Value Chain Analysis for Home Decoration and Home Textiles in Indonesia

Project ID: HDHT Indonesia

Indonesia

Short-term mission report

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Table 1: List of acronyms (Indonesian and English)

Acronym	Signification
ASPPUK	Asociasi Pendamping Perumpuan Usaha Kecil Association for Women in Small Business Assistance
ATBM	Alat tenun bukan mesin – treadle hand loom, the type found in Java
BEDO	Business and Export Development Association
BEKRAF	Badan Ekonomi Kreatif Indonesia Indonesian Creative Economy Agency
BSO	Business Support Organisation
CBO	Community Based Organisation
CIFOR	Centre for International Forestry Research
CIRAD	Centre International de Recherche Agronomique pour le Développement International Centre of Agronomic Research for Development (France)
CITES	Convention on International Trade of Endangered Species
CLP	Classification, Labelling and Packaging (European Union)
DEKRANAS	Dewan Kerajinan Nasional – National Craft Council
DEKRANASDA	Provincial level representation of National Craft Council (DEKRANAS)
DGIPR	Directorate General of Intellectual Property Rights, under the Ministry of Law and Human Rights, Republic of Indonesia
EU	European Union
FLEGT	Forest Law Enforcement, Governance and Trade
FSC	Forest Stewardship Council
GI	Geographical Indication
GMO	Genetically Modified Organism
HD	Home Decoration
HIMKI	Himpunan Industri Mebel dan Kerajinan Indonesia Indonesian Furniture and Craft Industry Association
HT	Home Textile
HWET	Handwoven Eco-Textiles (2013-2017 project)
IDR	Indonesian Rupiahs
IFEX	Indonesia International Furniture Expo
MAMPU	Maju Perempan Indonesian untuk Penaggulangan Kemiskinan Empowering Indonesian Women for Poverty Reduction
MoI	Ministry of Industry, Republic of Indonesia
MoT	Ministry of Trade, Republic of Indonesia

NTT	Nusa Tenggara Timur, or 'East Lesser Sunda Islands', an archipelago of mid-sized islands east of Java, Bali and Lombok, belonging to the Republic of Indonesia, which includes the islands of Timor, Flores, and Sumba, as well as smaller islands. The larger islands are further divided into smaller administrative units (districts).
PGS	Participatory Guarantee System
PIRNas	Pusat Inovasi Rotan Nasional Indonesian Rattan Innovation Center
QM	Quality Management
QMS	Quality Management System
SME	Small and Medium Enterprise
SVLK	Sistem Verifikasi Legalitas Kayu Timber Legality Verification System
TRIPS	Trade-Related Aspects of Intellectual Property Rights
$	In this study this symbol represents exclusively United States Dollars (USD)
VC	Value Chain
VCA	Value Chain Analysis
WFTO	World Fair Trade Organisation
WWF	World Wildlife Fund

INTRODUCTION

CBI has requested a value chain analysis of the home decoration and home textiles (HDHT) sector in Indonesia, as part of its project development process. This VCA follows up on a business case idea (BCI) on Indonesian home decoration and home textiles submitted internally on 13 November 2017. As this document mentions:

‘Through their rich traditional craftsmanship, abundance of unique and high quality natural raw material and export experience Indonesia could distinguish themselves as a high quality, design-led destination in the mid-high segment responding to the trends in the EU market: luxury products and sustainability.

With this project, CBI aims to assist Indonesia in elevating the home decoration and home textiles sector and contribute towards the further regional integration of Kalimantan, North Sumatra, and West [as well as East] Nusa Tenggara in the home decoration and home textile industry in Indonesia which is currently dominated by SMEs based in Java and Bali.

The BCI research has shown that when looking beyond Java and Bali, two specific product groups show potential, being natural fibres (rattan and ketak) and textiles. These are product groups which have a regional orientation and which could contribute towards the ambition of Indonesia to become a strong player in the mid-high segment. The backbone of this project is the effective collaboration between Java and Bali and the other islands.’

Home decoration and home textiles are two very broad sectors, which, from a practical point of view, are more easily grasped by subdividing them into specific product category groups and market segments, as CBI has done in its Market Studies in the past years.

This value chain analysis is meant to answer specific questions related to the potential of Indonesia, and particularly the Nusa Tenggara Timor islands, which are the focus of this study, in collaboration with players from Java and Bali, for the relevant related market segments. It was conducted based on information collected by the author of this report during field research in Indonesia between 25 June and 19 July 2018, and by the BEDO team, an associated professional association, in the same time frame. The expected results were:

- To get an in-depth understanding of the current status of the natural fibre and rattan value chain for home decoration on Bali and Java and beyond, and the competitiveness of this VC in Indonesia;
- to get an in-depth understanding of the current status of the sustainable textiles sector from NTT, and the competitiveness of this segment in the VC, and
- the possibilities of making a connection between natural fibre and sustainable textiles, within one value chain.

In parallel to this VCA, a market study was conducted for CBI on the home decoration and home textiles sector in Europe for Bangladesh, Ghana and Indonesia, which selected three product groups for Indonesia, namely:

- Small wooden and rattan furniture
- Basketry (made from natural fibres)
- Cushion covers and throws

While focusing on these three product groups, this analysis has a sustainability component, which examines challenges for environmental as well as social and cultural sustainability. In short, the study will be of interest to actors involved in the specific markets, but hopefully also to those who wish to know if the rich and diverse textile (handweaving) and fibre-based handicraft traditions of the communities of NTT and the neighbouring islands can be a basis for sustainable local development, driven by exports to Europe and elsewhere.

MANAGEMENT SUMMARY

Because people in Europe, North America and East Asia are increasingly attentive to the way their home is decorated, home decoration (HD) and home textile (HT) are promising markets for Indonesia, the European Union as a whole being one of Indonesia's main trading partners for those sectors. A global trend for these markets, worth billions of euros, is focused on quality products from natural materials. Indonesia indeed has a rich culture of traditional craftsmanship, reflected in its wood- and rattanware as well as its traditional textile industry. SMEs in the sector engage artisans and workers in rural areas of most islands. However, the majority of producers and exporters are located on Java and Bali. HD and HT are also fast-evolving and challenging markets. Thus, the export potential for SMEs is still uncertain.

Indonesian SMEs have a long history of producing a variety of goods from natural materials for export, especially wood and rattan furniture, home decoration items and accessories, etc. Handwoven textiles from the NTT islands represent a relatively new opportunity for home textile items, such as cushions covers, throws and spreads in the higher-end customer segment. Therefore, two value chains have been distinguished in this study: HD products made from small wood and fibres and HT products made from NTT handwoven textiles.

While the markets represented by the **home decoration** value chain (targeting in this study small furniture, baskets and boxes) are mature, they have been rapidly evolving in the past decades through changes in lifestyles and fashion in the importing countries, and have become highly competitive, two factors which make more efficient management skills and market approach necessary for the persistence and growth of SMEs. Since the 1960s, Indonesia has developed this VC as a flexible, complex and dense network of manufacturing companies, subcontractors and home workers with manufacturing hubs in Java (Cirebon, Surabaya and Yogyakarta). With the recent changes in market structure and dynamics, this network has proven less responsive to changes than before. Competitors such as China and Vietnam are taking important market shares, especially in the lower and mid-low end of the market. With its higher labour costs and skilled labour, Indonesia can only compete in the sector by targeting the higher ends of the market, through a combination of market intelligence, design efforts and sustainable partnership building within the national HD ecosystem of suppliers, subcontractors, manufacturers and designers.

Home textiles represent a more complex and diversified sector, from carpets to kitchen linen, bedwear to bathrobes. Difficult to apprehend as a whole, it is clearly also growing. With its rich and renowned traditions of handwoven textiles, traditionally worn as sarongs or displayed in ceremonial occasions, Indonesia can clearly claim market share in some of the subsectors in HT, due to the technical features and decorative value of its weaving sector. The Nusa Tenggara Timor islands, which are the focus of this VC study, is one of the poorest provinces in Indonesia, with malnutrition reported by the World Food Programme, especially in rural and remote areas. Highly rural, it depends mainly on agriculture, but urban income exceeds that of rural areas by around six times. As a counterpart of its traditional rural structure, the province is rich with living cultural patterns, especially in hand weaving, which is done exclusively by women.

Traditional handwoven textiles from NTT, the focus of the second VC of this study, are characterised by rich patterns, sophisticated techniques, and an increasing use of natural dyes and locally grown and hand-spun cotton. The patterns are diversified and characteristic of the diverse communities of Timor, Sumba, Flores, Alor and other islands of the NTT province. For a full century, those textiles were appreciated by amateurs and collectors, and purchased at a high price. European people, pioneered by the Dutch, represent a good share of those amateurs. The potential of those textiles for home decoration has been tapped since the 1920s, before HT was identified as a sector of the economy. Physical transformation of traditional sarongs was limited, and the product's value was truly decorative rather than partially functional. The present HT market demands at least partial functionality in complement with decoration, and this sums up the challenges to the HT sector in NTT.

Until recently, adaptations to the HT market have been limited and cautious. Traditional handicraft imposes physical rather than ethical limitations: handwoven textiles sizes are limited by the size of looms, production is limited by the time necessary for weaving and by gathering, preparing and applying natural dyes. Those limitations make small pieces, such as cushion covers, spreads, runners and throws, more feasible than larger (bed covers or curtains for instance). However, sewing know-how is missing in the NTT to elaborate final contemporary HT products, such as cushion covers. The value of handweaving and meaningful patterns pinpoints the fact that HT from the NTT should be viewed as high-end or luxury products.

In NTT, village weaver communities are eager to find alternatives to generate income, in a rural economy that is often stagnating in poverty. In many rural communities, men collaborate harmoniously with women to contribute to the promotion of handwoven textiles, by taking up tasks in the production of natural dyes, village-level promotion of local traditions, and initiating marketing operations. International cooperation has recently supported the revival of traditional techniques, especially in the production and use of natural dyes and the systematisation of 'good weaving practices' for the NTT.[1] However, more support is necessary to build this promising VC, related to challenges in market intelligence, business management and missing technical links and know-how.

In both value chains, building market intelligence and establishing efficient quality management systems are recommended strategies. Market intelligence is of higher importance to the key actor(s) of the value chain. In HD this actor is usually a manufacturer and/or a HD brand. In HT from NTT they are the organisations employing local weavers. Quality in HD and HT encompasses concrete and specific challenges. In HD it refers more to the respect for the product and the material, and to safety and security norms, while in handwoven textiles finding a compromise between the nature of handweaving and the requirements of the market regarding ordered sizes and colours as well as avoiding delays represents a challenge which requires dialogue and innovative processes, for which we make a proposal. Stakeholder dialogue is important for HD as well. In a more classical supply chain and sector ecosystem approach, it will help define fair contracts relations and fair income for workers. This will be the first step for effective social responsibility within the sector. Companies have an interest in proposing more attractive labour contracts, securing their workforce and encouraging skill and commitment. In the HT NTT sector, strengthening producer organisations is essential to consolidating this emergent value chain. To complete the latter and offer finished HT products to the market, it will be necessary to create more business alliances between those organisations and willing social entrepreneurs and/or designers.

One of the questions for this research was if a connection between natural fibres and sustainable textiles could be made, considering both as part as a single value chain, which would be named 'sustainable design from Indonesia'. After a thorough analysis of both value chains, our answer is rather clear-cut. Though some connections can be made, the two value chains have a different history, dynamics and current needs. Their challenges can be expressed through identical categories (market approach, quality management), but the specificities those have in each value chain are different enough to justify their separation into two specific value chains with individual analysis and strategic design. Keeping those differences in mind, **sustainable design from Indonesia** could nevertheless summarise the convergent dynamics of an overall project aiming at supporting those two value chains.

[1] HWET project managed by HIVOS.

1 Export Market and Value Chain Competitiveness

1.1 Overview of the Indonesian production for the selected product groups in HDHT

1.2.1. Overview of home decoration products from wood and natural fibres

- *Importance of the HD value chain in the economy*

Indonesia has been producing home decoration products from wood and natural fibres for domestic and export markets for more than half a century. Though Indonesia only accounts for 0.3% of the market share of HD and HT,[2] it is less than marginal in this trade if we look at specific HD products, such as easy chairs and garden furniture. According to CBI market studies, Indonesia is one of the first exporters to Europe for those two categories of products. Indonesian producers usually concentrate on the mid- and higher end of the market, while China has a leading position in the middle and low-quality segments.

HIMKI, the Indonesian Furniture and Craft Industry Association, counts 3,500 companies registered as authorised exporters, and estimates the national exports of furniture at $2 billion, and that of crafts at $800 million. HIMKI members export 75% of their products. Furniture employs more than 100,000 workers in Java alone. These two closely related sectors are dependent upon the supply of raw materials, most of which is produced within the country. These upstream value chains are well structured. Wood production (forestry) employs 800,000 to 900,000 workers, while fibre collection, with rattan leading it, gives revenues to millions of rural people (an estimated 4 to 5 million for rattan alone[3]). Together, those value chains are of vital importance for the economy of Indonesia, an economy based on renewable natural resources and linking the rural population with urban workers and consumers. The HD sector in Indonesia can be counted as an example of the bioeconomy (or 'bio-based economy') prioritised by the European Union in its H2020 strategy.[4]

- *The HD value chain in the global market*

The Indonesian furniture industry has a long experience in supplying to the domestic and foreign markets. Since the ban on export of unprocessed wood in 2001, and the latest ban on un- or semi-processed rattan products in 2012, exports of furniture has grown. The sector has responded dynamically to a growing global market in the past decades, but as the latter is getting more diverse, specific and evolutive, new design and market skills have to be incorporated into the sector.

According to the MoI, Indonesia's top five HD export commodities in 2017 were:

Tableware, kitchenware and other household articles and toilet articles of porcelain and China (HS code 6911) as first export category by value; same type of articles made of plastic (HS 3924) as number 5, Wood marquetry and inlaid wood (HS 4420); Basketwork,

[2] 2017 figures from Ministry of Industry, Indonesia (MoI), presentation at Validation workshops, Sept. 2018.

[3] 2007 estimation of ITTO.

[4] 2017 figures from Ministry of Industry, Indonesia (MoI).

wickerwork and other articles (HS 4602); Glassware for table, kitchen, toilet, office, indoor decoration or similar purposes (HS 7013) in positions 2 to 4 respectively.

This study concentrates on HD products made of wood and natural fibres, thus products from HS chapters 94 (furniture, cushion, lamps, among others; see figure 1 for specific codes for rattan, bamboo and wood) and 46 (plaiting material can be seen as similar to 'fibres'), especially code 4602 (Basketwork, wickerwork) as well as code 4420 (Wood marquetry and inlaid wood). The export value from Indonesia of this last category reached $67 million globally, a decrease of 36% from 2014 and 9.5% from 2016, which can be explained by the competitions of plastic in some uses, and by increased competition. Annex VII represents a breakdown of most HS codes relevant to this study.

Java is the manufacturing centre for wood and rattan end products (mainly furniture and wickerwork). The most populated island in Indonesia also supplies this industry with teak wood and water hyacinth, while other islands are suppliers of other raw materials: Kalimantan and Sulawesi are the main providers of rattan, Lombok of ketak (or ata grass)[5] and Sumatra of higher-quality rattan.

Furniture factories are mostly located in West Java (especially in Cirebon) and home decoration production units in East Java (Surabaya and Yogyakarta). Cirebon has been known for decades as the main production centre for furniture and decoration items made of rattan, supplying mainly the mid-end market (national and export). Surabaya and Yogyakarta are also centres of manufacturing for HD products made of solid wood and natural fibres. Companies established in East Java often provide a higher-end segment of the markets.

The HD sector in Indonesia is conscious of and at least partially reactive to the rapidly evolving preferences and trends on the global market, such as the market leaving the outdoor furniture market for the indoor only.

- *Figures for HD exports to Europe*

Following the ToR, this study will concentrate on HD products made from fibres, giving also general indications on the production of furniture made of small wood. Because trends increasingly encourage mixed material design, wood, bamboo and even metal and plastic (fig.1) cannot be totally excluded from this sector.

According to the Atlas of Economic Complexity, EU countries represented 27% of Indonesian exports of furniture (HS2 code 94) in 2016, less than the USA alone (37.42%) and slightly less than Asia and Australia together. For basketwork, the EU represented more than 56% of Indonesia's export (HS 4602). Furniture represents a much bigger export market for Indonesia than basketwork, with a total of $1.84 billion in 2016 against $63.1 million for basketwork.[6] Europe alone represents $498 million in furniture and $35.9 million in basketwork, 14 times less.

[5] See list of fibres in Annex VI for correspondence between vernacular names and scientific names of fibre species.

[6] The first destinations in Europe for Indonesian basketwork are the Netherlands (17.43%), followed by Germany (9.32%), the United Kingdom, France, Belgium and Spain. For furniture, UK, Germany, France and the Netherlands are the top four destinations (in this order), with 4% to 4.66% of exports each.

The structures of the two industries are not comparable, and there are clear indications that SMEs are more involved in basketworks and rattan furniture than larger Indonesian companies, which may be more involved in wood furniture.

Looking deeper into furniture, 'other furniture and parts',[7] including furniture made from a variety of material, including rattan, bamboo and other fibres as well as metal and wood, is also a large market for Indonesia, amounting to $1.14 billion, of which the USA takes the lion's share (40.45%) and Europe 25% or $285 million, shared essentially between France, UK, the Netherlands, Belgium, Germany, Spain and Italy.

Unfortunately, production and export data were not available at a deeper level for other furniture and parts from rattan (HS 940383) and other fibres besides rattan and bamboo (HS 940389), which could give an interesting indication on the proportion and evolution of exports of furniture made from those fibres. In case those data are made available, it must be mentioned that increasing combination of materials would also make interpretation of those figures complex. In Annex VII we have presented the most relevant HS Codes for HD, in the context of this study, for the attention of exporters and future market research.

It is apparent that Indonesian companies and designers have demonstrated an important potential for those HD subsectors, especially those involving natural fibres, including smart chairs, lamps baskets, bags and boxes. During interviews conducted for this study, the company Alvin-t has been mentioned as a trend setter for the rattan sector, while Du'anyam is one of the most dynamic young companies tapping the potential of other fibres, as is also the case for Pandanus Internusa.

Another important finding of the investigation is that the so-called 'project' sector (hotels and spas) represents an important opportunity, offering the highest margins for this industry.[8]

[7] HS code 9403. See figure 1 above.

[8] According to information from Achmad Kurnia, founder of Siji Lifestyle (see box below).

1.2.2. Overview of traditional textiles from NTT

Indonesia is well known for the diversity and quality of its textile techniques and patterns. While batik, characteristic of Java and Bali, and absent on the NTT islands, is the best known, ikat and songket have also gained recognition from many amateurs. **Songket** is a brocade textile, handwoven in cotton or silk and intricately patterned with gold or silver threads, through a technique known as supplementary weft. **Ikat** fabrics use a dyeing technique to pattern textiles. Small knots are done attaching natural or synthetic fibres to the yarns before dyeing them, revealing the pattern on the fabric once they are woven. These are the two main techniques used on the NTT islands, to different degrees by different local communities, along with more occasional **lurik** (simple lines).

In the NTT, textiles are produced by women as part of their traditional culture, which remains vivid in rural areas. In these cultures, every woman must learn how to weave traditional patterns in either ikat or songket before getting married. One or two pieces of textile are usually an essential part of the dowry. It is estimated that around 200 patterns are known in each ethnic group, with different patterns being distinctive for each community. Woven on traditional hand looms, the primary value of those textiles is intrinsic to the local culture, as a necessity to mark the belonging of the human being to the community, with its proper status indicated in the type of sarong worn.

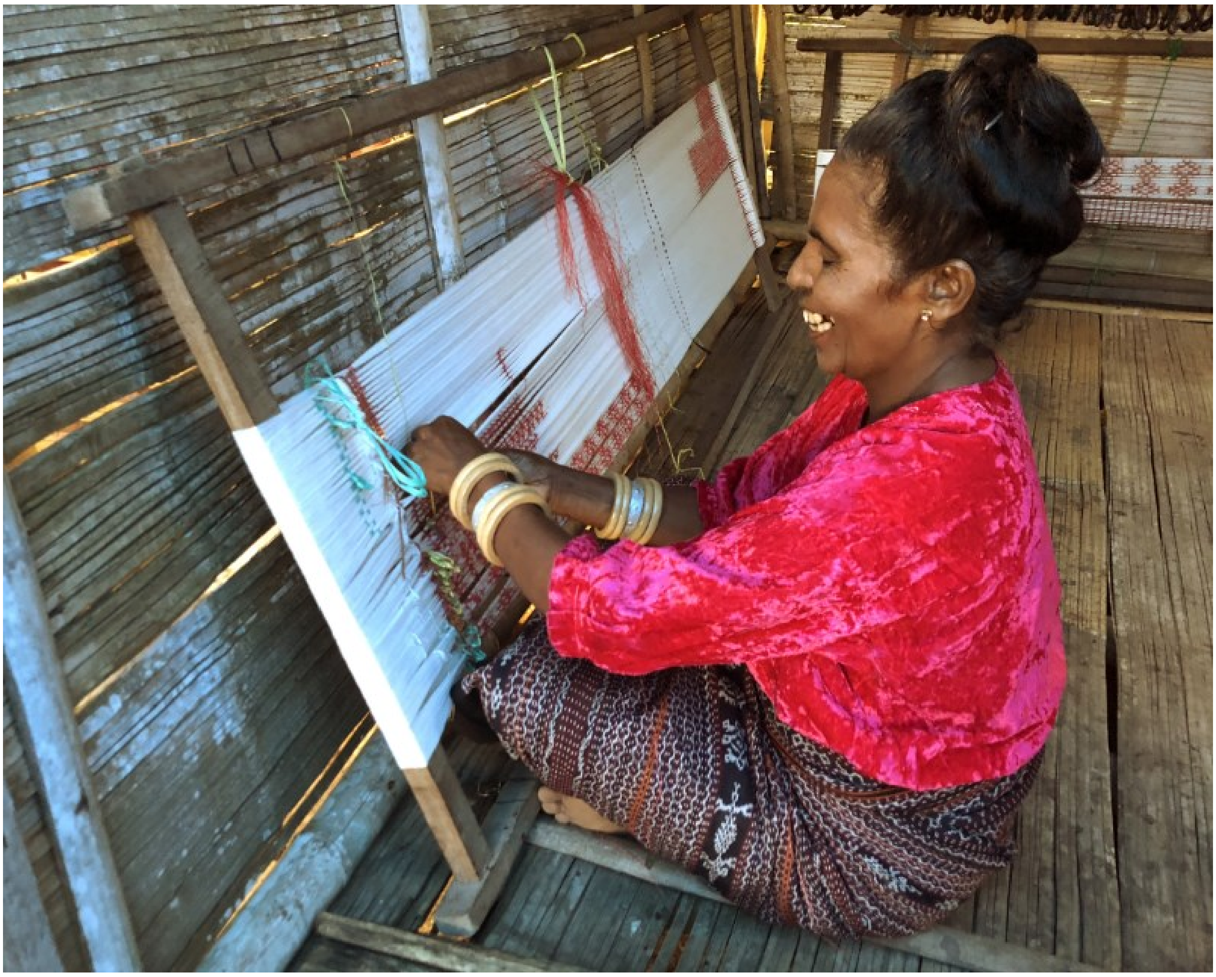

Photo 1 Traditional weaver in Sikka, Flores, NTT

Traditional textiles from the NTTs have been adapted for home decoration by the Dutch since around 1920. Textiles from the island of Sumba are particularly popular among westerners for their vivid colours and figurative symbolism. They currently adorn collectors' living rooms, dining or bedrooms, acting as table spreads, bed spreads or wall coverings, as well as some luxury hotel halls and rooms. Textiles from Timor, Flores and Sabu islands have more abstract symbolism and are less widely known, but some connoisseurs appreciate them for their complexity and the meaning of the patterns.

Because local rural families are looking for new options for income in the current monetary economy, communities have become progressively more conscious of the value of traditional textiles in foreign eyes, and began to sell them on a more permanent basis to tourists and occasional visitors, national and international, and through exhibitions in Jakarta and in many other countries. Traditional weavers are often organised in formal or informal groups on a village basis. Formal groups include non-profit organisations and cooperatives. The sale of textiles is made on the basis of a consignment system. Most organisations will retain 10% of the price paid by customers for organisation and quality management.

The NTT Handicraft Council estimates that the province counts around 52,000 weavers, which gives an indication of a potential of production of 500,000 to 1 million pieces a year, if we consider that each weaver can produce one or two large pieces every month outside the harvest season, which lasts two months where modern varieties of rice have been introduced (sticky rice was slower-growing and required four to five months). Of those pieces, a few are retained for traditional uses, others are meant to be sold. Today, the production potential is certainly well above the market needs from amateurs of traditional textiles and clients of HT.

- **A slowly emerging production of home textiles**

Very few companies in the NTTs are tapping this potential of traditional textiles for the urban markets, whether in garments and fashion or in HT. A few associations or cooperatives[9] have emerged from weaver communities, providing members with services such as training on natural dyes, quality control, and sales. Due to a lack of broader market connections, their success is still limited, and stocks of unsold textiles tend to build up. Those organisations have diversified their activities to include short tourist tours exhibiting traditional dances, weaving and natural dyeing techniques, which contribute to the local economies.

In 2013–2017 a large-scale project was conducted, financed by the European Union and managed by Dutch development cooperation NGO HIVOS, entitled 'Promoting sustainable handwoven eco-textiles in Indonesia and the Philippines' or Handwoven Eco-Textiles (HWET).[10] Its main partners in Indonesia were Cita Tenun Indonesia (CTI), a foundation created by women in Java to support traditional handweavers nationwide, and ASPPUK, the Association for Women in Small Business Assistance. Overall (in Indonesia and the Philippines), the project claims to have provided support to 7,000 'entrepreneurs' or 220 groups and cooperatives, raising their income from weaving by 30%. In Indonesia, 3,512

9 In the Sikka region, Na'Ni House is a weaver cooperative providing services to its members. It supports 10 groups of 25 women, selected for their commitment. With a staff of 4 people, it implements high-quality support standards. When they sell through the cooperative, the weavers set their price, on top of which Na'Ni House adds 10% for marketing, branding and sales.

10 Project DCI-ASIE/2012/308-116.

weaver entrepreneurs from 16 cooperatives, and 125 groups were supported by ASSPUK in 8 provinces of NTT, Sumatra, Kalimantan and Sulawesi, and 320 weaver entrepreneurs from 6 cooperatives and 20 groups by CTI in Java, Bali and south-east Sulawesi. The number of groups and weavers involved in NTT is not known.

The project also set up standards for good weaving practices,[11] available in the Indonesian language. A year later, after its completion, the impact of the project seems to be visible in the impulse of different community groups in NTT to actively revive practical know-how relating to natural dyes. It is to be noticed that this project did not tackle the issue concerning market linkages, nor prepared the ground for further developments. Women 'entrepreneurs' supported by the project may still be lacking market capacity.

It was found that providing a quantitative evaluation of the HT market for NTT communities is extremely complex, due to two factors:

- Home textile is not an identified HS code. It is broken into multiple low-level codes, and those are not often documented by national statistic services.
- Indonesia's production base in handwoven HT is still confidential, being in an emergent phase.

- **Adaptation to urban markets**

Currently, proactive adaptation efforts of traditional textiles to the market, be it Indonesian or foreign, are scarce. Most of the textiles are sold in their traditional form locally, in the communities, which have organised themselves to receive tourists and showcase their traditional culture and weaving techniques, or at local shops or markets.

It should be mentioned that traditional patterns from the NTT have inspired many fashion designers, from Java, Bali and from other countries as well. But this type of influence scarcely brings a profit to local communities or enterprises. One reason is that protection of local patterns under intellectual property rights (IPR) are limited since registration is costly and mostly reserved to individuals. Another reason is that communities from NTT are not trained in sewing techniques, de facto leaving this kind of adaptation to individuals and companies established in other parts of the country, such as Bali or Java.

Because of their limited size and decorative value, cushions and throws (bed and table) are HT products of relatively high potential for NTT weavers. Adapting the traditional product size is relatively easier (width 0.65 to 1.20 meters), compared to other types of HT products (curtains, bed covers) which require bigger pieces, or lose the sense of unity of the piece (upholstery). However, companies that have tried to commercialise such products are scarce. This is because technical (sewing) and marketing skills have to be combined with NTT weavers' know-how in order to produce marketable products on the HT market.

We have encountered only one social enterprise, Threads of Life, based in Bali, producing such items. This company is known for using very high-quality textiles and natural dyes

[11] *Good Tenun Practices*. Text is available in Indonesian only.

only.[12] It also manages its own natural dyes laboratory. Cita Tenun Indonesia is also promoting this adaptation, by involving a designer for HT concepts for the high-end market inspired by traditional textiles from all parts of Indonesia.

Photo 2 Threads of Life cushion covers with mention of origin and weaver name

Cita Tenun Indonesia was funded in 2009 by 17 women to preserve traditional techniques, empower women weavers and support marketing at the national and international levels. CTI has helped women improve the technique of natural dyes through the HWET project. It provides them with connections to designers with a social mission in the home decoration and fashion sectors. It works at 14 locations in 10 provinces, mainly in Java, Sumatra, Bali, Lombok, Sulawesi and the NTT.

CTI founders are positive that a market exists for HT inspired by traditional techniques and patterns, illustrated by a yearly exhibition of the top-12 Indonesian interior designers at Atrium Senayan City, a mall in Jakarta called ‘the Colours of Indonesia’. Illustrations of those designs for home decoration were published in the book *Woven Indonesian Textiles for the Home*, published by CTI in 2012.

[12] The quality of these products is high, prices are also in the higher range: about €35 for a small-size cushion case with traditional patterns and natural dyes.

Up until recently, traditional techniques and patterns were not protected under the Indonesian intellectual property laws. In 2017 Sikka textiles joined 18 other Indonesian Geographical Indications, thus protecting the identity of textiles of the communities of this district of Flores.[13] Internationally recognised since 1996 in the TRIPS, GI protects products that are the result of a particular combination of geographical environment, nature and human factors. Most GIs are food products, but India has a majority of craft GIs (128 out of 200), while Turkey and Thailand have 39 and 38, respectively.

Based on comparative research, Sikka ikat was selected for support by the Swiss Confederation and BEKRAF for its qualities of usage of local cotton trees, natural dyes from local plants, and their unique motifs.[14] An estimated 6,300 weavers were involved in ikat production in Sikka in 2010. The Swiss-Indonesian Intellectual Property Project[15] is currently in its second phase of support for craft GIs and for Sikka ikat in particular (2017-2020). One of its goals is to 'support producers of GI value chain products with tailor-made trainings on market access, quality control and organisational development'.

GIs are considered a tool to enhance a product's position on the market, intended to help customers recognise the quality of the craft products and to protect these. As communities of other districts of NTT also present unique qualities, some of them may also be able to protect their collective heritage under the Indonesian intellectual property law.

The information summarised above clearly justifies HT from NTT as an emergent value chain, one with potential for tapping the highest market segments, with active and motivated players, but one with many challenges ahead, which have to be taken up in the coming years.

1.2 Current state of European export market for the selected product groups

1.2.1. Home decoration products from wood and natural fibres

In past years, HD has become a very important market in high-income countries as well as for the middle and upper classes in emerging countries. HD's development is supported by contemporary values, such as expression of individuality, search for identity and place, etc. After a period of fluctuation due to the economic crisis in 2008–2009, the European market for HD is experiencing a strong recovery. It is estimated that in 2014, overall European imports in the HD and HT sector amounted to €120 billion.

More recent aggregated figures were not available at the moment of this study. However, furniture alone amounted to $33.5 billion in 2016, representing about 21% of the HDHT market for imported goods. Other HD products are divided into multiple types, making

[13] See also the publication 'Striking Patterns', available online.

[14] FH Arief, 2016.

[15] With the support of the Swiss Confederation, IGE/IPI, DGIP and BEKRAF.

aggregation a challenge beyond the limits of this study. Imports of the six most important HD market segments related to wood and fibre to Europe amounted to €15.6 billion[16] in 2015.

Comparing the different categories of HD products, the most promising for export to Europe seem to be the following:

- **Small and easy to move furniture (chairs, tables and stools)**

European consumers are opting for smaller furniture, easy to move around the house (armchairs, tables, stools). Those are expressive, functional and eye-catching. Easy chairs (i.e. for relaxing) are the most promising products in this segment. The United Kingdom, Germany and France are Europe's leading importers of chairs. Imports to Europe of chairs from developing countries alone represented €3.7 billion in 2014.

European chair imports are dominated by China, with €2.9 billion in 2014. Vietnam is the second leading supplier with €288 million, Indonesia comes third in this category with €136 million.

CBI Product Factsheet: Armchairs and Easy Chairs in Europe provides more useful information on this market.

- **Garden Furniture**

Garden furniture is popular in Europe, and almost 80% is imported. It is functional, and needs to be adapted to Europeans in terms of height, strength and safety to use.[17]

European imports of garden furniture reached €463 million in 2015, recovering strongly from a dip in 2013. France is Europe's leading importer of garden furniture, with €80 million in 2015, followed by Germany (€76 million) and the United Kingdom (€64 million). However, the UK is leading imports from developing countries for this product category, with €52 million, more than 80% of Europe's total garden furniture imports.

As for indoor easy chairs, China dominates European garden furniture imports, with a 33% share in 2015. Here too, Indonesia and Vietnam follow.

Indonesia can compete in these two categories of products, because sustainability is seen as an important value for them, and natural fibres carry that value, being suitable for eco-design. Recycled materials such as reclaimed teak wood, scaffolding wood or recycled plastic are popular as well. Bamboo and rattan are timeless sustainable fibres, provided design is renewed at regular intervals.

The search for sustainability also poses a threat to non-European suppliers, as some recent sustainability assessments include the CO2 content of value chains in their evaluation criteria.[18] Products that are 'Made in Europe' emit less CO2 and are increasingly popular among the relevant segment of the population.

[16] CBI market studies. Figures are for sales in 2014/2015. Those six product segments are: Arm & Easy Chairs, Baskets & Boxes, Garden furniture, Deco (statues), Eco Lampshades and Wooden trays

[17] From: *Exporting garden furniture to Europe*, CBI, 2017

[18] http://www.ethicalcorp.com/

As mentioned before, those categories of furniture are included in imports for the category 'Other furniture and parts' representing $33.5 billion in Europe (2016), 42.4% of the global market.

- **Baskets and boxes**

As Europeans struggle with limited living space and wealthier families, baskets and boxes are becoming increasingly popular. As a result, European imports of baskets and boxes are growing at an average annual growth rate of 3.8%, expected to reach €3.7 billion in 2019. Developing countries supply 17% of those imports. Germany, France and the United Kingdom are Europe's main importers of baskets and boxes, Germany and UK having a stronger market for imports from developing countries, with respectively €135 and €115 million a year from developing countries. Figures regarding basketry alone indicate a figure of $679 million imports to Europe in 2016.[19]

Related to this market segment, observation shows us that laundry bags and planters made from natural fibres are some favourites in Europe.

Several distinctive market segments are highlighted by the CBI market study[20]:

- The functional baskets segment needs practical storage solutions. Important aspects include a good price, easy availability and – in the case of storage in natural fibres – assurance about durability and cleaning options.

- The decorative segment places beauty above functionality and will be less price-sensitive. Consumers of these products are willing to shop around and to pay attention to the stories behind the products.

Handmade products can go premium on this market, and natural fibres are definitely trendy.

- **Eco-lighting and mirrors**

These categories of products are becoming more and more popular, and represent an important potential for innovation, as they leave space for the expression of creativity. Imports of eco-lampshades to Europe have grown strongly, with an impressive average annual growth rate of 13% between 2014 and 2015. The market now represents more than €1.3 billion in 2015. Developing countries supply about 36% of this market, which is close to €500 million. Spain is the leading European importer, but Germany and the United Kingdom are importing more from developing countries (around €80 million each). Germany imports more than 36% of all glass mirrors and 17.3% of lamps in Europe. The French market should also be monitored, as it could represent good opportunities as well.

Mirrors and lighting can be included in the broader small furniture category. These two segments are highly profitable (20 to 30% margin) and leave plenty of opportunities for creativity, as originality is appreciated in those segments.

- **General trends**

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[19] Atlas of Economic Complexity.

[20] *CBI Product Factsheet: Baskets and boxes in Europe*, 2016

Natural fibres and reclaimed wood are timelessly trendy for those categories of HD products. Recycled materials (plastic, paper) are more popular among younger generations, and are yet to show durable success.

Each material or fibre type will fit better with specific product categories:

Rattan is a classic, and it fits well in many product segments of the HD market, dominating with bamboo and wood in chairs, provided it is capable of showing a contemporary design. Rattan chairs and tables have somewhat left the outdoor out of practical concern for damage from humidity, but are still fashionable indoors.

Many fibre types can be used for baskets and boxes, which are only limited by creativity, as examples of companies interviewed show. A market approach, through trials of small series, is recommended to get some feedback from customers on the properties of different fibres and appreciation of different styles and patterns.

Mixed materials are also appreciated, as they can add originality to products. Lampshades typically comprise metal frames and electrical parts (wire, switch, plug and socket), ordered through subsidiary companies. But chairs can also have metal frames, as well as other objects. Aluminium is a favourite metal, because of its limited weight, but it is also somewhat expensive.

1.2.2. Home textiles

Home textile is a broad market, ranging from bed linen and bathrobes to kitchen linen, curtains and wall textiles. It is a growing market, driven by the same trends as described above for HD (individuality, cocooning, comfort, individuality, place). European demand for textile furnishing articles increased between 2012 and 2016, reaching €1.7 billion in 2016. European imports of natural fibre textile furnishing articles increased from €269 million in 2012 to €388 million in 2016, a strong annual growth (almost 10%).

Developing countries are Europe's main source of natural fibre textile, supplying 60% of its imports. Spain, Germany and the United Kingdom are the leading importers from developing countries.

China leads export, but with 20% in 2016 it is not as dominant in this product categories as in others. Morocco and India followed closely with 16% and 13% respectively. Tunisia and Turkey are also important players.

Because it is complex and segmented, we will concentrate only on market segments which can potentially be of interest for the NTT textile sector, not excluding collaboration and inputs from neighbouring islands.

- **Bed runners/throws**

'Bedspreads mainly serve as decorative articles for the bed, but can also be used as blankets to provide warmth to the user. They provide an easy way to change the decoration of the bedroom, of which the bed is the main focus.'[21] Bedspread sizes vary depending on bed dimensions. It is necessary to differentiate full-size bedspreads from bed runners, which are only ornamental. Because of the limited size of NTT textiles, production should initially concentrate on bed runners.

European imports of bedspreads are around €130 million in 2016, that amount being fairly stable. Developing countries represent around 60% of that amount (€75 million). Spain, the

[21] Exporting bedspreads of natural fibres to Europe, CBI, 2017.

United Kingdom and Germany (in this order) represent half of Europe's total imports, with €20 million each. The main exporters to Europe are India and China (47%), followed at large distance by Turkey, Pakistan and Bangladesh. This confirms that Indonesia should concentrate not on full-size bedspreads, but on high-value luxury bed runners, within a more global HT concept.

- **Cushion covers**

No specific trade data are available for cushion covers of natural fibres. The general trends described above are valid for cushion covers: a broad and growing market, with a preference for natural fibres and commitment to sustainability.

Sizes of cushion covers in Europe vary, matching the sizes of cushions. The most common sizes on the European market are:

- Square: 40, 45, 50 or 65 cm side and for lounge chairs and sofa 60 or 70 cm.
- Rectangular: 40 x 65 cm, 50 x 30 cm.

It is recommended to strictly follow the specifications given by clients in terms of size.

Current trends in cushion covers and throws are directed towards different styles, according to interviews with professionals in Paris and a CBI study. Those include:

Outdoor natural look: Flowers or leaf patterns, green and yellow colours are trendy, especially in Spain, UK, and to a certain extend north-western European countries, less in France and Italy.

Ethnic patterns: 'Ethnic motifs and traditional craftsmanship are popular (long-term) trends on the European market for cushion covers. Consumers are interested in the story behind the product, which adds to its uniqueness. Kilim cushion covers [from Turkey] are a successful example of the influence of tradition.'[22]

Sustainability: An increasing concern for and awareness of the negative impacts of production and consumption in the textile industry is driving consumers' and designers' preferences towards more sustainable choices. Sustainable raw materials like organic cotton, wool and silk, as well as other possible 'new' fibres are successful on the European market.

- **Selling HT by the meter: the market of upholstery and wall covering**

In HT, a specific value chain is that of upholstery and wall covering, which have in common that they have *editors* of textile at the centre of the VC. In this HT sub-market, editors order, choose and buy fabrics by the meter from their suppliers, and sell them to professional buyers – architects, home decorators, project managers in the hotel trade.

To a certain extent, this market is very close and convergent with the curtain market.

A survey with representatives of ten brands operating in Paris, one of the major trade centres for this market, shows that editors and companies in this market are highly specialised by style. For instance, the French companies Prelle (established in 1752), Tassinari & Châtel and Pierre Frey are specialised in editing and producing French textiles with motives dating from before the French Revolution, which sell for between €110 and €1,000 per meter. Style Library and The Romo Group each represent six different British brands, Casamance is a contemporary style brand, and Casa Lopez focuses on Spanish style.

[22] Exporting cushion covers of natural fibres to Europe, CBI, 2017.

This market focuses on the quality, texture and patterns of the fabric rather than on a finished product. The fabric is sold by the linear meter, and can be made of cotton, silk, synthetic or natural fibres. The price of the meter varies a lot based not only on the width (limited by the size of hand looms when the product is handmade) but even more by the quality and scarcity of the fabric. Buyers are either rich individuals (luxury market) or professional architects, decorators or hotel project managers. Given its focus on fabric rather than textile unit, and thus on quantity, this market may not seem as interesting for traditional weavers from the NTT islands, but it may be interesting for fibre producers and weavers.

The competitors focusing on contemporary trends often organise two releases of new fashionable patterns and colours a year (January and September), while those focusing on tradition or on timeless values escape from the constraints of fashion and can use the same collection of patterns for years. The brand CMO is perhaps the only one in Europe concentrating only on natural fibres. It currently manages around 130 references of natural fibres, 6 to 7% of which come from Indonesia. Its two core values are nature and traditional know-how. Imperfections are seen as being a desirable part of the product, making it different from an industrial product. But imperfection is not to be confused with default (a hole, a stain, etc.), which is only acceptable up to a certain level and number in a lot. This type of fabric is usually sourced by rolls of 20 meters as a minimum. The editor does not secure post-treatment of the fibre (fire-retardant treatment, tailoring, etc.) but can facilitate the client with contacts to have those done by the relevant professionals.

Unfortunately, CMO, the leading company in Europe for this market segment, does not disclose its global sales as a policy to distract competition. It is certainly a profitable and stable market segment, which should be considered within the HDHT sector.

This market may represent a potential for the HD sector concerning natural fibres. Because the design is made by editors in importing countries, it will be more interesting for producers of fibre valorising local know-how in weaving fibres of different type.

1.3 Value chain competitiveness of Indonesian products for the selected markets

1.3.1 Home decoration products from small wood and fibre

Competitive advantages

- Availability of wood

Indonesia undoubtedly has strong competitive advantages in this sector, related to the availability of a wide range of raw natural material (wood, fibres, mother-of-pearl) and the existence of a furniture and decoration industry.

Indonesia has the third-largest forest area in the world, after the Amazon and the Congo basin. Teak (*Tectona grandis*), currently the main commercial species in Indonesia (80%), was introduced into the island of Java by Hindu monks in the 14th century. Teak plantations were extended by the Dutch under colonial rule.[23] Indonesia now has the largest planted area in teak in the world, accounting for more than 35% of the world's teak forests.

Javanese teak provides employments and livelihoods to millions of people. Indonesia thus has a large and centralised wood industry, counting skilled workers with relatively competitive labour costs.

[23] CIRAD information.

Mahogany is the second species used for furniture, without it being clear which of the two species (American or Indonesian) is used in the industry. Indonesian mahogany is a species known scientifically as *Toona sureni*.

A design website differentiates teak and mahogany characteristics as follows in Table 2.[24] It is clear that teak comes way ahead of mahogany in terms of uses.

Table 2 : Differences between mahogany and teak qualities

	Mahogany	Teak
APPEARANCE	Reddish, orange, or pinkish tint. Consistently straight with fine grain patterns. Coarse texture.	Light brown to gold in colour and darkens with age Irregular grain patterns, often flame-like, fine Oily texture Not considered as aesthetically pleasing as mahogany
PROPERTIES	Moderate to low insect and rot resistance.	One of the most decay-resistant hardwoods available Durability and Density
DENSITY	900 on Janka scale	1 070 on Janka scale
COST	Half the cost, or less, of teak.	Teak furniture is considered more exclusive than mahogany.
INDOOR APPLICATION	Mahogany, with its coarse texture, is harder to maintain as furniture.	Teak, with its closed-pore, oily texture, is considered more water resistant, and overall more durable than mahogany.
EXTERIOR APPLICATION	Not typically recommended for any type of exterior use, but can be used when properly maintained with sealer.	Far more durable for any type of exterior furniture, trim, decking or anywhere moisture or weather resistance comes into play. Requires far less maintenance.
FINISHING	Mahogany typically requires lacquer, varnish or other film-forming top coat to protect it.	Teak is easy to maintain, with only an oil-based sealant if desired, or it can be left natural without anything at all.

Thus, teak appears to be more durable and sustainable than mahogany.

Availability of fibres

The variety of available fibres from different species of palm trees, vine trees, ferns or grasses in Indonesia is impressive. So is that of other unchartered natural primary products, such as dried fruits (such as the fruit of the mahogany or other trees or legumes) or 'sea creatures', such as mother-of-shell. There are probably many more renewable materials to be tapped from Indonesia's natural ecosystems. Below is a synthetic presentation of the most common fibres.

[24] https://www.hunker.com/13401568/teak-wood-vs-mahogany

Rattan is the most commonly used fibre in Indonesia, which produces 90% of the processed rattan in the world. The fibres properties include: light porous structure, being elastic and bendable when heated. Rattan-based products represent 30% of HIMKI company members. Coming from the Malaysian language, the term rattan points to nearly 600 different species of vine-type palm trees of the Calamus and Daemonorops families. Indonesian ecosystems produce an estimated 80% of the world's rattan, and hold half of the species existing worldwide, 50 of which are used in Indonesia. Since the first bans on un- or semi-processed rattan, there has been a boom in the value of rattan-related exports.

The furniture industry is the main consumer of rattan materials, which serves as primary material for chairs, beds, tables, sofa and cabinets for the domestic and international markets. Rattan furniture has been very popular since nearly a century in Western and Asian countries, where it is perceived as luxurious, elegant and stylish. Despite recent slow-downs, the potential of rattan is still enormous. However, the market increasingly demands well-designed, high-end rattan products.

The potential of some fibres for smaller HD products is already being exploited by numerous SMEs of Java, Bali, Lombok and to a lesser extent the NTTs:

Ketak is extracted from *Lygodium circinatun*, a fern species that grows in humid environments, especially in Lombok, where ketak handicraft is widely practiced. It is known in Bali and other areas as Ata grass. After weaving and 'cooking', it makes high-end, good looking produce, with rigid but fine fibres. The heating process gives it a golden hue that is attractive. Many small companies in Lombok use those techniques to produce small home decoration objects out of ketak. A specific recognisable model of medium-size round ketak bags for women have been fashionable for years in Lombok and Bali.

Photo 3 Ketak boxes in Lombok

Pandan is a herb from the *Pandanus* genus. The fibre is wider and more flexible than ketak or rattan. Rather simple in its aspect, it can be woven into elegant patterns, star-like or hexagon-like, and makes attractive baskets and other objects. Several SMEs use pandan, along with other fibres to tap into the mid-to-high-end market.

Photo 4 Pandan box in Handicraft Council NTT, Kupang

The leaves of the **Lontar**, or Palmyra palm (*Borassus flabellifer*) are used to make elegant baskets. Du'anyam, a young company in Jakarta, has released a series of elegant HD items in lontar leaves that should encounter success.

Photo 5 Lontar leaf, Dun'anyam

Photo 6 Lontar baskets, Du'anyam

Other fibres are well known in other tropical countries of Asia or other continents as well, but are also used efficiently as primary materials in Indonesia:

Abaca (banana bark) seems to be a favourite fibre to make different types of handicrafts and HD objects, including bags, boxes and furniture. The Philippines is a leader for the use of this fibre, which is not specific to any particular region or country.

Coconut tree stem or coconut fibre are also occasionally used as promising textile fibres.

Raffia (*Raffia taedigera*) is used to make shopping and laundry bags, as well as boxes. Known throughout Asia and Africa, Madagascar has an extensive use of raffia for large shopping bags, which can be found in Indonesia.

Jute (*Corchorus olitorius* or *Corchorus capsularis*) is found from India to Indonesia. Used for the transportation of coffee, cocoa and other commodities, from the fields to the ship, it is known for its strength, and is more practical than pleasant in its touch.

Ramie (*Boehmeria B. nivea*) or **Sisal** (*Agave sisalana*) are used for different items, most commonly bags. Each of those fibres has its own physical properties, which it would be interesting but too time-consuming to develop.

Two popular fibres coming from a marine or aquatic environment are Mandong or **Sea grass** (from the Cyperaceae family), and **Water hyacinth**, an invasive lakes species, coming from the Amazon, and now found on all continents, including the lakes of Java.

Other herbal species, such as those locally knowns as purin, agel and rayong were mentioned during interviews, but we could not detect if they were specific to Indonesia, commonly used, or what their scientific name and technical properties were.

A complete list of fibres found in the Indonesian HD sector can be found in Annex VI.

Not all fibres mentioned above are available year-round, and prices often reflect their seasonal availability, among other factors. However, their diversity makes it possible for any given company to have year-round access to raw materials at reasonable prices with a proper combination of fibres. Many companies seem to prefer local sources of fibres, coming from the island where it is established (water hyacinth in Java, ketak in Lombok, etc.), but this orientation is far from being exclusive, as the universal case of rattan shows.

A maritime power and sea transport hub

Due to the extension of its territorial waters and the number of its commercial sea ports, Indonesia is an important maritime power. Connecting its main archipelagos, Indonesia's archipelagic waters amount to more than 3 million km^2. It has more than 40 commercial ports, two of which belong to the top-50 container ports in the world, according to the World Shipping Council. Four of the seven major ports in the world, based in Singapore and in mainland China, are only a few hundred miles away. A harbour is never very far away from a manufacturing centre, and it must be remembered that sea cargo is the cheapest mode of international transport available globally. Indonesia is clearly connected to the major trade routes that link East Asia to the American and European continents. It is an established international trade power.

Infrastructure and regional production hubs

The country has a weak national and inter-island infrastructure (see section 3.1.2.) in general, but this is improving with an additional $10 billion investment a year planned in the sector until 2019. The organisation of companies of the furniture and decoration sector in regional hubs in Java compensates to a certain extent for the costs linked to the state of national infrastructure.

Hence, the city of Cirebon, Java, specialises in wood and rattan furniture. Surabaya, the second-largest city of Indonesia, is also a HD production centre, while Jepara is a HD and textile hub with the reputation of lower quality. Thus the investigation team visited Surabaya, Yogyakarta and Cirebon only. Due to the age and weaknesses of most companies, factories in the Cirebon District are producing and exporting mid-level-quality products that often feature poorly innovative design. Only a handful of SMEs seem to be producing high-quality furniture. Large factories have secured and vast market linkages and make their sales directly to retailers in well-developed markets.

Thinking and producing out of the box

Siji Lifestyle, a company based in Yogyakarta (started in 2006) achieved success in the higher-end market producing bathroom accessory sets for hotels at the request of German customers, by using a variety of fibres, textures and colours to cover the elements of the sets (soap and lotion dispensers, toothbrush holders, etc.), which are made of high-quality resin. The list of materials used for the surface covering is limited only by the imagination of its creator: rattan, bamboo, butterfly cocoons, woven palm, water hyacinth, residues from palm nuts (the collection of which is outsourced to a city in Sumatra), abaca, jute, bagor, wood bark, pandanus, mother-of-shell, egg shells, etc. The company has 30 suppliers (villages with group leaders) and 20 subcontracting companies.

The company now supplies three containers a week for the project market in Germany, France, the Netherlands, USA and Japan. ‘100% margins are possible in the project market, vs. 15% in retailer home deco’, says founder Achmad Kurnia. His most successful product line currently are wall panels for decoration. Siji Lifestyle’s success is quite unique and difficult to imitate, because it combines boldness in creation with important investments in machinery (laser cutting, CNC and pressing machines, for IDR 250, 300 and 70 million respectively[25]). These investments benefited from the ‘refund’ programme of the MoI mentioned above. This original approach to the market and production ensures the company with a market with no competitors.

While most HD companies are working on low margins, Siji’s margins are high.

Achmad Kurnia’s receipt for success is:

- An exotic and unique material basis
- Machine made, for precision and finish
- Craftsmanship in the making of models
- Unique designs

Other lessons are easily transferable:

- Written standard operational procedures for the staff (in Siji’s case, 35 people in production, 10 in administration, design and communication)
- A horizontal management system
- A fair and swift payment to suppliers (50% down payment)
- Direct relations with buyers

[25] Approximately €15,000, €18,000 and €4,000.

1.3.2 Home Textiles – Cushion covers and throws

Nusa Tenggara Timor is a province of the Republic of Indonesia which includes more than 500 islands east of Bali, Lombok and Sumbawa. Its three main islands are, by size, Timor, Sumba and Flores, which all have a rich cultural traditional of handwoven textiles. Smaller islands, such as Alor, Sabu and others also have their traditional textile production.

Though it has been open to external influence for centuries, the textile production from NTT is still highly traditional by nature, this being part of its praised value. Its main features are:

- Textiles are handwoven by women on back-strap looms.
- The most commonly used technique is ikat (consisting of dying threads after having prefigured a design by tying knots with fibre or plastic threads).
- Each ethnic group has developed its own patterns, which also reflect social status and gender, patterns have incorporated motifs from India, China and Europe, thus a high diversity of patterns is produced and made available.
- Many groups still produce and use their own natural dyes, from plant extracts.
- Cotton is still grown in extensive areas of Timor, Flores, Sumba and smaller islands, and hand-spun, which adds to the authenticity of the final product.

NTT textiles have been commonly used as home textiles for a full century (it is generally assumed that traditional textiles from Indonesia have been used as HT since 1920). This relates more specifically to certain categories of HT, such as table runners, bed throws, cushion covers and wall hangers. Europeans have shown a preference for patterns from certain islands. The most highly valued are those from Flores, which are highly figurative, then those from Timor and Flores.

The HT markets are constantly looking for new inspiration, and traditional NTT weavers for market alternatives for their products; a meeting between those two sides should be possible to find. Cita Tenun Indonesia, a major support organisation based in Jakarta, claims that home textiles are the future of Indonesia’s weaving heritage. However, the adoption of traditional NTT textiles in HT has not happened at a large scale, presumably because of structural issues related to costs and practicalities in transforming traditional textiles into HT products. Making this future a reality may require several stages of effort and support.

Traditional textiles from NTT as well as Bali or Java are copied, simplified and distorted by industrial manufacturers to produce low-end textiles in Jepara or elsewhere. Even though the imitation industry leaves no benefit to the original designers of patterns, be they individual or collective, this is a sign that traditional textiles from NTT are attractive.

As we have seen in a previous section, HT is a highly segmented sector, with product segments responding to different dynamics. Indeed, appropriate product segments with potential for the NTT production must be identified.

The obstacles for the introduction and further penetration of NTT traditional textiles in the HT markets, including for exports to Europe, are examined in part 2. Let us just anticipate here with a reflexion on the potential of those textiles for the targeted market:

The distance that separates traditional textiles from the HT markets may be seen either as a series of difficult obstacles, or as a reliable asset for targeting the high-end segment of that market through creating a sense of exclusiveness. Currently, weavers from NTT are focusing on the most traditional and exclusive techniques, hand-spinning local cotton, handweaving and using natural dyes, which is fully consistent with high-end and ‘project’ markets.

In the higher market segments targeted by textiles from the NTT, products are often sold as part of a wider range of similar products of the HT sector. The development of a concept, such as ‘home textiles from NTT’, may lead to the development of other products, such as bed throws and table runners. Possibilities seem to be endless, and depend solely on vision and opportunity.

The social enterprise **Threads of Life** was created in 1998, with the objective to ‘sustain the textile arts of Indonesia’. It describes itself as ‘a fair trade business that works with culture and conservation to alleviate poverty in rural Indonesia’.

It sells handwoven textiles and baskets commissioned to weavers and artisans in every part of Indonesia where traditional know-how still meets the highest standards. It works directly with over 1,000 women in more than 35 cooperative groups from Kalimantan to Timor. In 2017 its sales amounted to IDR 5.5 billion, with sales being mainly to tourists and travellers in Bali.

Threads of Life also encourages the use of natural dyes and hand-spun cotton, having documented the use and fabrication of many natural dyes in Indonesia. Visitors and professionals can receive training in its natural dye studio. It also commercialises a natural plant mordant made of leaves of plants from the *Symplocus* botanic family, which are natural aluminium accumulators.

Threads of Life has succeeded in commissioning high-end cushions covers from traditional ikat and songket, combining the quality of traditional weaving with that of professional sewing in Bali. Sold at IDR 345,000 each to consumers, the market targeted is definitely high quality and high end.

This focus on high-end products is convergent with the conclusions of the CBI market case for HT products from NTT.

To summarise, NTT weavers have strong competitive advantages in the high-end and luxury segments of the HT markets, for the following reasons:

- NTT textiles carry unique cultural values expressed in traditional patterns;
- there currently is an excellent know-how in weaving and hand dyeing in NTT islands with a large basis of 52,000 women weavers plus men interested in participating in the VC, who are eager to continue using their weaving skills, and open to exploring new markets;
- consumers in this segment are looking for qualitative, original products with unique value in terms of their cultural and material content.

However tangible, these advantages still need to be fully applied. Several types of stakeholders (social enterprises, foundations, cooperatives) are helping to strengthen not only local producers’ weaving and dying skills, but also their business and management ability, as well as to explore this connection with interesting markets.

With current sustainability trends in the HT sector, combined with a taste for ethnicity, NTT textiles seem to have the potential to occupy a good position on this market. Because it is still in an emerging phase, CBI is organising an HT expert meeting in Europe, gathering specialists from different lines of HT products to confirm the market potential for NTT, and a stakeholder meeting with companies involved in HT in Indonesia, to confirm the production potential.

2 Structure, Governance and Sustainability of the Value Chains

2.1 HD products from wood and fibre (small furniture, basketry and boxes)

2.1.1 Main actors involved in the value chain

To describe the value chain, it is necessary to first break it into its main actors. The relationship between those can then analysed, giving a picture of the structure and dynamics of the VC.

Having many elements in common, the two value chains ‘small wooden and fibre furniture’ and ‘baskets and boxes’ (made from fibres) are presented together. This is because the material used is as relevant as the type of product (furniture, basket and boxes).

In Indonesia, this value chain can be viewed as the articulation of an upstream value chain, producing the wood or fibre primary material, and a downstream value chain focused on design, production and sales of the final products.

- **The upstream VC**

The main actors of primary production of this VC are:

1. **Land owners** and **collectors** of fibre

   90% of rattan is collected in wild tropical forests, the remaining 10% in family gardens. There is no land issue for this product. Other fibres are usually collected in wild ecosystems, or on common resources (banana, coconut, palm trees).

   Much of Indonesia’s teak, for both domestic and international markets, comes from small, family-owned plantations. Millions of families across Java plant teak to earn additional income. Their production is often managed by private companies (below).

2. **Companies** of the timber industry, and their workers

   Wood is a more strictly managed resource than fibre.

   Perhutani is a large state company that owns and manages more than a million hectares of teak plantation in Java. The company supplies several HD companies with reformed teak roots which serve as primary material for individual tables, lamp structures, etc.

   Preparation of wood and fibre (preprocessing) requires a lot of work. For instance, rattan fibre has to be prepared and graded.

   Workers of the timber and primary transformation industry must be counted among the stakeholders of the value chain.

3. **Traders** of wood and traders of fibre

   These are pivotal stakeholders for this part of the value chain, connecting producers and manufacturers. More often than not, traders do not ensure the traceability (i.e. information on the origin of particular lots) of shipments they sell.

- **The downstream VC**

This section of the VC is in contact with the final market, and realises the biggest part of the value in the VC. The main governing segment of the supply chain, consisting mainly of buyers, is at this level. This is a particularly complex section of the value chain, as subcontractors, home workers and workers and weaving or production centres participate in proportions that vary in every case. Its direct actors include:

4. **Manufacturers** are in charge of transforming the primary product into finished products, adapted to specific markets, both national and international. Upstream, traders are their suppliers. They always have some type of contact with the final client, directly or through buying agents. The part they take in design and in the different stages of production is variable. Some have developed their own brand.

5. **Subcontractors** who realise different technical operations on behalf of manufacturers: preparation of frames, finishing operations (sanding, painting, etc.).

   Those subcontractors may be:

   registered or not-yet-registered companies employing home workers or workers in a manufacturing or weaving centre, or directly home workers. Formal contracts are not always provided or demanded in the case of individual workers.

   It must be observed that in the case of fibres, workers often have genuine know-how and experience on one type (species) of fibre, which is not easily transferable to other fibre. Whether this know-how can give place to a sub-value chain in wall covers and furniture upholstery from fibres depends on contacts with buyers and artisans' organisations.

6. **Final buyers**, which can be retailers, hotels, or institutions, both national and international. They are in direct contact with manufacturers, except when buying agents intervene (see below).

- **Service providers actors**

These include (optionally):

7. **Government institutions**, such as the Ministry of Industry and Handicraft Councils.

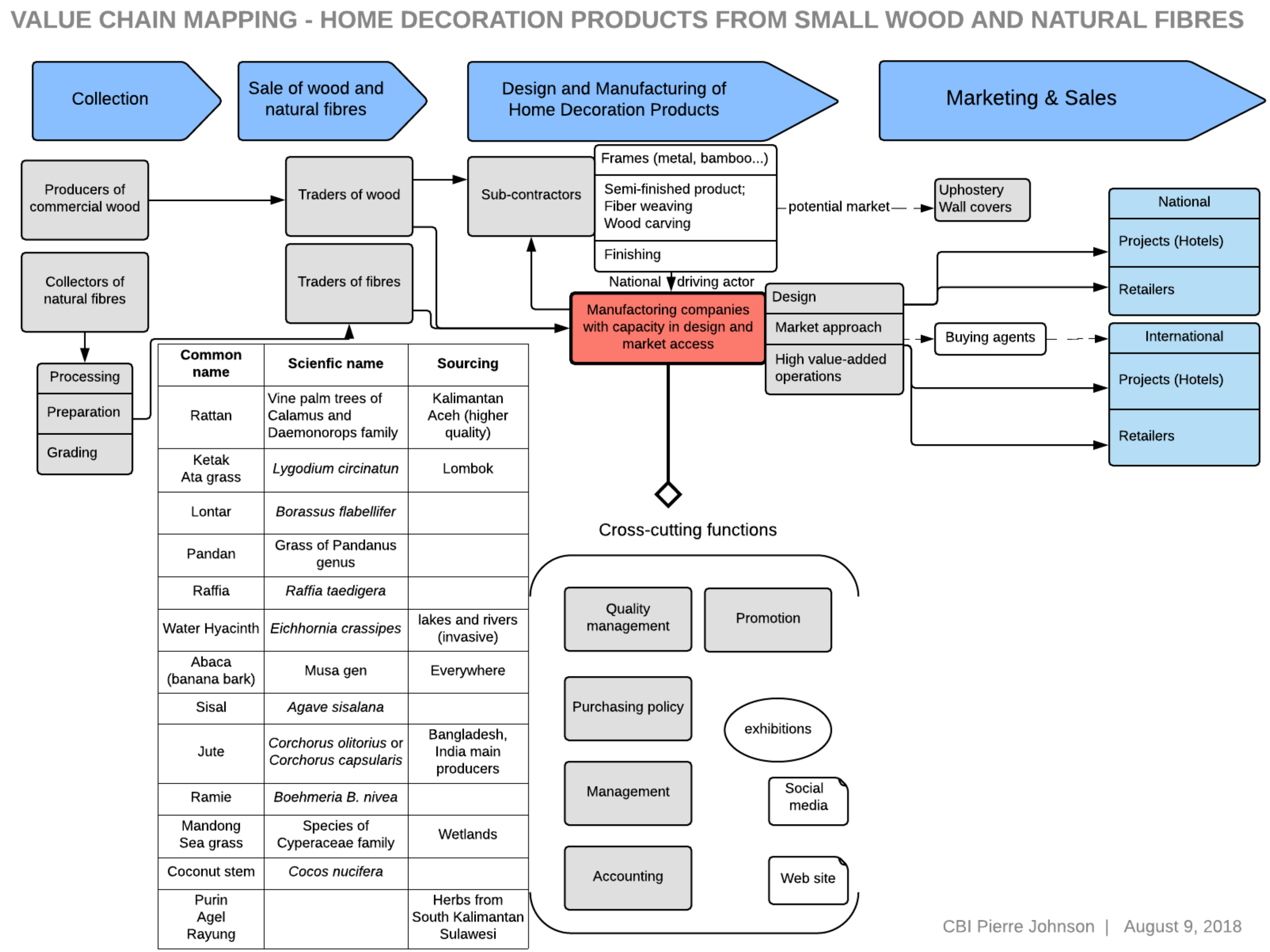
8. **Banks**, which can advance the funds necessary for purchasing machines, creating stocks of raw material and manufacturing before actually shipping the products.

9. **Buying agents** with direct contact with purchasers in importing countries.

10. **Business support organisations**.
    These include: private foundations, non-profit organisations, foreign or multilateral cooperation agencies, etc.

Details are given on the role of service providers and support organisations of the HD VC in the next section (2.1.5).

Figure 1: Home Deco products from small wood and natural fibres



Common name	Scienfic name	Sourcing
Rattan	Vine palm trees of Calamus and Daemonorops family	Kalimantan Aceh (higher quality)
Ketak Ata grass	*Lygodium circinatun*	Lombok
Lontar	*Borassus flabellifer*	
Pandan	Grass of Pandanus genus	
Raffia	*Raffia taedigera*	
Water Hyacinth	*Eichhornia crassipes*	lakes and rivers (invasive)
Abaca (banana bark)	Musa gen	Everywhere
Sisal	*Agave sisalana*	
Jute	*Corchorus olitorius* or *Corchorus capsularis*	Bangladesh, India main producers
Ramie	*Boehmeria B. nivea*	
Mandong Sea grass	Species of Cyperaceae family	Wetlands
Coconut stem	*Cocos nucifera*	
Purin Agel Rayung		Herbs from South Kalimantan Sulawesi

2.1.2 Structure and dynamics of the value chain

The upstream and downstream parts of the small wood and fibre value chain are relatively independent, i.e. downstream actors are not usually involved in upstream activities or trade of the primary products. The reverse is equally true. In this report, we have focused more on the downstream value chain, as it is this part that is in contact with export markets.

The upstream dynamics of the HD value chain is driven by national and export urban markets. These markets are complex and diversified, as even in Europe different countries have different preferences in design and materials used, and different customer segments can be targeted. It should also be noted that for the past two decades, the markets for HD have been evolving much faster than in the previous decades.

Knowledge of markets and their preferences, as well as the ability to adapt the product design to prospected markets, are thus key elements of the governance of the value chain. Unfortunately, the value chain in the furniture industry is described as fragmented, and 'many SMEs do not have direct relationships with international buyers, nor information about where they fit in the value chain.'[26] The situation in the craft industry is probably not very different, considering the description reading into the lines of a recent Australian Aid - ILO study on *Employment relationships and working conditions in an IKEA rattan supply chain*.

Small or medium-sized companies which can master those two key components will have control over their value chains. Innovation, quality and design are the main features of successful companies, along with sound business abilities, such as an efficient management and a minimum of financial backing.

The examples given above (Siji Lifestyle and Du'anyam) illustrate different qualities. While Siji Lifestyle has perfect formal management and quality procedures, as well as extensive contracts with banks and insurance companies, Du'anyam has a creative apprehension of the market's need and appreciation.

Manufacturing companies which have less facility in grasping changes in design preferences, or in answering to the evolution of the markets, have less power in the VC and are more at risk. The capacity to follow and understand current trends by participating in exhibitions in the targeted countries and following social media has become crucial.

Several examples show that while it was quite possible until the 1990s to manage a rattan furniture company reproducing the same model of chairs during several decades with a stable informal network of clients, this mechanical reproduction of a classical option is no longer a viable option. As worrying is the fact many sub-contracting companies are not even legally registered, a situation that the Indonesian government seems to tolerate when it comes to SMEs.[27]

Palem Craft offers an example of the possibility to harness current trends for fibres and natural, which offer many opportunities for creative application in the home decoration industry. This small company in Yogyakarta uses the mahogany fruit in its product design. It has also identified new fibres for its mirror product line.

[26] ILO (2005), ibid.

[27] ILO (2°15), op. cit.

2.1.3 Mapping of the value chain

Figure 1 above (repeated in Annex 3) shows the relationships and linkages between the main actors of this value chain. The value chains for small wooden and fibre furniture and that of other fibre deco products have been merged into one map because many of the actors and the linkages in natural are identical for different fibre HD products.

Manufacturing companies with connections to buyers (in red) are the pivotal actors of the value chain, which is driven by market trends nationally and internationally. They develop cross-cutting functions (in the lower centre part of the map) and are active in design and market approach, as well as concentrating on higher value operations. Other operations are delegated to subcontractors (above) and suppliers (on the left side of the map).

Traders of wood and traders of fibres have different characteristics, in terms of prices and negotiating powers. They usually make sure the raw material has been properly processed, prepared and graded by their own suppliers, which are based in islands such as Kalimantan, Sulawesi and Sumatra for rattan, Java for teak, or any other for other fibres.

National and **international markets** are highly diversified.
Two types of markets are salient: retailers and project markets. The latter is higher end and gives much better margins. The upholstery and wall cover market could be further explored by associations or cooperatives of fibre producers.

2.1.4 The export environment

European regulation

Europe has a unified tariff regulation, which is favourable to developing countries. Indonesia benefits from a 0% tariff on ‘other wooden furniture’, and a 5.6% tariff on furniture (940383) and seats of rattan (940153) and other material, with a tariff suspension with presentation of a handicraft certificate.

When it comes to security and sanitary norms, the European regulation is relatively stringent. Under the European Union’s **General Product Safety Directive** all consumer products marketed in Europe must be safe to use. Unsafe products are rejected at the European border or withdrawn from the market. The RAPEX database lists such products.

One of the most important norms covers the Registration, Evaluation, Authorisation and Restriction of Chemical Hazards (REACH). REACH stipulates all companies should document the chemicals contained in their finished products, and refer to an evaluation of the impacts of these chemicals.

Appropriate attention should be paid to the following compulsory requirements:

- Several azo dyes used particularly for textile products;
- Lead in the paints and glazing of ceramics;
- Cadmium compounds in various applications;
- Arsenic and creosotes as wood preservatives;
- Flame retardants, including TRIS, TEPA and PBB;
- organostannic compounds and phthalates in PVC.

The Annex XVII to REACH includes all the restrictions adopted in the framework of REACH and the previous legislation, Directive 76/769/EEC. Each entry shows a substance or a group of substances or a substance in a mixture, and the consequent restriction conditions. The latest consolidated version of REACH can be found online here:

https://echa.europa.eu/substances-restricted-under-reach

Under the Classification, Labelling and Packaging (CLP) Regulation ((EC) No 1272/2008) all goods should be classified. It is based on the United Nations' Globally Harmonised System (GHS) and its purpose is to ensure a high level of protection of health and the environment, as well as the free movement of substances, mixtures and articles.

Application of European regulation

Despite the EU's strict norms, the control of norm application for products entering the European Union is less stringent, compared to those entering the USA, most of the companies interviewed in Surabaya and Yogyakarta underlined. In Europe, due diligence rather than systemic audits is the general approach. European buyers do their own tests on samples, while US buyers ask producers to pay for the tests. European and Asian buyers equally offer down payments to producers, while US buyers do not.

However, many specific rules regarding security and safety of users do apply to the textiles and decoration sectors, and the status of every substance used should be checked through the link above. Norms for the general public are generally less stringent than those for premises open to the public, like hotels and restaurants. For the later, fire norms are quite strict, which have to be combined with the norm on flame retardants stated above.

The segment of the market involved in lamps and lighting should note that the International Electrotechnical Commission has released a new norm on 15 September 2017 for equipment working up to 1000 V. The companies concerned can refer to the norm IEC 60598-1: 2014 + A1: 2017. This regulation is followed by the European Union. In HD in Indonesia, electrical parts of lamps are made in China, and providers of good quality electrical parts are now common.

Wood certification

Concerned by the scale of deforestation worldwide, and by the impact of illegal logging on the state of forests, the European Union requires that all wood entering Europe should be certified as legal. The EU Timber Regulation which came into force on 3 March 2013, prohibits operators in Europe from placing illegally harvested timber and products derived from illegal timber on the EU market. 'Legal' timber is defined as timber produced in compliance with the laws of the country where it is harvested.

The Republic of Indonesia was one of the first countries to sign up to a partnership with the EU in 2013 to implement the FLEGT regime from 15 November 2016 on. To do so, Indonesia elaborated its own regulations as wood supplier, enforcing legal norms in the sector. Today, the SVLK thus provides the necessary and sufficient certification to enter the European market. All of the companies interviewed allegedly purchase only SVLK-certified wood, however, an significant amount of illegal logging still takes place in Indonesia. Legal issues regarding wood are rather conducive for Indonesia, compared to countries where the legality of wood sourcing is more difficult to prove. However, companies in the HD sector should check the legal status of the wood they purchase as raw material for HD.

Multilateral agreements on protected species and biodiversity

Trade in wildlife and timber products follows specific international commitments made by the European Union and Indonesia. The Convention on International Trade of Endangered Species (CITES) is a multilateral treaty signed in 1973, which aims to protect endangered plants and animals by regulating the trade of those species. It accords varying degrees of protection according to 3 appendices to more than 29,000 species of plants and 5,000 species of animals. Indonesia joined CITES in 1978, different European countries between 1978 and 1985.

More recently, Indonesia (2013) and the EU (2014) have also ratified the Nagoya Protocol on Access and Benefit Sharing to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization, which is a supplementary agreement to the Convention on Biological Diversity adopted by the parties to the convention in 2010. It provides a transparent legal framework for the effective implementation of one of the objectives of this convention: the fair and equitable sharing of benefits arising out of the utilisation of genetic resources. The EU elaborated its own rules for the application of the Nagoya Protocol, which underline due diligence. This Convention deals with endemic species only, giving rights to local communities and supplying states, in this case Indonesia.

Codes of conduct and technical regulations

Some major retailers have put in place codes of conduct for their suppliers, as part of their own corporate social responsibility. This is the case with French company Maisons du Monde and British Crate & Barrel. Indonesian companies such as Dipantara, a small wood trading business in the Javan province of Yogyakarta, have developed a group business model aimed at helping smallholder farmers in the region. It provides training to farmers, helping them to estimate teak volumes and calculate sustainable harvest levels. In 2014, it partnered with 96 farmers' groups in 20 villages, working with nearly 8,000 farmers.[28]

Textiles are also subject to technical sectorial regulations, such as: resistance of colours to daylight (natural dyes are reputedly less resistant to daylight than chemical colours), resistance to fire, resistance to washing, resistance to friction for upholstery (Martindale test), etc.

Voluntary certification

Both social and environmental sustainability are becoming market advantages. Voluntary certifications, such as FSC or PFCE labels for forest products, organic agriculture for farm products, and Fair Trade Mark for craft products offer market opportunities. All those regulations have recognised international standards and are strictly controlled by private inspection bodies, which importers and usually producers also have to pay for.

In some cases, like wood, these certifications are becoming increasingly common requirements by European importers. Textiles also have voluntary certifications, which often cover industry technical requirements, like Oeko-Tex. Textile Exchange among other standards ensures the traceability of organic cotton.

However, the upper end of the market, including the project market, often relies on one-to-one relationships, which do not require third-party certifications.

2.1.5 Business services

The **Ministry of Industry**'s General Directorate for Small and Medium Industries has several programmes aimed at SMEs, including: (i) support to investment for restructuring equipment of SMEs, with refunds of 30% of the value for Indonesian equipment and 25% for foreign equipment, and (ii) e-smart, a system linking SMEs to existing online marketplaces. The volume of transactions generated is still modest,[29] but this system is developing. These programmes are relevant to SMEs of the HD VC operating downstream.

MoI has developed a partnership with CBI since 2013, supporting 24 SMEs in the process.

Regarding the upstream VC, MoI has set up Rattan Innovation Centers in Sulawasi (2014), Paly City (2018) under the PIRNas (Indonesian Rattan Innovation Center) programme.

Handicraft Councils (Dekranas) are active in the HD and HT, particularly at the level of training in handicraft skills and coaching individual women.

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[28] https://www.theguardian.com/sustainable-business/indonesian-teak-farmers-traceability

[29] With a total of IDR 320,462,940 for 7 sectors (€18,655 at 13 September official rate) according to the General Directorate figures presented on 4 and 5 September 2018.

Banks provide useful business services, such as loans. However, many HD companies prefer operating on family or personal funds. Bank loans are useful to have access to more significant capital, necessary for developing a company's production. Banks can advance the funds necessary for purchasing machines, creating stocks of raw material and manufacturing before actually shipping the products. Most companies complain about the storage surface necessary in the HD sector. Loans can be part of the solution. The preference of SMEs for personal or family capital can limit their development and investments when useful. One company in Yogyakarta benefits from a four-year loan at 9% a year, representing 30% of its working capital.

Buying agents have direct contact with purchasers in importing countries and usually charge 15% of the value of the merchandise for their service. Their rights are protected by legal contract in the importing countries.

HIMKI's mission is to encourage the growth, innovation and creativity of businesses in the field of Indonesian furniture and craft. As part of its strategy, HIMKI has organised Indonesia's International Furniture Expo IFEX in cooperation with Kompass Group, since 2014, generating more than $1 billion in transactions.

Provincial and district level **Handicraft councils** (Dekranas) provide services in promotion of craft production and exhibitions. This role is developed in the section on the HT value chain.

2.1.6 Development partners

The **World Wildlife Fund** (WWF) has developed a program on rattan in Laos from 2006 to 2017. It has supported the Forest Stewardship Council in the development of norms for sustainable rattan forests. Those norms and this experience could be of interest to actors involved in the upstream part of the VC and those concerned with traceability and responsibility along the whole value chain.

The **International Network for Bamboo and Rattan** (INBAR) is the only international intergovernmental organisation based in the Republic of China. It gives access to research on bamboo and rattan production, including sustainability and social impact-related issues.

HIVOS, a major Dutch development cooperation NGO, which managed a largescale project in 2013-2017, financed by the EU, under the title 'Promoting sustainable handwoven eco-textiles in Indonesia and the Philippines' or Handwoven Eco-Textiles (HWET).

The Swiss State Secretariat for Economic Affairs is currently funding the Indonesian-Swiss Intellectual Property Project (2017-2020) focused on issues of intellectual property rights. This project supports producers of GI value chain products with tailor-made trainings on market access, quality control, and organisational development.

BEDO, a foundation for the development of exports, is supporting Indonesian SMEs to face challenges linked to exporting. BEDO is a partner of CBI, participating in the current study.

CBI supports SMEs in developing countries to improve their access to European markets, by conducting and publishing sectorial market studies, and conducting training and coaching programmes targeted at those SMEs.

2.2 Textiles from NTT for home textile

2.2.1 Main actors involved in the value chain

As mentioned previously, the HT sector for NTT textiles is a sector that is still developing. It can be seen as the junction point between the need of traditional weavers to diversify their revenues through the opportunity represented by the heritage of handwoven textiles, and the demand of a segment of the HT market for higher value-added products. Several players are facilitating its emergence (2.2.5).

Actors of the emerging HT sector for NTT textiles

1. **Primary material providers**

   Those are mainly: threads (cotton and silk), and dyes, chemical or natural.

   Commercial cotton is often bought from local merchants, who purchase it from importing companies based in Surabaya. The origin of the cotton is not always well documented, its quality even less, including its GMO or non-GMO status (none bear organic certification). Most imports of cotton seem to come from India. The price of commercial cotton yarn in East Sumba is IDR 90,000 for 1 kg. Commercial silk is bought through the same channel, probably originating from China.

   But cotton is also produced in the community, which makes the final product more prized. Four cotton trees are sufficient for the needs of one woman weaver. Local cotton is spun within the community.

   Chemical dyes are also purchased through local merchants and shops.

   When natural dyes are used, they are generally produced as much as possible within the community or acquired at neighbouring sources in the same island. Dryer areas are more favourable to indigo, one of the most prized natural dyes.

   In the same area, a usual fee for the colouring process per piece of ikat fabric is IDR 200,000, showing that some transactions between different NTT areas take place. Prices for natural dyes have doubled in recent years, showing the strong market interest for these types of dyes, which represents an obstacle for those who do not produce natural dyes themselves.

   Natural dyes also require mordant, a substance that fixes colour to cotton or silk. Those are produced from local plants, or purchased through Threads of Life.[30]

2. **Weaver communities**

   Are the central actors of the upstream value chain.

   Based in local villages were the population follows a set of traditional cultural values, weavers are essentially women, though some men may now weave, seeing the success of the activity. Men have a part to play besides women in the production of natural dyes, and also in the promotion of textiles. Weaver communities:

   - produce or purchase cotton (women);
   - purchase chemical dyes or produce natural dyes (men and women);

[30] See box on Threads of Life, page 24.

The most common natural dyes are extracted from the following plants: *Indigo tinctoria* (blue), *Morinda citrifolia* (red), and *Curcuma domestica* (yellow). Green may be produced by a mixture of blue and yellow, or by infusion of leaves of another plant, and different shades of blue and even black by dying the textile several times in indigo.

- produce textiles following traditional techniques, traditional or inspired patterns (women).

3. **Designers and market facilitators**

Are seen as necessary to build the HT NTT communities value chain. Designers or facilitators:

- are in close contact with HT market players (retailers, hotels, exhibitions, collectors, etc.);
- ideally have informed themselves regarding traditional textile techniques and patterns by visiting weaver communities;
- suggest adaptations of traditional textiles to the local communities.

4. **Order givers / aggregators**

Can be found in NTT islands or in urban areas and are of different nature, they work differently and play different roles:

- village leaders holding local shops in Lombok and other places orally transmit orders to women weavers working in their homes or in the shop, to respond to existing or expected orders;
- weavers' associations and cooperatives (like Na'Ni House) train and organise weavers, and encourage them to improve techniques using natural dyes and local cotton, inspire quality management systems and act as a cooperative interface with the market;
- handicraft councils provide technical training, but know little about market approach;
- urban retailers and brands.

Many of these actors, especially weavers' associations and cooperatives and local shopkeepers sell traditional textiles from the area on consignment.

Margins of commercial aggregators in East Sumba, one of the most prized origins, are around 40 to 50%. In Sikka, Na'Ni House charges a 30% margin over the cost for its services (meaning a 23% margin).

Margins of retailers, brands are evidently much higher. Those of collectors speculating with traditional textiles can multiply the price of pieces three or four times.

2.2.2 Dynamics of the value chain

As described above, the dynamics of this value chain can be seen as the result of the articulation between an **upstream movement** – that of traditional textile – and a **downstream movement** – the markets of HT and of garment creating demand. This two-stroke engine is what drives progressive changes and market adaptation within traditional textiles manufacturing.

Because the demand for HT from NTT textiles emerges only as the rich textile tradition of NTT gets exposed to national and international urban centres, and because those two worlds are quite different in terms of pace, norms and working styles, building a sustainable and dynamic HT value chain for NTT is bound to take some time. But several clues show us that this development is currently happening: (i) the success and visible impact of the HWET project in NTT, and (ii) a decided shift towards the higher end of the market, with natural dyes and hand-spun cotton are the most obvious.

Currently, the main actors of this VC are the weaver communities and their organisations. These are really proactive in reviving and promoting traditional techniques and patterns.

Support organisations, such as the Handicraft Councils at provincial (NTT) or district level, foundations such as Donders and CTI are bound to play an important role in facilitating the emergence of this value chain.

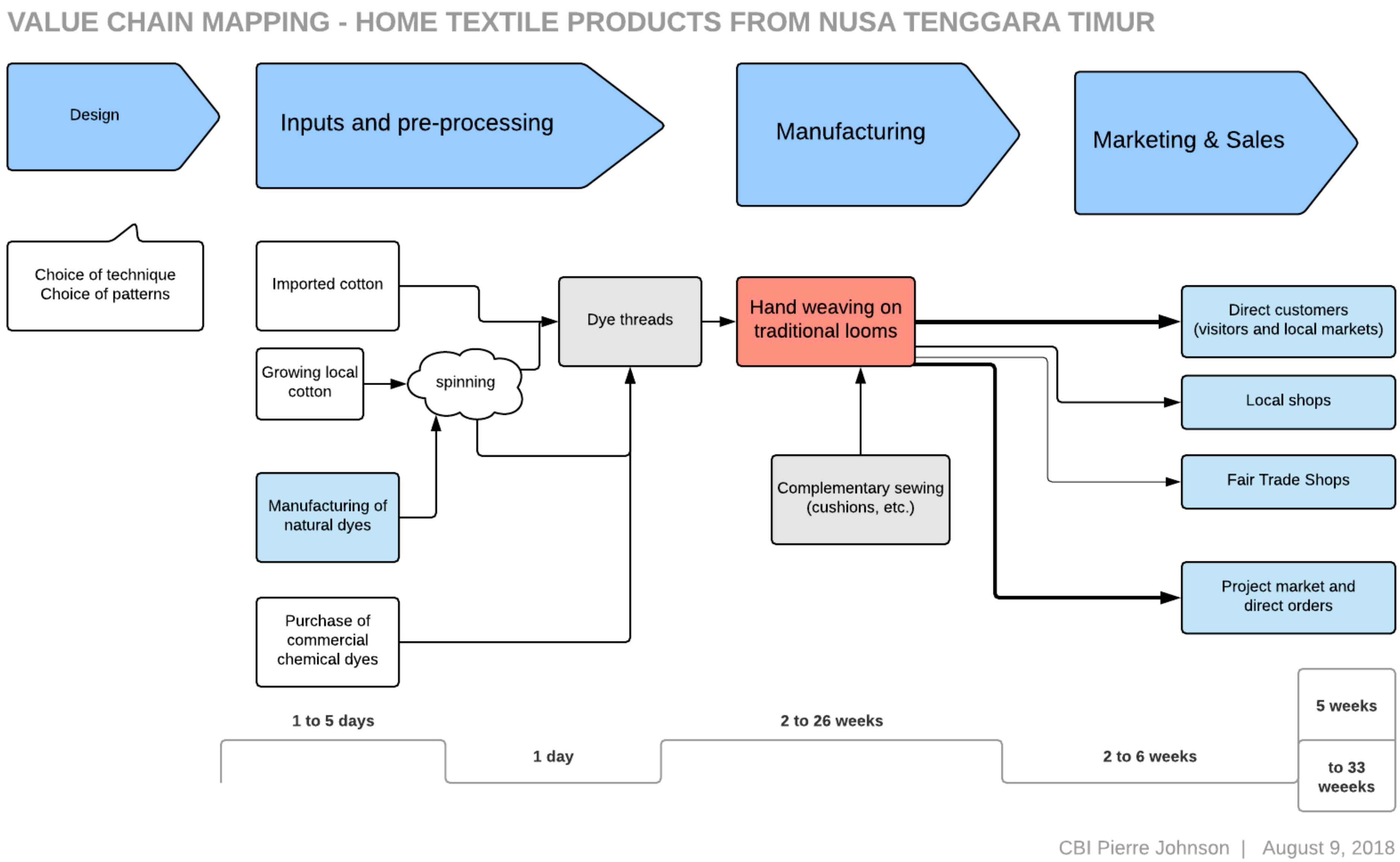
Social enterprises, designers and other mediators can play a pivotal role in the emergence of a value chain which answers to the requirement of urban markets. These companies can communicate specifications for HT products, such as cushion covers or spreads, and organise the technical operations necessary to produce a finished HT product from original handwoven textiles. Combining the skills of handweaving communities from the NTT with the sewing capacities of complementary workers in Bali and Java will contribute to the successful building of this VC.

2.2.3 Map of the value chain

The map in Figure 2 (repeated in Annex III) shows the relationships and linkages between the VC actors. The structure of the value chain is currently not stabilised, as market linkages with the final markets are weak. The roles of designers and support organisations are still to be defined and will depend on relationships between players. Thus, complementary operations (sewing), as well as marketing and selling functions still do not fill the gap required for the value chain to be fully functional. As a consequence, producer communities often have significant stocks unsold.

Complementary explanations are given in Annex III.

Figure 2 : Value chain mapping – Home textiles from Nusa Tenggara Timur



2.2.4 The export environment

Tariffs: This sector benefits from the general exemption of tariffs on the import of handicraft products in Europe.

Standards for textile are more comprehensive once textiles and additives to them are differentiated. In this sector, like for all imported goods, the REACH regulation applies.

Particular attention must be paid to the following components:

– Azo dyes used particularly for textile products; monitoring of the contents of chemical dyes is necessary.

– Flame retardants, including TRIS, TEPA and PBB, if those are ever used more downstream of the VC.

2.2.5 Support partners

Support partners in this value chain are development partners. Private service providers do not operate in this VC, because of its narrow economic basis.

Support partners established in the NTT islands are:

Provincial and District-level Handicraft Councils (Dekranasda) support weaving communities and techniques. Their approach is more social and technical than market-oriented, but they do contribute to the participation of weavers in exhibitions in Jakarta.

ASPPUK, the Association for Women in Small Business Assistance, which was a key partner of the HWET project for Indonesia.

Support partners in Timor island

Timor island hosts Kupang, capital of the province of Nusa Tenggara Timur. As such, several governmental institutions supporting weaving communities and organisations are represented in this city.

- Dekranasda Nusa Tenggara Timur – Handicraft Council of the NTT province is the most important of those organisations. It actively supports traditional weavers, but also craftspeople in natural fibres. It brings the following services to the craft sector: promotion, exhibitions, technical training, invitation of designers from Jakarta to follow urban trends.
- Several weaver cooperatives are based in Timor. They support community groups in specific villages.

Support partners in Sikka, Flores

- Cooperation from the Swiss Federation has been proactive in setting up the first Geographical Indication in Indonesia related to weaving, together with the DGIPR of the Republic of Indonesia. It is hoped that this GI will be instrumental to the protection and the promotion of Sikka weaving techniques and patterns.
- Players such as Na'Ni House have been described above as aggregators. They also bring support services to weaver communities, but only to members.

Support partners in Sumba

West Sumba is characterised by a social structure in crisis, due to a difficult confrontation of tradition (*adat*) with modernity. Poverty is widespread and violent conflicts are not rare. This explains that supporting institutions, often linked to the Catholic Church, operate in a variety of fields: agriculture, social work, etc. For the sector we are concerned with, some of the main institutions are:

- Dekranasda Kabupaten Sumba Barat - Handicraft Council of West Sumba.
  Provides training to weavers, to help build SMEs based on traditional weaving and the use of natural dyes for women, or bamboo craft for both men and women. The handicraft council also helps weavers source cotton threads of higher quality (thinner and more resistant). However, at the moment, no specific training is given on trade or business aspects. Training is mainly technical. 500 weavers are registered in this district.

- Donders Foundation
  Founded in 2010, this private foundation with a staff of 37 works on all kinds of projects supporting local livelihoods. Farming is an important activity, with commodities (cocoa) and agroforestry projects, as well as construction, water access, street children support and micro-finance. Adopting an Asset Based Community Development (ABCD) approach to local development, the foundation has tapped into local resources (bamboo, wood, roots of epiphytes) to contribute to local construction. The foundation also supports 9 weaving groups of 20 weavers, and promotes the use of natural dyes. The production incentivised is that of small poaches sent every 6 months to the Netherlands, for IDR 50,000 each, and bags at IDR 175,000.

- Sumba Cultural Research and Conservation Institute
  This institute is the outcome of an important project conducted since 2000 by Father Robert. By September 2018, an important cultural complex will have been finished on a property of 50 ha, comprising a Museum of Sumba Culture, a Museum of Sumba Textile, a conference room and 15 private rooms for rent.

  The Centre facilitates the promotion of traditional Sumba textiles through the participation in exhibitions and fashions shows with a selection of weavers from East Sumba. Weavers sell at those exhibitions for their own individual benefit, often at very high prices. Some renowned weavers are collectors as well, and have houses in Kupang and/or Jakarta. Some non-local collectors behave in a way that can be qualified as unethical, speculating on Sumba textile prices just as collectors speculate on famous painters. This underlines that the Centre does not have a reflexive market approach. Its criteria are essentially upstream, with three criteria: natural dyes, patterns with meaning, quality of weaving.

Institutions that support the VC more globally have already been mentioned. Partners of the former HWET programme, such as HIVOS, may be contacted. The Swiss Federation and CBI will potentially support the VC.

2.3 Sustainability challenges of the value chains

2.3.1 Social challenges

The HD and HT value chain are confronted with significant social challenges.

- **In HD from wood and fibre**

In the downstream part of the HD value chain, social challenges are linked to work relations, particularly in the sub-contracting network. The study on 'Employment relationships and working conditions in an IKEA Rattan Supply Chain' (2015), carried out for the MAMPU Programme supported by Australian Aid and ILO, gives a fair account of those challenges, which can probably be generalised to most of the value chains in the rattan industry.

This study details the central structure of the value chain, which we have compared to an ecosystem of suppliers, subcontractors, etc. Three types of working conditions seem to be clearly distinguishable: workers working at the subcontractor's facility, workers working at home, and workers working at weaving centres. The choice is made by the company but also by the worker, as each situation represents different sets of advantages and inconveniences.

The most important challenges are linked to the payment structure of the sector, based on a payment by piece produced (piece rate),[31] and not on a daily or hourly wage. Payment by piece is linked to the minimum wage in the district through a calculation of optimal daily production, which does not include breaks or technical problems. As a result, more than half the sub-contracted workers interviewed for this study earned less than the minimum wage.

Women are paid less than men, although it is unclear whether this is because of their lower availability or productivity, of for another reason. Home workers should have a higher payment by piece, to cover additional expenses and the procurement of raw material, but this does not always seem to be the case. They are also worse off in terms of security and health at work. This situation is particularly alarming considering that IKEA has a code of conduct called IWAY, which it imposes on its subcontractors and which guarantees workers' rights in principle. Challenges are probably comparable in the wood HD industry.

The meagre revenues in the sector represent a social problem. We have not been able to interview workers or their representatives to evaluate if the situation was identical in the HD sector operated by Indonesian companies. However, particular attention should be paid to these labour aspects, which should be evaluated and monitored in any project supporting to the sector.

The upstream part of the VC is rife with challenges invisible to upstream players and buyers alike. They are related to collectors' and wood producers' labour rights, like minimum income. There is a general lack of information on the revenues or status of workers' rights upstream, which contributes to a lack of traceability for raw materials.

Child labour may be a risk in the collection of rattan and other fibres (signalled as such by Vivere). It is not identified as a risk for the wood industry, organised professionally, nor for textiles, as weaving done at a village level, as part of the traditional more than for the market.

[31] The same information came out of BEDO company assessments, most companies declared payment based on piece rate.

Photo 7 A workshop in Yogyakarta, where basic health and safety standards are met

- **In the emerging HT value chain**

In the HT sector, most workers are home based; weaving for the HT sector is an extension of a traditional activity. According to ILO conventions, home workers should have the same rights as factory workers. This makes it necessary to establish fair prices, on the basis of a study of the work provided at the different stages of the production of textile, from producing natural dyes and possibly local cotton to weaving and sewing.

The **collective value** of traditional patterns is also to be considered, as discussed based on the example of the Sikka tenun geographical indication.

There are also challenges in terms of capacity development, in sewing for example.

2.3.2 Environmental challenges

- **In HD from wood and fibre**

Wood and fibre industries face similar challenges, but at a different level of criticality.

The challenge appears to be most critical for wood, where SVLK certification is valuable.

Apparently, it is less critical for fibres. But monitoring of the resource abundance and its evolution, at national and provincial levels, is certainly required.

Environmental challenges for wood

Worldwide, the timber industry is confronted with an increased consumer perception of environmental and social sustainability challenges. Though Indonesia does not escape from this emerging consciousness, the furniture and decoration sector is relatively much less exposed than other national sectors related to forestry, such as the palm oil industry.

According to the FAO (2015) Indonesia has around 91 million hectares of forested land, accounting for 53% of the total land area. Around 86.1 million hectares are primary or naturally regenerated forest, and around 4.9 million hectares are planted forest. More than half of the Indonesian forest area is production forest, most of which is owned by the state (86.9%), the remainder being titled forest. The state appears as a major actor (regulator).

According to ITTO (2015) the Indonesian industry produced about 67 million m^3 of roundwood in 2014, which is almost entirely used within the country. The export of primary timber products accounted for a total export value of $2,593.4 million in 2014, with plywood being the most important product. The country has been suffering from illegal logging for decades, but it now has an efficient system to verify the legal status of products exported to the European Union (detailed below).

However, the furniture and craft sector is facing a scarcity of resources in teak wood. Perhutani can supply less than a third of the demand of Central Java's industry in teak. The situation is explored in more detail in part 3 of this report.

Types of wood used

The main timber species used in the HD sector (small furniture) are teak and to a lesser extent mahogany.

'According to industry and government officials, the bulk of timber used as an input to wood furniture products from Central Java is teak – estimated at roughly 80%. The remaining 20% includes mahogany, *waru* [Hibiscus tiliaceus], and sonokeling [rosewood].'[32]

Teak (*Tectona grandis*) plantations are relatively ancient in Indonesia, although the species is indigenous to mainland South-East Asia. This deciduous tree has been planted by the Dutch on the dry, hilly terrain of Indonesia during colonial rule. It is well adapted locally and many teak plantations of the colonial period are still in existence today. Thus, from an environmental perspective, the main issue is good management of the teak plantations. Teak has a very low rate of growth and thus rotation age (40 to 80 years), and plantations are aging.

State-owned company Perum Perhutani 'presides over the largest man-made teak forest in the world, totalling almost 1.1 million hectares, split into 650,000 hectares in production, in other words actively managed, and 450 hectares that are "protected", encompassing fairly inaccessible plots that are not logged, and old plots that are unmanaged and regenerate naturally.'[33] Persero Perhutani is active on the island of Kalimantan.

The state-owned company follows legal and sustainability standards. However, official figures show that teak timber production is dwindling, with Perhutani producing only one third of the national demand for quality teak. Local communities manage teak agro-forests amounting to 160,000 ha.

CIFOR has published a *Field guide for farmers managing smallholder teak plantations* in 2011, which may be useful. However, the document does not mention market instruments, such as sustainability certifications.

Indonesian **mahogany** is a species known scientifically as *Toona sureni*. It comes from the tropical forest of the Papua province. Parent of the better-known mahogany from tropical America (genus Swietenia), both are of the Meliaceae family. Mahogany is extremely popular in the Unites States of America, while 90% of the wood coming from its main supplier, Peru, is illegal. In the Philippines, mahogany plantations are considered invasive. User companies should check the sustainability status of the mahogany they are using.

Reclaimed wood is a growing trend. Several companies in Yogyakarta use discarded teak roots as primary material, resulting from plantation renewals, through partnerships with state-

[32] Ewasechko, A C (2005), Upgrading the Central Java Wood Furniture Industry: A Value-Chain Approach. ILO.

[33] CIRAD, the state of teak (*Tectona grandis* l.f.) plantations in the world, 1999.

owned company Perum Perhutani. Creative use of teak root can yield premium products, while focusing on sustainability.

So-called ‘recycled wood’ is usually furniture from fresh-cut wood that is made to look old, supplying the *vintage* market.

- **Legal and market answers to timber sustainability issues**

SVLK: legality verification

Illegal logging and its associated timber trade have been occurring in Indonesia since the after-war boom of exploitation of the country’s rich natural forests. ‘Since the end of the 1990s, (…) illegal logging has been viewed as one of the most chronic forestry problems in Indonesia and therefore been placed as one of the country’s top political agendas.’[34]

In September 2013, Indonesia became the first country in Asia to sign a voluntary partnership agreement with the EU, a bilateral trade agreement aiming to improve forest governance and ensure all timber and timber products exported from Indonesia to the EU are legally sourced. The country set up a legality assurance system, the SVLK, which covers all commercial timber and timber products produced, processed and purchased in the country.

The first Indonesian FLEGT licenses have been issued on 15 November 2016. Licensed timber automatically meets EU Timber Regulations. The SVLK also applies to timber-based exports to other countries, which are accompanied by V-Legal documents.

Nowadays, the Ministry of Environment and Forestry (MoEF) is responsible for the control of forestry practices against sustainability and legal standards. In 2009, the Ministry of Environment and Forestry (MoEF) started to implement legality verification through SVLK certification as a policy instrument to combat illegal logging. The regulations classify the standards into two groups: standards for sustainable forest management (SFM) and standards for legality verification. The Forestry Act No 41 of 1999 stipulates that extraction of forest products must not exceed the forest’s carrying capacity, thus introducing sustainability criteria into forestry.

‘SVLK relies on auditing processes against a set of governmental standards by an independent verification body. Although the scope of the standards covers a wide range of issues such as harvest rights and cutting permits but also labour rights, environmental protections and social impacts, SVLK emphasises the adherence of the national legislations.’

Most of the companies of the sector we met emphasise their adherence to SVLK certification, as a guarantee of legality and sustainability.

FSC: voluntary sustainability certification

The legality status of forest exploitation does not guarantee its management is sustainable. The Forest Stewardship Council was set up in 1994 with the objective of protecting forests worldwide, including plant and animal species, indigenous community rights and forest workers’ safety. Its standards cover all of those aspects. FSC is the best-known sustainability certification for forest products, timber and non-timber, and seems to be preferred by European buyers seeking sustainability.

Indonesia counts 2,902,790 hectares that are certified by the Forest Stewardship Council, the leading forest certification outside Europe, making it the country with the largest certified area outside Europe and North America.[35] Many of the 37 certificates are provided to the pulp and paper industry, which is of no relevance to this study.

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[34] *Choosing timber legality verification as a policy instrument to combat illegal logging in Indonesia*, op. cit.

[35] FSC Facts & Figures. July 2, 2018.

- **Environmental challenges for fibres**

Many **fibres** are used in the furniture and home decoration sector in Indonesia. The most common is rattan. A complete list of fibres is provided in Annex VI. More explanation is given in section 1.2.1. The dynamic of rattan collection has been well described by researchers, who conclude that overall, rattan collection is environmentally sustainable, because it grows in and is dependent on natural forests. The collection dynamic is less well described for other fibres (Lontar, Water Hyacinth, Pandanus, etc.), though appropriate research could lead to reliable data. Presumably, the dynamic of collection is not very different than for rattan, with independent rural workers working independently, to sell to traders of raw material.

An estimated 90% of Indonesian rattan is harvested from natural forest while limited varieties are cultivated. Rattan collection is environmentally sustainable if managed well. An annual allowable cut (AAC) is determined for each species of rattan in each province. In 2002, the AAC amounted to nearly 53,000 tons, while rattan material export was 42% of that amount.

Chain of responsibility

Usually, manufacturers do not have direct contact with collectors of fibres or producers of wood. The traders of raw material (wood and fibres) are the only actors to be in direct contact with producers or collectors upstream and manufacturers downstream. Traders would thus have an important role in the regulation of the upstream part of the value chain. The FSC certification has a mechanism of Chain of Custody (CoC) which guarantees the traceability of the product (timber or fibre) from the forest to the customer. Alike, SVLK-certified wood in principle holds a guarantee for the customer of legality at its source. However, this does not guarantee a direct traceability from source to the product.

With this in mind, social responsibility in the sector is satisfied through a process labelled 'due diligence' in the EU, meaning importing company are trusted to monitor their suppliers for critical actions. Most end-user companies in home decoration and furniture have a CSR policy, and some larger furniture companies hold certifications, such as FSC and PFCE, while all medium-sized companies hold government certification SVLK.

- **Environmental challenges for textiles**

Textiles face specific environmental challenges.

Because most of the thread is imported from other countries (India, China) without traceability provided by suppliers or sellers, the upstream environmental challenges are difficult to map. Leaving those aside, most of the environmental challenges of HT are local, and relate to the impact of chemical or natural dyes:

- Chemical dyes may have impacts on local water quality, and subsequently on human health. No proper water treatment facilities have been observed.
- Most communities are moving to natural dyes, to position the product in the higher end of the market. Natural dyes have lower impact on the environment, but they rely on resources which should be renewed.
- For example, the collection of the root bark of the *Morinda citrifolia* tree must be monitored so as to allow the resource to be renewed.

The Good Tenun Practices document gives guidelines to answer those challenges, under its first chapter 'Environmental Sustainability'; which includes the following sections:

A. Procurement of raw materials, auxiliary materials and additional materials

B. Water resource management

C. Solid waste and effluent management

Mapping of the challenges is included in the maps in Annex IV.

3 OPPORTUNITIES AND OBSTACLES TO THE DEVELOPMENT OF A SUSTAINABLE VC

3.1 HD products from wood and fibre

Opportunities for the HD sector have been examined in the first part of this report in terms of 'value chain competitiveness of Indonesian products'. Hence, we now provide a summary of the most important internal and external factors identified. We then have a closer look at obstacles and challenges, as those will guide the formulation of appropriate strategies for the sector.

3.1.1 Opportunities

External opportunities:

- A supportive market exists for HD from wood, fibre and recycled materials in Europe and worldwide. Natural materials are trendy and to a certain extent insensitive to fast market changes driven by fashion. This trend has been sustained for several decades, and should be in the future.
- Interesting market segments ate identified by CBI studies, which match with the specialisation of many targeted SMEs in the HD sector in Indonesia (see part I).
- Indonesia is a maritime power, with several international ports, which are close to major sea transport hubs in Singapore and China.
- MoI General Delegate for SMI's programme supports investment in machine equipment by refunding 25 to 30% on purchase.

Internal strengths:

- An important upstream availability of a wide range of raw natural materials (wood, fibres, mother-of-pearl), through large forest (teak, rattan), lake (water hyacinth) and coastal areas (mother-of-pearl).
- Downstream, a consistent wood and fibre sector industry, with a network of SMEs organised in hubs (Surabaya, Yogyakarta, Cirebon), thus mitigating the limitations of infrastructure.
- An important availability of labour, relatively skilled for the manufacturing sector.
- Artisan know-how in fibre weaving is still important.
- Some companies are participating in the fair trade movement, as WFTO members. This should give them better access to European markets and fairer prices.

3.1.2 Obstacles

From external constraints to internal weakness:

Poor general state of national infrastructure

According to the World Economic Forum (WEF)'s Global Competitiveness Report 2016-2017, Indonesia's infrastructure is globally weak, ranking 60th out of 138 countries. It has however moved up two positions in a year, reflecting the effect of the current administration's plan for 2015-2019 to increase infrastructure funding by nearly $10 billion a year. It may be feared that most of this investment is directed to metropolitan areas. The inter- and intra-island trading network in Indonesia is still weak, which has resulted in the past in inflationary pressures on domestically produced products, including fibres.

The state of Indonesia's infrastructure has an impact on transportation and other overhead costs. For comparison, a logistics company participating in the validation workshops mentioned a cost of over €1,000 FOB per containerload to France from Surabaya, the main port of export for HD. This compares with costs of €500 to 600 from China's main ports.

Indonesia ranks 58th in institutional development, according to this report, while it ranks at 30 for macroeconomic environment and at 42 for financial market development. Globally, the market and infrastructure environment are supportive at a medium level, and this tends to improve.

Support for investment in equipment by MoI (see parts 2 and 3) is interesting insofar as HD companies are involved in machine equipment (as Siji Lifestyle is). However, investment in human resources and technical training require other types of support or policies.

Unsustainable wood and rattan supply

The furniture and HD sector is facing dwindling resources in teak wood, its favourite and most abundant species, and structural issues in rattan supply, despite its renewable quality.

The demand for teak wood from the Central Java wood furniture industry is estimated at 1.8 million m^3 per year, of which Peram Perhutani, the state company, can only supply 300,000.

AC Ewasechko from ILO[36] estimates that the remaining comes from:

(i) illegal logging from the Perhutani plantations;

(ii) community/private forests;

(iii) Indonesian outer islands (Sumatra and Kalimantan being the main source of non-teak wood); and

(iv) imports from other countries, such as Burma and Thailand.

According to companies in the HD sector, one of the main challenges facing the sector is linked to the upstream governance of the rattan value chain. Despite the ban on all exports of raw rattan, illegal export is still occurring, to other producing countries (allegedly Singapore, Malaysia…). The trade of raw rattan is dominated by a cartel of traders, which is described by some actors as a 'mafia'. As a result, prices of raw rattan are unstable and high on the national market, and sourcing rattan now represents a real challenge.

Vivere, an important buyer, states currently bulk raw rattan prices are between IDR 17,000 to 30,000 per kilo, depending on the quality.

According to several studies, the ban mostly benefited a small number of well-connected companies, while having little effect on illegal trade. Currently the Ministry of Industry and the

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[36] Ewasechko, A C (2005), ibid.

Ministry of Trade have different lines, the latter supporting the enforcement of the ban, while the former would be in favour of lifting it.

The precise results of the ban are difficult to assess statistically, because there was a change of definition in finished products classified as rattan in 2011 (mixed material furniture are all included) as well as discrepancies between import and export data.[37] However, most companies underline the current difficulty in sourcing raw material (rattan, wood).

A need for sustainability certification to reassure consumers

Environmental sustainability is a much less pressing issue for fibre-based products than it is for wood, as fibre production is globally perceived as sustainable, a perception supported by scientific studies. Even in the case of the main fibre used, rattan, most of the production comes from natural forests, and the exploitation of rattan, not a keystone species, has limited impact on biodiversity. However, good practices for rattan collection have been elaborated by NGOs such as WWF, working with rattan communities in continental South-East Asia. In the case of plantations or ecosystems at risk, sustainability certifications will reassure customers.

The FSC certification is the leading certification for timber and non-timber (like rattan) forest products in Europe. A significant part of retail clients in Europe require it. In general, SVLK government certification is seen as sufficient, but is also seen as expensive by SMEs.

On the social front of sustainability, some companies participating in the validation workshop in Jakarta have benefitted from the World Fair Trade Organisation Guarantee System, established in 2013. This is 'an assurance mechanism that Fair Trade is implemented in the supply chain and practices of the organisation'.[38] Members that passed this process may use the WFTO label on their products, which can be an advantage on European markets. Among the criteria for WFTO certification is prefinancing by clients,[39] up to 60% of order value. However, participating companies in Jakarta said that buyers in Europe have refused to prefinance orders. Non-compliance can be reported on the WFTO web site.

Cost of SME compliance

Several SMEs of the HD sector interviewed and present at the validation workshops in Denpasar (Bali) and Jakarta have complained that the costs of compliance of their processes and products to European norms (safety, security, health), including audits, are usually paid by the producer company from Indonesia.

Though this statement may reflect the reality of high costs and low access to credit, it can also be seen as the expression of the lack of experience of those SMEs in exporting to Europe. However, it must be observed that most of those audits are done in Jakarta, were services are more expensive.

Fast market evolution vs weak market approach

The HD and HT markets in Europe and in other Western countries are defining their trends faster than in previous decades. Preferences for materials, shapes and colours may change once or twice a year. Thus, the market needs to be constantly monitored by SMEs in the sector, if they want to capture part of its value. The impact of this evolution cannot be underestimated. Companies who develop relations with European importers benefit from limited margins (a 10 to 15% average is mentioned in the sector), and tend to put pressure on subcontractors and home workers, who benefit from much more reduced margins. Market coordination and value chain cohesion will be necessary for the sector to evolve sustainably.

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37 Myers, R. (2015).

38 https://wfto.com/standard-and-guarantee-system/guarantee-system

39 https://wfto.com/sites/default/files/Charter-of-Fair-Trade-Principles-Final%20(EN).PDF

Many SMEs do not monitor the markets as this evolution would require. The impact is that sales are often behind production capacity. This is partly an issue of a generation gap, between companies that have relied for decades on demand repeated year after year, and younger companies more attuned to the market. The first type has difficulties to even get information and then adapt to the changes in the market, which requires innovation and adaptation. More market intelligence and design capability than in previous years is required.

The most creative companies are better assured of their markets, and grow faster. A viable method to deal with fast market evolution is to target more stable market segments, such as the luxury market, which are more durable and give higher margins. But challenges in terms of quality for this segment are even higher than for the mid-upper segment currently targeted by Indonesian SMEs in the HD sector.

Relationship between workers and employers

In the furniture and deco industries, contracts with workers are often informal and written contracts are not even read by workers. Workers themselves favour this situation. Thus, the lack of a reliable workforce is often quoted as a major difficulty for the sector.

The situation is even more lax with home workers. This can be improved by rewarding committed and skilled workers, as well as clarifying contracts and commitments.

The level of respect for security and safety norms in workshops seems low in some companies. Home workers have none. In some companies, efficient SOPs have been written and are posted and followed.

Quality management and security regulation

The ability to control and maintain quality and delays is variable among companies. This challenge is better understood and less controversial in this sector than in HT.

This is best done through the development of a system of quality management and the specification of standard operational procedures.

Regarding products such as chairs, stools and furniture in general, European security regulations may in the future evolve to be even more stringent than they currently are.

3.2 HT from Nusa Tenggara Timur

As for the HD sector, opportunities have been examined in the first part of this report in terms of 'value chain competitiveness of Indonesian products'. For the same reason, opportunities and challenges are analysed in greater detail hereafter.

3.2.1 Opportunities

Handweavers' know-how, unique patterns, appreciated in Europe

Weavers from NTT island have excellent know-how in weaving and hand dyeing techniques, which represents the most valuable strength of this VC. Those traditions have been appreciated for a century by Europeans, and adaptations to HT are not new, even if they are not massive either. Handwoven and naturally dyed textiles are highly appreciated in Europe.

The level of knowledge and effective production of natural dyes in the NTT has grown in the past years, with the support of efforts such as the HWET conducted by HIVOS, with the involvement of Cita Tenun Indonesia and ASPPUK. This fact is promising for future market developments, as consumers in the higher end of the market are looking for qualitative, original products with unique value in terms of their cultural and material content.

Sumba, Timor and Flores and most NTT islands have unique patterns, expressing authentic cultures. The story behind the products and their patterns are of high value on the market.

The Sikka weaving Geographical Indication is a recognition of the unique characteristics of this craft, and its link to the territory. Other areas and communities could benefit from the same type of recognition.

There is a large basis of traditional weavers in NTT, an estimated 52,000 women, eager to continue using their weaving skills, and open to explore new markets.

Market connections

Indonesia has social entrepreneurs willing to build missing connections between traditional weavers and the market, workers with complementary skills such as sewing in other islands than NTT and designers willing to contribute to the market approach. Companies and producer groups at the Jakarta validation workshop said middlemen buying and trading textiles from NTT were useful, as they know the local cultures and visit the villages to source valuable textiles. However, these traders should be better informed and involved in fair trade contracts.

Market emergence is under way

The HT market is developing at 2 to 3% per annum in Europe, faster than before. It also favours authentic and original patterns, as well as natural fabric and dyes. Traditional NTT weavers are looking for market alternatives for their products, and with support from BSO should be able to tap into this market.

A secondary market which may be interesting to explore for fibre weaver cooperatives or associations is the wall covering (wall covering, blinds, panels…) / upholstery market. Though the possibility of adaptation is still to be demonstrated, it represents a more stable market in terms of trends than fashion and HT.

3.2.2 Obstacles

Limited market approach and connections

Though weaver communities are now clearly focusing on markets outside NTT to sell their products, market access was not the traditional focus of women weavers. Weavers have always innovated, but within a given set of traditional patterns and colours. However, some groups such as Na’Ni House are bringing innovation one step further to adapt to the market.

Market connections and the presence of social entrepreneurs involved in the HT sector in Java and Bali have been mentioned as an asset for the NTT HT value chain. However, it is not yet apparent if those social entrepreneurs are aware enough of the support and efforts needed to make HT from NTT emerge as a viable market product. Entrepreneurs in HT are often designers, and, as some have recognised, need to become familiar with NTT textiles and patterns before being able to partner and present a product culturally acceptable and economically marketable. Europe may also be a less accessible market for those entrepreneurs and related producer groups than Indonesian and tourist markets. More feedback on this issue will be provided at an Indonesian HT stakeholder meeting in Sept. 2018.

Related to market connections, sourcing of quality threads is a challenge mentioned during interviews and at the validation workshops. There is a lack of connections with providers of quality cotton, usually imported and retailed from Surabaya. The market in Europe would appreciate either locally grown cotton or imported organic cotton, both being consistent with the image of a natural and healthy product. However, groups are not trained and organised to source organic or non-GMO cotton, and local cotton has limitations in terms of time and resources.

Scale and pace of production

The different pace in the dynamics of traditional textile weaving and the HT market accounts for the narrow market share of HT gained by traditional Indonesian weavers.

Traditional weavers were used to produce for personal and social events. Women still follow their own rhythm, not the market's. Their day of work is normally interrupted by other chores, such as: educating children, preparing family meals, etc. This often means that they will weave for three to four hours a day and produce a maximum of one piece every two weeks. However, some weavers produce all day out of harvest season. Even weavers producing in local shops in Lombok have a rhythm which is quite similar. The emphasis of weavers is on quality, respect for traditional patterns and techniques, not on quantity.

Imitation of traditional textiles

Imitations of traditional ikat and songket textiles from the NTT, but also from Bali and other islands, can be found nationwide, being produced at a lower cost and a lesser quality at centres such as Jepara (Java). Those are produced on treadle looms, known locally as ATBM hand-looms, which can produce textiles at larger lengths (7 to 10 meters a day) much faster than on the back-strap looms traditionally used in NTT. The material's quality is often of lesser quality cotton or polyester as well. The answer for NTT weaver groups and related enterprises can only be found in focusing on higher quality and higher market segments. This is the reason why the Sikka GI comprises criteria on back-strap loom and natural dyes.

Generation gap

A generation gap has been mentioned as a major challenge for the continuity of textile production in NTT. As other opportunities appear in the islands' cities, and part of the population gains access to higher formal education, younger generations seem less interested in practicing traditional weaving. In East Sumba, the use of natural dyes is not progressing because the younger generations are not interested in this lengthy process. As the market for textiles from NTT is still uncertain, and the VC not quite mature enough, it is difficult to attract the younger generation to the sector. A strong and coordinated set of actions will have to be conducted, if this generation gap is to be overcome.

Limited management and accounting skills

The management of local groups and cooperatives is often quite informal, being not very different from the management of the family business. The weakness of human resource management has been mentioned in the validation workshops. In some situations, the leadership of the organisation is so personalised that no changes or support is sought for by the organisation (in the case of Lepo Lerun in the Sikka area).

It is not surprising to learn that, even if they have been operating for several decades, many groups have only recently registered as legal entities.

Company and group assessments conducted by BEDO show that hardly any group has a pricing system for textiles and group, village and cooperative level, which can serve as a basis for the determination of item prices. Prices are determined by the quality of finished products and by comparative demand. Copies of designs and traditional patterns are common, except for Sikka *tenun* which benefits from a geographical indication since 2017.

Prices of natural dyes between groups that have the ecological conditions to produce them and those who do not produce it themselves are not defined on a clear basis.

Environmental limitations

Producing natural dyes takes a toll on the natural environment, and there are thus limitations to the quantity of natural dyes that can be produced without harming some species or resources. Thus, indigo is only produced in certain areas, and the use of the root bark of the *Morinda citrifolia* tree should be monitored. Limitations in the water supply have also been mentioned, and is a limiting factor for local call. Water use should be monitored as well.

Quality management, in the Western sense (respect of size specifications, stability of colours, quality of thread, zero default) is incipient in NTT.

According to one social entrepreneur: 'Weavers have their own quality management standards', relevant to traditional textiles. Those include production of natural dyes, hand spinning, respect for structure and patterns of the pieces. By combining traditional and contemporary quality management, as well as innovation, groups such as Na'Ni House are succeeding in entering the HT market.

The challenges of quality management should be taken one by one and assessed. For instance, the issue of cotton thread quality is a challenge *per se*, as many local shops sell threads of undefined quality, often mixed with synthetic. By buying directly and collectively from Surabaya or Jakarta companies, weaver groups can get more stable quality.

The Good Tenun Practices charter is an important step towards the definition of mixed management standards.

A closer look at the challenges of NTT Textiles for the targeted product segments within the European HT market[40] indicates further challenges which are specific to certain categories of products, including those targeted by this study (cushion covers and throws):

Size of textiles and standardisation

The size of traditional textiles is a case of dialogue between traditional weavers and HT designers. Traditional textiles are for the most part sarong-like clothes, which are wrapped around the waist. Their width is limited by that of the hand looms, ranging from 0.60 to 0.90 meters. This does not allow for making bed covers for instance, which are wider. An issue is to succeed in keeping given sizes as ordered by HT clients, for small series, with an acceptable margin (i.e. usually a few millimetres).

The lack of local know-how in sewing and clothing manufacture in the NTT islands seems to make it difficult to do more than basic adaptations of traditional textiles.

The HT product segments specifically targeted in the European CBI market study for HDHT, i.e. cushions covers and throws, requires some specific adaptation efforts and specific value chain linkages, as traditional textile know-how in NTT ignores sewing. This can be done internally within weaver groups, by training some women or men in this skill, or more immediately by working with social enterprises. Sewing know-how exists in general in other parts of Indonesia, such as Java and Bali. Thus, a relevant strategy would be to set up equitable collaborations to produce final products adapted to the HT market.

3.2.3 Finding an appropriate business model

The obstacles mentioned above explain why, despite their potential, HT made with NTT handwoven pieces seem to be almost totally absent from the European market. However, thanks to their value and the assets underlined above, some products are slowly finding their way, and are attracting the attention of European customers, often amateur collectors of traditional textiles. Small woven pieces are used as bed or table throws. Larger pieces are simply purchased as wall covers, with products from Sumba being the most popular.

The capacity to produce single reproducible pieces for the market is low and could remain so for a while. Typically, series of 20 to 50 identical pieces are seen as a maximum by many groups. But what seems a series of obstacles may be seen as an asset for a higher-end market segment. The handwoven and handmade quality of ikat and songket dyed with natural colours make them more adapted to the luxury or high-end hotel market than to the

[40] European market study for Home Decoration & Home Textiles - Bangladesh, Ghana & Indonesia, July 2018

retail market. Some groups have already succeeded in tapping that market, and ‘signature series’ have been commercialised.

4 RECOMMENDED INTERVENTIONS AND SUPPORT ACTIVITIES TO THE VALUE CHAINS

4.1 HD: small wooden and fibre products (small furniture and basketry)

Market intelligence and innovation, equitable sharing of value, corporate responsibility, and quality management are the four pillars of a winning strategy for the Indonesian HD sector.

4.1.1 Build a shared market intelligence

A new market intelligence is necessary for the sector to adapt to current changes in the HD market. Manufacturers with the capacity to respond to the European market and business support organisations should be particularly involved in this action.

- Selected business leaders, designers and handicraft producer organisations involved in the design and manufacturing of HD products should participate in targeted HD exhibitions in Europe, by their own means or with the support of BSO. Those exhibitions should include HD segments of specific interest to the Indonesian HD sector (furniture, baskets, boxes), including those with untapped potential, such as wall coverings from fibres.
- BSO and manufacturers should elaborate and share information on HD market opportunities in different European countries, through online reports and databases.
- Direct contacts between producing companies and European buyers is one of the best means to create market intelligence, and stimulate encouraging responses of the market to Indonesian innovation and quality endeavours.
- Understanding market trends in Europe is a starting point to stimulate SMEs towards targeted innovation, capable of responding to consumers need on the end markets (middle-high range consumers, project market). This type of innovation can be stimulated by private (HIMKI) and public (BEKRAF) organisations through appropriate contests and prices, and through the promotion of the best national examples.

4.1.2 Contemplate a VC stakeholder platform

A platform initiating a dialogue and creating sustainable links between stakeholders at different stages of the furniture and fibre craft value chain, from suppliers to manufacturers, can be a powerful tool in building a sustainable and resilient VC. Currently, most stakeholders lack awareness of their position in the VC and the asymmetry of information is high. Many challenges identified will be best solved through collective intelligence between stakeholders. The objectives of this platform, which could be facilitated by ILO and international cooperation agencies, and possibly sponsored by some private European corporation in the sector, would be to:

- solve issues linked to rattan price volatility and lobby for appropriate regulation;
- identify sustainability challenges and propose appropriate solutions;
- valorise fibre species qualities and processing know-how;
- define fair relations between stakeholders and fair pay levels and working conditions for all: manufacturers, subcontractors (equitable contracts);
  in-house workers and home workers (wages and advantages).
  Those relations can find their expression in appropriate contracts, MoUs, etc.

Based on experience, a facilitating agent, selected by the full or partial sponsor of the platform, will be necessary to set it in motion and facilitate a balanced and respectful dialogue between stakeholders.

4.1.3 Implement corporate social responsibility

Considering the risks and the current opacity of the value chain, each company governing a major segment of the VC should have its own CSR policy. This holds especially for manufacturing companies which have contacts with the international market. CSR policies can be guided by the seven areas of CSR, defined by ISO 26000,[41] an international and flexible set of standards, with dialogue with internal and external stakeholders and continued evaluation as its core methods. This CSR policy will be complementary to the cross-sector VC stakeholder platform. As such, CSR policies can be promoted by ILO and the Ministry of Industry.

Equity in trade relations is a core challenge for Indonesian HD, which will be sought between external stakeholders, as ISO 26000 mentions. Regarding internal stakeholders, labour rights of all workers, including home workers, should be guaranteed. A living wage is advisable, and payment by time spent is recommended rather than by piece, in order to achieve living or at least legal minimum wages. The promotion and rewarding of workers' commitment to the company as well as individual and collective skills and know-how demonstrated at work will be seen as further reasons for workers to keep working at a particular company, and to follow the provisions of their contract, even if those are only interpreted orally.

Hence, an attractive labour policy will greatly facilitate the solution to the recurrent issue of labour availability. The official minimum wage should be seen not as a reference, but as an absolute minimum, the reference being a living wage. Gender equity in revenues and social advantages should be absolutely respected. Finally, home workers should share the same rights as in-house workers, as ILO conventions suggest.

This equitable treatment of internal and external direct stakeholders of the main companies' VC are the core of efficient and sound management.

CSR also covers environmental challenges, part of which will be dealt with by the VC platform approach (Strategy 2). Attention should be paid by each company to its internal environmental challenges (treatment of possible pollutants and contaminants, exiting water quality, energy consumption and carbon emissions, impact on local ecosystems).

The benefits of such a CSR policy outnumbers its costs, as several international examples show.[42] Though it is the responsibility of each company to develop it, this movement can be supported by the government and ILO, as an extension of its Better Work programme.

Again regarding internal stakeholders, the more advanced companies could further explore the approach of shared management and collective intelligence.

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[41] Symbolised as a daisy flower, with at its centre: organisational governance, and around it: Community Involvement and Development, Human Rights, Labour Practices, the Environment, Fair Operating Practices, and Consumer Issues.

[42] Read examples on http://www.ethicalcorp.com/

4.1.4 Promote and build quality management systems at company level

Quality management is at the core of delivering marketable products to the market. It should be a sustained preoccupation of any company involved in the HD VC. QM is especially important for those companies that are in direct relation with the export market. A two-step approach to QM is proposed here, which also relies on authentic stakeholder dialogue.

- Elaborate efficient and adapted Standard Operational Procedures for maintaining quality of production, as well as security and health in the workplace.

Some buyers have their own codes of conduct (like Maisons du Monde). These can be seen as starting points for the manufacturers' QMS and CSR policy.

- Understand, discuss and apply buyers' codes of conduct throughout the VC, from subcontractors to sellers.

Table 3: Recommended strategies for the HD small wood and fibre sector

Title / Concept	Stakeholders to involve	Content / Objectives
1. Market intelligence and innovation support	Beneficiaries: Companies upfront BSO	Monitor European and international markets Participate in HD exhibitions Link with buyers Encourage creativity in HD
	Support institutions: BEKRAF PIRNas HIMKI Chambers of Commerce CBI	Innovation Quality Management Marketing / Trading Export coaching and training
2. Value-chain stakeholder platform	Beneficiaries: Collectors Suppliers Manufacturers Subcontractors In-house and home workers	Stabilise rattan market, enforce regulation. Valorise fibre qualities and know-how. Define fair contract relations and fair income for all.
	Support institutions: Ministry of Economy, ILO CBI A trained facilitator for the stakeholder dialogue platform	Represent collective interest Promote, impulse and facilitate dialogue between stakeholders. Transition & Cooperation can be facilitator
3. CSR	Beneficiaries: Manufacturers and their - Subcontractors - In-house and home workers	Guarantee workers' rights. Equity in stakeholder relations. Environment. Attractive HR policy Collective intelligence
	Support institutions: ILO: Better Work, Score BEDO	Follow ISO 26 000 guidelines Improvement management, quality and efficiency.
4. Quality Management Systems	Beneficiaries: manufacturers' internal stakeholders: Management, workers Dialogue with external stakeholders:	Build appropriate SOPs. Preserve quality of products, security and health on the workplace.

	Subcontractors In-house and home workers	
	Support institutions: BEKRAF BEDO	Promote QMS systems. Train SMEs where needed.

4.2 HT, with a focus on cushion covers and spreads

As in the previous part (HD), actions are ordered following a logic of importance and successive steps. This explains that certain common elements are not placed at the same level in recommendations for HT as they are in HD.

4.2.1 Strengthen producer organisations

Because they embody traditional know-how and its values, weavers and their organisations (CBOs and cooperatives) are the cornerstone for the emergence of a sustainable HT sector in the NTT. By centring the development of HT from NTT on weavers and their organisations, BSO can avoid that this development will alter the cultural and intrinsic qualities of traditional textiles from NTT, and support mechanisms for its benefits to be equitably shared between participating community members. By contrast, value chains or rather supply chains built by leaders holding shops in Lombok or Bali can be easily assessed as being most of the time less equitable.

Currently women and men seem to play equitable parts in the development of organisations in weaving communities, in Timor, Flores and to a lesser extend perhaps in Sumba. However, many of those organisations still operate informally, or have only recently acquired a legal status, sometimes after operating informally for nearly 20 years. This reality indicates a weakness in those organisations, which should aim at playing a genuine economic role, alongside a social and cultural role as well.

The objective of strengthening those organisations is not only ‘to ensure a regular supply of cloth to the designers’, as a support organisation puts it, but above all to ensure a development that is balanced in all its dimensions: economic, social, cultural, environmental and democratic. Additionally, tailored training should be targeted to the younger generation, to ensure the rejuvenation of the sector. The economic benefits of a better market approach (Strategy 2) and new business linkages (Strategy 3) will contribute to its attractiveness.

Some of the areas where support is clearly needed are:

- training on business and human resources management;
- training on costing and pricing calculation and strategy;
- coaching on building promotion and communication tools;
- vocational training for younger generations on traditional textiles and HT.

The BEDO company assessments clearly show which producer groups have the capability to undergo a coaching and/or training programme; those are identified in the stakeholder assessment grid in Annex II. Na’Ni House is one of the most advanced organisations we have met. Other groups, such as Lepo Lorun, do not have an appropriate governance structure allowing them to benefit from a CBI or similar programme aimed at enhancing exports for the benefit of local weavers.

Local sellers such as Indigo Artshop and UD Paluanda Lama Hamu operating for the benefit of local weavers could also benefit from a CBI programme, attending for instance modules on costing and pricing, as well as promotion and communication, as mentioned above. The general BEDO report and the assessment grid in Annex II could be shared by CBI with other

BSOs and government institutions (such as provincial and local Craft Councils) in order to define more precisely the most appropriate supportive actions and appropriate beneficiaries.

A useful complementary action to business capacity development would be to explore the possibility of creating other Geographical Indications for local weaving traditions, following the example of Sikka. A study could be conducted in coordination with the Indonesian-Swiss Intellectual Property Project to explore the relevance and feasibility of new GIs related to weaving in the NTTs.

4.2.2 Build market intelligence

The HT sector in NTT needs to approach the HT market with openness and creativity. Simply approaching HT market players in Jakarta will greatly help weavers and weavers' organisations to understand this market. As stated above, most weaver groups, even the more structured ones, do not have a clear methodology for the costing and pricing of the textiles they produce.

This action should be targeted at weavers, weaver organisations and communities as a priority, as they are farther away from urban culture and markets than social entrepreneurs or designers. Participating in exhibitions is useful, and possible when support is received by weavers through government institutions or BSOs, but one-to-one meetings and workshops with committed designers or entrepreneurs can often be more comprehensive and efficient, at a first crucial stage.

Some of the actions that could be undertaken with proper support under this category are:

- send weaver delegations to meet designers and creators in Jakarta and in Europe;
- participate in HT exhibitions in Europe, targeting precise HT segments as well as the project sector (hotels, luxury segment);
- elaborate and share information on opportunities, fruitful meetings and customer interest;
- create direct contacts with professional buyers from higher market segments.

4.2.3 Share knowledge and create appropriate linkages to build a complete HT value chain

Traditional textile and home textile: two worlds that need to enter into dialogue

In the case of an emergent VC, like HT from NTT, a one-on-one problem-solution approach will not work. Building this VC requires a global **design approach**, rather than a set of separated technical solutions. Facilitating dialogue and understanding between stakeholders and building win-win business partnerships are some of the clues to the success of this approach. Pairing each participating HT enterprise in Indonesia with a specific NTT style of origin (Sikka, West or East Sumba, West or Central Timor…) is a possibility, among others.

Participation of designers open to a facilitating and participatory approach to the design of HT (learning about NTT patterns and dialoguing with weavers to develop new products rather than imposing their own designs on NTT HT communities) is seen as necessary to approach the European HT market.

Provided they adopt this attitude, 'by working directly with the weavers, designers also have a unique opportunity to advise on ways that traditional motifs and design can be adapted for use in interior design'.[43] The Designer Dispatch Service methodology could be a fruitful approach to build this dialogue and partnership,[44] which should be investigated further.

Incorporating missing links

Some additional techniques and know-how are necessary to build a complete HT value chain in NTT. While targeting small high-value products such as cushion covers and spreads, those skills relate mainly to sewing, which is a more common skill in areas where tradition has encountered modernity, such as Bali and Jakarta, but is almost absent from NTT.

To incorporate those skills in the VC, one efficient solution is to include workers in Bali or Java who have mastered them, as is done already by social enterprises such as Threads of Life. This means building partnerships between weaver organisations or CBO and SMEs, associations, cooperatives or social entrepreneurs based in those islands. Those new players can also efficiently bring additional market intelligence to the VC. Weaver communities willing to volunteer to explore such partnerships could be prospected by the project.

Another option could be to train young urban people in NTT islands in sewing. Such a training programme could target young people looking for work. Sumba would be appropriate for such a programme, which could count on the interest of institutions such as the Donders Foundation.

Benchmarking the time spent by weavers on different tasks will be necessary to establish fair prices for the different qualities of textile, and fair relationships between partners in the VC.

The need to share know-how, knowledge and skills

To a certain extent, handweaving communities can be seen as competing against one another, a group at the Jakarta validation workshop observed. This is equally true amongst social enterprises involved in the sector. The group advised to create more collaboration between HT weaver groups. This collaboration could be centred on sharing and extending know-how for the following steps: producing and sourcing natural raw materials, producing natural dyes and marketing finished products. Such a community may start with the collaboration of leaders. This community of practice may later extent to exchanges with weaving communities in other countries with strong handweaving traditions, such as the Philippines, Laos and many Latin American countries.

The existence of an Indonesian Natural Colour (or Dye) Association (Perkumpulan Warna Alam Indonesia - WARLAMI) was mentioned during this workshop, but due to time limitations we were not able to gather more information on it. Its page indicates it was created in 2013 and has built a network consisting of artisans, experts, natural colour activists and natural fibres experts in 19 Indonesian provinces. This seems like a good case to explore.

4.2.4 Manage quality across cultures, share good practices and investigate technical solutions

1. Quality management is a major challenge for HT. If they are to be adapted to the urban and luxury markets, for which they have a high potential, textiles from NTT must keep a stable and excellent quality throughout the value chain, from production to sales. This is possible only if some type of Quality Management System is set up locally. In the present case, this challenge is double, as it also means coming up with standards and procedures that are fully understood and accepted by local communities, as well as satisfying and useful

[43] Cita Tenun Indonesia (2012), ibid.

[44] F H Arief (2016).

for the HT market. This double nature of the quality management challenge points to what we shall call a Hybrid Quality Management System that is shared, understood and efficient.

Several groups (cooperatives, BSOs, projects or companies) have set up QMS for Indonesian traditionally woven textiles. Cita Tenun Indonesia has been working on this issue for several years. Threads of Life has set up a system inspired by local standards.[45] Na'Ni House in the Sikka area has its own way of controlling the quality of products made by local weavers. In 2013-2017 the HWET project defined Good Tenun (Weaving) Practices, in a document in Bahasa Indonesia.

2. Those experiences in QM could be shared across the VC and with BSOs in order to come up with practical solutions to the constraint of adapting traditional techniques and work habits to market demands in terms of quality. The emphasis should be placed not only on standards but also on practical challenges for implementation. A flexible agenda for this discussion could be set up by weavers, buyers and supporting organisations.

Beyond quality management, sharing good practices can lead to a **community of practice** that openly shares experiences and answers to thorny challenges, of a technical nature or other, in order to find practical and efficient solutions. Some practical challenges raised are:

- Sourcing or producing quality threads
- Producing or sourcing quality natural dyes
- Stability of colours with natural dyes
- Maintaining standardised dimensions
- Combining weaving and sewing skills

As for the VC platform discussed for the HD VC above, a facilitator's experience and know-how may be necessary here too.

3. Having set up a system to guarantee quality and a community to share good practices, this community of practice may want to offer the market answers to possible new issues, such as:

- guarantee of origin;
- guarantee of fair artisan revenue from weaving;
- and others.

The most efficient answer to those types of question is through designing and setting up **a Participatory Guarantee System** (PGS). Ultimately, this PGS could be an instrument for quality management as well as certification. It will include functions of traceability (of threads, natural dyes and manufacturing), necessary to guarantee high-end quality

What distinguishes a PGS from third-party certification is that a PGS requires volunteer engagement from many stakeholders, including producers, consumers as well as specialists.

The above are options to build a strong, efficient, sustainable and credible HT value chain for NTT textiles at the national and international level. Exporting the products places the challenge a bit higher in terms of quality and credibility, but also of market approach. The latter should concentrate on placing the products in the higher end of the market, where they rightfully belong.

[45] According to our interview with its founder and executive director.

Table 4: Recommended strategies for the HT sector from NTT

Title / Concept	Stakeholders to involve	Content / Objectives
1. Strengthen producer organisations	Beneficiaries: Producers organisations Local communities Women Men	Strengthen organisations' governance, administration and marketing capacities. Give a sense of autonomy and empowerment. Explore more GIs on weaving
	Support institutions: ASPPUK BEDO, SME Directorate of MoI WFTO Swiss Federation IGE | IPI Transition & Cooperation can support this activity as well.	Training on technical and business skills, management Quality Management PGS Geographical Indications.
2. Build market intelligence	Beneficiaries: Weavers, weaver organisations and communities	Explore markets for HT (urban, luxury) creatively.
	Support institutions: BEDO CBI ASPPUK CTI	Management and market intelligence training. Insight into European markets and their requirements General HT market approach Communication material
3. Create appropriate business linkages	Beneficiaries: Willing social entrepreneurs and designers. Young generations looking for work in NTT islands.	Incorporate complementary skills, such as sewing. Training in sewing and other complementary skills (business support, communication…)
	Support institutions: ASPPUK CTI Transition & Cooperation	Identify business linkages and act as a mediator between stakeholders Establish fair revenue basis through appropriate study and stakeholder discussion
4. Manage quality across cultures Share good practices	Hybrid Quality Management Participatory Guarantee System (ex. Procuring quality threads Making and using natural dyes Combining weaving and sewing)	Monitor and guarantee quality. Build a shared Quality Management System. Solve technical problems.
	Support institutions: ASPPUK WFTO Transition & Cooperation	Build up to QMS, incorporating social, environmental and economic criteria

CONCLUSIONS

Home decoration products, particularly furniture from small wood and fibres, baskets and boxes, and home textiles from handwoven textile from NTT weavers, represent two promising value chains of high cultural and environmental value with the potential to contribute to the development of Indonesian SMEs. HD is a relatively ancient VC in Indonesia, and generally needs a serious updating to become more competitive in a market which is currently dynamic and complex. Europe certainly represents an opportunity for the companies involved, because of its diverse and increasing demand for natural products for the home. HT is qualified in this regard as an emergent VC, as it is still poorly disclosed. However, all the elements are there and if properly assembled, they will clearly contribute to a blossoming development. The challenges in this VC are that of a new sector, sprouting from ancient traditions reinterpreted in the contemporary context.

Some general challenges are shared between the two value chains, particularly:

- Strengthening market approach
- Managing quality sustainably and appropriately
- Attracting younger generations and training them in the appropriate skills
- Protecting designers' and communities' intellectual property rights

But the effects of those challenges and the appropriate solutions are quite distinctive in the two VCs. In HD, several companies have already developed successful market strategies, after understanding that the HD market has changed substantially in the past decades, and now requires continued innovation and creativity. In HT, a market approach aimed at traditional weaver communities from NTT requires sharing an understanding of contemporary HT markets and elaborating procedures and strategies to respond to it while retaining the value and reputation of traditional textiles.

In either VC, support institutions such as HIMKI, ASPPUK, CTI and BEDO can help existing or future companies to take up those challenges, by organising appropriate training sessions and facilitating an efficient market approach. CBI can facilitate the approach of European markets through its specific training and coaching services.

While sharing the same objectives, i.e. to meet the clients' needs (in terms of product and services related to it, like delivery) and to secure health and security at the workplace, quality management systems should naturally be tailored to the specific challenges of each VC. These systems rely on understanding and responding to those challenges, as well as grasping the cultural and social contexts in which they are expressed. In HT, QMS will be at the intersection between weaving traditions and market requirements. The Good Tenun Pratice standards document elaborated in 2017 can be a relevant starting point.

Both sectors also share the challenge of building value chains in which all players directly involved earn enough revenue or generate enough profit to sustain their activities as well as their livelihoods. In the HD industry, this is not always the case for subcontractors and home workers. The home workers challenge is shared with the textile sector.

In NTT, weavers at the forefront of the VC are home workers, and strengthening their organisations is the first challenge to build a strong and sustainable VC. In HD, home workers and subcontractors depend on companies who have contracts with importers. Building collective intelligence and dialogue between all players of each VC is thus necessary. With this in mind, a stakeholder dialogue platform is proposed for the HD sector, while in HT, collective intelligence and co-construction will rely on a one-to-one approach between weaver groups and social entrepreneurs and designers. These processes can be facilitated by a professional facilitator trained in the area of stakeholder dialogue.

In terms of value and price, the market segments that are recommended for both VCs as a target by this study are the mid-high, high and luxury segments, with higher segments exclusively advised for HT from NTT. These VCs are not only about selling products, but also about selling stories and concepts with cultural and innovation value to clients.

Players from both VCs should also keep an open eye on the evolution of their respective markets, and of new opportunities that may arise from them. Developing small furniture, baskets and bags for HD, and cushion covers and spreads for HT could just be a starting point leading to market access for other product categories. Whatever occurs, the knowledge and methods learned during the development phase of those value chains will be useful for any future development.

If proper support and impetus are given to HD from small wood and fibre, as a mature sector in Indonesia needing some renewal, and to the incipient HT sector from NTT, prospects for these two value chains representing 'Sustainable design from Indonesia' should be very good.

ANNEX I. LIST OF SOURCES AND KEY INFORMANTS

General Sources

- The Global Competitiveness Report 2016–2017, Insight Report, Klaus Schwab, World Economic Forum
- ITC Trade Map (www.trademap.org)
- Atlas of Economic Complexity (www.atlas.cid.harvard.edu/)
- Eurostat (ec.europa.eu/eurostat/data/database)
- The World of Organic Agriculture: Statistics & Emerging Trends 2017 (www.organic-world.net/yearbook/yearbook-2017.html) (for organic cotton)
- Forest Stewardship Council International (https://ic.fsc.org/)
- World Fair Trade Organisation (http://wfto.com/) in particular https://wfto.com/find-supplier (search: Indonesia)
- Ethical Corporation (http://www.ethicalcorp.com/)
- Fairtrade International (FLO) (www.fairtrade.net)
- Global Value Chains Initiative (globalvaluechains.org/publications)
- ILO and ILOSTAT (www.ilo.org)
- Minimum Wages in Indonesia with effect from 01-01-2018 to 31-12-2018 (https://wageindicator.org/salary/minimum-wage/indonesia/)
- World Bank Gender Equality Data and Statistics (datatopics.worldbank.org/gender)

Specific sources

- CBI Business Case Idea – HDHT Indonesia
- CBI Proposed VC document – HDHT Indonesia
- CBI VC factsheet – HDHT Indonesia
- CBI market intelligence on Home Decoration and Home Textiles
- CBI stakeholder list for the HDHT sector in Indonesia
- CBI Product Factsheet: Armchairs and Easy Chairs in Europe
- CBI Product Factsheet: Baskets and boxes in Europe
- CBI Product Factsheet: Stools and Occasional Tables in Europe
- CBI, Exporting bedspreads of nature Fibres to Europe
- CBI, Exporting Cushion Covers of Nature Fibres to Europe
- CBI, Exporting garden furniture to Europe
- CBI, Exporting home decoration and home textiles to Europe
- CBI, Exporting textile wallcoverings to Europe
- CBI, What requirements should home decoration products and home textiles comply with to be allowed on the European market?

European and multilateral regulation

- Trade Help Desk (for tariffs and regulation for specific HS references): http://trade.ec.europa.eu/tradehelp/
- General Product Safety Directive: https://ec.europa.eu/info/business-economy-euro/product-safety-and-requirements/consumer-product-safety/product-safety-rules_en
- REACH (substance restricted): https://echa.europa.eu/substances-restricted-under-reach
- REACH for non-EU companies: https://echa.europa.eu/support/getting-started/enquiry-on-reach-and-clp
- Product Safety Pledge (on-line shopping): https://ec.europa.eu/info/files/product-safety-pledge_en
- Convention on International Trade of Endangered Species: https://www.cites.org/
- Nagoya Protocol of the Convention on Biological Diversity: https://www.cbd.int/abs/

List of useful exhibitions

Europe

Maison & Objet, Paris, France, September 7-11, 2018, http://www.maison-objet.com

Paris Déco Off, France, January 17-21, 2019 (free), https://www.paris-deco-off.com

Heimtextil, Frankfurt, Germany, January 8-11, 2019, https://heimtextil.messefrankfurt.com/

Ambiente, Frankfurt, Germany, February 8-12, 2019, https://ambiente.messefrankfurt.com/

Mood - Brussels, Belgium, September 11-13, 2018, https://www.moodbrussels.com

Responsible Supply Chain Summit Europe, London, UK, October 10-11, 2018, https://events.ethicalcorp.com/supplychain/

Middle East

The Hotel Show, Dubai, September 16-18, 2018, https://www.thehotelshow.com/

Asia

HandMade Korea - July 2018, https://10times.com/handmade-korea-fair

Tokyo Gift Show, Japan, September 4-7, 2018, https://www.giftshow.co.jp/

Eco Fashion Week, Pert/WA, Australia, November 15-21, 2018, https://www.facebook.com/ecofashionweekaustralia/

Indonesia:

IFEX (Indonesia International Furniture Expo), March 11-14, 2019, https://ifexindonesia.com/

Indonesia Fashion Week, March 2019, https://indonesiafashionweek.id/

Inacraft (Jakarta International Handicraft Trade Fair), Jakarta, April 24-28, 2019 inacraft.co.id

Indonesia Muslim Fashion Week, https://www.facebook.com/imfw.indonesia/

The Colour of Indonesia, Sept 14th to 23rd 2018, http://www.thecolourofindonesia.com/

Collaborative interior design exhibition by ID12 (12 top Indonesian interior designers) at Atrium Senayan City Jakarta Indonesia

Publications

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Melati, Purnomo, H and Shantiko, B, *Making research work for small-scale furniture makers: Action research in the Jepara furniture industry, Indonesia*, (2013), CIFOR.

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Wahyuningsih E, Faridah E, Budiadi and Syahbudin A (2018) *Lygodium circinatum (Burm) Sw: Distribution Pattern and Environment Factors Influencing its growth in Lombok Island Forest Nature*, ntb. J Biodivers Endanger Species 6: 207.

Zulaikha, E. (2014), *Collaborative Learning in the Rural Indonesian Craft Industry*, PhD Thesis, Queensland University of Technology.

Main informants

CBI
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- Rosanne van Vianen, CBI CSR Programme Manager (rosanne.vanvianen@rvo.nl)

BEDO
- Jeff Kristianto
- Liena Mahalli
- Dika Rinakuki
- Ninyah Lawe
- Ratih Amelia

Others
- Etih Suryatin, consultant and company management

Stakeholders interviewed

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- Irene Suryani, Manager Merchandise Sourcing & VM, Vivere, irene@viverecollection.com

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- Krishna Purnomo, Debough, recycled wood furniture (Sidoarjo), deboughl38@yahoo.com
- Harsono David Kasno, Maraton Kencana, furniture & Home Decor, maraton@indo.net.in

Yogyakarta

- Achmad Kurnia, founder Siji Lifestyle, achmad@sijilifestyle.com
- David Elim, Pandanus Internusa, pandanus@indo.net.id
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Lombok

- Mitae, miatekarunia@yahoo.com
- Mawarianti, owner, Mawar Ketak, Lombok Art, mawarartshop@yahoo.com
- Hj. Robiah, Dharma Setya, hand woven and handicrafts, dharmasetya22@yahoo.com

Bali

- Denpasar Kumasari market: interview with half a dozen shop keepers
- William Ingram, founder Threads of Life, william@threadsoflife.com
- Janet de Neefe, janet@janetdeneefe.com

Timor

- Dekranasda, Provincial Handicraft Council, www.dekranasdantt.org
- Sussie, Tanen Koe, weaver cooperative
- Manutope, Sabu people village near Kupang
- 3 shops in Kupang

Flores

- Na'Ni House, ikat weaving cooperative with services for members
- Sikka village groups: Wolomoton, Bliran Sina, Alfonso Horeng from Desa Nita, Desa Doka

Sumba

- P. Ramone, Sumba Cultural Research and Conservation Institute sumba_culture@yahoo.com
- Mr. Maritimus, guide, Padre Robert, founder Sumba Cultural Research and Conservation Institute
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Paris (HT)

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ANNEX II. STAKEHOLDER ASSESSMENT GRIDS

In the following assessment, the HD and HT value chain are treated separately, as their dynamic is different. However, many of the actors are shared between the two value chains.

For this reason, the comments are shared between the VCs, after the two grids (tables 5 and 6).

<u>Table legends</u>:

In italics: assessed possible programme end beneficiaries are in italics.

In normal type: assessed possible programme partners and BSOs.

Table 5: Home Decoration Stakeholder Assessment Grid

Interest of Stakeholder in the programme / Influence of stakeholder in the programme	Low	Medium	High
High		ASPPUK BEKRAF Dekranasda NTT Transition & Cooperation	BEDO ILO
Medium	PIRNas	HIMKI Bali Creative Industry Center *Pandanus International* *Lawe*	*Du'anyam* *Palem Craft* *Eastern Living* *Siji Lifestyle*
Low	Philip Morris programmes on water hyacinth workers in Java and handicraft shops in Lombok (with BEDO)	Contact to assess interest: Forest Stewardship Council World Fair Trade Organisation Vivere	

Table 6: Home Textile Stakeholder Assessment Grid

Interest of Stakeholder in the programme	Low	Medium	High
High		*Letta Let;* *Doka Tawa Tana (Sikka)* *K.U.B Ori Angu;* *Indigo Art Shop;* *UD Paluanda Lama Hamu (E Sumba)* *Tenunkoe coop (Timor)* *Bliran Sina (Sikka, Flores)*	BEDO ASPPUK *Na'Ni House* Dekranasda NTT Transition & Cooperation
Medium	*Dharma Setya (Lombok)* *Ud Karunia (Lombok)* *Sumba Cultural Research and Conservation Institute*	*The Emporium* *Lawe* *Tafean Pah (Timor)* Dekranasda Sumba ILO	BEKRAF Donders Foundation Sekar Kawung Foundation Indonesian Swiss Federal Institute for Intellectual Property
Low	*Cahaya Baru (W Sumba)*	Contact to assess interest: World Fair Trade Organisation *WARLAMI*	*Threads of Life* *Lepo Lorun*

Influence of stakeholder in the programme

Comments on the assessment grids

The following comments explain the positions of the main stakeholders on the HD and HT assessment grids:

BEKRAF is naturally interested in promoting the HD and the HT value chains. Its involvement is important in some actions to support those VCs, for instance the elaboration of the Sikka Weaving GI. Its influence could be greater if proper orientation is discussed.

Craft Councils in NTT are directly in contact with weavers and their organisations, as well as HD manufacturers of small objects. They mainly bring training and market exposure to stakeholders of the HT sector. Their action can be supplement by more professional direction in terms of market orientation and QM.

BEDO is involved in support of exports for SMEs. It is naturally highly interested in the project, and can provide training and market investigation actions to HD and HT actors.

CBI shows the same interest at the international level, provided there is potential in the VC.

ASPPUK has shown specific involvement as BSO with the HT sector, through the HWET project, and is willing to continue. The Donders Foundation is supporting traditional weavers in Sumba, and has the qualities of an efficient project-based support organisation.

Craft shops and HD manufacturers in the upper line (high interest) have low to medium influence on the project. Some of them can provide examples for other actors to build upon, in terms of innovation (Siji Lifestyle), QM (Na'Ni House, Indigo Art Shop, Pandanus International). Some social enterprises have premium experience, but have shown limited interest in a programme (Threads of Life). Others are not targeted in terms of size (Vivere) but may provide support if approached.

Forest Stewardship Council and World Fair Trade Organisation would need to be contacted to assess their interest in the project.

FSC could bring its credibility to environmental assessment and certification of furniture and HD products made of small wood and fibres, extending the work it has done in Laos and Vietnam on certifying rattan.

WFTO could be interested in both sectors as an organisation with experience of Participatory Guarantee Systems. The WFTO organisation often targets the lower part of the mid-end target, and its experience in PGS is more significant than in QM.

Low interest but possible high influence on the programme relates to organisations such as Threads of Life or Lepo Lorun which are not interested in joining the programme, but could have an influence on local stakeholders' perception of the programme. This means some attention would have to be paid to the interaction between the programme and the work of those organisations. Mitigation efforts include clear explanation of the objectives and mechanisms of the programme to local stakeholders.

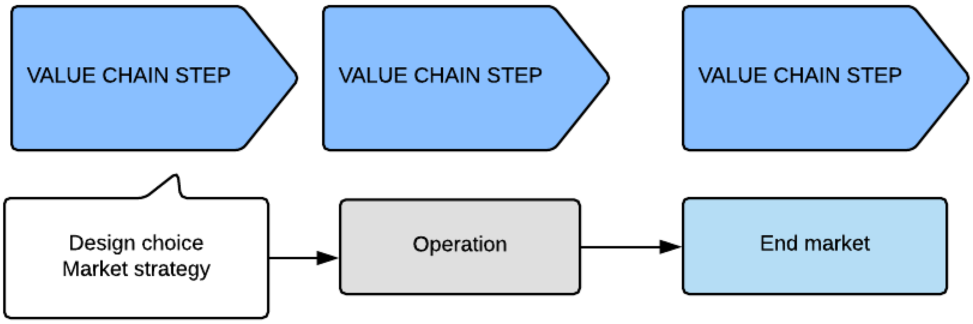
ANNEX III. VALUE CHAIN MAPPING

Introduction

The Home Decoration from small wood and fibres and the Home Textile from NTT will be represented as the two main value chains of this study.

The structure and the dynamics of those value chain are distinctive, and each is analysed separately.

Figure 3: Main symbols used for value chain mapping



3.1. Home Deco products from wood and fibre

The Home Decoration value chain from small wood and fibre materials presented here is a long value chain. For a better understanding, it can be broken down into an upstream and a downstream part. The upstream part is concerned with the provision of raw material (production, collection, preparation and grading), selling of the raw material makes the connection with the downstream part of the value chain.

The central actor of the downstream part of the value chain is the manufacturer or the brand which has a connection to the final market. This actor is at the centre of an ecosystem of subcontractors which contribute to preparing and finishing the products.

The markets targeted are the retail and project markets, at national and/or international levels.

See Figure 4 below.

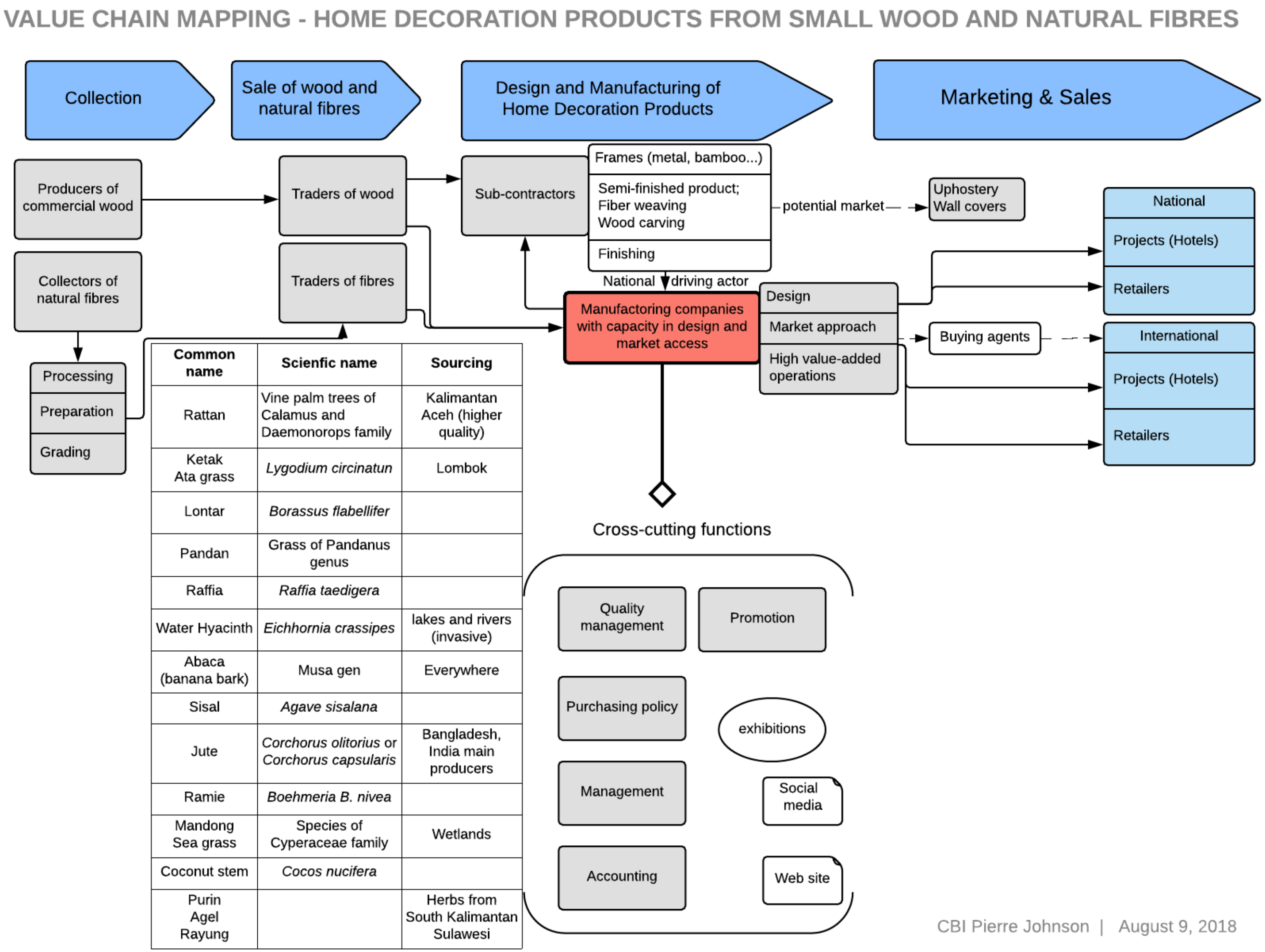
3.2. Home Textiles from Nusa Tenggara Timur

This value chain appears to be shorter than the HD value chain with one main hub currently represented by weaving communities. However, this is still an emergent value chain, and not all the business and market linkages are set up. It is thus not fully functional yet, and will probably evolve in the next few years, as it develops into a stronger VC, with the strengthening of missing or weak linkages at the centre of this development.

The bottom of the figure shows the estimated time to realise a traditional piece of textile. This can give an estimation of the capacity of the province for the HT industry and be a basis to determine a price for the piece.

See Figure 5 below.

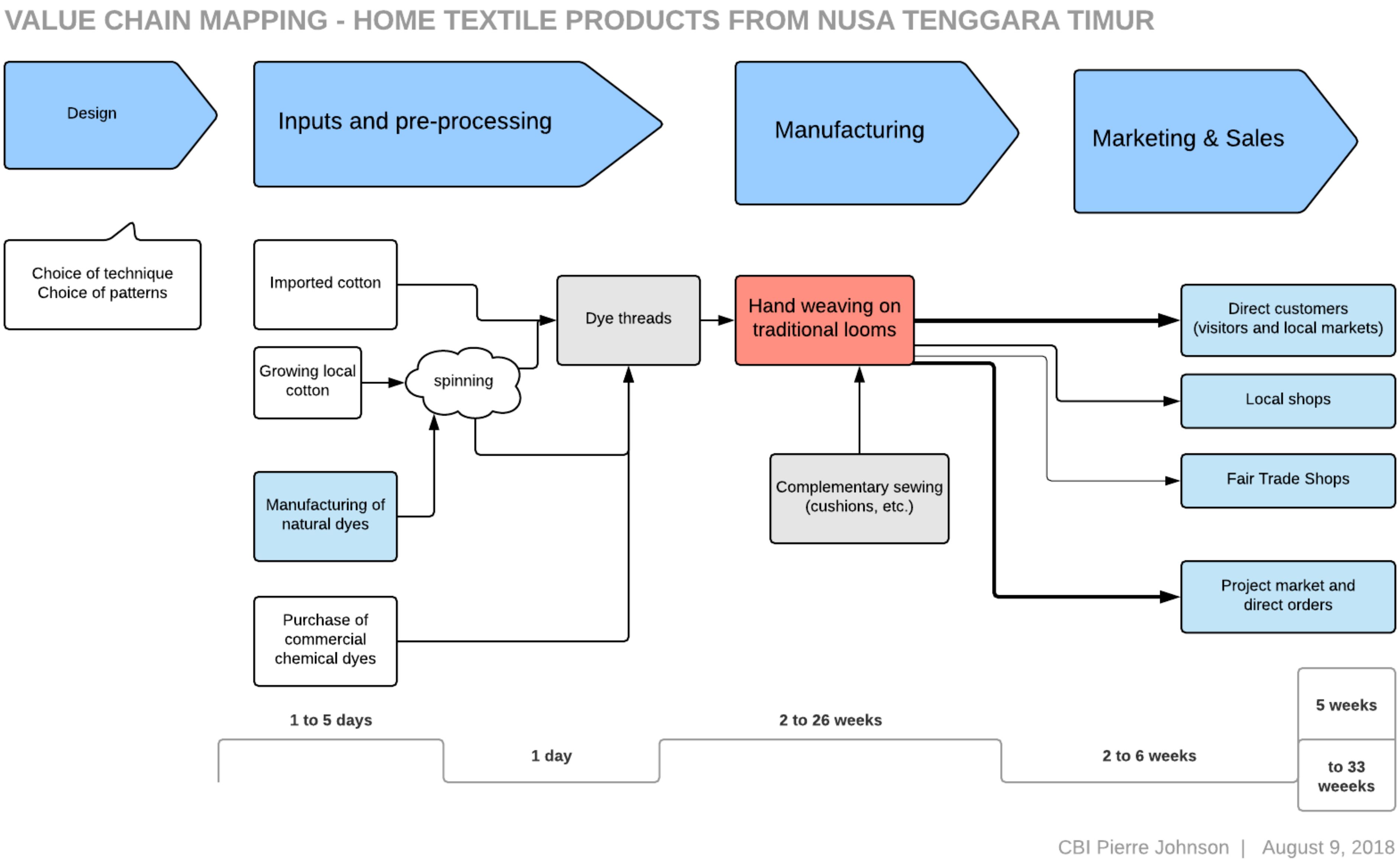
Figure 4: Home Deco products from small wood and natural fibres



Common name	Scienfic name	Sourcing
Rattan	Vine palm trees of Calamus and Daemonorops family	Kalimantan Aceh (higher quality)
Ketak Ata grass	*Lygodium circinatun*	Lombok
Lontar	*Borassus flabellifer*	
Pandan	Grass of Pandanus genus	
Raffia	*Raffia taedigera*	
Water Hyacinth	*Eichhornia crassipes*	lakes and rivers (invasive)
Abaca (banana bark)	Musa gen	Everywhere
Sisal	*Agave sisalana*	
Jute	*Corchorus olitorius* or *Corchorus capsularis*	Bangladesh, India main producers
Ramie	*Boehmeria B. nivea*	
Mandong Sea grass	Species of Cyperaceae family	Wetlands
Coconut stem	*Cocos nucifera*	
Purin Agel Rayung		Herbs from South Kalimantan Sulawesi

CBI Pierre Johnson | August 9, 2018

Figure 5: Value chain mapping – Home textiles from Nusa Tenggara Timur

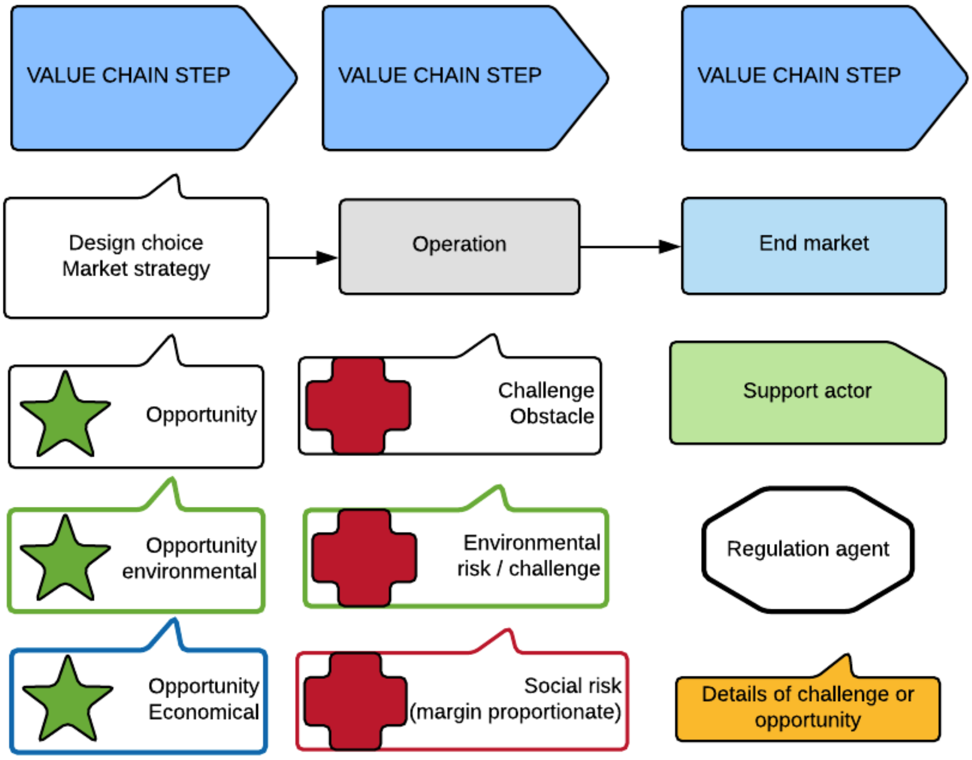


ANNEX IV. VALUE CHAIN CHALLENGES AND OPPORTUNITIES

Introduction

Figures 7 and 8 represent the challenges and opportunities for the two value chains (Home Decoration from small wood and fibres and Home Textile from NTT).

Figure 6: Additional symbols used for challenges and opportunities



4.1. Home Deco products from wood and fibre

The main challenges of this VC are related to: economic sustainability (supply of rattan, low margins of many subcontractors, competitive international market), environmental sustainability (origin of wood and fibre) and social sustainability (labour conditions, in terms of revenue, health and safety). These challenges are studied in detail in part 2.3.

Comments from left to right and top to bottom on challenges for the sector and related answers or opportunities:

- Availability of timber, while being an environmental challenge, is an economic threat. It can be tackled through voluntary certification, such as FSC.
- Asymmetry of information on fibre prices and lack of transparency on social conditions related to fibre collection, training by ILO could be an appropriate answer.
- Low margins of subcontractors and home workers are related to piece price fixation and asymmetry of information between companies that are order takers and those that are subcontractors.

- The evolution of home decoration markets for wood and rattan furniture may be a risk for the future, which can be compensated for by the introduction of new materials and innovative design, and by constant survey.

As the SWOT table embedded in the Figure 8 grid shows, the two most important weaknesses of the sector are: the lack of transparency in the rattan trade, and the weak market approach by older or traditional SMEs in the sector. Strong assets are: the abundance and diversity of natural fibres, a dynamic market for those, and the existence of creative SMEs in the sector.

4.2. Home Textiles: Cushion covers and throws

This value chain faces many challenges and opportunities, as is apparent in the abundance of figures and annotations in Figure 9. Its challenges are expressed in terms of market approach, capacity development and quality management. The VC also presents strong assets and potential, in the attractiveness of traditional NTT textiles and commitment of its players, from weavers to support agents.

These challenges and opportunities are studied in detail in part 2.3.

Comments on challenges and opportunities in Figure 9:

- Linking the left to the right of the figure, the VC can build on the richness and diversity of traditional patterns and natural dyes (left), both attractive to the market (right).
- The main challenge is to build lacking or scarce market linkages between traditional weavers and the markets.
- Sewing capacity is missing in NTT, this know-how in other islands has to be linked to the latter.
- The comments underline the high cost in time for producing natural textiles, and other challenges in management and quality control.

Figure 7: Home Deco products from small wood and natural fibres – Challenges and Opportunities

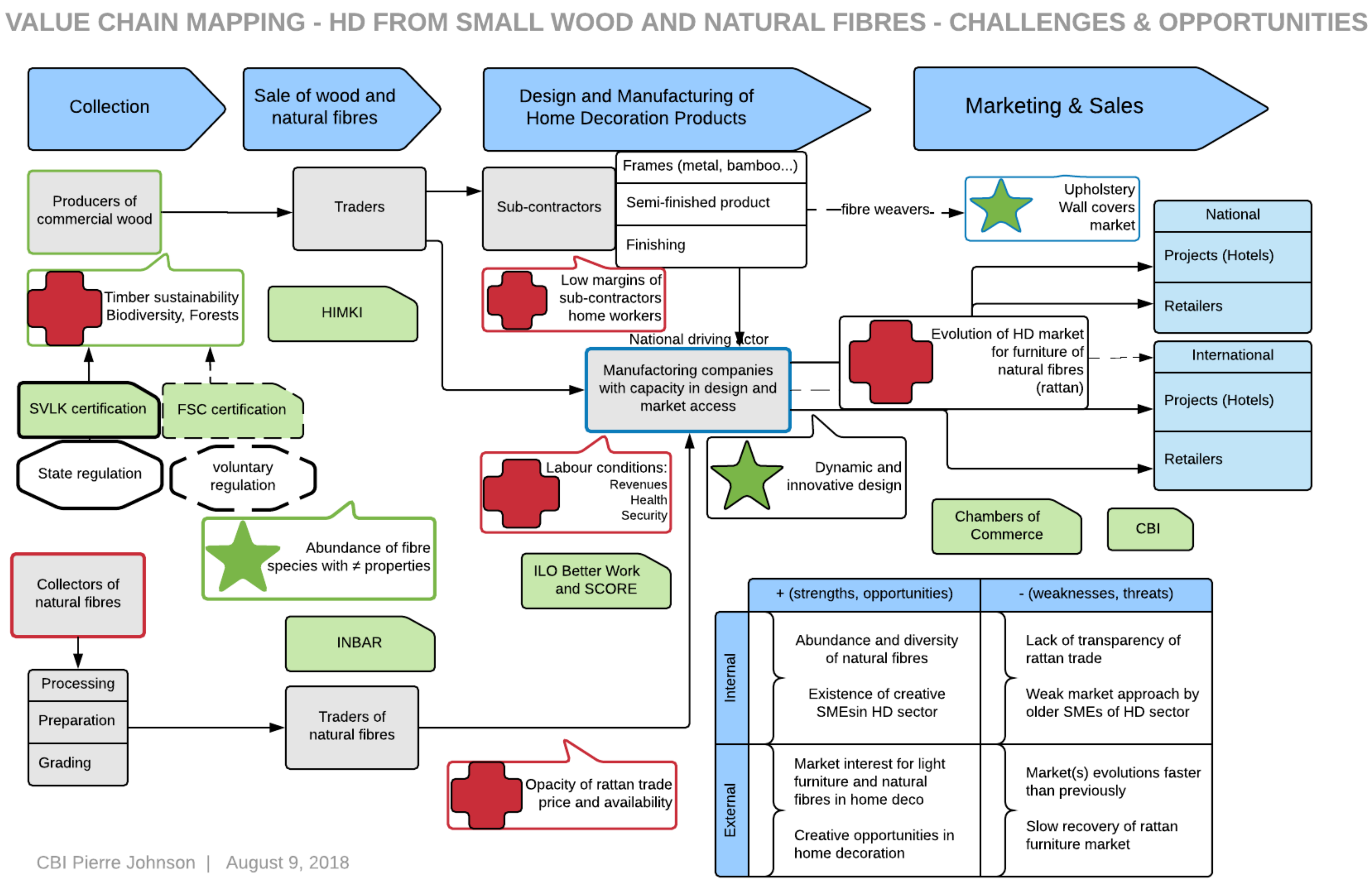
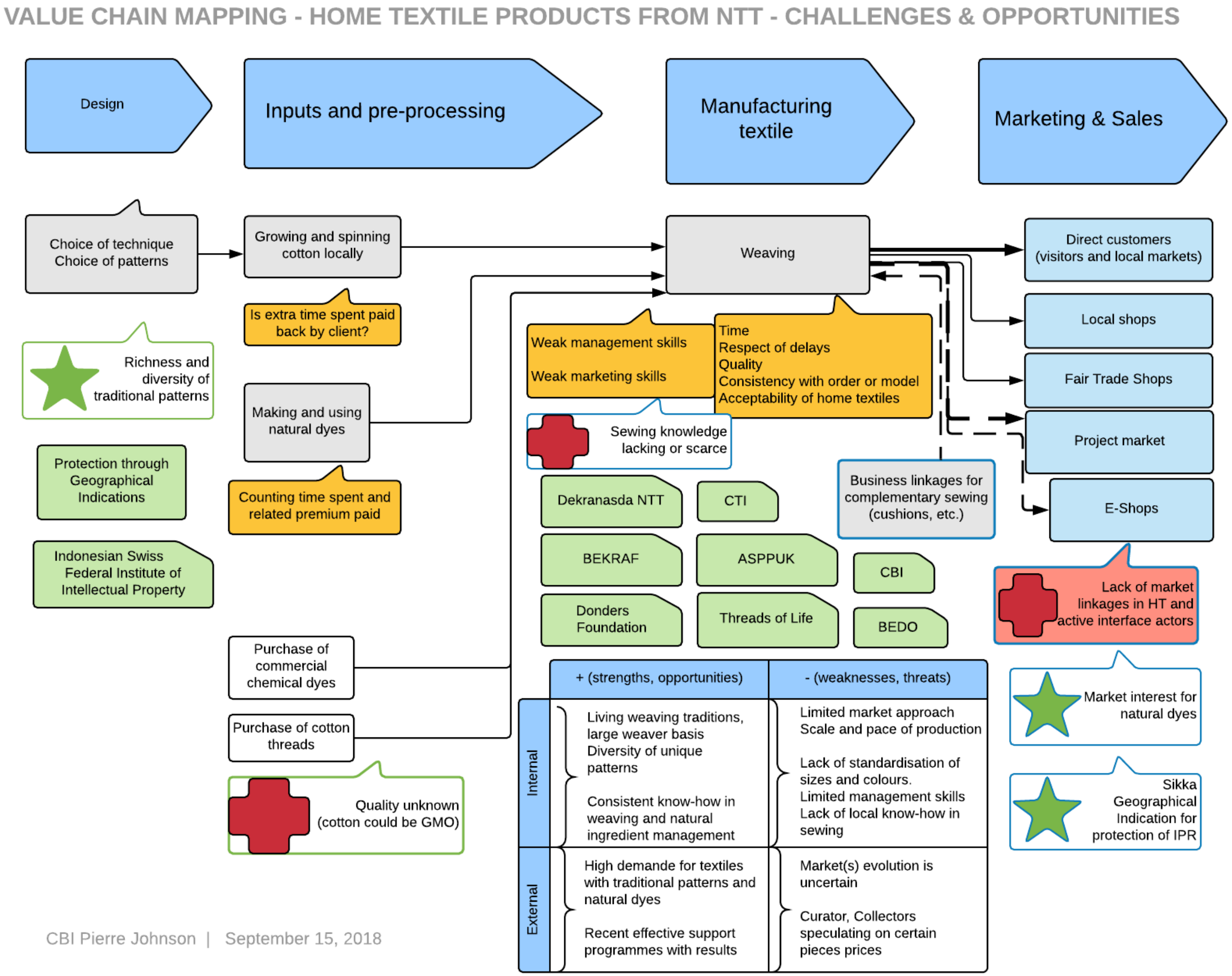


Figure 8: Value chain mapping – Home textiles from Nusa Tenggara Timur – Challenges and Opportunities



ANNEX V. VC OBSTACLES AND INTERVENTIONS

In Figure 9, the elements related to the HD value chain are presented in the top part of the figure, those related to the HT value chain at the bottom and those shared by both in the middle. Challenges are on the left, suggested interventions on the right, the general approach or strategy suggested in the middle.

The challenges are extracted from the previous figures 8 and 9. Comment on the strategies and interventions suggested:

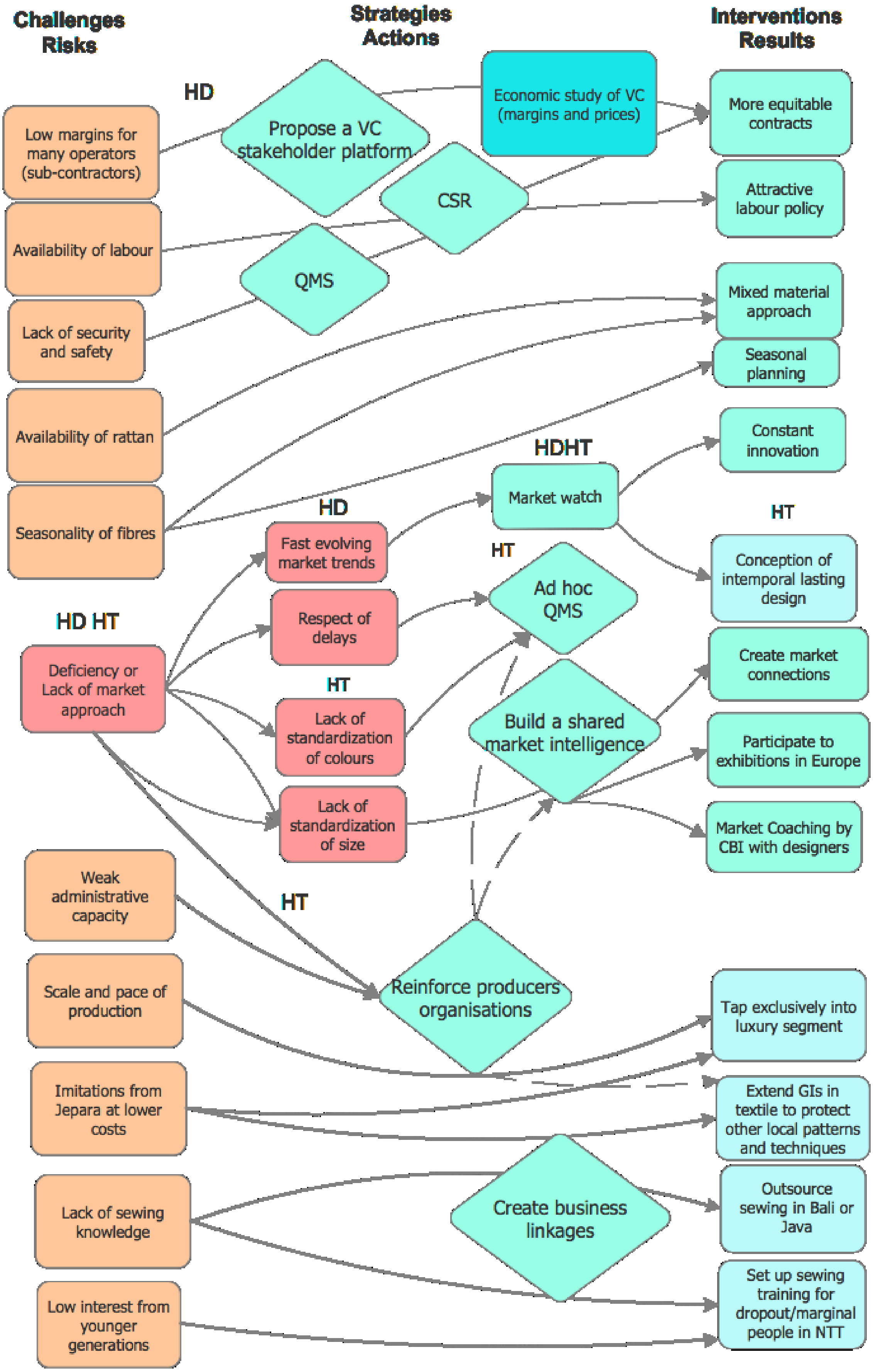
For Home Decoration:

- Propose a **Value Chain Stakeholder Platform**. The key of the social and economic sustainability of this VC is that it be dynamic and profitable for all stakeholders involved. The Value Chain Stakeholder Platform is an appropriate answer.
- To ensure more equitable contracts along the VC, an **economic study of this VC,** done by an external party, is necessary.
- At company level, **Quality Management Systems** and **Corporate Social Responsibility policies** are needed. Those will lead to more equitable contracts and more attractive labour policies.
- **A strong market approach** based on market watch and innovation will be a driver of the VC.
- Deficiency or lack of market approach is a key common challenge shared by certain actors of the HD and HT value chains (in red). In Figure 10, it is broken down into four specific challenges (in pink). Market watch is an appropriate common action to be conducted. The answers then diverge for the HD and for the HT value chains. HD will concentrate on constant innovation, while HT can concentrate on timeless, lasting designs.

For Home Textiles:

- **Ad hoc Quality Management Systems**, meaning QMS conciliating traditional designs with contemporary markets are key to the development of HT from NTT. Those will concentrate on issues such as: standardisations of colours, of sizes, attention to avoiding delays and meeting order specifications, etc.
- **Business linkages** will complete and strengthen this VC, which will focus mainly on the luxury and project (hotels, etc.) segments.
- The development of this value chain should be based **on producers and community organisations**. Those will be the focus of business support actions.

Figure 9: Value chain obstacles and suggested interventions (visual)



ANNEX VI. LIST OF FIBRES IN HD INDONESIA

TABLE 7: FIBRES ENCOUNTERED IN INDONESIAN HOME DECORATION SECTOR

Name (Indonesia)	Name (scientific)	Description	Provinces and ecosystems	Uses	Observations
Rattan	c. 500 species of liana type palm of the Calamus and Daemonorops families 50 species used in Indonesia	Vine type palm tree species, growing in humid forest. Light, porous structure. Bendable when heated.	Origin: Kalimantan, Aceh…). Used all over the country	Chairs, armchairs Sofa Baskets, boxes, womens' bags or cases, etc.	80% of world resource in Indonesia, and at least 90% of commercial use. Ban on non-transformed exports.
Ketak (Lombok), Ata grass (Balinese name)	*Lygodium circinatun*	A fern, growing best at lower altitudes in Lombok.	Lombok	Baskets, bags, cases (rigid).	High quality. Price 3 times that of rattan pieces.
Pandan	Pandanus (gen.)	Herb, of vine type from the Pandanus genus.	Gombong area, Java.	Boxes, baskets	See http://pandanusinternusa.com/ as example
Lontar	*Borassus flabellifer*	Palmyra palm. A palm tree, the large leaves are the part used.	Grows in dry areas, best leaves appear after 20 to 30 years.	Baskets Creative design	Harvesters should rotate among different trees.
Eceng gondok Water Hyacinth	*Eichhornia crassipes*	Invasive, native to the Amazon basin. Large fibre	Lakes (invasive). Common in Java and SE Asia		Philipp Morris programme for Better Work and standards
Raffia palm	*Raffia taedigera*	Raffia fibres are the veins of the leaves			Raffia is common in Africa, Asia
Mendong Sea grass (sedge type)	Species of Cyperaceae family	Strong fibre.	Wetlands. Eastern Java.		
Abaca	Musa gen.	Banana bark		Bags, boxes, clothes...	Common use in Philippines
Sisal	*Agave sisalana*			Bags	
Goni Jute	*Corchorus olitorius* or *Corchorus capsularis*	Jute. Used for sarongs		Bags, competition from Bangladesh	
kelapa Coconut parts	*Cocos nucifera*	Coconut husk Coconut stems		Various deco items	
Rami	*Boehmeria B. nivea* Species of Urticaceae family	Ramie	A flowering plant in the nettle family (Urticaceae), native to Eastern Asia	Strong fibre. Ideal for bags, textiles.	
Vetiver	Herb of Chrysopogon genus	Common species, planted	Species used to protect vegetation in slopes	Stiff but fragrant	

ANNEX VII. RELEVANT HS CODES FOR HD

Figure 10: Relevant HS codes for basketware and wickerware (chapter 46)

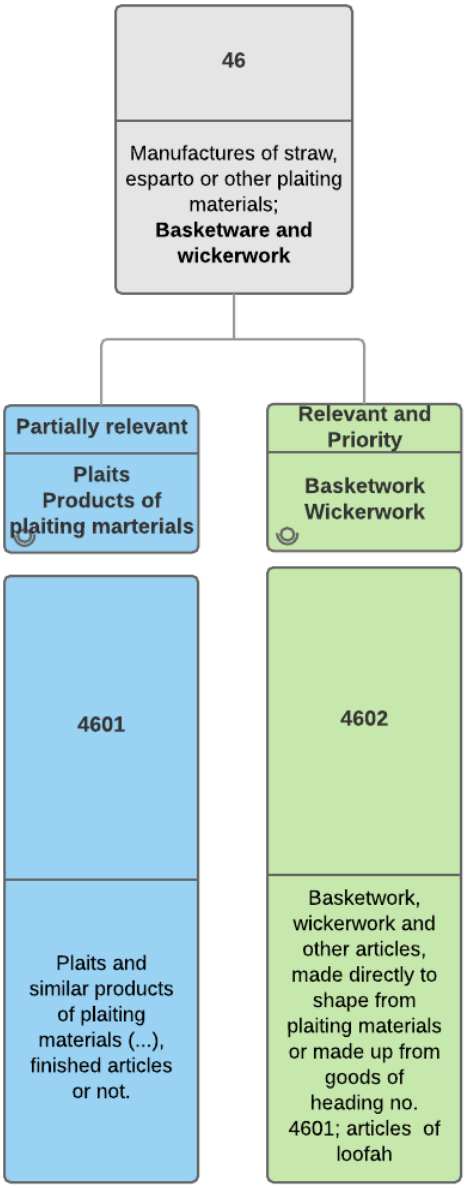
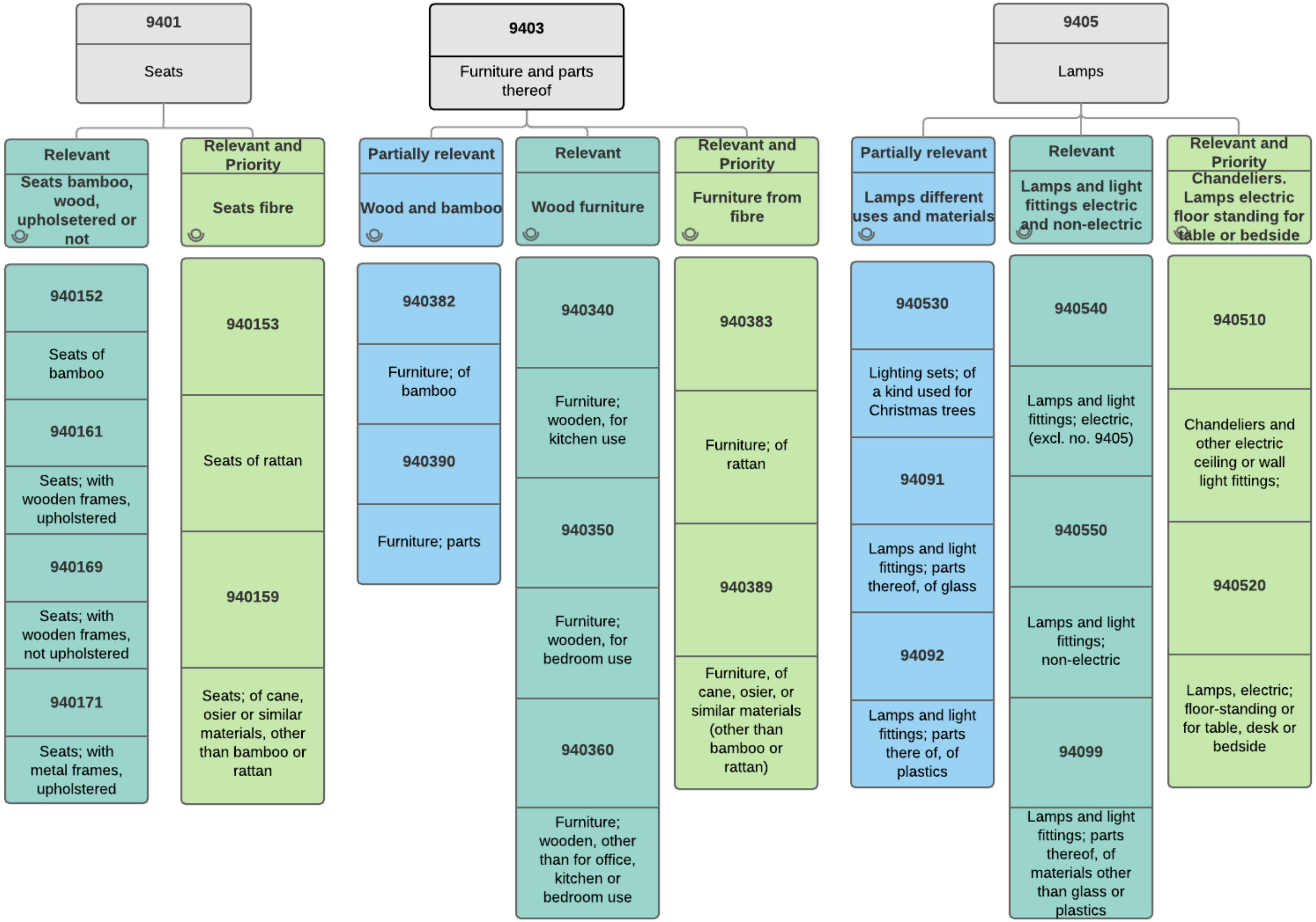


Figure 11: Relevant HS codes for furniture (chapter 94)



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