason
	Always	Often	Sometimes	Not yet	
Production methods (certified or not certified)					This depends on items purchased, especially from Europe, for example goods for children or food-related items
Bleaching					Depends on the product and product end-use
Coloring agent					Especially for Europe an important issue
Other Chemicals					Depends on the product and product end-use
Water use					This issue is very important for the European market
Energy use					
Impact on raw-material sources (forests)					This issue becomes slowly more important for export
Fair trade aspects					Happens in singular cases

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Assessment IV:

Observed Weaknesses

(selective)

○ Administration related

- Missing standards
- Lacking environmental law-enforcement due to weak Sustainable Incentive Principle (SIP) in environmental management
- No tax or other incentives for eco-efficient production
- Limited information flow/exchange between responsible departments
- Centralized budgeting / decision-making in industry support organizations
- Hindering cash-flow regulations

○ Industry structure related

- Labor costs in Thailand
- Production chain is not mirrored by chain of responsibility
- Missing coherent support structure for eco-efficient industry development
- Little control over raw material
- Industry dependent services are located logistically inconvenient
- Limited use of IT and off-shoring conform structures and institutions

○ Product related

- Weak product development/design
- No apparent branding
- Growing competition from other hand-made papers
- Most top quality saa paper is produced in import countries, e.g. Japan
- Traditional, i.e. original craft is disappearing fast

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Assessment V:

Available services I that aim at increased / new product marketing options

Organization	Objective	Measures/Tools/Services	Target groups
Available Services (selective)			
Export Promotion Center (OTOP)	<ul style="list-style-type: none"> ➤ Strengthen design capabilities ➤ Product and product development ➤ Market development ➤ Knowledge mediator between market and producer 	<p>Measures: Provide practical trainings and knowledge dissemination</p> <p>Tools: WS, Networking, Consulting, information management</p> <p>Services:</p> <ul style="list-style-type: none"> ✓ Regular WS under the name ‘Design-Clinic’ ✓ Consulting for individual customers under the OTOP support program ✓ Knowledge dissemination and information services for Center clients ✓ Product exhibitions in- and outside of Thailand ✓ Marketing support services (information based) 	<p><i>Primary:</i> Especially SMEs</p> <p><i>Secondary:</i> TSPI</p>

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Assessment VI:

Available services II that aim at increased / new product marketing options

Organization	Objective	Measures/Tools/Services	Target groups
Available Services (selective)			
Industrial Promotion Center Region 1	<ul style="list-style-type: none"> ➤ Develop the production process ➤ Support SMEs ➤ Information service center for the industry ➤ Develop new businesses ➤ Support entrepreneurs 	<p>Measures: Provide trainings, research, information management, knowledge dissemination</p> <p>Tools: Training, WS, Consulting, information management</p> <p>Services:</p> <ul style="list-style-type: none"> ✓ Practical and information assistance on production and production processes ✓ Tool & Die related services ✓ Production machinery and technology related services ✓ Product design support center ✓ Business start-up consultancy and partnerships ✓ Library and documentation services ✓ Marketing and sales support 	<p><i>Primary:</i> All industry and SMEs</p> <p><i>Secondary:</i> TSPI</p>

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Assessment VII:

Available services III that aim at increased / new product marketing options

Organization	Objective	Measures/Tools/Services	Target groups
Available Services (selective)			
NOHMEX	<ul style="list-style-type: none"> ➤ Develop design talent ➤ Reduce investment costs ➤ Increase international presence of Thai companies ➤ Develop human resources ➤ Financial services ➤ Improve production processes 	<p>Measures: Promote SPPC common activities to address industry problems</p> <p>Tools: WS, Networking, competitions, projects</p> <p>Services:</p> <ul style="list-style-type: none"> ✓ Company representation services at foreign and local trade fairs ✓ Design training for competitions ✓ PREMA and other environmental projects ✓ News reports on foreign product and market developments ✓ Standard development for human resource development ✓ Cluster building support ✓ Support project for research and development for products and production ✓ Financial consulting and coordination/management services for members 	<p><i>Primary:</i> TSPI and SPPC</p>

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Assessment VIII:

Available production technologies that aim at increased/new product marketing options

<i>Organization</i>	<i>Technologies available</i>	<i>Source</i>	Target groups
Available Technology for Saa Paper production			
Chiang Mai University	<ul style="list-style-type: none"> ➤ Reduction in use of bleach ➤ Clean technology to increase efficiency in saa paper production 	<ul style="list-style-type: none"> ➤ Own research ➤ Technology transfer 	SPPC
Kasertsart University	<ul style="list-style-type: none"> ➤ Pollution reduction technologies ➤ Improved production tools and machinery ➤ Alternative production technologies in coloring ➤ Clean industry plant design for saa paper production 	<ul style="list-style-type: none"> ➤ Own research ➤ Technology transfer 	SPPC
Cooperation	We were told of a number of various but unspecified studies currently being conducted by both universities and cooperation partners		SPPC

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Strategies for local policy I

Options for the DEQP/GT to support eco-efficiency for export products of TSPI

Option 1: Introduce standards

	Raw-material based	Production based	Paper processing based
Standards	<p>Raw -Material Standards:</p> <p>RMS 1: Environmental</p> <ul style="list-style-type: none"> ▪Harvesting source ▪Harvesting method ▪Transportation <p>RMS 2: Material</p> <ul style="list-style-type: none"> ▪Grade of bark ▪Purity of bark <p>RMS 3: Marketing</p> <ul style="list-style-type: none"> ▪Direct purchase ▪Dealer-based purchase <p>RMS 4: Origin</p> <ul style="list-style-type: none"> ▪Thailand ▪Foreign (Laos, Burma et al) ▪Mixed 	<p>Pulp & Paper Standards:</p> <p>PPS 1: Environmental</p> <ul style="list-style-type: none"> ▪Water and waste water treatment ▪Coloring ▪Bleaching ▪Energy efficiency <p>PPS 2: Pulp composition</p> <ul style="list-style-type: none"> ▪Pure mulberry pulp ▪Mixed pulp <i>grade A</i> (at least 80% saa) to <i>grade D</i> (not less than 20% saa) <p>PPS 3: Paper-production</p> <ul style="list-style-type: none"> ▪100% hand-made ▪100% machine made <p>▪Manufactured</p> <p>PPS 4: Paper grain</p> <ul style="list-style-type: none"> ▪Very fine ▪Fine ▪Medium ▪Decorative 	<p>Mulberry Product Standards:</p> <p>MPS 1: Environmental</p> <ul style="list-style-type: none"> ▪Water and waste water treatment ▪Coloring ▪Energy efficiency ▪Chemicals <p>MPS 2: Processing</p> <ul style="list-style-type: none"> ▪100% hand-made ▪100% machine made <p>▪Manufactured</p> <p>MPS 3: Product</p> <ul style="list-style-type: none"> ▪100% mulberry paper ▪Mulberry paper product (less than 35% other materials used for product) ▪Mixed media

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Strategies for local policy la

Options for the DEQP/GT to support eco-efficiency for export products of TSPI

Option 1: Introduce standards

Export market based: Link products with international standards (function related standards)
Mulberry Export Standards: MES 1: Export Quality MES 2: EU standard conform MES 3: Conform with EU function based standards MES 4: etc....

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Strategies for local policy II

Options for the DEQP/GT to support eco-efficiency for export products of TSPI

Option 2: Increase technology transfer (national and international)

	Raw-material based	Production based	Paper processing based	Export market based
Technology	<ul style="list-style-type: none"> ▪Collection and harvesting methods 	<ul style="list-style-type: none"> ▪Water and waste water treatment ▪Coloring ▪Bleaching ▪Substitution fiber ▪Hand made production techniques ▪Machine production techniques ▪Energy efficiency 	<ul style="list-style-type: none"> ▪Water and waste water treatment ▪Coloring ▪Tools and techniques ▪Energy efficiency ▪Product design ▪Mixed technologies (e.g.: carpentry and mulberry paper) ▪Storage 	<ul style="list-style-type: none"> ▪Support IT based export initiatives

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Strategies for local policy III

Options for the DEQP/GT to support eco-efficiency for export products of TSPI

Option 3: Streamline industry structure

	Raw-material based	Production based	Paper processing based	Export market based
	<ul style="list-style-type: none"> ▪Build additional options for direct raw material purchase and import ▪Increase locally harvested raw material 	<ul style="list-style-type: none"> ▪Apply the Sustainability Incentive Principle (SIP) at the ownership level 	<ul style="list-style-type: none"> ▪Better distribute production capital ownership 	<ul style="list-style-type: none"> ▪Increase competition ▪Increase access to IT tools
Structure	<p>General measures</p> <ul style="list-style-type: none"> ▪Introduce the concept of ‘responsibility chain’ parallel to ‘production chain’ <ul style="list-style-type: none"> ▪Harmonize cooperation between members of the production chain ▪Ease administrative procedures <ul style="list-style-type: none"> ▪Ease logistical procedures ▪Increase agency cooperation 			

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Strategies for local policy VI

Options for the DEQP/GT to support eco-efficiency for export products of TSPI

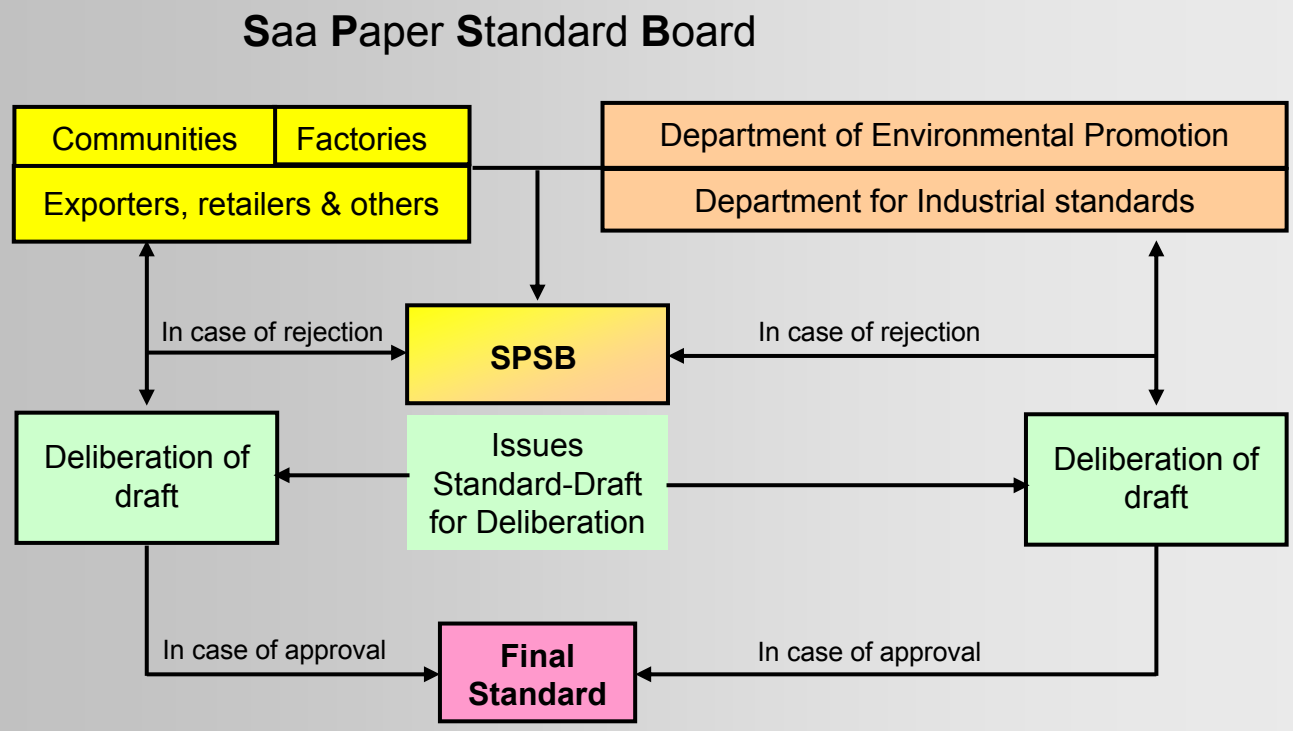
Option 4: Government incentives

	Raw-material based	Production based	Paper processing based	Export market based
Incentives	<ul style="list-style-type: none"> ▪ Taxes ▪ Financial and credit regulations 	<ul style="list-style-type: none"> ▪ Taxes ▪ Environmental subsidies / incentives ▪ Social and health, technology and energy incentives 	<ul style="list-style-type: none"> ▪ Taxes ▪ Environmental subsidies / incentives ▪ Technology incentives 	<ul style="list-style-type: none"> ▪ Taxes ▪ Export-support / subsidies

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Recommendations and Suggestions I

1. Saa Paper Standard Board



Recommendations and Suggestions II

2. Collection of Thai raw material to create special Thai product

Proposal:

Organize and coordinate the local collection of choice raw material from Thailand to create a special saa paper brand. The resulting saa paper should be comparable to a cuvee of wine or a special tobacco. It can be reserved for the best writing papers or top of the line decorative items.

3. Financial and other market considerations

- Give special tax incentives for products based on local fibers (Mulberry and others)
- Create a raw-material bank that assists in
 - i. Purchase
 - ii. Quality control
 - iii. Transportation
 - iv. Storage

Recommendations and Suggestions III

- Possible financing strategy for bank:
There are currently two main importers of raw-material, not only for their own production, but also as dealer for others. The raw-material bank could gradually establish itself as middle-man/dealer with a nominal fee for their services.
- Possible industry development strategy:
A raw-material bank could compete with Japanese companies for 'Super A' grade raw material from Laos. With regular access to large quantities, aided by technical support for the producers, Thailand could establish itself as the leading location for top of the range mulberry paper. Distribution is managed via O-TOP and private companies.

4. Replace old frames with new formats

Proposal: The traditional frames for making the individual mulberry sheets in hand-made production are not conforming to international standard measurements. The standard sheet size for Europe would be A1: 84x59 cm and AO: 113.9x81.7 cm. By adopting these standard sizes marketing, (production related) outsourcing, cutting and design could be substantially improved.

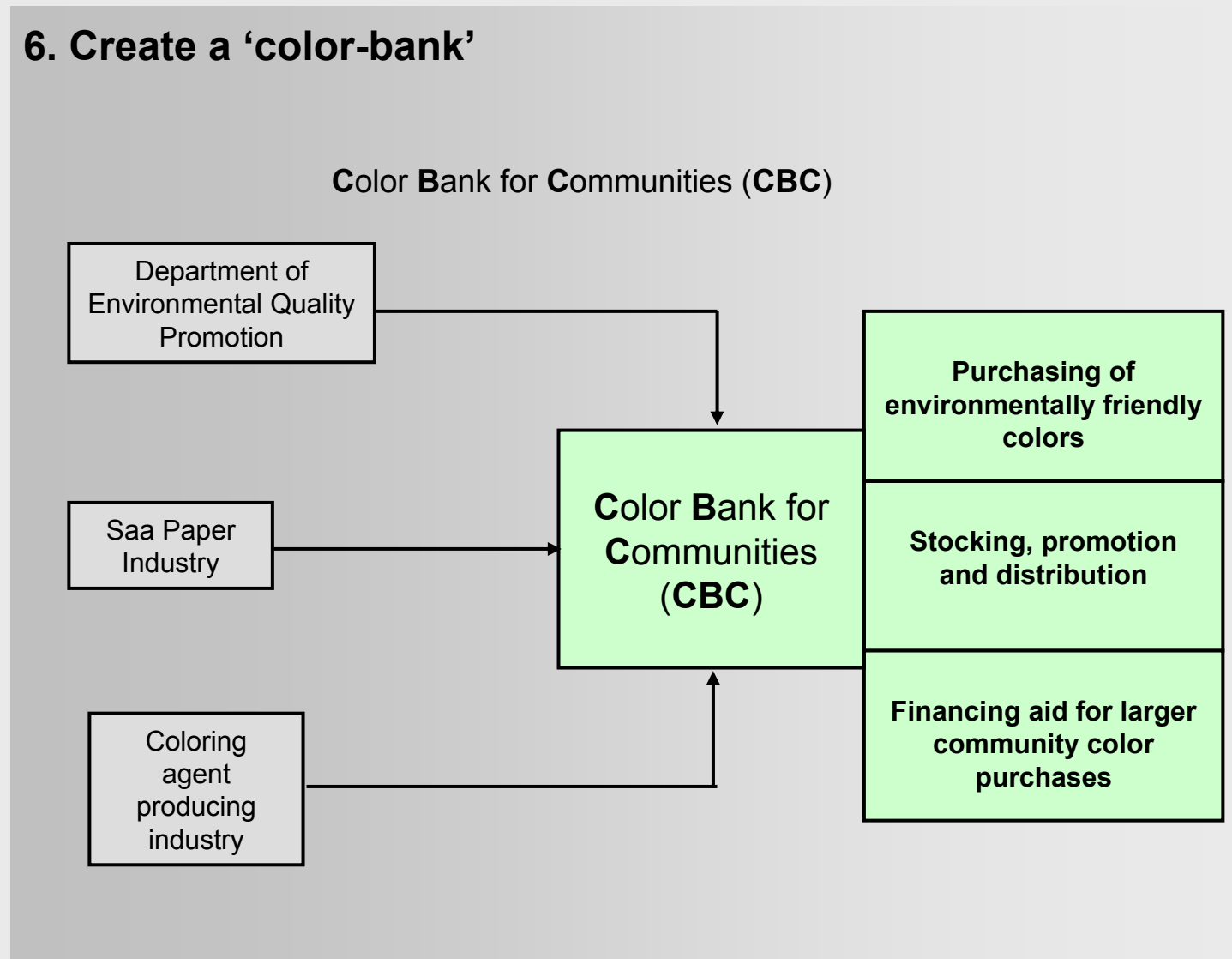
5. Preserve production of traditional indigenous paper

The original craft of mulberry paper making is quickly disappearing from local knowledge. To keep the traditional hand-made paper making process alive means to preserve a cultural aspect of Thailand and the Northern Lanna culture.

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Recommendations and Suggestions V

6. Create a 'color-bank'



7. Offer PREMA and EMS services/WS

8. Introduce optional wetlands for waste water management to Saa Paper villages

Proposal: The well developed wet-land technique for waste water management can be adapted to villages engaged in the saa-paper production. Conditions for a possible immediate implementation – as the technology as already successful in Thailand - is that

- a. Communities get government support (TAO) to build wetlands
- b. Saa paper companies outsourcing to villages must partake in financing schemes for the waste water management solutions (chain of responsibility)
- c. Production standards have to be applied and upheld

Recommendations and Suggestions VII

9. Offer regular awards for innovations in the Saa Paper Industry

A bi-annual competition for hand and machine made saa papers with a substantial reward for

- a. The best and most innovative saa bark substitute
- b. The highest quality saa paper
- c. The most innovative product design
- d. The most eco-friendly product

10. Promote existing design development programs (OTOP, Industrial Promotion Center and NOHMEX)

11. Develop and introduce product standards and other TSPP related standards

12. Link products with international standards (function related standards)

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Recommendations and Suggestions VIII

13. Introduce branding

14. Provide locally available lab

15. Tourism

- ✓ Link to Ecotourism and educational travel (for example: Studiosus)
- ✓ Introduce incentive tours to traditional Saa Paper manufacturing
- ✓ Introduce a standard for traditional production methods

16. Student/crafts exchange

- ✓ Invite international interior design students to learn the craft of Saa Paper production
- ✓ Establish a network between European design universities and local producers

17. Build a Saa Paper counterpart organization in Europe

18. National Saa-Paper Center

Focus:

- ✓ Pulp & Paper Center
- ✓ Product Center
- ✓ Design Center
- ✓ Technical information center

Services:

- ✓ Provide technical innovation assistance
- ✓ Provide environmental solutions
- ✓ Lab
- ✓ Technical cooperation assistance
- ✓ Business transaction assistance

Recommendations and Suggestions X

19. International hand-made paper exchange

- ✓ Develop the National Saa-Paper Center into an IT based hand-made paper exchange
- ✓ Encourage the trade with hand-made papers not produced locally
- ✓ Off-shoring center (Support off-shoring tendencies of foreign importers)

20. Support off-shoring tendencies of foreign importers

21. Adapt and improve cash-flow regulations for exporters/importers

22. Improve/strengthen community cooperation/networking