

2011



Sustainable Rattan Production

**Manual for Small and Medium
Enterprises in Lao PDR**

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"Establishing a Sustainable Production System for Rattan Products in
Cambodia, Laos and Vietnam"

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NOTE

Vientiane, 11 November 2011

Dear readers,

With the support of WWF Laos, the Lao National Chamber of Commerce has produced a manual on “ Sustainable Rattan Production for the Lao rattan SMEs” reflecting the experiences gained during the different projects on building a sustainable value chain for Lao rattan sector aiming at linking local producers with global value chains which will create new local income opportunities and employment, while simultaneously alleviating poverty and protecting natural resources.

This manual is an important reference on how Lao rattan businesses could move on to a sustainable production. All the essential elements are explained from where to get sustainable rattan to export. As the world marketplace changes every year, we encourage them to move forward and be part of these changes and get the benefits from that. The contact section included in this manual will help them to reach the different stakeholders to assist them. We hope that this manual will serve its readers.

For this edition, we would like to express sincere thanks to all participants for their greater contribution in supporting and editing the contents.

Sincerely yours,



Dr. Sananh Chounlamany
Vice president
The Lao National Chamber of Commerce and Industry

PREFACE

This manual is based on the three years' experience gained by the Lao National Chamber of Commerce and Industry (LNCCI) through the implementation of the SWITCH-Asia "Establishing a Sustainable Production System for Rattan Products in Cambodia, Lao PDR, and Vietnam" project, which seeks to address the "Sustainable Rattan Industries" and aims to boost the export of sustainable rattan products from Lao PDR to the international market. The whole rattan supply chain has been studied and action taken by all key participants to add value along the chain.

The project envisions that by 2015, at least 50% of rattan processing in the region will be sustainable, leading to environmental improvements, strengthened competitiveness, poverty alleviation and national economic benefits. The LNCCI, in partnership with the World Wide Fund for Nature (WWF) and the National Agriculture and Forestry Research Institute (NA-FRI), trained villagers in the sustainable harvesting of rattan for furniture manufacture. Linking local producers with global value chains creates new local income opportunities and employment, while simultaneously alleviating poverty and protecting natural resources.

This manual marks another achievement in the second phase of the WWF project in the region. It aims to be a practical guide for small and medium enterprises (SMEs) working in the Lao rattan sector to gain a better understanding of the steps involved in engaging in sustainable production and supply, and to develop their business and strengthen their sector, while reaping financial benefit through growth and protecting the environment they work in.

FOREWORD

Lao PDR is rich in natural resources, with a high level of animal and plant biodiversity on which rural people depend for their living. Rattan is a source of revenue for the Village Communities working with the rattan industry to produce rattan products as part of the value chain. SMEs engaged in moving the rattan sector towards sustainability receive support from stakeholders including the Government, LNCCI, WWF and project partners.

In this manual, LNCCI has collected information from the different stakeholders to help the Lao rattan industry move towards sustainability. The manual is divided into several parts outlining information and tools on:

1. Where and when can rattan from managed forests be accessed in PDR you be supplied with rattan from managed forests in Lao?
2. Who are the market actors in the Lao PDR rattan supply chain
3. How rattan is processed in Lao PDR
4. How to produce in a sustainable way
5. How to reach the niche market
6. Where to get funding to operate and support for production for an export market
7. How to ensure protection from competition
8. How to export

The information provided in each chapter is not exhaustive. Therefore, “contact sections” have been added to serve as a link between SMEs wishing to progress towards becoming sustainable businesses and the corresponding professional bodies.

We would like to express our sincere thanks to all participants from the private sector, governance and NGOs for their great contributions in supporting and editing the contents of this manual, and hope that it will serve its readers effectively.

ABBREVIATIONS AND ACRONYMS

| | |
|--------------|--|
| CoC | Chain of Custody |
| CP | Cleaner Production |
| DAFO | District Agriculture and Forestry Office |
| DoC | Department of Customs |
| DoF | Department of Forestry |
| DoT | Department of Taxation |
| DPTP | Department of Promotion and Trade |
| FSC | Forest Stewardship Council |
| IPR | Intellectual Property Rights |
| LNCCI | Lao National Chamber of Commerce and Industry |
| MAF | Ministry of Agriculture and Forestry |
| MOIC | Ministry of Industry and Commerce |
| MOF | Ministry of Finance |
| VAT | Value Added Tax |
| NAFRI | National Agriculture and Forestry Research Institute |
| NTFP | Non-Timber Forest Product |
| PAFO | Provincial Agriculture and Forestry Office |
| PCCI | Provincial Chamber of Commerce and Industry |
| PMO | Prime Minister's Office |
| SME | Small and Medium Enterprise |
| SNV | Netherlands Development Organization |
| SWOT | Strengths, Weaknesses, Opportunities, Threats |
| UNIDO | United Nations Industrial Development Organization |
| VNCPC | Vietnam Cleaner Production Center |
| WFTO | World Fair Trade Organization |
| WWF | World Wide Fund for Nature |

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INTRODUCTION

Indochina (Lao PDR, Vietnam and Cambodia), together with neighboring China and Thailand, is one of the fastest growing economic regions in the world. This rapid expansion is driving demand for natural resources at a level that far outstrips efforts to ensure sustainability. The rural poor are often most heavily affected by consequent pollution and the continued degradation of the natural resource base on which they rely. There is an urgent need to develop models of sustainable production that can support continued growth while benefiting rural communities. This is particularly the case in Lao PDR, which is a characteristic „Least Developed Country“ with an economy and industrial sector that are underdeveloped and largely dependent on the extensive use of natural resources.

Rattan comes from the Palmae family that represents one of the main Non-Timber Forest Products (NTFP). In the forest rattan can grow up to 100 metres in height.

In all three countries, SMEs such as rattan producers and processors are engines of economic growth. They play a crucial role in poverty alleviation as they are scattered throughout rural areas and provide considerable employment in the area of rattan production.

There is a niche market for the Lao rattan industry outside the country, but its potential has not yet been reached. Working on sustainability will have a great impact on the industry and give it an opportunity to break through to the export market.

In Lao PDR, the rattan industry has great potential, as the resource is still available, unlike in neighboring countries, and this can support its development. Not only is rattan available, but there is also a rich diversity of commercial species. More than 32 rattan species have been identified, 13 of which are rated as the highest quality species for commercial use. Rattan is harvested across the country, providing employment and reducing poverty in rural areas.

The Lao rattan industry has also received support from the Government to promote rattan certification in order to build a name for Lao rattan and to assist the industry to sell its products, which have been made from local sustainable raw materials using local labor. The project was piloted by WWF in order to establish activities to achieve Forestry Stewardship Council-Chain of Custody (FSC-CoC) certification for rattan by 2010/2011. This is the key to gaining access to bigger and higher value markets, in

which there is always demand for products made by companies sourcing rattan from certified forests.

Along with this project, initiatives to inter-crop rattan with tree plantation started in 2009. Since 2010, the rattan industry has been working on forest management. The aims are to make harvesting and the supply chain sustainable, to create clean production and to access the international market by reaching standards of production that achieve internationally recognized certification. In 2011, the first worldwide FSC-CoC rattan production export was achieved by a Lao manufacturer, supplying COOP in Switzerland. This is the start of future commercial links with international markets that will benefit the Lao rattan industry.

However, despite this favorable environment, the rattan industry faces constraints, including a lack of infrastructure to link with rural rattan harvesting areas. Infrastructure development policies essentially cover cities and the main North-South axes. Since Lao PDR has no access to the sea, rattan exporters have to use Vietnamese and Thai sea ports, and faces high transportation costs. This is a major concern as it adversely affects product pricing, which can reduce competitiveness.

In addition, access to financial services is limited. Private banks are emerging that offer SMEs access to loans, but rates of interest are high.

Because it has not yet developed links with the international market, the current market for the Lao rattan industry is local and there is very little export. Adaptation to the international market would stimulate processing, manufacturing standards, capacity and customer service.



PART I:

WHERE AND WHEN CAN RATTAN FROM MANAGED FORESTS BE ACCESSED IN LAO PDR?

With the support of WWF and NAFRI, the Ministry of Agriculture and Forest of Lao PDR has put in place a control on rattan availability. Those parts of the Lao rattan industry that want to be supplied with rattan from sustainable sources can now have it. This section details the different commercial species available from sustainable sources in Lao PDR, the location of the rattan gatherers and supply capacity, including the harvesting schedule and the process of obtaining a request for harvesting (a “quota”).

1. RATTAN SUPPLY CHAIN

1.1. Commercial Species:

In Lao PDR, 32 rattan species have been recorded, of which approximately nine (*Calamus poilanei*, *C.viminalis*, *C.rudentum*, *C.gracilis*, *C.solitarius*, *C.tetradactylus*, *C.palustris*, *C.laoensis* and *Daemonorops jenkinsiana*) are commonly processed by local rattan factories. Rattan is a climber from the palm family and a valuable Non-Timber Forest Product (NTFP) that is available in forests throughout the Greater Mekong region. Its stems are used for a variety of purposes, including food, shelter and furniture making. Village communities in Lao PDR rely heavily on the rattan trade, with sales accounting for up to 50% of cash income in some rural areas. More than 90% of rattan processed in Lao PDR originates from natural forests and it is being depleted at an unsustainable rate. This overexploitation reduces an important source of income from NTFP for local people, and decreases incentives to protect forests from conversion to other unsustainable land use.

Eleven of the known or suspected commercially important species are listed in Figures 1 to 3. These species are available in three managed areas located in central, northern and southern Lao PDR. They have been selected for their quality and usefulness, and they are the most used in the manufacturing process.

Figure 1: Rattan species of known or suspected commercial importance in central Lao PDR

| No | Scientific names | Local names | Uses | | |
|----|-------------------------|---|-------------------|--|---------------------------------------|
| | | | Handicrafts | Trade | Shoot |
| 1 | <i>Calamus poilanei</i> | Wai thoon, blong thoon, gaparl, probably also wai khom, blong chang | Very high quality | The most valuable cane being traded in Lao PDR | Edible |
| 2 | <i>Calamus rudentum</i> | Wai boun, boun, probably also wai tabong, boun dam, boun khao | High quality | Suitable | Edible. Fruit sometimes sold for food |
| 3 | <i>Calamus gracilis</i> | Wai hom, wai soum, wai tairair | High quality | One of the preferred species in Lao PDR | Edible |

| | | | | | |
|----|--------------------------------|---|------------------------|---|---|
| 4 | <i>Calamus solitarius</i> | Wai thork, wai yong, wai hakyong, wai savang | High quality | One of the preferred species in Lao PDR | Edible but very small |
| 5 | <i>Calamus tetradactylus</i> | Wai hangnou, wai hangnou nyai, wai savang, kaceck doikanair, revpeu | Suitable, high quality | One of the preferred species in Vietnam | Unknown |
| 6 | <i>Calamus palustris</i> | Wai hangnou, wai namleuang, wai khairt, wai kiyow, wai hom, wai namhang, wai tiukeng, wai savang, wai sard, wai kanebouang, re tair | Good quality | One of preferred species in Lao PDR | Edible |
| 7 | <i>Calamus siamensis</i> | Wai khom, wai nam, wai deng, yo, re dark | Suitable | Suitable | Edible |
| 8 | <i>Calamus laoensis</i> | Wai leum, wai katok, wai wa, wai keyomee | Suitable | Not preferred, but can be sold and | Edible (some say it is too bitter to eat) |
| 9 | <i>Calamus tenuis</i> | Wai ngair | Suitable | Suitable | Edible, large and delicious. Pretty seeds |
| 10 | <i>Calamus wailong</i> | Wai nokor, Wai lai, Wai namhang, Wai namleuang, Kloung, Kateangkordai | High quality | Suitable | Edible |
| 11 | <i>Daemonorops jenkinsiana</i> | Boun, boun faat, wai boun, wai boun faat, wai faat, wai keedeng, wai kwa, wai seui, blong chik. Re ya, kateng parua, khamay | Suitable | Suitable | Edible, large and delicious. Pretty seeds exported, leaves used as thatch |

Figure 2: Rattan species of known or suspected commercial importance in southern

| No | Scientific names | Local names | Uses | | |
|----|------------------------------------|----------------------|--------------|---|--------|
| | | | Handicrafts | Trade | Shoot |
| 1 | <i>Korthalsia laciniosa</i> | Wai taluck | High quality | One of the preferred species in Lao PDR | Edible |
| 2 | <i>Plectocomiopsis geniniflora</i> | Wai dang, Wai kamlao | High quality | One of the preferred species in Lao PDR | Edible |

| | | | | | |
|---|------------------------------|---|--------------|---|--------|
| 3 | <i>Calamus rudentum</i> | Wai tabong | High quality | One of the preferred species in Lao PDR | Edible |
| 4 | <i>Calamus tetradactylus</i> | Wai savang | High quality | One of the preferred species in Lao PDR | Edible |
| 5 | <i>Calamus palustris</i> | Wai hangnou, wai namleuang, wai khairt, wai kiyow, wai hom, wai namhang, wai tiukeng, wai savang, wai sard, wai kanebouang, re tair | Good quality | One of preferred species in Lao | Edible |

Figure 3: Rattan species known or suspected commercial importance in northern Lao PDR

| No | Scientific names | Local names | Uses | | |
|----|--------------------------------|---|--------------|-------------------------------------|---|
| | | | Handicrafts | Trade | Shoot |
| 1 | <i>Calamus acanthospathus</i> | Wai hom , blong eure | High quality | Suitable | Edible |
| 2 | <i>Calamus flagellum</i> | Wai lao, Wai mon, Wai namleuang, Wai toon, Blong pool | Suitable | Suitable | Edible |
| 3 | <i>Calamus gracilis</i> | Wai hom, wai soum, wai tairtair | High quality | One of the preferred species in Lao | Edible |
| 4 | <i>Calamus rhabdocladus</i> | Wai waan, Boun waan, Blong slai, Wai boun yong | Suitable | Suitable | Edible but sweet |
| 5 | <i>Calamus nambariensis</i> | Wai nouane, Wai niew, Wai nokor, Wai namleuang, Ka teang blor | High quality | One of preferred species in Lao | Edible |
| 6 | <i>Calamus platyacanthus</i> | Wai namleuang, Wai leuang | High quality | Suitable | Edible |
| 7 | <i>Calamus wailong</i> | Wai nokor, Wai lai, Wai namhang, Wai namleuang, Kloung, Kateangkordai | High quality | Suitable | Edible |
| 8 | <i>Daemonorops jenkinsiana</i> | Boun, boun faat, wai boun, wai boun faat, wai faat, wai keedeng, wai kwa, wai seui, blong chik. Re ya, kateng parua, khamay | Suitable | Suitable | Edible, large and delicious. Pretty seeds exported, leaves used as thatch |

1.2. Location of the Commercial Species

Figures 4 to 6 below show where these species can be found as part of wild rattan management in Lao PDR, the 40 villages working with the sustainable project (utilizing a skilled, rural handicraft production and weaving labor force that can work with the rattan manufacturers), and the wild rattan harvesting figures from 2010 to 2014 from managed forests. The figures give a general idea of the potential to respond to future requirements for rattan.

Figure 4: Map of the sustainable wild rattan management

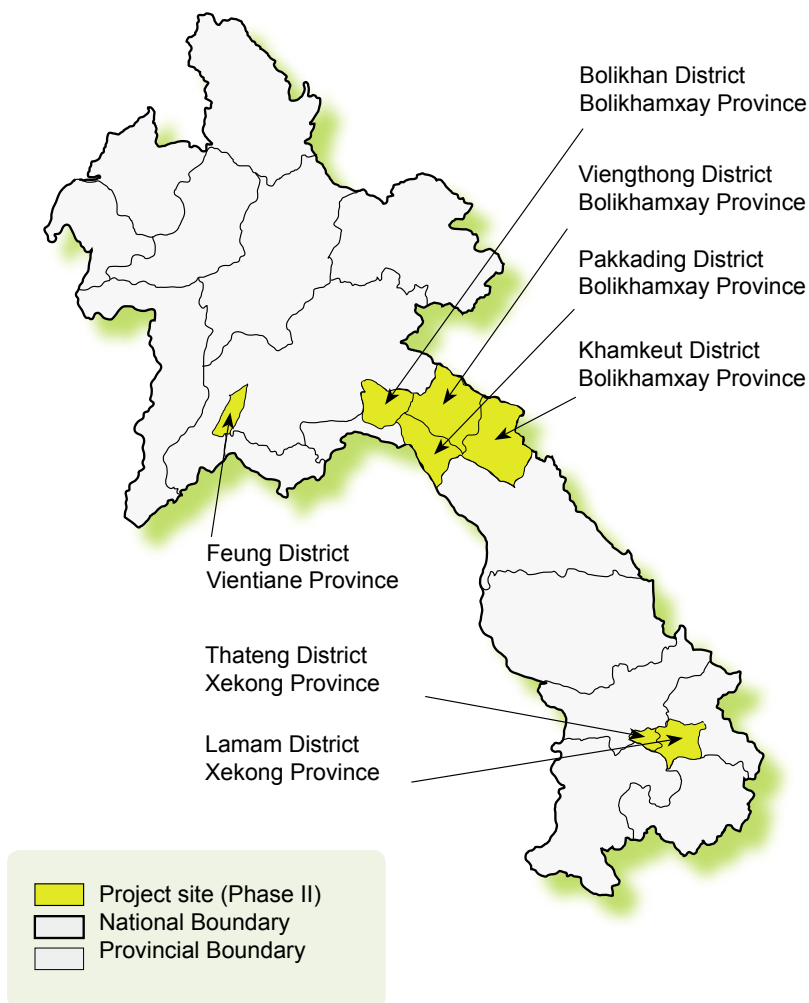


Figure 5. List of villages working with Rattan Group of Handicraft Membership and weaving skill labor force potential

| No | Name of Village | Rattan Group Member of Handicraft | Weaving Skill Labor force Potential |
|------------|-----------------|-----------------------------------|-------------------------------------|
| I. | | Vientiane Province | |
| | | Feung District | |
| 1 | Nakang | 9 | 3 |
| 2 | Namai | 14 | 5 |
| 3 | Phonxay | 11 | 5 |
| II. | | Borlikhamxay Province | |
| | | Pakading District | |
| 4 | Heuyluk | 19 | 6 |
| 5 | Paksoun | 20 | 11 |
| 6 | Napong | 16 | 7 |
| | | Borlikhan District | |
| 7 | Phonemixay | 24 | 8 |
| 8 | Khanyong | 15 | 7 |
| 9 | Phonesoung | 5 | 5 |
| 10 | Wa | 6 | 6 |
| 11 | Kokpho | 28 | 12 |
| 12 | Nakoun | 17 | 10 |
| 13 | Xiengleu | 57 | 17 |
| 14 | Xiengxien | 26 | 9 |
| | | Vienthong District | |
| 15 | Thapouvieng | 6 | 2 |
| 16 | Namtong | 9 | 3 |
| 17 | Natho | 12 | 3 |
| 18 | Konetao | 8 | 2 |

| | | Khamkert District | |
|-------------|----------------|------------------------|----|
| 19 | Phonetong | 29 | 5 |
| 20 | Sobpouan | 29 | 5 |
| 21 | Donesard | 26 | 7 |
| 22 | Boungpatao | 21 | 15 |
| 23 | Thaveng | 42 | 19 |
| 24 | Namthee | 10 | 2 |
| 25 | Phonexay | 18 | 5 |
| 26 | Kuanchan | 31 | 19 |
| 27 | Thongviengkham | 15 | 7 |
| 28 | Nachalay | 16 | 2 |
| 29 | Xamteuy | 15 | 2 |
| 30 | Nahard | 0 | 0 |
| 31 | Hangna | 11 | 2 |
| III. | | Sekong Province | |
| | | Lamam District | |
| 32 | TaNeum | 29 | 11 |
| 33 | TaPourk | 17 | 5 |
| 34 | Lavinoy | 13 | 9 |
| 35 | Xenoy | 12 | 6 |
| | | Thateang District | |
| 36 | Nongkan | 16 | 5 |
| 37 | Thongwai | 10 | 4 |
| 38 | Paleang Neua | 12 | 6 |
| 39 | PaleangTai | 10 | 3 |
| 40 | Korhouaphou | 11 | 5 |

1.3. Rattan supply capacity up to 2014

The table below summarizes sustainable rattan harvesting capacity. The calculations are based on inventory. Sustainable management becomes possible when the quantity of rattan growing has been surveyed, making harvesting plans more accurate, and ensuring that the villagers can still harvest rattan cane for the next five years. This approach been developed by NAFRI, DoF and WWF. The table has been based on an existing survey, but NAFRI/ DoF and WWF will continue to work on expanding the managed area to secure a bigger volume of sustainable raw rattan materials for Forest Stewardship Council (FSC) certification.



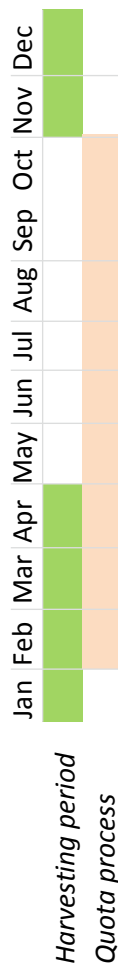
Figure 6. Wild rattan harvesting, 2010 to 2014 from forest management in three provinces

| | Rattan Sustainable Forest Management | Rattan management area (ha) | Total forest Area (ha) | 20% rattan harvesting Plan for 5 years | | | | | | | | | |
|-------------------------|---|-----------------------------------|---------------------------|--|--------|------------|--------|-----------|-----------------|-----------------|-----------------|-----------------|-----------------|
| | | | | 2010 | 2011 | 2012 | 2013 | 2014 | 2010 | 2011 | 2012 | 2013 | 2014 |
| No | | | | Cane | Cane | Cane | Cane | Cane | Weight (ton) | Weight (ton) | Weight (ton) | Weight (ton) | Weight (ton) |
| Bolikhamxay Province | 41,621.00 | 3,629.00 | 97,537.59 | 110,222.48 | 383.67 | 165,615.15 | 514.60 | 88,884.42 | 350.53 | 93,888.71 | 354.63 | 133,837.39 | 517.17 |
| Xekong Province | 8,300.00 | 603.40 | 14,077.00 | 14,835.80 | 42.09 | 20,292.00 | 55.39 | 39,637.00 | 103.33 | 22,106.60 | 59.03 | 16,903.00 | 36.63 |
| Vientiane Province | 8,300.00 | 603.40 | 14,077.00 | 14,835.80 | 42.09 | 20,292.00 | 55.39 | 37,316.00 | 149.00 | 13,194.00 | 45.00 | 7,595.00 | 27.00 |

1.4. Harvesting schedule

The sustainable forest areas are opened to harvesting once a year for six months from November to the end of April, while the cutting permit (quota) allocation process runs from February to October (for a maximum of nine months and a minimum of three months).

Figure 7: Harvesting and quota period



2. THE QUOTA

Since the Government started to implement control policies on rattan forest management in 1999, harvesting has required a quota document (rattan cutting permit) from the Ministry of Agriculture and Forestry (MAF). Village communities in charge of sustainable rattan areas cannot harvest to supply the rattan industry if they do not have the prior approval of the Ministry and provincial authority. The quota document is essential for rattan harvesters.

The quota document is processed through a hierarchy of five principal authorities from the Village Communities to the District Agriculture and Forestry Office (DAFO), the Provincial Agriculture and Forestry Office (PAFO), DoF and MAF. This process (the “proposal step”, see Figures 8 and 9) involves obtaining approval for the quota from the relevant authorities, and is followed by a second process (the “approval step”, see Figures 10 and 11) to obtain approval for harvesting at the provincial level, PAFO, DoF and Village Communities.

When submitting a proposal, it is important that all relevant documents are completely ready and accurate to avoid possible delay.

During the process, each authority issues a letter of approval, enabling the next step to be taken.

To ensure the acceptance of the quota and to minimize risk, it is highly recommended that businesses and Village Communities applying for a quota strictly follow every step in the correct order.

2.1. The proposal step

Figure 8: Request steps to the ministerial level

As shown in the overview flow chart below, there are five steps in the process of obtaining authorization. Fees will not be collected during this process but at the provincial level during the approval process. They are also important as they legalize the harvest.



Figure 9: Details of the request process

| Procedures: | Detailed | Approximate Timing (Example) | Fee |
|---|--|------------------------------|-----|
| Step 1: Village Communities | The business entrepreneur (Manufacturer, village trader, or middlemen) cooperates with Village Communities to prepare a proposed harvesting plan to submit to DAFO. The necessary documents at this level are: Rattan harvesting plan Requirement letter | 25 February | Nil |
| Step 2: District Level (DAFO) | After DAFO receives the rattan harvesting plan from the Village Communities, it has the right to summarize all submitted documentation and passes the proposal to PAFO. | 25 March | Nil |
| Step 3: Provincial level (PAFO) | PAFO revises all summarized documents and then delivers the proposal to DoF. | 25 June | Nil |
| Step 4: Departmental level (DoF) | DOF has a duty to summarize all revised documentation and then submits the proposal to MAF. | 25 Sept | Nil |
| Step 5: Ministerial level (MAF) | After MAF has checked all revised documentation, the proposal goes to the Government for final approval. The final quota approval for the whole country will be approved by agreement by the National Assembly. | 25 Oct | Nil |

2.2. The approval step

Once MAF has approved the quota, harvesting approval can be processed at provincial level through PAFO and DAFO.

Once a Village Community has been informed of the approval of the quota at ministerial level, it can make a contract of purchase-sales with the busi-

ness entrepreneur. With the quota, contract and rattan harvesting plan documents processed, the business entrepreneur goes to the provincial authority to ask permission to harvest: this is the 'approval step'.

When it has received harvesting certification, the Village Community can begin harvesting for the business entrepreneur, the holder of the quota.

Figure 10: Approval step at the provincial level

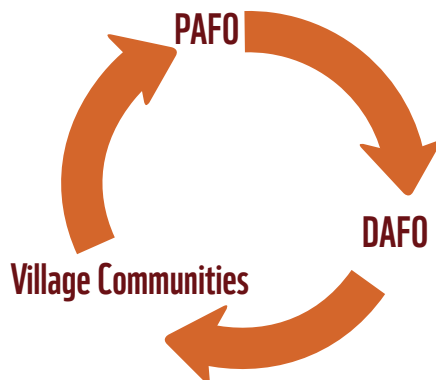


Figure 11: Details of the approval process

| Procedures | Detailed | Approximate Timing | Fee |
|--|---|--------------------|--|
| Step 1: Village Communities | The business entrepreneur makes a contract with Village Communities. The necessary documents at this level are: Rattan harvesting plan Quota | 2 days | Nil |
| Step 2: Provincial level (PAFO) | The business entrepreneur submits the contract made with the Village Communities to PAFO, which will issue a contract (" <i>Bai San Gna Phourk Phanh</i> ") stipulating the necessity to respect the harvesting regulations and quantity submitted. | 2 days | Forest plantation fees (in 2011): 1,000,000 LAK for 10,000 canes. Price will vary according to the quantity. It is estimated at 100 kip/cane. 200,000 LAK for the approval Fees for using Public Forest Resource to the provincial department of Industry and Commerce: 42,000 LAK for the application form and 400,000 LAK for the fees |

| | | | |
|--|--|-------|--|
| Step 3: District level (DAFO) | The business entrepreneur goes to DAFO for a certificate for harvesting. | 1 day | Certification administration fees: 200,000 LAK Fees for using the Natural Resource: 300 KIP/cane. Every year price is revised. |
| Step 4: Village Communities level | The business entrepreneur goes to the Village Communities with all the documents approved and harvesting begins. | 1 day | Nil |

3. CONTACT POINT

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PART II:

WHO ARE THE KEY MARKET ACTORS OF THE SUPPLY CHAIN?

In Lao PDR, there are several ‘primary’ and ‘secondary’ actors involved in the rattan supply chain.

1. PHYSICAL FLOW CHART

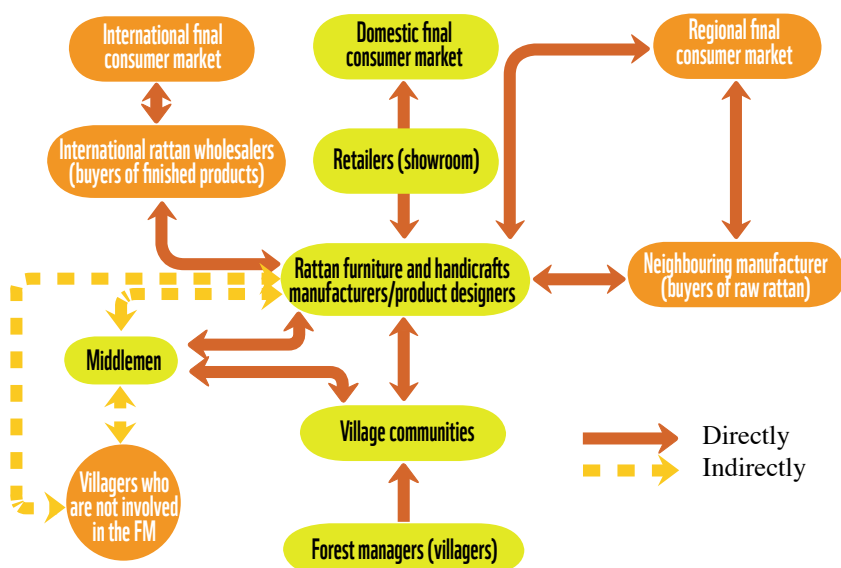
The physical flow chart (see Figure 12) shows the links between the different actors involved in the rattan supply chain of the managed forest and other areas of Lao PDR.

The market actors in the legal supply of rattan from managed forests are villagers, Village Communities, middlemen, rattan furniture and handicraft manufacturers and product designers.

The rattan is gathered by the villagers under the direction and supervision of the Village Communities for middlemen (provincial traders) or manufacturers, or product designers holding a quota. Middlemen will resell the rattan to the manufacturers who will process the raw rattan and stock it for their own production purposes, and resell some to neighboring countries or to product designers.

In other areas, the actors are the local villagers, middlemen and furniture and handicraft manufacturers and product designers. They villagers may provide a door-to-door service, sometimes delivering the rattan directly to the manufacturers and designers, bypassing the need for a quota, and price is often cheaper.

Figure 12: Physical flow chart for rattan supply chain in Lao PDR



2. MARKET SECTOR

The ‘primary’ and ‘secondary’ actors involved in the rattan supply chain are described broadly in section 2.1, which draws on the results of an assessment of the threats and opportunities linked to each group and the way they are linked along the chain

2.1. Primary actors

Villagers: Villagers look after the managed forest, plant and harvest the rattan where plantation projects have been set up, and gather the rattan for potential buyers through the Village Communities in the sustainable forest areas.

Village Communities: Each village has a Village Community; the rattan harvesting monitoring and control body. Harvesting follows the rules of the Village Communities composed by: the chief of the group; the vice chief; the control committee; and finance control (which collects the fees paid by the members participating in the harvest for the group). The number of harvesters will depend of the size of the villages, and could be from 4 to 20 people.

Middlemen: There are three types of “middleman”: a villager acting as a trader (illegally); a staff member of a manufacturer; or a manufacturer. The middlemen buy the harvested rattan from managed and non-managed areas. They must have quota certification before harvesting (see quota section).

Furniture and handicraft manufacturers and product designers: These are rattan furniture and handicraft manufacturer/exporters, and product designers running small shops. They transform raw rattan into a finished product for local sales and/or export.

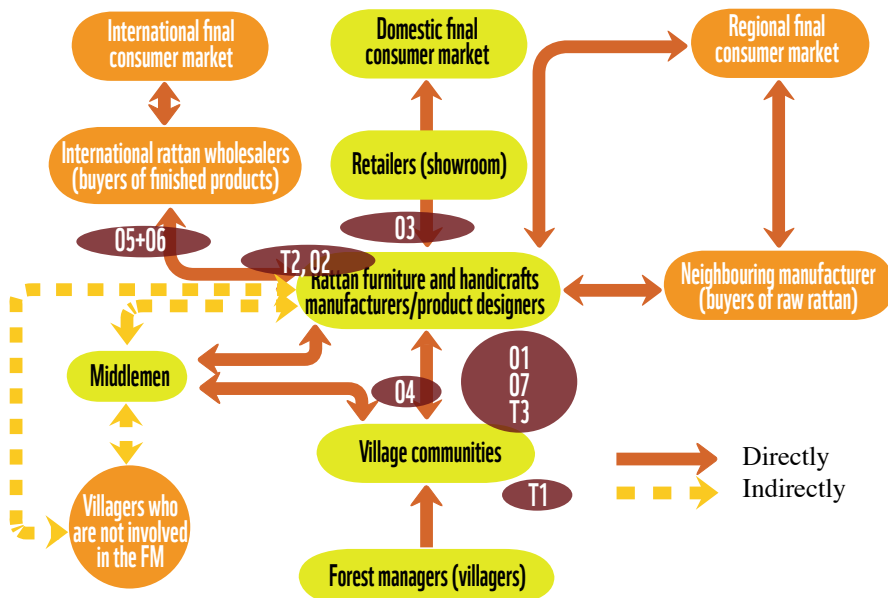
Retailers: These are buyers of finished products to sell in their shops or showrooms. Manufacturers as retailers have their own showrooms. Of all actors in the value chain, they are the main exporters.

Final consumers: these are local people, tourists and international company buyers catering to the foreign market.

2.2. Threats and opportunities linked to primary actors

Figure 13 shows the threats and opportunities linked to the interactive relationship between primary actors along the chain from the most to less enumerate.

Figure 13: Threats and opportunities for primary actors along the chain



Threats:

- T1. Villagers with limited skills and experience in business and the sustainable use of natural resources
- T2. Limited knowledge/skills of business owners
- T3. Limited skills/knowledge related to product design in private sector

Opportunities:

- O1. Increase the number of rattan SMEs in Lao PDR for more local added value
- O2. Increase the quantity and quality of rattan merchandise to be produced by the private sector
- O3. Create a domestic market for the private sector
- O4. Strengthen direct market links between SMEs and villagers
- O5. Increase participation of existing rattan SMEs to enable more interaction to increase production and satisfy client demand
- O6. Create a long-term market link between the SME and the interna-

tional market

- O7. Create awareness among business owners of sustainable production

2.3. Secondary actors

The rattan sector involves a group of secondary actors who support and supervise the commodity chain. In Lao PDR, these are:

- Donor: EU
- WWF
- Consultants
- Government
- DoF, MAF
- Department of Promotion and Trade (DPTP) of Ministry of Industry and Commerce (MoIC) in Vientiane
- Import-export Department of MoIC in Vientiane
- Customs Department of Ministry of Finance (MoF)
- Rattan Business Association
- Provincial Chambers of Commerce and industry
- Agriculture Department (PAFO – Provincial level)
- Agriculture Service (DAFO – District level)
- District authorities

Figure 14 details the relationship between financial and service exchange. These are:

- EU supports WWF and WWF supports LNCCI. LNCCI supports all activities financially.
- LNCCI, together with PCCI, PAFO, DPTP and District authorities, provides service to Village Communities.
- LNCCI and Government provide legislation, market information and technical skills to manufacturers (service to domestic and foreign market).
- Department concerned provides the quota to manufacturers and Village Communities, or sometimes manufacturer directly to Village communities.

Figure 14: Financial and service support exchange within the institutional framework

Legend: The weight of the line reflects the intensity of the relationship.

—————> Financial relationship
 - - - - -> Provision of service

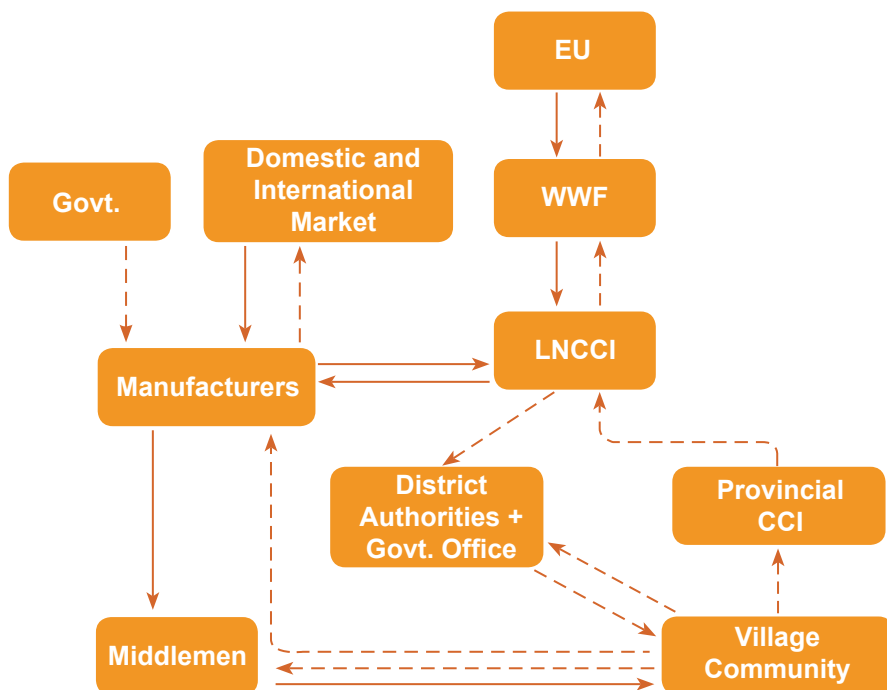


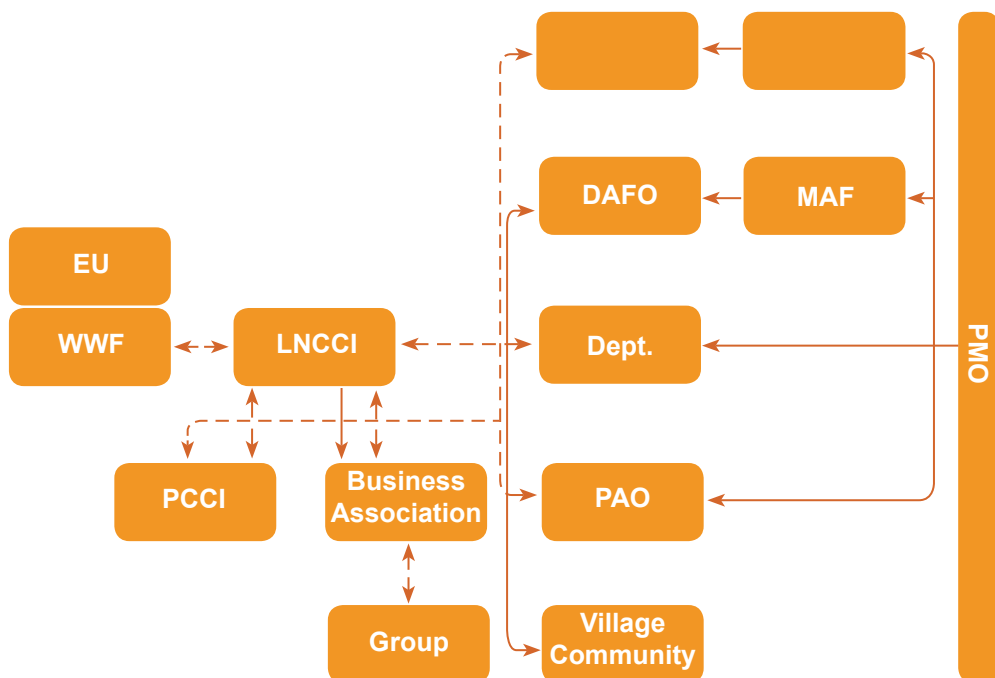
Figure 15 shows below the relationship between hierarchy and cooperation in the chain, including the:

- Specific responsibility of each organisation.
- Clear structure of line ministries and departments.
- Clear hierarchy and cooperation within each department.
- Numerous steps regarding the cooperative link between governmental departments and other stakeholders

Figure 15: Relationship between hierarchy and cooperation

Legend: The weight of the line reflects the strength of the cooperation.

————→ Hierarchy
 - - - - - → Cooperation



2.4. Opportunities linked to the secondary actors

Opportunities have been identified for LNCCI to act as the center of coordination between the secondary and secondary actors. These are:

- LNCCI can provide skills to manufacturers through donors
- LNCCI can support manufacturers' skills by coordination with other donors
- Improve coordination and processes at provincial level to save time taken to process paperwork, to make the process easier (as it currently requires many steps), and clearer through communication and services

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PART III:

HOW IS THE RATTAN PROCESSED IN LAO PDR?

The Lao Rattan industry in Lao PDR is small and new compared to those in neighboring countries. The “Group of Lao Rattan Companies” consists of six furniture and handicraft manufacturers. Not all manufacturers carry out a complete production process, and their operations differ in size. This section details the entire manufacturing process through five important steps, from raw material to finished product (see Figures 16 and 17).

1. PROCESSING STEPS FROM RAW MATERIAL TO FINISHED PRODUCT DETAILS

In general, the raw natural rattan canes are transported to the company storage facility for further processing. Then they are boiled in diesel oil to extract gum and other material. This protects the rattan from fungi and insects, makes it flexible for the production process and extends product shelf life. The boiled rattan is dried under the sun. After drying, it can be stored or taken for further processing, including peeling, splitting and node cutting. The rattan can be bent by heating it in a firewood-fueled steam generator. All of these processes are suited to large rattan canes (*Calamus poilanei*). Smaller canes, which are used for seating, for example, are split and woven by hand. For products requiring smooth surfaces, the rattan is sanded. Finally, surface treatment with chemicals or varnish is carried out to make the final products more beautiful and hard wearing. A rough production chart is shown below:

Figure 16: Steps of rattan processing

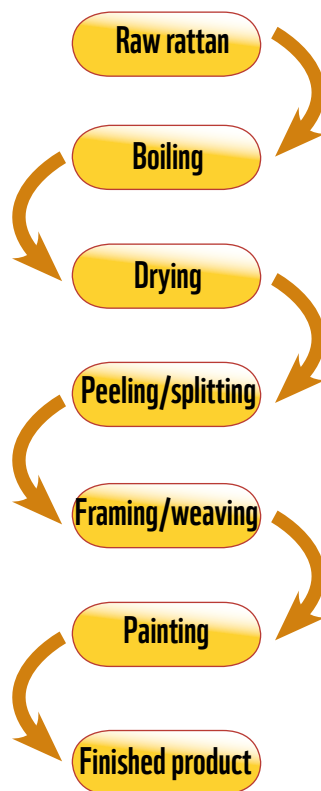


Figure 17: Processing steps

| | |
|-------------------|---|
| Raw rattan | <u>Process 1:</u> Rattan canes are selected and prepared for washing to remove dirt, and bundled up before boiling. |
| Boiling | <p><u>Process 2:</u> Oil boiling</p> <p>To preserve the rattan from insects, the rattan is boiled in a tank filled with diesel for 45 minutes. After boiling it is hand cleaned to remove dirt from the cane stems, and to impart a polished effect, improve the smoothness of stems and protect them from fungal infection.</p> |
| Drying | <p><u>Process 3:</u> Sun drying</p> <p>The boiled rattan is dried under the sun for 1 to 2 weeks</p> |
| Peeling/Splitting | <p><u>Process 4:</u> Straightening</p> <p>Natural rattan canes are not straight, so after drying straightening is required to make other processes such as peeling and splitting possible, and to reduce material loss during these processes.</p> <p><u>Process 5:</u> Peeling</p> <p>After drying and straightening, rattan is peeled or split.</p> <p><u>Process 6:</u> Sanding</p> <p>The peeled rattan is sanded to obtain a smooth surface, which is required in furniture making.</p> <p><u>Process 7:</u> Splitting</p> <p>Small diameter, rounded rattan is needed for furniture making, so it is split in a machine to different sizes, as needed. It also needs to be split for weaving, but this is done by hand. The rattan is soaked to make hand splitting easier.</p> |
| Framing/Weaving | <p><u>Process 8:</u> Bending</p> <p>For furniture production from large peeled rattan: after drying, the rattan is bent into the shapes required for each kind of product (such as tables, chairs, armchairs with arms or legs). The rattan is cut to the required length and bent into its form while it is still hot.</p> <p><u>Process 9:</u> Weaving</p> <p>Weaving is mainly done by workers using traditional skills. Rattan for hand weaving is cut and sized according to each product, and is normally soaked in water to make it soft and</p> |

| | |
|----------------|---|
| | <p>flexible for easy weaving.</p> <p><u>Process 10:</u> Assembly</p> <p>Each type of furniture is assembled from a mixture of rattan materials, such as large bent canes for arms and legs, and split small canes for woven seats.</p> |
| Painting | <p><u>Process 11:</u> Bleaching</p> <p>Some finished products are bleached according to taste and customer demand.</p> <p><u>Process 12:</u> Painting or finishing</p> <p>Paint, such as thinner, is usually used to make products smooth to the touch.</p> |
| Final products | The final product is ready to be sold |

2. CONTACT POINT

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Turn the rattan wastes into valued products



PART IV:

HOW TO PRODUCE IN A SUSTAINABLE WAY?

SLOGAN:

“
CLEANER PRODUCTION...
More profit, less waste, and
much more!
”

(Sourced by: UNEP-DTIE)

The unsustainable harvesting of rattan is a significant issue, and its depletion leads to forest degradation. Up to 55% of the harvest is wasted along the supply chain, and highly toxic substances causing air, water and soil pollution and health issues for workers are used in the production process. Non-registered rattan traders can undercut legitimate traders, and over 90% of finished rattan products currently produced in Lao PDR do not meet required product quality standards and lack proper licenses.

Supply chain management has to be optimized and Cleaner Production (CP) techniques and technologies must be introduced at the pre-processing level and at rattan processing SMEs, thereby reducing pollution and mitigating the negative impact on workers and the population living around processing facilities.

CP activities in Lao PDR were launched in 2005 with the support of the United Nations Industrial Development Organization (UNIDO). CP assists companies to meet both environmental and trade-related challenges by reducing resource consumption, waste and pollution, and by switching to less hazardous materials and increasing worker productivity. It allows enterprises to be more efficient, cost-effective and competitive while simultaneously reducing their environmental impact and benefiting society.

SLOGAN: “CLEANER PRODUCTION... More profit, less waste, and much more!”

(Sourced by: UNEP-DTIE)

CP project activities started in 2010 in two phases, supported by WWF and the LNCCI with the technical expertise of the Vietnam Cleaner Production Centre (VNCPC). Upon the completion of the project, the manufacturers are skilled and able to apply a CP approach.

1. WHAT IS CP?

CP is the continuous application of an integrated, preventive environmental strategy to process products and services in order to increase eco-efficiency and reduce risks to people and the environment.

During production: CP involves conserving raw materials and energy; eliminating the use of toxic raw materials; reducing the quantity and toxicity of all emissions and waste; and reducing negative impacts along the life cycle of a product, from the extraction of raw materials to their ultimate

disposal through proper product design.

In relation to service: CP incorporates environmental concerns into the design and delivery of services. CP is also a method that uses different analysing tools to improve efficiency and profit.

CP is a profit-oriented and business-focused approach, combining business planning with processing to reduce the cost of production. It is suitable for enterprises of all scales, from household to industrial activities.

2. HOW IS CP ASSESSED?

CP assessment focuses on identifying manufacturing waste, why it is produced, its affect on air pollution and ways it can be reduced. CP assessment is carried out by CP experts, since there is no CP Center in Lao PDR under the Department of Industry in the Ministry of Industry and Commerce, which is the main actor in this area.

By analysing the flow of materials and energy used, a manufacturing CP team, with technical support and training by a Lao CP team (themselves trained by the Vietnam Cleaner Production Centre [VNCPC]) tries to identify the sources of waste and options to minimize waste and emissions from industrial processes, through source reduction strategies. Improvements in organization and technology help to reduce or bring to light better choices in the use of materials and energy, which reduce waste and waste water generation, gaseous emissions, waste heat and noise. There are six steps in implementing a CP assessment (see Figures 18 and 19):

CP assessments will be conducted every year. If the application of CP is maintained and meets quality requirements, CP certification is maintained

Figure 18: Six steps to CP assessment

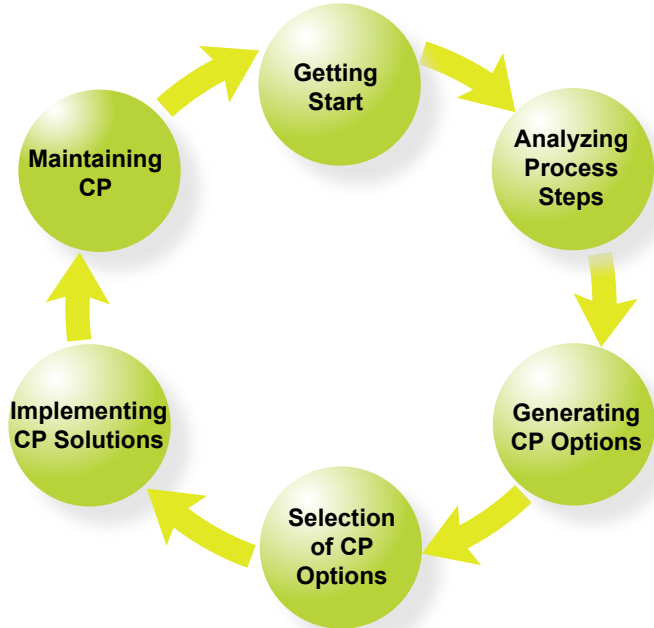


Figure 19: Details of six steps to CP assessment

| No | Step | | Tasks |
|----|-------------------------|----|---|
| 1 | Getting started | 1. | Designate CP team |
| | | 2. | List process steps and identify benchmarks |
| | | 3. | Identify and select wasteful unit operation |
| 2 | Analyzing process steps | 4. | Process flow chart for focus unit operation |
| | | 5. | Make material and/or energy balance |
| | | 6. | Assign cost to waste streams |
| | | 7. | Cause analysis |
| 3 | Generating CP options | 8. | Generating CP options |
| | | 9. | Select workable opportunities |

| | | | |
|---|---------------------------|-----|---|
| 4 | Selection of CP options | 10. | Assess technical feasibility |
| | | 11. | Assess financial viability |
| | | 12. | Evaluate environmental aspects |
| | | 13. | Select solutions for implementation |
| 5 | Implementing CP solutions | 14. | Prepare for implementation |
| | | 15. | Implement CP options |
| | | 16. | Monitor and evaluate results |
| 6 | Maintaining CP | 17. | Sustain CP |
| | | 18. | Select new focus area for next CP assessment (to task 3) |

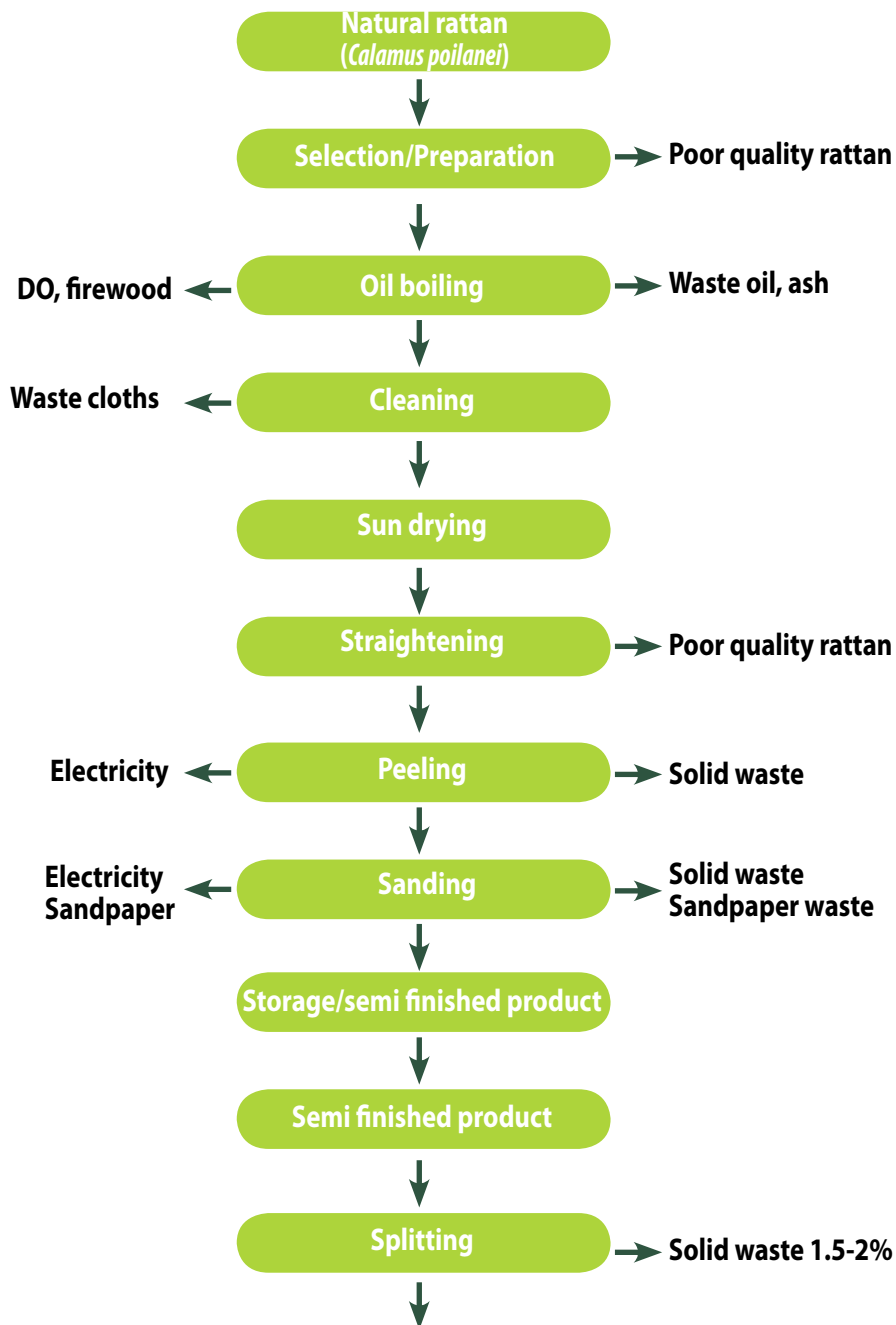
3. ASSESSMENT OF LAO COMPANIES

In the Lao PDR rattan industry, processes like peeling, splitting, sanding and cutting generate a large amount of waste

Three companies have been assessed for CP practices and are applying CP. They receive full-time technical support from Lao CP under contract between LNCCI and VNCPC. One company has completed the requirements of CP. The difficulties faced by these companies mainly relate to: a lack of skilled personnel that can commit to the guidelines; a lack of operating funding to meet the CP requirements; and difficulty in seeing clearly a long-term return on investment (since manufacture tends to focus on the nearest financial objectives).

Figures 20 and 21 illustrate how CP assessment can operate at a rattan manufacturer, showing how each step is assessed to identify potential improvements. The figures show the different processing stages involved in manufacturing using the two most used rattan species (*Calamus Poilanei* and *Calamus palustris*). In figure 20, industrial inputs are shown on the left and waste products on the right.

Figure 20: CP assessment applied to two species to identify waste generated during production



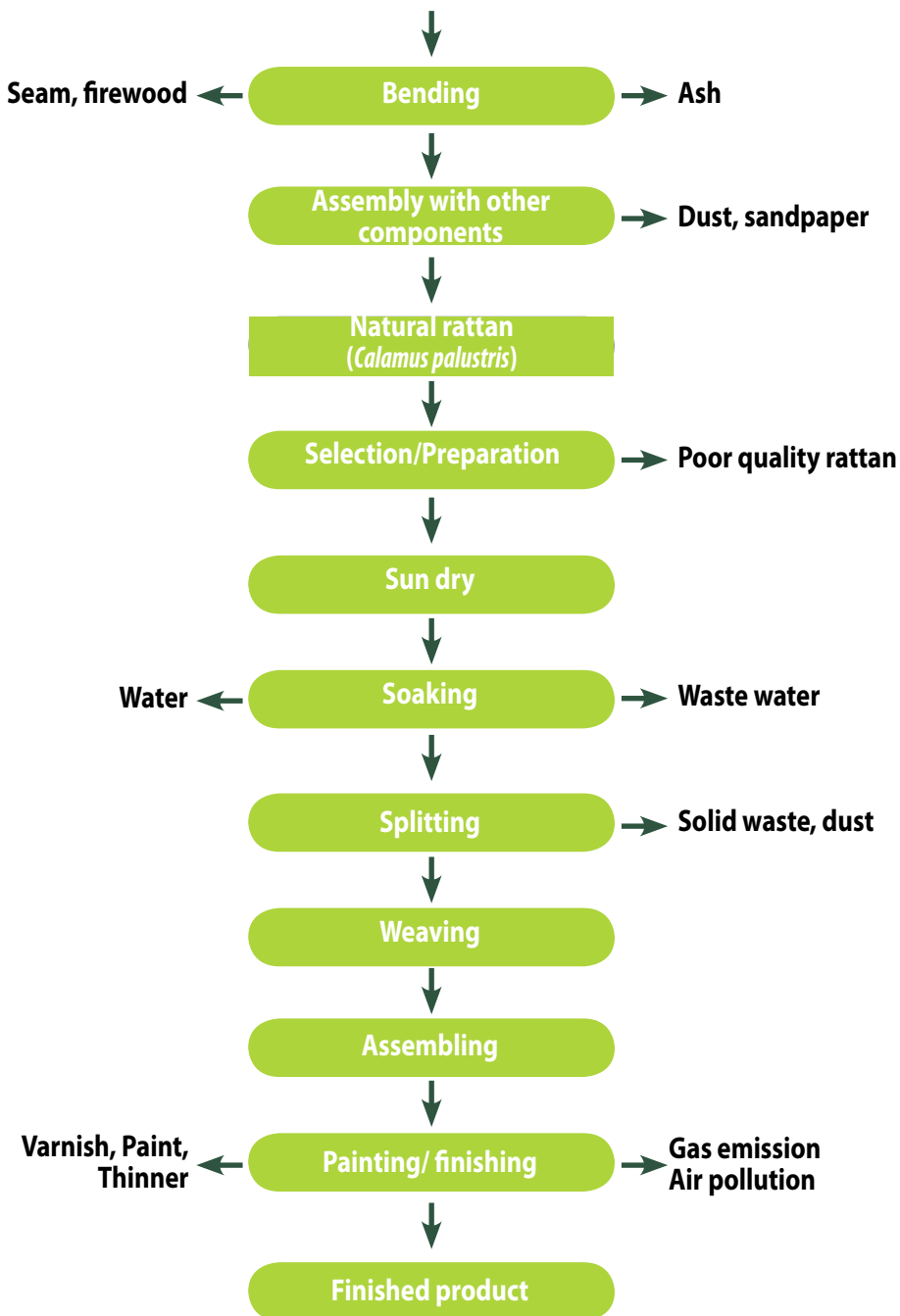


Figure 21: Example of CP assessment to two species details

| Process | Type | Details |
|---------|-------------------------------|--|
| 1 | Rattan Preparation /selection | After harvesting, the natural rattan is transported, mostly by truck, to the plant site by the farmer or rattan seller, which normally takes 10 to 15 days. After arrival at the plant site, around 5% to 10% is classed as waste because it has been attacked by fungi or because it is immature. The remaining rattan is then washed to remove dirt and bundled up (10-15 canes per bundle) before boiling. |
| 2 | Oil boiling | In order to preserve the rattan against insects, it is boiled in a tank measuring approximately 4m ³ . The tank is filled with about 3,000 liters of diesel and heated with firewood for approximately 3 hours. About 300 pieces of bundled rattan cane are put into the hot tank and boiled for 45 minutes. The boiling method practiced at plants is primitive; there is no sorting or temperature control in different zones of the boiling chamber with uncontrolled natural draft for combustion. The firing takes place at two sides and there is no chimney, so firing involves the use of a lot of fuel wood. |
| 3 | Cleaning | After boiling, the rattan is cleaned by hand using waste cloths in order to remove dirty matter from the cane stems, to impart a polished effect, and to smooth the stems |
| 4 | Sun drying | The boiled rattan is dried by the sun for one to two weeks. While drying the rattan is positioned to allow any remaining oil to flow off, thus speeding up the drying process and preventing parts of the rattan from remaining damp, which would affect product quality. |
| 5 | Straightening | Natural rattan is not straight, so straightening is required to facilitate further processing and to reduce material loss during these processes. |
| 6 | Peeling | After drying and straightening, rattan can be stored or taken for further processing, such as peeling or splitting. Unsuitable or blunt tools are used, resulting in high wastage, higher consumption of electricity, improper peeling and splitting, and uneven surfaces. The machinery used is old and inefficient. |
| 7 | Sanding | Sanding with fine sandpaper is done to smooth the surface of the peeled rattan and make it suitable for furniture making. |
| 8 | Splitting | Small, rounded lengths of rattan are needed in furniture making, and a splitting machine is used to give the required sizes. The rattan also needs to be split for weaving, but this is done by hand. The rattan is soaked to make splitting by hand easier, and to prevent material loss. |

| | | |
|----|-----------------------|---|
| 9 | Bending | <p>Long lengths of peeled rattan are bent into the shapes needed to make up different kinds of furniture. The rattan is cut to the required length and bent in a form while still hot, using steam prepared by a small boiler fired by wood.</p> <p>The canes are longer than required because of shrinkage during the bending process. After bending, they are trimmed and waste is generated.</p> |
| 10 | Weaving | <p>Weaving is the major labor-oriented job and is mainly done by workers using traditional skills. The rattan split by hand for weaving is cut randomly without reference to a proper plan and sized according to the particular product being made. It is normally soaked in water to make it soft and flexible for easy weaving.</p> |
| 11 | Assembly | <p>Each type of furniture is assembled from a mixture of rattan materials, such as large bent canes for arms and legs, and small split canes for woven seats.</p> |
| 12 | Bleaching | <p>Some finished products are bleached according to taste and customer demand. Bleaching agents such as hydrogen peroxide, sodium hydroxide and silicium oxide are used. The bleaching method is primitive. A large amount of chemicals are lost and workers receive little safety instruction.</p> |
| 13 | Painting or finishing | <p>Paint, dissolved in a solvent such as thinner, is usually used in order to make the surface of products smooth. The consumption of varnish and lacquer is high because the painting process is very inefficient and involves a lot of wastage. The consistency of varnish or lacquer applied needs to be optimized based on required application.</p> |

From the assessment of the Lao manufacturers, the waste generated during production is identified as:

- Pollution of air and environment by the dust generated from node cutting, peeling and sanding
- Exhaust gas from painting or thinner; the wastewater sources come from rattan washing, oil boiling tanks and soaking tanks
- Solid waste from: the discarded, low quality rattan (discarded because it has fungi or because it is immature); during storage, from peeling and end-cutting and from weaving and other processing

4. HOW WILL COMPANIES BENEFIT FROM APPLYING CP?

Companies did not see the benefits of CP when it was first implemented. However, after trials over a few months, the advantages for could be quan-

tified:

- Reduced emissions
- Monetary savings
- Reduced environmental pollution
- Increased access to more modern, cleaner technologies
- Conservation of raw material
- Ability to access international market more competitively

5. COSTS OF ESTABLISHING CP

Since the CP Center was launched, CP activities have been supported by the UNIDO programme, so SMEs have so far not been charged for CP assessment. However, a decision is pending on charging a fee for CP assessment in the future.

CP began in 2005 in Lao PDR. CP assessment is just beginning, and it does not yet cover the entire industrial sector. Currently, CP activities are carried out by a CP Center operating with project cooperation supported by UNIDO.

6. CONTACT POINT

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PART V:

HOW TO REACH THE NICHE MARKET?

If Lao rattan companies are to reach markets abroad, they need to consider several factors. Companies often fail to recognize that the market place changes every year. Those who change and adapt dominate the market and those who do not change are left behind. As the world market place changes, companies can no longer rely on their former business practices to sustain prosperity.

Several projects have been put in place in Lao PDR to support Lao rattan companies to build sustainable businesses to reach international niche markets. Acquiring and retaining customers is possible if key changes are made in areas including design, pricing and evaluating production capacity. Companies must develop the ability to build relationships with foreign customers and take advantage of these relationships by understanding how to achieve appropriate product certification.

1. DESIGN

Design is a realization of a concept or idea into a model for commercial production. Therese Broberg (School of Industrial Design, Lund University, Sweden) was called in as a consultant in relation to rattan manufacturing in Lao PDR, and defined 'design' as relating to beauty, emotions and functionality.

In 2011, a design guide book – “Sustainable Rattan Design” – was published with co-funding from WWF and the European Union. It aims to show how design can contribute to sustaining rattan resources and how, by investing in design, the rattan sector can attract the interest of international buyers and, therefore, access the international market. It demonstrates why it is important to think about design when addressing sustainability. Sustainable rattan design is key to reaching the international market, where customers are increasingly looking for attractive, environmentally friendly products.

1.1. Values of sustainable design

There are three foundations for sustainable design:

- People: it must be socially sound
- Planet: it must be environmentally friendly
- Profit: it must be financially viable



Working with a sustainable design can help to save the environment, increase economic advantages and bring people together. Today, many customers around the world demand that the products they buy come from sustainable sources.

Sustainable design can be made in many ways:

- Finding new uses for waste material
- Minimizing material use
- Securing a superior product with a long lifespan

Designs made from natural cane with the peel left on automatically result in sustainable products. The peel is very protective and by leaving it on the cane producers avoid having to undertake unhealthy diesel boiling and toxic surface treatments.



© Therese Broberg

© Therese Broberg

1.2. How can design benefit SMEs?

Currently, SMEs manufacturing rattan products use only the parts they need. What remains are mostly small parts that pile up in the warehouse because the manufacturer does not know how to reuse them. As time passes, mites eat them and they are thrown out or burned. Most manufacturers do not have time to think about design; they respond to orders from clients who come to them with a model.

When design allows manufacturers to use all parts of the rattan and to avoid using glue and nails, production costs are reduced. Designers from Sweden and France assisting Lao rattan manufacturers have recommended that products should be designed to:

- Use all parts of the rattan, generating more income and minimizing waste
- Use less rattan, reducing cost
- Meet customer demand on the international market
- Increase the visibility and recognition of the Lao rattan industry

1.3. Improving design

Lao rattan manufacturers tend to make the same kind of products to the same designs or to wait for customers to come to them with their own design ideas. This approach does not maximize manufacturers' market potential and, due to the waste and toxic substances used during production, impacts negatively on the environment and workers' health. Designers recommended that manufacturers should think about the following ideas before production:

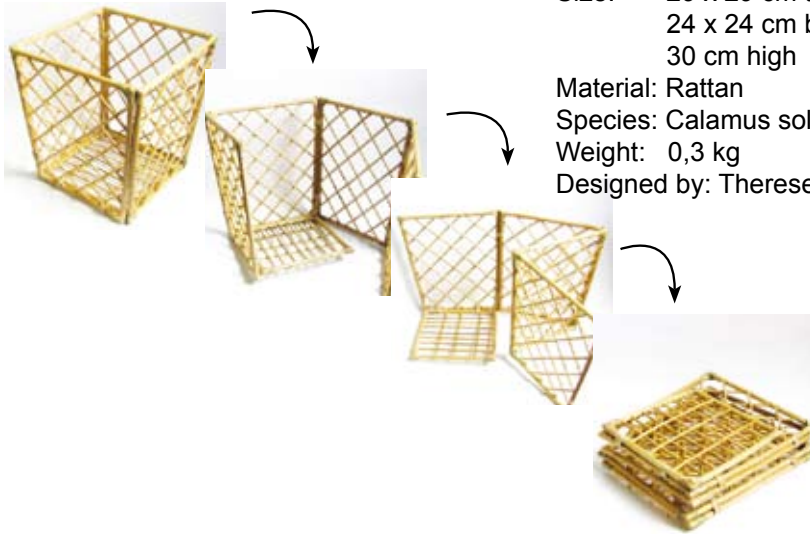
- Make unique pieces
- Recycle materials
- Use square elements or arcs when constructing a piece of furniture
- Avoid complicated joints and additional materials
- Avoid using nails, glue and screws
- Pay attention to the plugging technique: Simplify logistics and simplify transportation
- Invest in a professional design section

1.4. Models of sustainable product design made in Lao PDR

The pictures below show models created by Swedish, French and Lao designers for Lao manufacturers. They embody the idea of design expressing emotion, beauty and functionality, and demonstrate the numerous possibili-

ties for Lao designers and manufacturers to create inspiring products.

Minimize space use



FLAT PACK BASKET

Size: 29 x 29 cm top
24 x 24 cm bottom
30 cm high

Material: Rattan

Species: Calamus solitarius

Weight: 0,3 kg

Designed by: Therese Broberg

Minimize raw material use



STRING BASKET

Size: Ø 33 cm top
36 cm high

Material: Rattan

Species: Calamus solitarius

Weight: 0,35 kg

Designed by: Therese Broberg

No chemical and toxic use



WOVEN FLOWERPOT

Size: Ø 26 cm
17 cm high
Material: Rattan
Species: Calamus solitarius
Weight: 0,3 kg
Designed by: Therese Broberg

Turn the rattan wastes into valued products



WASTE MATERIAL BASKET

Size: Ø 30 cm top
34 cm high
Material: Rattan and its waste
Species: Calamus solitarius
Weight: 1 kg
Designed by: Therese Broberg

1.5. Contact point

For more information, please contact:

Michel Saada
Tchop Lai Galery

Vat Inpeng street, P.O.Box.7776
Vientiane, Lao PDR
E-mail: contact@laococo.com

2. PRICING

An important component of exportation is pricing. A proper calculation of the cost of production allows manufacturers to develop the right price strategy, to positioning themselves effectively in relation to competitors and to satisfy customers.

2.1. Raw material pricing

In 2011, MAF set the price for raw rattan, from the harvesting of the managed areas, per stick. Price varies between 1,500 kip (small diameter canes) to 6,000 kip (large diameter canes) for a stick measuring five meters. The price is broken down as follows:

| Price per stick (LAK) | Net income to the rattan gatherer | Village treasury | Village Handicraft group | MAF | |
|-----------------------|-----------------------------------|------------------|--------------------------|-------|------------------|
| | | | | Labor | Natural resource |
| 1500 | 1000 | 100 | 100 | 100 | 200 |
| 100% | 67% | 7% | 7% | 7% | 13% |

In the illegal market, where gatherers do not work according to the quota system, raw rattan is sold at a lower price per roll or per kilo to manufacturers.

2.2. Production cost calculation

The production cost can be calculated to evaluate profitability and production feasibility. It may be calculated by an external consultant to assist a company' production plans. The information given below information is applicable to all rattan industries working with villages.

2.2.1. Production cost calculation to evaluate profitability and feasibility

MS Excel was used to create a template for calculation of production cost. A series of tables were developed in order to calculate each element of production cost (variable costs and fix costs). The figures are linked from one table to another and formulas are set in each table, so that when figures are input, the calculation is made automatically. The figures in table 1 will be automatic calculated when inputs were added in tables 2 to 6. As a result, the variable cost per set of rattan handicraft products will be calculated for table 1. The figures in tables 7 and 8 allow exporting companies to be aware of the break-even point of production, and to evaluate different production costs and selling prices.

Figure 22: Production cost calculation

Table 1: Cost structure of total variable costs

| Product | | | Composition of Total Variable Costs (LAK) | | | | | Total Cost/Unit (LAK) | Total Cost/Set (LAK) | Total Cost/Unit (USD) | Total Cost/Set (USD) |
|-----------|-------|------|---|-------|-----------|--------------|----------|-----------------------|----------------------|-----------------------|----------------------|
| Product # | Photo | Size | Rattan | Labor | Packaging | Other inputs | Shipping | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |

Table 2: Detail calculation of rattan cost

| Product | | | Rattan # 1 | | | Rattan # 2 | | | Total rattan cost per product unit (LAK) | Total Rattan Cost per Set (LAK) | Total Rattan Cost per Product Unit (USD) | Total Rattan Cost per Set (USD) |
|-----------|-------|------|----------------|---------------------|-----------------------------|----------------|---------------------|-----------------------------|--|---------------------------------|--|---------------------------------|
| Product # | Photo | Size | Number of cane | Cost per cane (LAK) | Total rattan # 1 cost (LAK) | Number of cane | Cost per cane (LAK) | Total rattan # 1 cost (LAK) | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |

| | | | | | |
|--|--------------|--|--|--------------|--|
| Cost per one rattan cane # 1 = (Amount LAK) | | | Cost per one rattan cane # 2 = (Amount LAK) | | |
| List of concerned costs per 1 rattan cane | | | List of concerned costs per 1 rattan cane | | |
| Expense 1 detail (explain) = | Amount (LAK) | | Expense 1 detail (explain) = | Amount (LAK) | |
| Expense 2 detail (explain) = | Amount (LAK) | | Expense 2 detail (explain) = | Amount (LAK) | |
| Expense 3 detail (explain) = | Amount (LAK) | | Expense 3 detail (explain) = | Amount (LAK) | |
| Expense 4 detail (explain) = | Amount (LAK) | | Expense 4 detail (explain) = | Amount (LAK) | |

Table 3: Detail calculation of labor cost

| Product | | | Labor cost per activity (LAK) | | | | | | Total labor cost (LAK) |
|-----------|-------|------|-------------------------------|--------------|---------|---------|-------------------------|-------|------------------------|
| Product # | Photo | Size | Making product | Basic Salary | Packing | Loading | Quality control per set | Other | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |

Table 4: Detail calculation of packaging cost

| Product | | No. of product units per container | Carton | | | Scotch Tape | | | Cost of hanging tag (LAK) | Wrapping paper | | | Total cost of packaging (LAK) | Total cost of packaging per product unit (LAK) |
|-----------|-------|------------------------------------|--------|----------------|-----------------------|----------------------------|---------------------------|---------------------------------|---------------------------|---------------------------------|-------------------|-------------------|-------------------------------|--|
| Product # | Photo | | Size | No. of cartons | Cost per carton (LAK) | Total cost of carton (LAK) | No. of scotch tape (unit) | Cost per 1 scotch tape (LAK)/ m | | Total cost of scotch tape (LAK) | No. of paper (Kg) | Cost per kg (LAK) | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |

Table 5: Detail calculation of other inputs cost

| Product | | | Input # 1 | | | Input # 2 | | | Total other inputs per Product Unit (LAK) | Total other inputs per Set (LAK) | Total other inputs per Product Unit (USD) | Total other inputs per Set (USD) |
|-----------|-------|------|--------------------|---------------------------|----------------------------|--------------------|---------------------------|----------------------------|---|----------------------------------|---|----------------------------------|
| Product # | Photo | Size | Number of input #1 | Cost per input unit (LAK) | Total input # 1 cost (LAK) | Number of input #1 | Cost per input unit (LAK) | Total input # 1 cost (LAK) | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |

Table 6: Detail calculation of shipping cost

| Product | | | Number of products in set | | Number of product units per size | Total cost of shipping per product unit (LAK) |
|-----------|-------|------|---------------------------|--|----------------------------------|---|
| Product # | Photo | Size | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |

Table 7: Total fixed costs**Total fixed cost = (Amount LAK)**

Expense 1 detail (explain) = Amount (LAK)

Expense 2 detail (explain) = Amount (LAK)

Expense 3 detail (explain) = Amount (LAK)

Expense 4 detail (explain) = Amount (LAK)

Expense 5 detail (explain) = Amount (LAK)

Expense 6 detail (explain) = Amount (LAK)

Expense 7 detail (explain) = Amount (LAK)

Table 8: Production feasibility evaluation**1. Break-even calculation**

Total fix cost = Amount (LAK)

Total variable cost per set = Amount (LAK)

Selling price per set = Amount (LAK)

Break-even quantity = Number of sets

2. Production cost and selling price evaluation

Amount of rattan canes need for 1 set = Amount (LAK)

Amount of rattan canes from forest (small diameter) = Amount (LAK)

Maximum of production = Amount (LAK)

Production target = Amount (LAK)

Worker capacity per person per day = Amount (LAK)

Target workers for production = Amount (LAK)

Variable cost per set = Amount (LAK)

Total variable cost = Amount (LAK)

Total fixed cost = Amount (LAK)

Selling price = Amount (LAK)

2.2.2. Production plan and quality control system to ensure good management

Companies can take advantage of producing with villages in addition to in their own factories, increasing their production capacity with regards to important orders from clients.

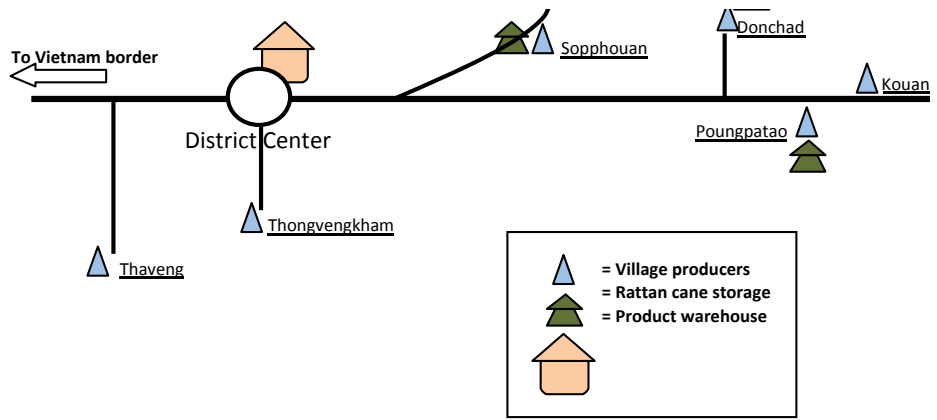
This production plan contains detailed information about the exporting company, production capacity, production target, and how production flow should be created together with the quality control system that should be set up.

Production Plan

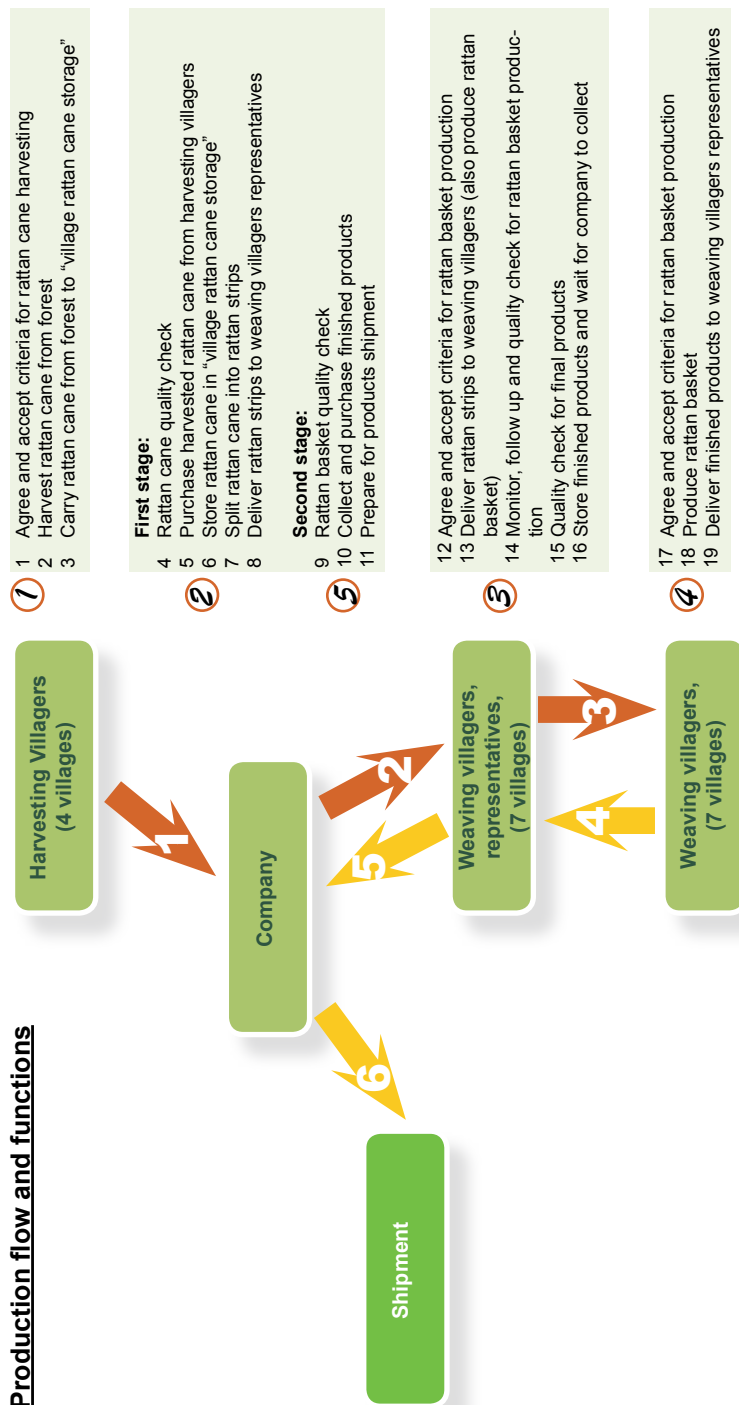
General Information

| | |
|---|--|
| Company Name: | |
| Product: | Rattan Basket, size: Big Ø 28 cm x H 21 cm Medium Ø 22 cm x H 18 cm Small Ø 17 cm x H 14 cm |
| The target number of produced products: | 9,072 units (3,024 sets) |
| Production Period: | Late February to end May 2011 |
| Production Location: | Khamkerd district, Bolikhamxay province |
| The number of village producers: | 100 people |
| Capacity of village producers: | 0.5 – 1 set/people/day |
| The number of casual workers: | 33 people |
| The number of splitting machines | 10 units |

Location and map



8 Production flow and functions



Production Quality Control

Rattan cane harvesting

- List of criteria for rattan cane is introduced to harvesting villagers
- Harvested rattan cane is checked at the rattan cane storage at delivery time

Rattan cane splitting

- Splitting procedure is introduced to village workers
- Sorting rattan strips

Rattan basket weaving

- List of criteria for rattan basket is introduced to weaving villagers
- Rattan basket in production process is monitored by village weaving representatives
- Rattan basket is checked and store at village weaving representatives place

Rattan basket collecting

- Rattan basket is checked at the time of collecting

Rattan basket packaging

- Rattan basket is checked before packaging

2.2.3. Production scheduling to monitor and follow up production

In this example, a production schedule allows the exporting company to add data, updating the progress of production at each step from the number of rattan canes harvested to the number of rattan baskets woven.

Figure 23: Production Schedule

| | Sum | Month | Name of Month | | | | Name of Month | | | |
|--------|-----|---|---------------|--------|--------|--------|---------------|--------|--------|--------|
| | | Date | Week 1 | Week 2 | Week 3 | Week 4 | Week 1 | Week 2 | Week 3 | Week 4 |
| Plan | | Rattan cane harvesting (cane) | | | | | | | | |
| Actual | | | | | | | | | | |
| Plan | | Rattan cane in storage (cane) | | | | | | | | |
| Actual | | | | | | | | | | |
| Plan | | Rattan cane splitting (cane) | | | | | | | | |
| Actual | | | | | | | | | | |
| Plan | | Rattan strip in storage (strips) | | | | | | | | |
| Actual | | | | | | | | | | |
| Plan | | Deliver rattan strips to weaving villagers (strip) | | | | | | | | |
| Actual | | | | | | | | | | |
| Plan | | Rattan product weaving (strip) | | | | | | | | |
| Actual | | | | | | | | | | |
| Plan | | Rattan basket product (set) | | | | | | | | |
| Actual | | | | | | | | | | |

2.3. Contact point

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3. THE ABILITY TO DEVELOP

The ability to change has now become a competitive advantage for companies. The ability to change is an ability to learn. Companies wanting to build a relationship with clients or partners abroad should consider the following important issues:

- Managing English language communication (written and spoken) so that replies can be made to emails and orders
- How to supply quotations
- Establishing an accessible and successful website

4. TRADE FAIRS

A trade fair is a tool used by entrepreneurs, at which they are able to display their products to potential customers. Many companies wanting to gain access to international customers participate in trade fairs and supplement their displays with marketing support including brochures, a website, hand-outs and a sales team. This section includes principal details provided by the LNCCI about participation in trade fairs.

4.1. What is trade fair?

A trade fair is a place where most suppliers of a particular kind of product gather to present their output. It is an event where goods and services related to a specific industry are exhibited and demonstrated.

4.2. Why a trade fair?

Trade fairs, in the form of trade shows, trade exhibitions or ‘expos’ are organized so that companies in a specific industry can showcase and demonstrate their latest products and services. At trade fairs, companies are also able to study what their rivals are doing, examine recent market trends and discover new opportunities.

4.3. What are the benefits to trade fair participants?

- Easy to present your products to the many customers attending the fair
- Easy for customers to see your products
- Can result in new market opportunities and new customers
- An opportunity to present the company’s image

- Offers access to competitors' markets
- Opportunity to obtain new orders and generate income

4.4. Conditions of attending a trade fair

Business entrepreneurs wishing to attend a trade fair/exhibition have to be members of LNCCI or a provincial branch.

The standard requirements of attendance are:

- The products have to be suited to the event and the objective of the event
- The products must be made by the company
- Production must involve a skilled labour force in a suitably located factory
- Raw materials must be of good quality and meet market standards
- There must be direct access to a contact person from the company
- The company must provide product information
- The company must have a good understanding of production export procedure
- Market information and financial information about the company must be available
- The company must provide printed material in support of the product

4.5. Formal costs of trade fair participation

- Exhibition booth fee
- Cost of transporting products to exhibition booth (internal/external)
- Flight tickets
- Local transportation and hotel accommodation with daily allowance
- Promotional material printing
- Decoration
- Translation
- VISA fees
- Construction work force

4.6. Documents needed to apply for participation in a trade fair at LNCCI

- Request letter
- Exhibition form
- Copy of current LNCCI business membership
- Supporting current basic documentation: 1. Business Registration License; 2. Export Business License; 3. Tax Registration License; 4.

4.7. Exhibitions in 2012

LNCCI is involved in several trade fair and exhibitions relating to both the internal and external market in 2012:

Figure 24: 2012 Exhibition Activities in the Asian Region

| No | Date | Country | Place | Title | Product type |
|----|----------------|----------|---------------------------|--|--|
| 1 | Jan 15 – 22 | Thailand | Xieng Rai | The 16th Thailand GMS Trade Fair & Cultural Show 2011 | Handicrafts, jewelry, interior design, kitchen ware, food and beverage |
| 2 | Feb 2 – 6 | India | Pragati Maidan, New Delhi | India ASEAN Business Fair (LABF) & Business CONCLAVE | Handicrafts, jewelry, interior design, kitchen ware, food and beverage |
| 3 | Feb 5 – 7 | Lao PDR | Cultural Hall | Lao Food Festival | Food and beverage |
| 4 | Feb 26 – Mar 2 | Thailand | IMPACT | The 47th Bangkok Gems & Jewelry Fair 2011 (BGJF) | Jewelry |
| 5 | Mar 10 – 14 | Thailand | IMPACT | Thailand International Furniture Fair (TIFF) | Furniture production |
| 6 | Apr 1 – 4 | Thailand | IMPACT | Bangkok International Fashion Fair & Bangkok International Leather Fair 2011 (BIFF & BIL 2011) | Garment industry |
| 7 | Apr 12 – 18 | China | Xishuangbanna Border | The 1th Xishuangbanna Border Trade & Tourism Fair | Handicrafts, jewelry, interior design, kitchen ware, food and beverage |

| | | | | | |
|----|--------------------|----------|-------------|---|--|
| 8 | Apr – May / 2012 | Thailand | IMPACT | Bangkok International Fashion Fair & Bangkok International Leather Fair | Garment industry |
| 9 | May 12 – 16 | Thailand | IMPACT | THAIFEX World of Food Asia | Food and beverage |
| 10 | Jun 6 – 10 | China | Khumming | The 18th Session of China Imp & Exp Fair, Kunming | Handicrafts, jewelry, interior design, kitchen ware, Food and Beverage |
| 11 | Jun 11 – 13 | Japan | Tokyo | Interior Lifestyle Exhibition | Handicrafts, jewelry, interior design, kitchen ware, food and beverage |
| 12 | Sept | Thailand | IMPACT | The 48th Bangkok Gems & Jewelry Fair 2012(BGJF) | Jewelry |
| 13 | Oct 20 – 24 | China | Nanning | The 8th China ASEAN Expo 2012 | Handicrafts, jewelry, interior design, kitchen ware, food and beverage |
| 14 | Oct 22 – 25 / 2012 | China | Zen Tou | The 12th Western China International Economy and Trade Fair 2011 | Handicrafts, jewelry, interior design, kitchen ware, food and beverage |
| 15 | Nov 1 – 5 | Lao PDR | Lao-ITECC | Lao Handicraft Festival 2012 | Handicrafts (Lao made) |
| 16 | Dec 1 – 4 | Vietnam | Ho Chi Minh | The 9th Vietnam International Trade Fair | Handicrafts, jewelry, interior design, |

| | | | | | |
|----|------------|---------|-----------|---------------------|--|
| | | | | | design, kitchen ware, food and beverage |
| 17 | Dec 9 – 13 | Lao PDR | Lao-ITECC | The 1st Made in Lao | Handicrafts, jewelry, interior design, kitchen ware, food and beverage |

4.8. Contact point

Lao National Chamber of Commerce and Industry Exhibition Division

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www.laocci.com

5. CERTIFICATION

Unsustainable rattan harvesting leads to forest degradation, affecting not only tropical forest ecosystems but also a source of income for rural people. Achieving more sustainable rattan production will ensure its future supply and prevent negative impacts on nature, communities and companies.

The importance of rattan for multiple applications including as a building material and in furniture production is widely recognized. However, the way rattan is harvested and processed needs to be improved in order to secure supply in the long term.

The use of toxic chemicals and petrol in the processing of rattan takes a toll on soil and water resources, causes air pollution and harms health. Manufacturers have to pay attention to pollution, wastage, unreliable and illegal supply practices and low product quality.

In this context, it is important that manufacturers note the benefits of obtain-

ing certification. This section contains some essential information about certification.

5.1. Logo

The Forest Stewardship Council (FSC) is an NGO that promotes sustainable forestry all over the world, and grants certification to let buyers know that forest products have been harvested sustainably. If a product is FSC certified, it means that it has been harvested sustainably and not mixed with other products during processing. Today, in the USA and Europe, buyers are paying more attention to products that have been FSC certified.



The Rainforest Alliance SmartWood Program is a certification body accredited by the FSC that has established a set of standards (see Figure 25) to provide forest managers, landowners, forest industries, scientists, environmentalists and the general public with information on the forest management operations that SmartWood evaluates when deciding on the granting of FSC certification. These standards have been developed for Lao PDR based upon the Rainforest Alliance SmartWood Generic standards, which have been approved by the FSC (through Accreditation Services International).

5.2. Why FSC?

FSC, which is represented in more than 50 countries, is an internationally recognized certification body. It is acknowledged as having the strongest and most credible certification system, which provides a link between the responsible production and consumption of forest products. FSC certification enables consumers and businesses to make purchasing decisions that benefit people and the environment, and provides ongoing business value. FSC certification represents a marketing opportunity for the Lao rattan industry that would enable their products to be sold at a higher price and bring sustainable production closer.

The long-term objective of the WWF Sustainable Rattan Project in Lao PDR is credible forest certification and establishing a more sustainable rattan production supply chain.

5.3. The 10 principles of the FSC standard

Figure 25 details the 10 principles applicable to the FSC certification.

Figure 25: FSC standard

| No | Principle | Details |
|----|---|--|
| 1 | COMPLIANCE WITH LAWS AND FSC PRINCIPLES | <ul style="list-style-type: none"> • All applicable and legally prescribed fees, royalties, taxes and other charges shall be paid. • In signatory countries, the provisions of all binding international agreements such as CITES, ILO Conventions, ITTA, and the Convention on Biological Diversity, shall be respected. • Conflicts between laws, regulations and the FSC Principles and Criteria shall be evaluated for the purposes of certification, on a case-by-case basis, by the certifiers and the involved or affected parties. |
| 2 | TENURE AND USE RIGHTS AND RESPONSIBILITIES | <ul style="list-style-type: none"> • Clear evidence of long-term forest use rights to the land (e.g. land title, customary rights, or lease agreements) shall be demonstrated. • Local communities with legal or customary tenure or use rights shall maintain control, to the extent necessary to protect their rights or resources, over forest operations unless they delegate control with free and informed consent to other agencies. • Appropriate mechanisms shall be employed to resolve disputes over tenure claims and use rights. The circumstances and status of any outstanding disputes will be explicitly considered in the certification evaluation. Disputes of substantial magnitude involving a significant number of interests will normally disqualify an operation from being certified. |
| 3 | INDIGENOUS PEOPLES' RIGHTS | <ul style="list-style-type: none"> • Sites of special cultural, ecological, economic or religious significance to indigenous peoples shall be clearly identified in co-operation with such peoples, and recognized and protected by forest managers. • Indigenous peoples shall be compensated for the application of their traditional knowledge regarding the use of forest species or management systems in forest operations. This compensation shall be formally agreed upon with their free and informed consent before forest operations commence. |
| 4 | COMMUNITY RELATIONS AND WORKER'S RIGHTS | <ul style="list-style-type: none"> • The communities within, or adjacent to, the forest management area should be given opportunities for employment, training, and other services. • Forest management should meet or exceed all applicable laws and/or regulations covering health and safety of employees and their families. • Management planning and operations shall incorporate the results of evaluations of social impact. Consultations shall be maintained with people and groups directly affected by management operations. |

| | | |
|---|---------------------------------|---|
| 5 | BENEFITS FROM THE FOREST | <ul style="list-style-type: none"> • Forest management should strive toward economic viability, while taking into account the full environmental, social, and operational costs of production, and ensuring the investments necessary to maintain the ecological productivity of the forest. • Forest management and marketing operations should encourage the optimal use and local processing of the forest's diversity of products. • Forest management should minimize waste associated with harvesting and on-site processing operations and avoid damage to other forest resources. • The rate of harvest of forest products shall not exceed levels which can be permanently sustained. |
| 6 | ENVIRONMENTAL IMPACT | <ul style="list-style-type: none"> • Assessment of environmental impacts shall be completed -- appropriate to the scale, intensity of forest management and the uniqueness of the affected resources -- and adequately integrated into management systems. Assessments shall include landscape level considerations as well as the impacts of on-site processing facilities. Environmental impacts shall be assessed prior to commencement of site-disturbing operations. • Safeguards shall exist which protect rare, threatened and endangered species and their habitats (e.g., nesting and feeding areas). Conservation zones and protection areas shall be established, appropriate to the scale and intensity of forest management and the uniqueness of the affected resources. Inappropriate hunting, fishing, trapping and collecting shall be controlled. • Ecological functions and values shall be maintained intact, enhanced, or restored, including: • Forest regeneration and succession. • Genetic, species, and ecosystem diversity. • Natural cycles that affect the productivity of the forest ecosystem. • Written guidelines shall be prepared and implemented to: control erosion; minimize forest damage during harvesting, road construction, and all other mechanical disturbances; and protect water resources. |
| 7 | MANAGEMENT PLAN | <ul style="list-style-type: none"> • The management plan and supporting documents shall provide: <ul style="list-style-type: none"> a. Management objectives. b. Description of the forest resources to be managed, environmental limitations, land use and ownership status, socio-economic conditions, and a profile of adjacent lands. c. Description of silvicultural and/or other management system, based on the ecology of the forest in question and information gathered through resource inventories. d. Rationale for rate of annual harvest and species selection. |

| | | |
|----|---|---|
| | | <ul style="list-style-type: none"> e. Provisions for monitoring of forest growth and dynamics. f. Environmental safeguards based on environmental assessments. g. Plans for the identification and protection of rare, threatened and endangered species. h. Maps describing the forest resource base including protected areas, planned management activities and land ownership. i. Description and justification of harvesting techniques and equipment to be used. <ul style="list-style-type: none"> • Forest workers shall receive adequate training and supervision to ensure proper implementation of the management plan. |
| 8 | MONITORING AND ASSESSMENT | <ul style="list-style-type: none"> • Forest management should include the research and data collection needed to monitor, at a minimum, the following indicators: <ul style="list-style-type: none"> a. Yield of all forest products harvested. b. Growth rates, regeneration and condition of the forest. c. Composition and observed changes in the flora and fauna. d. Environmental and social impacts of harvesting and other operations. e. Costs, productivity, and efficiency of forest management. • Documentation shall be provided by the forest manager to enable monitoring and certifying organizations to trace each forest product from its origin, a process known as the "chain of custody." |
| 9 | MAINTENANCE OF HIGH CONSERVATION VALUE FORESTS | <ul style="list-style-type: none"> • Assessment to determine the presence of the attributes consistent with High Conservation Value Forests will be completed, appropriate to scale and intensity of forest management. |
| 10 | PLANTATIONS | <ul style="list-style-type: none"> • The design and layout of plantations should promote the protection, restoration and conservation of natural forests, and not increase pressures on natural forests. Wildlife corridors, streamside zones and a mosaic of stands of different ages and rotation periods, shall be used in the layout of the plantation, consistent with the scale of the operation. The scale and layout of plantation blocs shall be consistent with the patterns of forest stands found within the natural landscape. • Measures shall be taken to maintain or improve soil structure, fertility, and biological activity. The techniques and rate of harvesting, road and trail construction and maintenance, and the choice of species shall not result in long-term soil degradation or adverse impacts on water quality, quantity or substantial deviation from stream course drainage patterns. • Appropriate to the scale and diversity of the operation, monitoring of plantations shall include regular assessment of potential on-site and off-site ecological and social impacts, (e.g. natural regeneration, effects on water resources and soil fertility, and impacts on local welfare and social well-being), in addition to those elements addressed in principles 8, 6 and 4. No |

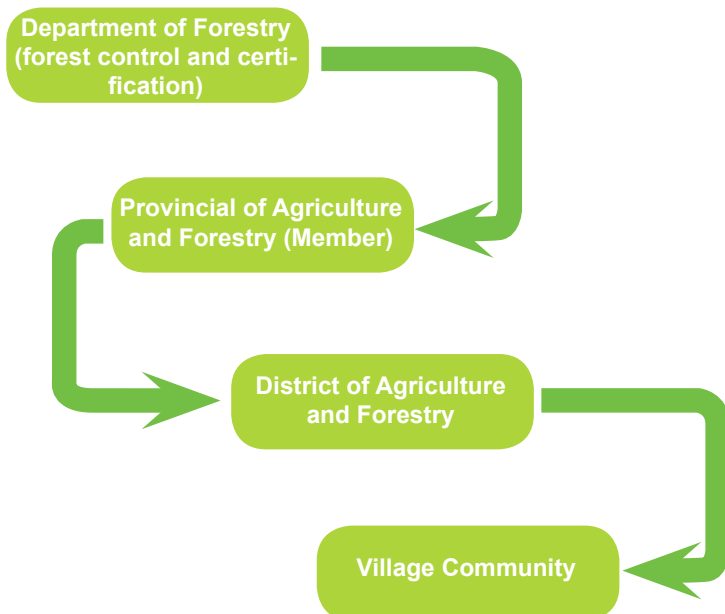
species should be planted on a large scale until local trials and/or experience have shown that they are ecologically well-adapted to the site, are not invasive, and do not have significant negative ecological impacts on other ecosystems. Special attention will be paid to social issues of land acquisition for plantations, especially the protection of local rights of ownership, use or access.

5.4. Lao Forest Certification

The DoF under MAF controls the forest and certification under the Rainforest Alliance SmartWood Program for FSC certification. It recruits villages to be certified and can withdraw them from the certified list when they no longer qualify according to the certification schemes standards (see Figure 26).

In 2005, an area of 50,000 hectares of the forest management area in Khammouane and Savannakhet provinces was approved for FSC certification by SmartWood and is expected to increase in the future.

Figure 26: Lao Forest Certification authority chart



5.5. How will SMEs applying for FSC Certification benefit?

SMEs that receive FSC certification will benefit in many ways.

- Marketing:

- Improve market access
- Draw on a sustainable market
- Increase their market share
- Promote new products

- Networking:

- Increase relations with International Organizations
- Gain from the good reputation that follows product certification

- Productivity:

- Produce more specific types of product
- Draw on sustainable supply

- Finance:

- Increase prices
- Increase income

5.6. Contact point

Ministry of Agriculture and Forestry

Department of Forestry

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Tel: +856 21 215002 / 219561 / 21956

Fax: +856 21 215723

6. CHAIN OF CUSTODY

The project has worked to build a network of harvesters, processors, government officials and international buyers that promote FSC-certified, sustainable rattan harvesting, allowing for the protection of village forest resources and an increase in livelihoods among village participants.

In order to strengthen the chain from forest to international market, the project has worked with rattan processors to attain FSC Chain of Custody (CoC) certification, which allows them to export FSC-certified rattan

products. There are key CoC elements in relation to rattan, which allow a step-by-step approach to certification, so that rattan companies can seek certification independently in the future.

6.1. What is CoC?

CoC is a system that traces rattan from the forest to the buyer. Its goal is to make sure that no sustainable rattan is lost or mixed with unsustainable rattan and that production takes place in a sustainable manner. It helps to control processing and the use of supplies more efficiently.

According to the FSC website, “FSC chain of custody certification verifies FSC certified forest products through the production chain. FSC-CoC certification is for companies that manufacture, process or trade in timber or NTFP and want to demonstrate to their customers that they use responsibly produced raw materials.”

In markets across Europe and the USA, demand is increasing for products that have been sourced and produced in a sustainable manner. Consumers are now looking for products labeled “organic”, “fair-trade” and “sustainable”, and are willing to pay more for a product when they know that its manufacture did not contribute to global warming or environmental degradation.

In order to provide the public with reliable information on sustainable forest products, the FSC has created several certifications that can be used by manufacturers to show that their products were harvested and produced in an environmentally responsible manner. Those who take material directly from the forest are eligible to apply for FSC Forest Management certification, which, if attained, would show that they have created and applied a sustainable forest management plan to their harvesting operations. This certification then feeds into an FSC-CoC certificate, which is attained by the product manufacturer to show buyers that the product is composed of sustainably harvested material and was produced in an environmentally friendly manner.

6.2. What are the CoC requirements?

CoC certification requires operations to identify the origin of raw materials used in FSC-certified products and to keep FSC-certified products separate from other products throughout the production process. This procedure allows operations to label products with the FSC trademark, which provides

the link between responsible production and consumption that enables the consumer to make socially and environmentally responsible purchasing decisions.

The standards for CoC certification of forest products are defined by:

FSC-STD 40-004 (<http://www.fsc.org/standards.html>)

Until 2005, these standards were only applied to wood products. However, they have since been widened to accommodate the certification of NTFPs such as rattan. This change was laid out in the SmartWood Generic NTFP Certification Addendum, which was based on certification attempts by a range of different NTFP processors, but does not specifically address standards for CoC certification of rattan products.

This lack of prescribed NTFP CoC certification standards has allowed some flexibility for rattan companies who wish to be certified. Although the basic principles and core elements of FSC-CoC certification remain the same, companies are not required to use specific forms or marking systems. Instead, they can adapt the principles based on their own factory capacity and production plan.

6.3. The six steps of the CoC system

Several steps of the CoC NTFP standard can be usefully applied to the rattan industry. Companies that want to apply this system must follow these SmartWood standards. The CoC system is outlined below:

Figure 27: Details of the COC system

| Key Element | Detail |
|--|--|
| Set up key element for Rattan Processing (4 Key elements) | Physical Separation of Canes Marking Production Planning Staff Training |
| Apply key element as Factory Model (8 Steps) | Identifying key leaders Finding a space for CoC production Assessing current documentation systems Modifying documentation systems Establishing a system of order numbering Creating a marking system Gaining staff buy-in and support Creating a training system and log |

| | |
|---|--|
| Creating Handbook | The easiest way to formalize a CoC system and train staff is to create a comprehensive handbook for CoC processing within the specific factory. This handbook should include full step-by-step instructions for the entire CoC processing system |
| Creating a Document Control System | <p>The Document Control System (or DCS) for each factory should include:</p> <ul style="list-style-type: none"> Handbook of procedures Book of forms used in the factory for CoC production Excel file of computer database forms List of FSC material suppliers Contracts with all relevant outsourcing groups and sample government forms for use during production |
| Applying for an Audit | <p>After the handbook and DCS have been finalized, the company can apply for an FSC CoC audit through SmartWood (http://www.rainforest-alliance.org/forestry/certification) or another FSC licensed auditor (full list at http://www.accreditation-services.com/accreditation_of_cbs.html). In order to apply through SmartWood, the company should first notify the correct regional representative of their intent to apply for certification.</p> |
| Audit Preparation | <p>After completing the above steps and scheduling a CoC audit, the factory team should prepare for the audit, both mentally and logistically. Factory management must now work independently from project partners (who cannot be present during the audit) to make sure that staff are trained and fully understand the CoC processing system.</p> <p>The auditors can direct questions to any staff members, so it is important that everyone is able to explain how CoC processing works in the factory. Management should also inspect the factory to make sure that it is in top shape for the auditors: CoC material should be neatly stored and labeled, handbooks should be accessible, CoC guidelines should be posted, and the factory should look tidy and well-organized.</p> |

6.4. Certification and cost

CoC certification follows international regulation through the SmartWood approbation process. One Lao rattan company has achieved certification; the Leudnilan Company. The costs related to the certification process were supported by the WWF Lao project. It is noted that the service fees for CoC certification differ depending on the location of the company and whether it is in an urban or rural area.

6.5. Contact point

Ministry of Agriculture and Forestry

Department of Forestry

PO Box 6238, Vientiane, Lao PDR

Tel: +856 21 215002 /+865 21 219561 /+865 21 21956

Fax: +856 21 215723

7. FAIR TRADE

7.1. What is Fair Trade?

Fair Trade is a trading partnership, based on dialogue, transparency and respect, that seeks greater equity in international trade. It contributes to sustainable development by offering better trading conditions to, and securing the rights of, marginalized producers and workers – especially in the South.

7.2. Fair Trade logo

The FAIRTRADE Mark is a registered certification label for products sourced from producers in developing countries.

For a product to display the FAIRTRADE Mark it must meet international Fairtrade standards, which are set by the international certification body Fair-trade Labelling Organisations International (FLO). These standards are agreed through a process of research and consultation with key participants in the



Fairtrade scheme, including producers themselves, traders, NGOs, academic institutions and labelling organisations such as the Fairtrade Foundation.

The Fair Trade system flows from FLO to FLO-CERT to the World Fair Trade Organization (WFTO).

7.3. Fair Trade and Rattan Industry

The Lao rattan industry is not at this stage certified 'Fair Trade', although some food products are. In the region, only the Cambodian rattan association has WFTO certification.

Rattan certification is new compared to other certification.

7.4. Fair Trade certification benefits

- The benefits of achieving Fair Trade certification include:
- Access to information about market development, supply and demand.
- A growing network for product promotion.
- Establishing contacts with buyers in the global market (for example, by linking up with other WFTO members and trade partners through the WFTO network website, events and meetings).

7.5. Contact point

For more information, please contact:

The Fairtrade Foundation
3rd Floor
Ibex House
42-47 Minories
London EC3N 1DY (UK)

Tel: + 44 20 7405 5942 (general enquiries)

Fax: + 44 20 7977 0101

Email the Fairtrade Foundation:

Contacting staff:

If you know the name of the individual staff member you wish to e-mail directly, use the formula firstname.lastname@fairtrade.org.uk, www.fairtrade.org.uk.

8. ANALYSIS OF STRENGTHS, WEAKNESSES, OPPORTUNITIES, THREATS

A project activity has been organized to mobilize the rattan industry with the objective of establishing a Rattan Trader Association based on Decree 115/ PM. During that session the potential competitiveness of Lao rattan SME was identified. This section details some of the strengths, weaknesses, opportunities and threats (SWOT) that apply to the Lao rattan industry.

Figure 28: SWOT Analysis on the Lao PDR Rattan Group



These factors provide a base on which the rattan industry can build its objectives, goals and strategies.

8.1. What are the objectives of the Lao rattan industry?

The Lao PDR rattan Industry needs to set its objectives and goals into a forecast action plan.

What are the possible broad objectives to be achieved by the Lao Rattan Industry in the coming period?

- Increase production/change production from low to high productivity

- Build the market share for Lao Rattan abroad
- Increase customer satisfaction
- Increase promotion
- Increase awareness
- Increase sales
- Become an association to get more recognition and support
- Change mindset: become more entrepreneur-oriented (better able to plan in the long term, create business plans etc.)
- Skills management, vision/strategy

The objectives chosen must be feasible and internally compatible, or they will fail to provide much help in shaping strategy.

8.2. What are the goals of the Lao rattan industry?

The objectives must be recast in terms of measurable goals if they are to provide guidance and control (what and when to achieve). For example, an objective related to measurable market share and goal might be worded: 'Move from 20% to 30% market share within this current fiscal year'.

8.3. What will the Lao rattan strategy be over the coming years?

Possible strategies include:

- **The business target market.** Be extremely specific about your target market (the industries, size of companies, product applications, and locations the company aims to reach with its products). Define in terms of business purchase motivations (for example, price, quality, service)
- **The core position.** What kind of products do you to offer (for example, the best quality; environmentally friendly products; the best design and style; the most durable; the safest; the best value for money; the easiest to use)?
- **Price position.** The company should choose one of the following: 'More for More'; 'More for the Same'; 'The Same for Less'; 'Less for Much Less'; or 'More for Less'. Each of these positions will draw a particular target market.
- **The total value proposition.** Why should I buy from you? Outline the benefits and features of your product in relation to its price. A business should perceive superior profitability.
- **The distribution strategy.** How does the Lao rattan Industry want to reach its target market? Through websites and/or trade fairs?
- **The communication strategy.** This may involve advertising, sales promotion, public relations, a trained sales force and direct marketing. The

business should make sure there is consistency in its chosen target market, its core positioning, its price positioning, its value proposition, its distribution strategy and its communication strategy.

8.4. What will the Lao rattan action plan be?

The business must translate its goals and strategies into concrete actions that will take place according to a calendar. All plans must result in work. Dates must be set and tasks assigned to key players so that they know what to expect and when. Performance monitoring should contribute to ensuring that tasks stay on target.

8.5. What controls will there be?

There must be a mechanism to review the progress made in accomplishing planned goals and action. Monthly and quarterly benchmarks against performance are to be measured.

8.6. Contact point

LNCCI is providing training services and business advocacy. For more information, please contact:

Lao National Chamber of Commerce and Industry

Tel: +856 21 453312

Fax: +856 21 452580

Email: lncci@laopdr.com

Website: WWW.laocci.com

Kaisone phomvihan Avn, Saysettha district, Vientiane Capital, Lao PDR



PART VI:

WHERE TO GET FUNDING TO OPERATE AND SUPPORT FOR PRODUCING FOR AN EXPORT MARKET

Getting a loan is a problem for businesses in Lao PDR. The Lao rattan industry is not as well developed as other sectors, and faces big challenges in trying to build a good reputation and establish sustainable business practices. Therefore, an element of trust is required if rattan companies are to access loans from private and public banking institutions. The key factor for the rattan industry once an order has been placed is how and where to get funding for production. Here are some possible ways for the rattan industry to find funding.

1. SERVICES AT DIFFERENT BANKS

| Name of Bank | Business Account | Loan (amount and conditions) | Loan Interest rate | Letter of Credit (conditions) |
|---|------------------|--|--------------------|-------------------------------|
| Agricultural Bank “Thanakhane khasikham” | Yes | Yes For application: 1. Business license 2. Tax registration 3. Business accounting report 4. List of shareholders and others suitable documents 5. Guaranty: bank accounts, Land titling and a letter of guaranty of a third party. | Yes | Yes |
| BCEL | Yes | Yes | Yes | Yes |
| Phongsavanh Bank | Yes | Yes Business < 1 year old: 5-30 million LAK Business> 1 year old: 31-800 million LAK For application: Business license Tax registration Business accounting report List of shareholders and others suitable documents Guaranty: bank accounts, Land titling and a letter of guaranty of a third party. | 2011: 12% | Yes |
| Public Bank | Yes | Yes | Yes | Yes |

2. MICROFINANCE

Ekphatana Microfinance Institution (EMI) is a private organization providing loans to individuals and companies operating in Vientiane.

| Loan amount for Interest businesses | Conditions | Guaranty | Contact |
|-------------------------------------|---|--------------|-------------|
| | | Land titling | EMI office: |
| 100,000,000 LAK 4% | For application: ID card Business license Tax registration Business accounting report Other suitable documents | | 021 244 395 |



PART VII:

HOW TO ENSURE PROTECTION FROM COMPETITION

Lao rattan companies manufacturing products that run a high risk of being copied can protect themselves by registering intellectual property rights. Copyright, petty patent and design are the most recognized rights in relation to rattan production in Lao PDR and abroad. This rights coverage is also valuable in the country where products are registered. For Lao rattan, this could be in Lao PDR or the country of exportation.

1. WHAT ARE INTELLECTUAL PROPERTY RIGHTS?

Intellectual property is a term referring to a number of distinct types of creations of the mind for which a set of exclusive rights are recognized – and the corresponding fields of law. Under intellectual property law, owners are granted certain exclusive rights to a variety of intangible assets, such as musical, literary and artistic works; discoveries and inventions; and words, phrases, symbols, and designs. Common types of intellectual property rights (IPR) in most European, American and Asian jurisdictions include copyright, trademarks, patents, industrial design rights and trade secrets .

The ASEAN Project on the Protection of Intellectual Property Rights (ECAP III), phase three, began on 1 January 2010, based on a Financing Agreement signed on 21 October 2009 by the European Commission and the ASEAN Secretariat, and a Contribution Agreement signed on 18 December 2009 by the European Commission and the European Patent Office.

In Lao PDR, the National Authority for Science and Technology, based at the Prime Minister's Office since 2009 (and previously known as the STEA-Science, Technology and Environment Agency) deals with IPR.

2. IPR LAW IN LAO PDR

The IPR law has been applicable since 2007, and regulated by decrees and regulations from the Prime Minister's Office (PMO). There is no specific IPR regulation regarding the Rattan Industry, which is governed by regulations on Petty Patent, Design and Copyright. The IPR authority in Lao PDR notes that when applying for Petty Patent, Design and Copyright, it is essential that business entrepreneurs understand that only new technology, design and products can be covered.

There are 11 sections in the Lao IPR law (see Figure 29). The law is applicable to domestic and foreign individuals and entities involved in intellectual property activities under this law and international conventions to which Lao PDR is a party.

Figure 29: IPR law in Lao PDR

| Section | Title | Details |
|---------|---|-----------------|
| I | General Provision | Article 1-7 |
| II | Intellectual Property | Article 8-11 |
| III | Industry Property | Article 12-59 |
| IV | Plant Varieties | Article 60-73 |
| V | Copyright and Related Rights | Article 74-99 |
| VI | Intellectual Property Prohibitions | Article 100-107 |
| VII | Violation of Intellectual Property and Unfair Competition | Article 108-111 |
| VIII | Dispute Resolution and Violation Remedies | Article 112-118 |
| IX | Management and Inspection | Article 119-126 |
| X | Policies for Good Performers and Measures Against Violators | Article 127-135 |
| XI | Final Provisions | Article 136-137 |

3. COPYRIGHT

Copyright regulation No. 1028/PMO-NAST was disseminated on June 17, 2009. Copyright is governed by the regulation on the notification of copyright and related rights information. Once a prototype of a new product arises, it is immediately covered by copyright. Registration is not required but may be voluntarily recorded for the database of copyrights and related rights center. This will provide information about and evidence related to copyright and related rights in the event of violation or dispute, and enable a channel of public access to the copyright and related rights owner for business purposes. For products intended for export, an application for protection must be made in the country of destination. The protection is for the lifetime of the creator of the work plus 50 years.

Figure 30: Copyright regulation

| Section | Title | Details |
|---------|--|---------------|
| I | General Provisions | Article 1-7 |
| II | Patent | Article 8-14 |
| III | Petty Patent | Article 15-18 |
| IV | Industrial Designs | Article 19-32 |
| V | Amendment of filing patent application for invention, device and registration of industrial design | Article 33-34 |
| VI | Official fees and resources derived from registration | Article 35-40 |
| VII | Settlement of dispute arising from Patent, Petty Patent and Industrial Designs | Article 41-43 |
| VIII | Final Provisions | Article 44-45 |

4. PETTY PATENT AND DESIGN

Petty Patent and Design regulation No. 332/STEA-PMO was disseminated on February 18, 2003. Petty Patent and Design fall under the regulation on the implementation of the decree on Patent, Petty Patent and Industrial Designs. There are eight sections, detailed in Figure 30 (note that the regulation is under review). Registration for Petty Patent and Industrial Design is not an obligation but recommended if a business wants to protect its technically-new product from being copied. The protection lasts for five years, renewable for a total of 15 years. This regulation protects new products in the territory of Lao PDR. The business will keep master plans to prove that the product is genuine and owned by the business.

It is recommended that manufacturers do not exhibit a new product without

proper protection, as this increases the risk of it being copied. Even though rattan products do not last long, the protection given by registration will protect the company for some time, during which the design can be further developed in the knowledge that it is protected.

In the case of products intended for export, the business must apply for protection in the country of destination. This can be done with the assistance of a professional legal institution (law firms) or independently via the internet (more details can be provided by the contact point).

Figure 31: Petty Patent and Design regulation

| Section | Title | Details |
|-------------|--|---------------|
| I | General Provisions | Article 1-7 |
| II | Patent | Article 8-14 |
| III | Petty Patent | Article 15-18 |
| IV | Industrial Designs | Article 19-32 |
| V | Amendment of filing patent application for invention, device and registration of industrial design | Article 33-34 |
| VI | Official fees and resources derived from registration | Article 35-40 |
| VII | Settlement of dispute arising from Patent, Petty Patent and Industrial Designs | Article 41-43 |
| VIII | Final Provisions | Article 44-45 |

5. REQUIREMENTS FOR OBTAINING A REGISTRATION CERTIFICATE, AND FEES

Registration of works (here meaning newly created designs) can be conducted at the Ministry of Science and Technology. Copyright may be registered at the Division of Copyright and Petty Patent and Industrial Design at the Department of Intellectual Property Standardization and Metrology. The fees for the issuance of notification of rights and related rights information are shown in Figure 31.

Figure 32: Copyright, petty patent and design registration information, 2011

| Headings | Copyrights | Petty patent and design |
|--|---|--|
| Location | Copyright: Copyright Division, building annex to the Ministry of Science and Technology | Petty Patent and Industrial Design, fourth floor |
| Application (see forms sample in appendix) | Form code number: IP-C.01 5,000 LAK/set/work Submit the registration application with required attachments, these are: Business license Tax registration Information on related works such as master plan of the product with specifications | Application (called a 'request') can be withdrawn at the registry unit. 10,000 LAK Submit the registration application with required attachments, these are: Request Power of attorney if process through an agent Precise description of the invention to be registered or protected The scope of protection The creator explanation with technical drawings and the scope of protection Full payment of fees |
| Issuance of Notification fees | 20,000 LAK/one work | 300,000 LAK/item for 4 first years |
| Data search | 10,000 LAK/one work | Not applicable for petty patent |
| Technical service fees for changes, cancellation revocation or duplication of certificate | Form code number: IP-C.02 for changes Form code number: IP-C.03 for cancellation Application form: 5,000 LAK/set Service fees: 20,000 LAK/one work | Request for opposition: 300,000 LAK/item Duplication: 100,000 LAK |
| Maintaining fees are official and services fees | Nil | 34% increment for each year |

Note: the current exchange rate for LAK / US\$ is 8,000 LAK/1\$.

6. CONTACT POINT

In Lao PDR:

Ministry of Science and Technology

For Petty Patent and Industrial Design:

Department of Intellectual Property Standardization and Metrology

P.O. Box: 2279, Vientiane, Lao PDR

Tel: +856 21 240 784

Fax: +856 21 213 472

Contact person:

Ms Chansida KEOPASEUTH

Deputy Director of Industrial Property Division

E-mail: chansida_keo@hotmail.com

For Copyright:

Division of Copyright

P.O. Box: 2279, Vientiane, Lao PDR

Tel: +856 21 263 613

Fax: +856 21 213 472

Contact person:

Mrs. Khamngong SICHANTHAVONG

Director of Copyright Division

E-mail: khamnhong@stea.gov.la

In Asia:

ASEAN Project on the Protection of Intellectual Property Rights (ECAP III)

c/o Department of Intellectual Property

Ministry of Commerce

Office 10708, 7th Floor

44/100 Sanam Bin Nam Road, Muang District

Nonthaburi 11000, Thailand

Tel: +662 547-4678, 547-5193

Fax: +662 547-4677

For general enquiries, please contact info@ecap3.org

In Europe:

European Patent Office

<http://www.epo.org>

coop

oecoplan

Rattan-Korb Lao
Corbeille en rotin Lao
Cesto in rattan Lao

coop

oecoplan

Rattan-Korb Lao
Corbeille en rotin Lao
Cesto in rattan Lao

coop

oecoplan

Rattan-Korb Lao
Corbeille en rotin Lao
Cesto in rattan Lao
17 x 14 cm



Dem Wald zuliebe
Pour le bien de la forêt
Rispetta le foreste

Fr. 9.90

PART VIII:

HOW TO EXPORT

Exporting is essential for the Lao economy and its contribution to the alleviation of poverty. The Government has developed policies to support and promote export to build competitiveness of the country. The line ministries concerned with decision making are MOIC and MOF. The relevant ministry for the rattan industry is MAF.

The rattan industry must comply with the regulations that have been put in place to process export paperwork. The sections below provide the details of the different documents required.

When exporting, Lao rattan manufacturers deal with export authorities, which involves MoC and MoF for the payment of export duties.

Forest strategy and related government policies encourage local people to manage forest resources and gain benefit from protecting forest resources by collecting Non-Timber Forest Products (NTFPs) including rattan for processing and trade to improve income and reduce poverty. The National Forest Strategy 2020 (MAF 2004) and the Forest Law (2007) provide a legal basis for the development and management of forest resources including NTFPs and Rattan. The National Forest Strategy 2020 addresses the development of NTFPs (section 5.2.3) including:

| No | Description |
|----|---|
| 1 | Linking harvesting plans and quotas with local forest management plans developed by villages through the Village Land Use Planning process |
| 2 | Enhancing the transparency and consistency of the harvesting plan quota system and procedures and annual sustainability |
| 3 | Establishing NTFP harvesting plans based on resource inventories and science rather than only on market demand that may threaten the resource base |
| 4 | Setting appropriate royalties and fees for companies who buy, process and export rattan products (in relation to species that are susceptible to over-harvesting or species whose populations are threatened) |
| 5 | Promoting NTFP processing and export through appropriate trade regulation and technical and financial support |

1. INFORMATION CENTER

The purpose of the Information Center is to provide and disseminate information for the public. This information relates to:

- Roles of the FTPD in terms of Lao foreign trade policies
- Economic cooperation
- Legislative documents-domestic and international laws
- Procedures related to international trade
- Lao trade agreements
- On-going trade negotiations
- Trade preferences received from trading partners under various scopes-bilateral, regional and sub-regional, ASEAN, multilateral/WTO
- Official development assistance for the Lao industry and commerce sector
- Implementation of the process of the agreements and trade projects under the FTPD.

2. TAXATION

Taxation refers to the financial obligation of individuals, legal entities and organizations, including foreign persons, who carry out business or make a living on a permanent or temporary basis in Lao PDR, as well as those residing or having a place of business located in Lao PDR but who carry out activities in a foreign country that generate income.

Taxes must be paid according to the rates specified in the amended tax law. The Implementing Decree of the President of Lao PDR on the Promulgation of the Tax Law No. 46/PO, dated 25 May 2005, details tax liability (see Figure 32). This tax regime is applicable to all organizations and persons conducting business or working in Lao PDR. The tax regime of Lao PDR is comprised of direct and indirect taxes. The indirect taxes are business turnover tax and use tax. The direct taxes are profit taxes, income taxes, de minimus taxes and fees. Some are applicable to rattan manufacturers (see Figure 33).

Figure 33: Tax law in Lao PDR

| Part | Title | Details |
|-------------|---|------------------|
| I | General Provisions | Articles 1-6 |
| II | Tax System | Articles 7-9 |
| III | Business Turnover Tax | Articles 10-22 |
| IV | Excise Tax | Articles 23-29 |
| V | Profit Tax | Articles 30-53 |
| VI | Income Tax | Articles 54-67 |
| VII | Fees and Service Charges | Articles 68-71 |
| VIII | Obligations and Rights of Taxpayers, Responsibilities of Persons and Relevant Organizations and Rules on the administration of Taxes, Fees and Service Charges | Articles 72-85 |
| IX | Structure and Activities Relating to Taxation | Articles 86-94 |
| X | Administration and Inspection of Taxation Activities | Articles 95-102 |
| XI | Policies towards Persons with Outstanding Performance and Measures Against Offenders | Articles 103-106 |
| XII | Final Provisions | Articles 107-108 |

Figure 34: Tax liability for businesses carrying trade activities in Lao PDR

| Type of Tax | Details | Rate (latest) | Applicable to Rattan Businesses | Article of the Tax Law |
|--------------------------------------|--|---|---|------------------------|
| Business Turnover Tax ("BTT") | <p>The turnover tax shall be collected upon imports, first time sale of imported goods or domestically produced goods and services. Initially, there were four rates of BTT in Lao PDR.</p> <p>For imports, the business turnover tax is paid at the point of importation, while, for domestic transactions of goods/services, it is declared and paid monthly to the tax authority, the month following the collection. The basis of taxation for imported goods is the customs value, plus customs duties, plus excise tax. Tax on services shall be calculated after the completion of the work. All purchases and sales must be substantiated by tax invoices. Importers of goods for resale are allowed to deduct the business turnover tax paid at the point of importation from the monthly business turnover tax transactions assessment. Importers of goods for re-exports are exempt from the business turnover tax.</p> | 5% and 10%, plus a 0% rate for exempted goods as they are listed in the Tax Law. | 10% | Article 17 |
| Profit Tax | Profit tax is levied on annual net profits derived from business operations, unless the Tax Law or specific agreements with the Lao Government specifically provide exemptions. The annual net profit is calculated on the basis of the difference | <ul style="list-style-type: none"> As an example, the profit tax rate applicable to Lao-owned companies is: 0% for incomes not higher than Kip 2,400,000; 10% to 35% on net profits derived from professional services; and 35% on net | Applicable according to the registration status of the company. | Article 40 |

| | | | | |
|---------------------|---|---|--|------------|
| | <p>between the total income and the total deductible expenses of the year. It is payable in advance on a quarterly basis.</p> | <p>profits derived from business operations.</p> <ul style="list-style-type: none"> The profit tax rates applicable to foreign invested companies vary, subject to the incentives as granted under the 2004 Foreign Investment Law, from 0% to 20%. | | |
| Minimum Tax | <p>A minimum tax (also called the "de minimus tax") is applicable to gross turnover of the previous year of those enterprise who do not make a profit, or who make a profit that would create a lower profit tax payment to the Government than the application of minimum tax. Minimum Tax is payable on an annual basis. Even if the year-end financial statement states that the company had losses in its business operations in the previous year, the company must pay its de minimus tax.</p> <p>Certain foreign and domestic investors who are exempt from annual profit tax may also be exempt from the minimum tax. Exemption of the minimum tax is also applicable when losses as shown in the company's financial statements are certified by external auditors recognized by the Lao Government.</p> | <ul style="list-style-type: none"> For domestic producers: 0.25% of total revenue of whole year For trading and general services businesses: 1% of total revenue of whole year | Applicable depending on the financial results of the company | Article 51 |
| Income Taxes | <p>Taxes on incomes are comprised of the following:</p> <p>Personal Income Tax levied monthly on wages, salaries, bonuses and other emoluments derived from employment in Lao PDR</p> | <ul style="list-style-type: none"> From 0% to 25% for Lao employees A flat rate of 10% for foreign employees employed by entities licensed under the Foreign Investment Law, which the employers are responsible to collect and to declare to the tax authority | Applicable | Article 60 |

3. VALUE ADDED TAX

Value-added tax (VAT) is a tax on consumption, ultimately paid by final consumers. This indirect tax is collected on the value added to goods and services in all processes, ranging from production, distribution and service supply to consumption. It is also collected on the value of goods and services imported into Lao PDR. In principle, businesses should not bear the burden of the tax themselves since there are mechanisms in place that allow for a refund of VAT payments levied on intermediate transactions between firms.

The Government determines the policy on VAT and other taxes. It aims to set tax levels that promote manufacturing, services, exports, and domestic and foreign investment, and contribute to the constant growth of socio-economic development. The Decree of the President of Lao PDR On the Promulgation of the Value-Added Tax Law No. 03/PO, has been promulgated on 16 January 2007 (see Figure 35). Lao PDR started implementing VAT in January 2010. Limited to fewer than 10 countries in the late 1960s, VAT is now implemented by about 140 countries worldwide. Among industrialized nations, standard rates range from 5 % in Japan to 25 % in Hungary and in parts of Scandinavia. Figure “36” details its implementation in Lao PDR.

Figure 35: VAT Law in Lao PDR

| Part | Title | Details |
|------|--|----------------|
| I | General Provisions | Articles 1-7 |
| | | |
| III | Value-Added Tax Licenses | Articles 25-31 |
| | | |
| V | Management and Inspection of Value-Added Tax | Articles 40-48 |
| | | |
| VII | Final Provisions | Articles 54-55 |

Figure 36: VAT liability in Lao PDR

| | |
|---------------------------|---|
| Taxpayers | Registered VAT taxpayers |
| VAT liability | Applies to most goods and services when these are supplied in Lao PDR by registered VAT taxpayers and also to most imports of goods (some goods and services are exempt, covered by Article 10 of this law). |
| General VAT rate | 10% |
| VAT rate on export | 0% No VAT is applied on goods and services for exporting to the international market to reduce the capital investment required and strengthen income for Lao businesses |
| Calculation System | The VAT system is based on tax collection in a staged process, with successive taxpayers entitled to deduct input tax on purchases and account for output tax on sales. Each business in the supply chain takes part in the process of controlling and collecting the tax, remitting the proportion of tax corresponding to its margin, i.e. on the difference between the VAT paid out to suppliers and the VAT charged to customers |
| Refund procedures | VAT refunds are part and parcel of the VAT system because they result from the typical VAT deduction mechanism (input VAT offset against output VAT), combined with the application of a zero rate on exports |
| Returned VAT | Monthly |
| Risks | Delays in refund could result in businesses needing cash flow for operate, and fairness issues |
| Recommendations | VAT taxpayers have effective financial reporting systems in place and are reporting correct sales and VAT payment amounts |
| Benefits | Substantial cash flow |

4. CUSTOMS DUTIES

Customs duties refer to the financial obligations of individuals, legal entities and organizations carrying out import and export, transit and circulation of goods through border customs checkpoints according to the rates determined in the Book of Tariff Rates according to the rules and regulations specified in the Custom Law No.05/NA, dated 20 May 2005 (see Figure 37) and specified in Figure “38” for the Lao rattan businesses.

Figure 37: Custom law in Lao PDR

| Part | Title | Details |
|------|--|----------------|
| I | General Provisions | Articles 1-9 |
| II | Customs Declaration Procedures | Articles 10-15 |
| III | Customs declaration, payment of customs duties and other obligations | Articles 16-19 |
| IV | Removal of Goods for which Security has been Provided and Warehouse Regimes | Articles 30-40 |
| V | Goods under Specific Control | Articles 41-42 |
| VI | Exemptions from Customs Duties and other Obligations | Articles 43-45 |
| VII | Customs Duties for Special Economic Zone, Specific Economic Zone or Duty Free Zone | Articles 46-47 |
| VIII | The Use of Boats for Movement of Passengers or Goods along Border Rivers | Articles 48-49 |
| IX | Customs Offences | Articles 50-60 |
| X | Prosecutions Relating to Customs | Articles 61-69 |
| XI | Customs Organizations and Activities | Articles 70- |
| XII | Administration and Inspection of Customs Work | Articles 81-88 |
| XIII | Policies to Persons with Outstanding Performance and Measures Against Violators | Articles 89-93 |
| XIV | Final Provisions | Articles 94 |

Figure 38: Customs obligations in Lao PDR

| Type of Tax | Details | Rate (latest) | Applicable to Rattan businesses | Article Of the Tax law |
|--|--|---|--|------------------------|
| Other Taxes: <u>Import and Export Duties</u> | Under the Customs Law, all goods, imported or exported, are subject to duties, unless contrary | Import duties, like export duties, range from 5% to 40% | 0% on export according to the Book of Tariff Rates | Article 7 |

exemptions are provided for by law or by specific agreement with the Lao Government. Export goods are declared at their actual value, whereas import goods are declared at their actual value plus insurance, transportation and other costs. Import and export duties must be paid at the point of importation before the goods can be removed from the customs services.

The import duties may be exempted for certain goods to be used in the production.

Locally produced goods and goods on which customs duties and obligations have been paid in accordance with rules and regulations may be moved from one place to another within the Lao PDR through foreign territory.

Such goods are exempt from export duty, exit and entry restriction rules.

4.1 Contact Point

Ministry of Commerce and Industry

Foreign Trade Policy Department

Tel/fax: +856 21 450066

E-mail: somphone.p@laoftpd.com; kingsadone.p@laomoic.org

Website: www.laoftpd.com

Trade Promotion and Product Development

Department of Export and Import

ERIT: the Economic Research Institute for trade

Trade Development Facility

Ministry of Finance

Tax Department

Customs Department

Cabinet

Ministry of Finance

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Lao National Chamber of Commerce and Industry

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Website: www.laocci.com

Kaisone phomvihan Avn, Saysettha district, Vientiane Capital, Lao PDR

5. ADMINISTRATIVE STEPS FOR EXPORT

Sixteen documents must be processed before a product can be cleared at the customs border checking point. Of these, four are requested on arrival at the customs declaration checking point in the country of destination. It is recommended that all documents are completed and all relevant taxes paid before declaring goods to Customs at the border check point, including transportation tax, resource tax and VAT, in accordance with Custom Law No. 05/NA dated 20 May 2005 and exempt of export duty.

5.1. Leaving Lao PDR

Several documents are required to process an export from Lao PDR to the country of destination. Figure 39 details the documentation required to process exports through the customs point at Thanaleng in Lao PDR.

Figure 39: Listing of required documents for export

| No | Type of document | Issued by | Nature of the documents | Remarks | Services provided by |
|----|-------------------------|-----------|-------------------------|---|----------------------|
| 1 | Export Business License | MAFF | Copy | Specific to agricultural products This | |

| | | | | | |
|----|--|------------------|----------|---|------------------|
| | | | | document is processed and provided by the exporter | |
| 2 | Business registration License | MOIC | Copy | Exporter | |
| 3 | Tax Registration License | MOF | Copy | Exporter | |
| 4 | Proof of Resource Harvesting <i>“Bai anougnad khoudkhone”</i> | PAFO | Copy | Exporter | |
| 5 | Proof of Quota Allocation “Cutting permit” | MAFF-PAFO | Copy | Exporter | |
| 6 | Contract of Sale of Goods to Export | Buyer and seller | Copy | Exporter | |
| 7 | NTPF Sale Contract <i>“bai sangna phourkphanh”</i> | DOIC, MOIC | Copy | Exporter | |
| 8 | Invoice and Packing List | Exporter | Original | Exporter | |
| 9 | CoC & FSC Certificate | SmartWood | Copy | Exporter | |
| 10 | Request Letter for form A to DOIC, MOIC | From exporter | Original | Exporter (see details below) | |
| 11 | FORM A | DOIC, MOIC | Original | Document processed through MOIC (see details below) | Shipping company |
| 12 | Permit certification <i>“Bai tid tham sinh Kha”</i> | MOIC – Dimex | Original | Document processed through MOIC (see details below) | Shipping company |
| 13 | Transportation tax, Forestry tax and VAT | MOF | Copy | All fees must be fully paid ahead of | |

| | | | | | |
|----|------------------------------|----------------------|----------|--|------------------|
| | | | | processing | |
| 14 | Plant Quarantine Declaration | PAFO, MAF | Original | Checked at international Check Point | Shipping company |
| 15 | Certificate of Fumigation | LFF Shipping Company | Original | Processed for customs clearance at landing port | Shipping company |
| 16 | Customs Declaration Form | MOF | Original | Declaration issued at the checking point when all documents listed above are provided. | Shipping company |

5.2. On arrival

Figure 40 details the documents required to process exports at their destination.

Figure 40: Export documentation at destination

| No | DOCUMENT | DEPARTMENT |
|----|---------------------------|----------------------|
| 1 | FORM A | DOIC, MOIC |
| 2 | Certificate of Fumigation | LFF Shipping Company |
| 3 | Invoice and Packing List | From company |
| 4 | Bill of Lading | DoC, MOF |

5.3. The process of obtaining a permit certificate and Form A



Figure 41: The details of each step

| Step | Description | Detail |
|--------|--|---|
| Step 1 | Request letter for authority Inspection | The exporter/enterprise has to prepare its supporting documentation (1. Business Registration License, 2. Export Business License, 3. Tax Registration License, 4. Invoice and Packing List, 5. Request Letter) and submit it to the relevant departments for monitoring. |
| Step 2 | Authority finishes inspection and makes a report | When it has completed a field visit and inspected the products before loading, the authority which carried out the inspection makes a report and submits to the Import-Export Division |
| Step 3 | Issue Permission Letter | On receiving the report, the Import-Export Division issues the permission letter to the exporter. |
| Step 4 | Issue Form A | Form A differs according to the country of destination. Form A will be issued by the Import-Export Division. |

5.4. Customs Declaration

The final step in exporting a product is obtaining a customs declaration, which is one checking point at the border. Exporters/enterprises must present their all documentation to the customs authorities, who perform a product inspection and approve and issue the ASEAN Custom Declaration Documents. This completes the export procedure and the product may be transported to the destination country.



| Step | Description | Detail |
|--------|---|---|
| Step 1 | Request letter for authority Inspection | The exporter/enterprise has to prepare its supporting documentation (1. Business Registration License, 2. Export Business License, 3. Tax Registration License, 4. Invoice and Packing List, 5. Request Letter) and submit it to the relevant departments for monitoring. |
| Step 2 | Authority finishes inspection and makes a | When it has completed a field visit and inspected the products before loading, the authority which carried out |

| | | |
|--------|-------------------------|--|
| | report | the inspection makes a report and submits to the Import-Export Division |
| Step 3 | Issue Permission Letter | On receiving the report, the Import-Export Division issues the permission letter to the exporter. |
| Step 4 | Issue Form A | Form A differs according to the country of destination. Form A will be issued by the Import-Export Division. |

6. CONTAINER PRICING

Figure 42: Containerized Shipments

EX-VIENTIANE VIA BANGKOK PORT.

EX-VIENTIANE VIA HAIPHONG PORT.

| NO. OF ITEMS | DETAILS OF COST PER CONTAINER | VIA BORDER GATE | CONTAINER'S SIZES | | O/FREIGHT CHARGES | | REMARKS |
|-----------------|---|--------------------|--------------------|--------------------|----------------------|--------|---------|
| | | | 20' FT | 40' FT | 20' FT | 40' FT | |
| 1 | IMPORT CLEAR FOR EMPTY CONTAINERS | NONGKHAI # | \$ 50.00 | \$ 50.00 | | | |
| 2 | CY CHARGES BKK-VTE-BKK | THANALENG | \$ 1,400.00 | \$ 1,500.00 | | | |
| 3 | LOADING AT VIENTIANE | | \$ 100.00 | \$ 145.00 | | | |
| 4 | CUSTOMS CLEAR AT BORDERS FOB CHARGES AT BKK PORT | | \$ 250.00 | \$ 250.00 | | | |
| 5 | SUBJECT | | | | | | |
| | TO VAT 7% | | \$ 175.00 | \$ 200.00 | | | |
| | T/T : | | \$ 1,975.00 | \$ 2,145.00 | | | |
| 1 | IMPORT CLEAR FOR EMPTY CONTAINERS | NAMPHAO # | \$ - | \$ - | | | |
| 2 | CY CHARGES HAIPHONG-VTE- HAIPHONG | CAUTREO | \$ 1,600.00 | \$ 1,700.00 | | | |
| 3 | LOADING AT VIENTIANE | | \$ 100.00 | \$ 145.00 | | | |
| 4 | CUSTOMS CLEAR AT BORDERS FOB CHARGES AT BKK PORT | | \$ 250.00 | \$ 250.00 | | | |
| 5 | SUBJECT | | | | | | |
| | TO VAT 7% | | \$ 175.00 | \$ 200.00 | | | |
| | T/T: | | \$ 2,125.00 | \$ 2,295.00 | | | |

7. CONTACT POINT

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