Civil society Links and Empowerment for Socially Inclusive Development in Ratanakiri

# *Strategic guidelines for the cashew nut value chain in the Ratanakiri Province, Cambodia*


## *ILS LEDA*



**The study is realised by ILSLEDA experts, in the framework of the Project "*CLESIDRA: Civil Society Links and Empowerment for Socially Inclusive Development in Ratanakiri, Cambodia*", co-funded by the European Union.**

*November 2024*

## ACKNOWLEDGEMENTS

This document-proposal was elaborated by the ILS LEDA team (Acerra Francesca, Canzanelli Giancarlo, Milio Vincenzo, and Rucireta Giulia), that worked on inputs provided by the Cashew nut Focus Group.

Our greetings go, then, to all the components of the Focus Groups.

The work was possible thanks to the precious facilitation provided by BCV field team.

*The Ratanakiri cashew can be appreciated for its unique taste -creamy, milky and juicy with aromatic scent- giving the feeling of wanting to eat more and more, whose quality is guaranteed by the care and the attention provided by the wise manual work of the farmers, and the absence of chemical fertilizers.*

# INDEX



Cover photo by Jocelyn Morales on Unsplash

# Chapter 1. INTRODUCTION

This paper has been elaborated in the framework of the project "*CLESIDRA: Civil Society Links and Empowerment for Socially Inclusive Development in Ratanakiri, Cambodia",* co-funded by the European Union.

The main CLESIDRA expected outputs are:

Output 1: A platform (PLASED) established for networking, Civil Society Organizations (CSOs), Local Authorities (LAs), Socio-Economic Service Providers (SESP) and other relevant stakeholders of Ratanakiri Province in Cambodia, with the aim of building a free and permanent dialogue for the socio-economic inclusion of women, youth, indigenous, and the most marginalized and vulnerable people, including representative of each category (at least 110 people of which at least 40% women)

Output 2: At least 4 participatory strategies (STRAT) for competitive, inclusive, sustainable and resilient value chain development (possibly rice, cassava, forestall products, eco-tourism), realized through an innovative participatory exercise, as permanent key tool of the Platform delivered, and elaborated through the participation of at least 15 people for each value chain.

Output 3: A Comprehensive Services System (COSS) established for supporting socio-economic development of the province, as a branch of PLASED, including at least 20 CSOs, 10 SESP, and 10 LAs, of which at least 40% women

The paper refers, in particular, to the output 2.

**The logic of the Action** relies on the belief that the civil society and the CSOs have an important role for contributing to the province and national development, provided (A) their capacities are empowered, and (B) an environment does exist and enables their active citizenship in public and political life. With this aim, the action will sensitize and strengthen CSOs about the advantages to establish a permanent dialogue with local administrations, and other local actors (Output 1); This dialogue will be facilitated through achieving consensus about local competitive, sustainable, and inclusive territorial development, assessing needs and opportunities in favour of the targeted beneficiaries (Output 2), and enabling them to to use the strategic framework to access to the correspondent employment and self-employment opportunities.

The project is run through a partnership between FELCOS, ILS LEDA, Build Community Voices (BCV) and Urban Poor Women Development (UPWD).

The paper aims at recommending strategic guidelines and a plan of action for the development of a competitive, inclusive, and sustainable CASHEW NUT value chain in the targeted territories.

The CASHEW NUT is one of the four prioritised value chains for the exercise, the other being cassava, rice, and tourism. The prioritisation was realised in accordance with the following elements:

- Presence in the province
- Competitive advantages
- Resilience
- Prioritisation from public policies

In particular, chapter 2 will provide details about the RESCO methodology for the value chain assessment; chapter 3 will describe the background of the value chain; chapter 4 will analyse the assessment of the competitive advantages, inclusiveness, and sustainability of the value chain in the target areas; chapter 5 will outline the Strategic Actions Guidelines and priorities for the value chain development; and, finally, chapter 6 will present the conclusions.

The document is still a draft proposal, submitted to the endorsement of the local actors involved in the Value Chain Focus Group, through which the assessment was carried out.

## Chapter 2. METHODOLOGY

In general, the RESCO methodology[1] seeks to recommend value chain strategic guidelines and plans and it can be applied to any sector. With regard to this specific project, the sectors of intervention are agriculture and tourism and the RESCO methodology will assess the main characteristics, potential, and obstacles for each of the four selected value chains, by involving the main territorial actors.

The assessment considers eight main components, i.e.: the competitive advantage, the market positioning, the value chain status, the gender dimension/equality, the sustainability (financial, social, institutional), the green and circular economy, the resilience, and the obstacles (to the value chain development).

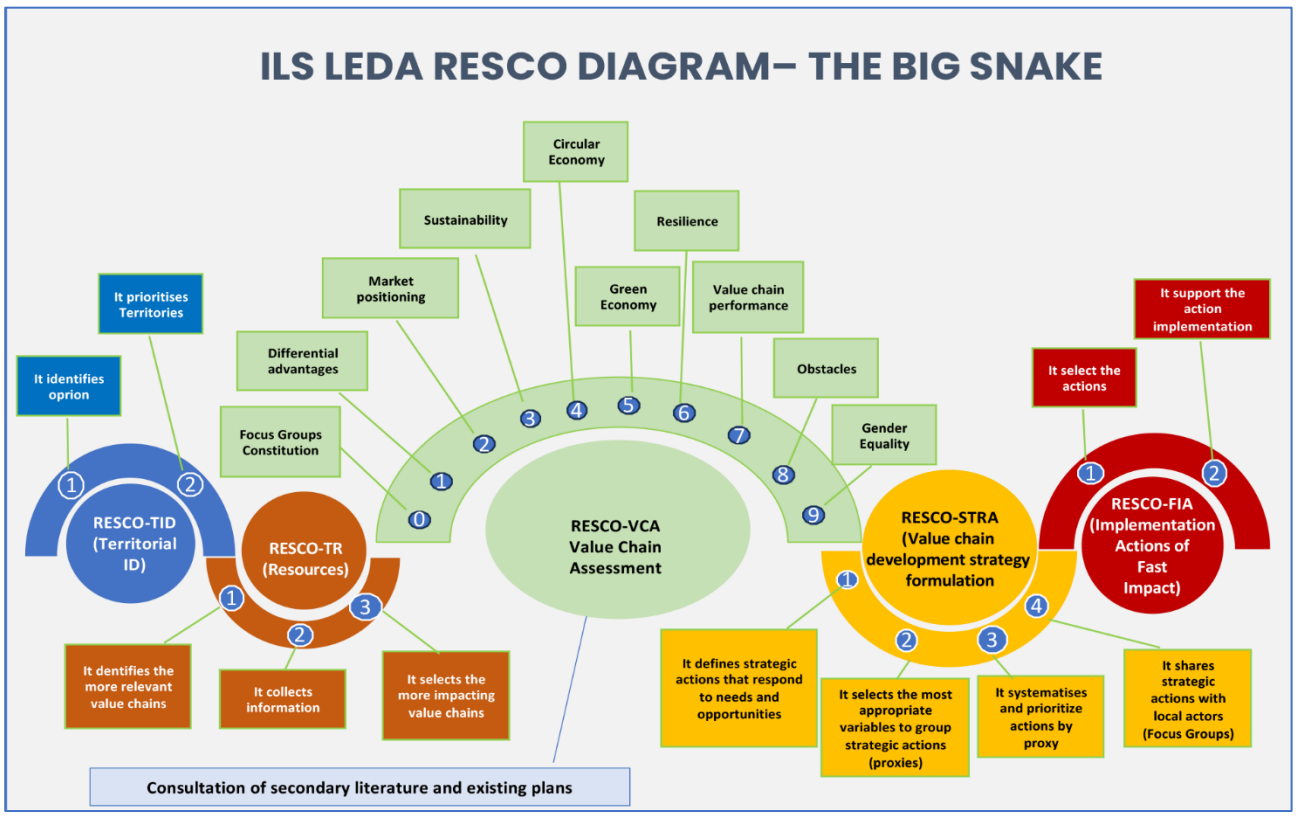
For each component a set of factors are considered, and, for each factor, specific variables are evaluated, according to a special scoring methodology.

The assessment is carried out by following these steps:

1) Focus group meetings with 15 people representing local actors of the public and private sector, through a questionnaire;
2) Consulting secondary literature;
3) Meeting with experts.

The picture below illustrates the RESCO methodology logical and chronological flow.

**Figure 1. RESCO methodology flow** (Source. ILS LEDA)




[1]ILS LEDA has been applying RESCO in 13 countries during the last 20 years.

# Chapter 3. BACKGROUND

Cashew is an agro-industrial crop and one of the government's 12 priority crops. These are crops farmers are encouraged to grow to diversify their yields and increase income. In 2023, the Ministry of Commerce of the Kingdom of Cambodia drafted the ***National Policy on Cashew 2022-2027,*** with the aim of "**creating a more competitive environment within cashew product production marketing and turning Cambodia into a major producer and supplier of cashew products for local and international markets"**.

Cashew is considered one of the priority crops among other potential crops, because it provides an important source of income and contributes to the growth of national income. Cambodia produces a significant amount of cashew products, most of which are raw nuts exported to neighbouring countries for processing, and, from there, to be exported to other consumer countries. Exports of raw cashew nuts have resulted in the loss of many potential jobs and added value in Cambodia.

Thus, key objectives of the policy include reinforcing Cambodia's capacity to grow, store, process, package, market, distribute and export cashew nuts and derived products, and establishing the Kingdom as a major producer and supplier regionally and beyond.

The following table present an overview of the National Cashew Policy 2022–2027, elaborated by the ILO in its study *Diagnostic of informality in the Cambodian cashew nut industry* (Thun et al., 2024).

**Table 1. Overview of the National Cashew Policy 2022–2027** (Source. ILO, 2024)

| Goal | Strategies |
|---|---|
| Improve production and product outputs of competitive quality | ▶ Increase usage of agricultural technology<br>▶ Encourage stronger cultivation practices<br>▶ Support organic farming practices<br>▶ Promote use of climate-resilient seed varieties<br>▶ Encourage the use of farming contracts<br>▶ Enable more efficient inter-ministry cooperation |
| Promote industrialization to increase the value-added of the cashew harvest and processing by 25% by 2027 and by at least 50% by 2032 | ▶ Encourage ACs to become suppliers for domestic processors<br>▶ Mobilize foreign and domestic investment<br>▶ Increase value-added of processing<br>▶ Increase the supply of mixed cashew products for other processing industries |
| Promote exports through market diversification, intersectoral export linkages, trade facilitation, production cost reduction, and market advantage. | ▶ Expand agro-businesses via cooperation between government and the private sector<br>▶ Expand domestic demand for processed cashew nuts<br>▶ Improve the import and export clearing processes<br>▶ Facilitate trade events, business matching, and other marketing campaigns<br>▶ Negotiate bilateral and multilateral free trade agreements |

As global demand for cashew nuts has expanded over the last decade, so has the growth of cashew nut cultivation in Cambodia. Before 2013, cashew production had remained stagnant, but in the last decade the number of hectares under cultivation has more than doubled and production has soared (Fitzpatrick, 2019).

Cashew nut production is considered as an industrial crop with significant potential in Cambodia. The cashew crop has increasingly expanded, remarkably growing from 93,944 tons in 2015 to 208,769 tons in 2019 thanks

to favourable market conditions and demand for cashew products. Due to limited domestic processing capacity, 97% of raw cashew have been exported to neighbouring countries (Miehlbradt et al., 2024).

As stated in the National Cashew nut strategy, by 2021, the cashew cultivation area had increased to 405.991 hectares and the harvesting area to 275.679 hectares, with an average yield of 1.74 tons per hectare and a total yield of 472.636 tons per year. Despite this increase, cashew crops still face many challenges that need to be addressed, particularly in respect of technical know-how, and the identification of good and high-yielding varieties that are disease-free and resistant to pest infestation and climate change. In addition, harvesting, processing, and storage do not yet comply with accepted technical standards and processing capacity remains limited in terms of techniques, quantities, and human resources.

Cashew nut production is concentrated in the country's central regions. According to the latest available data, the top 5 producing provinces were Kampong Cham, Kampong Thom, Ratanakiri, Tboung Khmum and Kratie (Eurocham Cambodia, 2023). Kampong Thom has the largest cashew cultivation area (58,624 ha), followed by Ratanakiri (30,459 ha), Kratie (27,761 ha) and Kampong Cham (24,364 ha).

The following figures show the map of cashew cultivation (2a) and production by region (2b) in Cambodia; as it can be seen, Ratanakiri is amongst the regions with the largest cashew cultivation areas, with a production of 18.7 thousand tons

**Figure 2a. Map of cashew cultivation in Cambodia 2018** (Source. HEKS/EPER Cambodia, 2019)

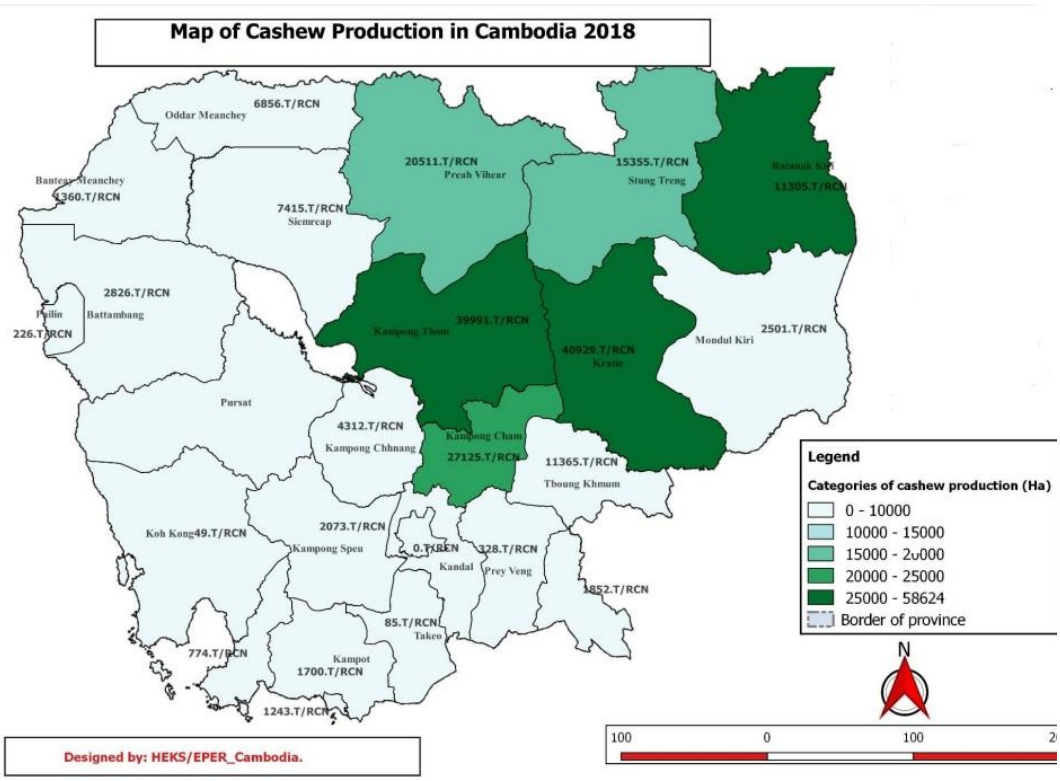
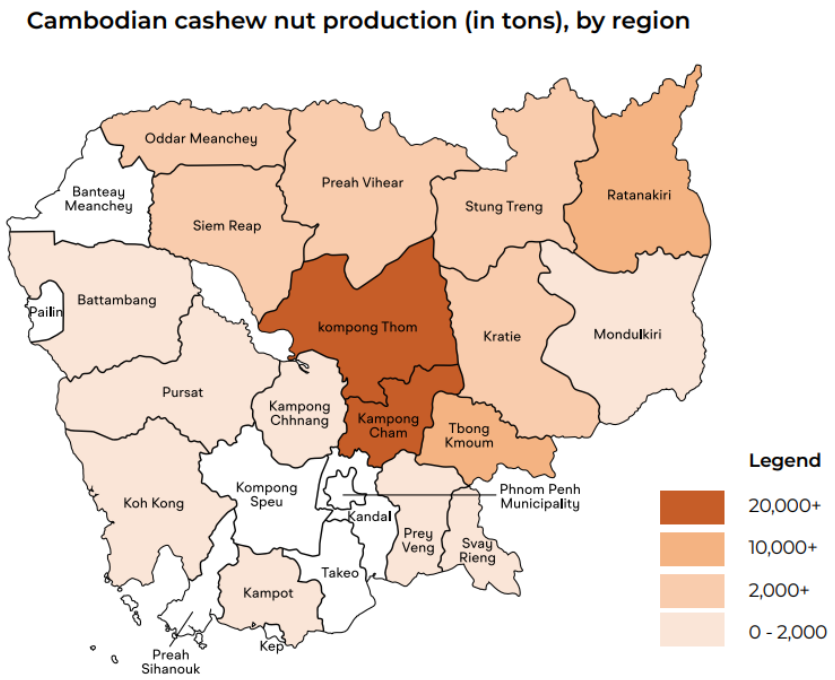


**Figure 2b. Map of cashew production (in tons) by region, in Cambodia** (Source. Eurocham, 2023)




| Province | Production (thousand tons) |
|---|---|
| Kampong Cham | 27.8 |
| Kampong Thom | 24.6 |
| Ratanakiri | 18.7 |
| Tboung Khmum | 12.6 |
| Kratie | 6.7 |
| Preah Vihear | 4.1 |
| Stung Treng | 3.6 |
| Siem Reap | 2.4 |
| Oddar Meanchey | 2.1 |
| Mondulkiri | 1.8 |
| Koh Kong | 0.5 |
| Kampot | 0.4 |
| Prey Veng | 0.3 |
| Svay Rieng | 0.3 |
| Battambang | 0.2 |
| Pursat | 0.2 |
| Kampong Chhnang | 0.1 |
| **Total** | **1093.1** |

# Chapter 4. THE VALUE CHAIN PERFORMANCE

The value chain performance, its opportunities and needs were assessed according to the following components:

1) Competitive advantage, and causes
2) Marketing positioning
3) Value chain performance
4) Sustainability
5) Environment sustainability
6) Circular economy
7) Resilient economy
8) Gender gaps
9) Obstacles

## *4.1. Competitive advantage*

In Cambodia, multiple locally developed cashew nut varieties are cultivated, including M23, H09, M1, M10, IM4, M7, and SAN1. Among these varieties, M23 is the most widely grown, accounting for ca. 70 percent of cashew cultivation. H09 follows at 10 percent, while M1 and M10 each contribute 5 percent. The remaining percent comprise IM4, M7, SAM1, and ancestral varieties and those imported from Vietnam. Each variant is assigned a code based on the name of the plantation where it was first identified. With its large size and white colour, M23 is the preferred variety for exporting to Europe. Cambodian cashew nut associations and cooperatives play an important role in the cashew industry. Dozens of cooperatives are spread throughout

the country, with 30 in Kampong Speu and Preah Vihear provinces alone. Some of these cooperatives are very much supported by various entities. Support come in many forms, from financial/business trainings to warehouse construction and organic transition accompaniment. The Cashew Nut Association of Cambodia is the most important in the country. In operation since 2009, it is ''committed to working with farmers by supporting them with technical assistance and connecting them to exporters''. It also supports the development of local cashew nut processors and aims to create local jobs while reducing the need for migrant workers (Eurocham Cambodia, 2023).

According to Eurocham Cambodia (2024), Cambodia's production is expected increase its production in the coming years due to several factors and competitive advantages:

- The high yielding varieties grown in the country makes Cambodia one of the most productive cashew growers in the world.
- Cambodian cashews offer great quality, both in terms of nut size and yield.
- Smallholder cashew farms in Cambodia are larger than those in competing countries.
- Bordering Vietnam, it is perfectly located for exports.
- The harvest seasons are different from those of major cashew producing countries, which offers Cambodia the opportunity to reduce European fluctuations in imports.

Cashew farms exhibit a great degree of physical and geographic diversity, but cashew nut cultivation ultimately shares similar traits across the country. While there are a handful of plantations with several hundred hectares of land, the average cashew nut farmer has approximately 2.7 hectares of cashews, and this is where the majority of production results from. The yield of cashews for each farm is dependent on the soil, type of tree, the age of the trees and production techniques.

Based on the information shared by the Focus Group participants, in Ratanakiri, there are three types of cashew nut that people grow: M23[2], 09[3] and traditional seed. M-23 e 09 varieties are imported from Kampong Cham and other Cambodian provinces, they are not indigenous to the Ratanakiri region. These cultivations usually demand more expense and attention compared to traditional seeds, whose cultivation is more resistant. For both the seed is larger and heavier and has more powder; therefore, middlemen prefer it to resell it to processors and, at the same time, producers are attracted by the greater profit. Nonetheless, being a less resistant seed, during the rainy season it tends to spoil earlier, and one is forced to sell it at a lower price. The traditional cultivation of Ratanakiri requires little care.

The reason why people grow cashew nuts above is because it is a valuable variety; it is very resilient to the disease, insect and climate change. It's not picky on soil to grow and doesn't need chemicals and/or fertilizers. The tree is taller, and the roots are longer, which is why it is stronger and has a longer life cycle. The fruit (cashew) is larger, but the seed is smaller, so it weighs less. Nonetheless, the traditional seed is more resistant, it lasts for a long period, and producers are not forced to sell it off on the market, since the price is

[2] The M23 variant flowers from Mid-November to February and is one of the fastest flowering varieties of cashew (2-3 times per year). It produces very high yields from 1.5 to 2.6 tonnes per hectare (2t/ha on average), with an average number of 110- 130 unshelled nuts per kilogram and an outturn of 28-33%. It is more weather-resistant than other varieties, but also requires more maintenance by growers in cultivation, as its ability to develop more shoots requires more protection from pests (Eurocham Cambodia, 2023).

[3] The H09 variant flowers from late November to early January with one flowering per year. It has a yield of 1.3 to 2.4 tonnes per hectare, with an average number of 120-150 unshelled nuts per kilogram and an outturn of 28-32% (Eurocham Cambodia, 2023).

maintained for the entire year. It's not that hard to find and buy seeds. The seed is preserved locally and is passed down and passed between producers.

The RESCO focus group (May 2024) stated that the most valuable competitive advantages of the cashew nut value chain in Ratanakiri Province (Cambodia) are:

1. **Organoleptic characteristics:** the cashew nut is characterised by a particular taste: creamy, milky and juicy; giving the feeling of wanting to eat more and more. The scent is aromatic. The seed is white, and it is easier to process because it is cleaner after roasting.

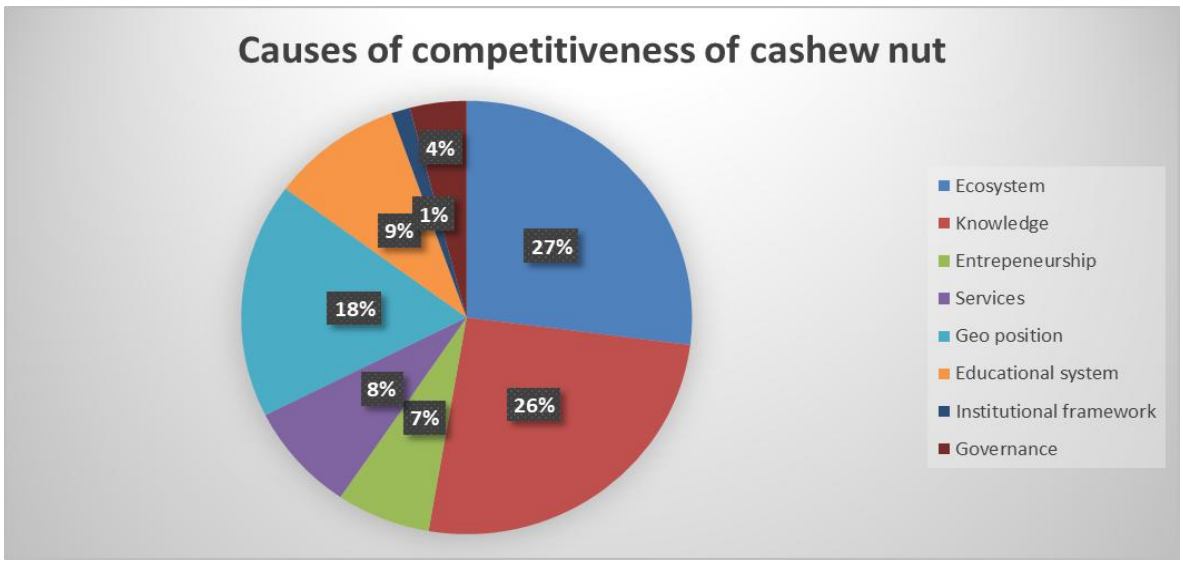
2. **Environment-friendly production:** Much of the cashew production in Ratanakiri does not use chemical fertilizers, thanks to the good quality of the soil; in particular, the traditional variety grow without the use of chemical fertilizer, the product is therefore healthier.
   In the case of the 09 and M-23 varieties it is not possible to guarantee 100% free production from the use of chemicals and fertilizers. This depends on the nature of the terrain. For those areas that the soil is not fertilizing enough then the farmer needs to use both natural and chemical fertilizer.
   The work is predominantly manual, carried out locally, which allows, on the one hand, to have more care and attention to the quality of the product; on the other, to minimize the environmental impact. Furthermore, there is an increase in the adoption of environmental-friendly practices, based mainly on the recycling of production waste.

Furthermore, the RESCO focus group assessed those factors impacting with the aforementioned competitive advantages, and the result gave the 3 main causes:

1) The **Ecosystem**, including microclimates, plants, soil, water, corresponding to the specific natural system made up of living organisms and the physical environment where they interact in an interdependent manner;
2) **The knowledge of population,** which corresponds to the specific knowledge local people accumulated in realising their economic activities, in terms of processes, techniques and technologies, organisation;
3) **Geographical position** mainly thanks to its position at the borders, and proximity to Laos and Vietnam.

The result of this assessment is shown in the following figure

**Figure 3. Causes of competitiveness of the Cashew Nut value chain in the Ratanakiri Province**
(Source. ILS LEDA RESCO Focus Group, 2024)



## *4.2. Market position*

Cashew nuts are enjoying increasing popularity all around the globe. The top three cashew-consuming countries – India, the United States of America and Germany – are on three different continents. Cashews accounted for 17 per cent of world tree nut production in 2019/20, making it the third most popular tree nut after almonds and walnuts (International Nut and Dried Fruit Council Foundation, 2020). Cashew nuts are consumed in a variety of forms, including as salty or sweet snacks and as ingredients in desserts and savoury dishes, or are further processed into cashew butter or as ingredients in a variety of spreads, sauces, bars and drinks. Increasing demand for these products led global cashew production to more than double between 2000 and 2018. Countries, such as Cambodia, that grow cashew nuts but do not process them on a significant scale retain only a small share of the value created in the global cashew market. In these countries, value addition in the cashew sector holds significant potential to contribute to the achievement of the Sustainable Development Goals through poverty reduction, job creation and rural development. In addition, the commercialization of cashew by-products, which are often discarded as agricultural waste, can help diversify revenue sources and generate more value, employment and business opportunities in communities involved in cashew production and/or processing. (UNCTAD, 2021).

Cambodia ranks among the top 10 producers of cashew nuts in the world, but it only processes 10 percent of its own crop. The remaining 90 percent is exported raw to other countries, mainly Vietnam, where nuts are processed and sold at higher prices to export markets (USAID, n.d.).

The global cashew market is experiencing robust growth, driven by diverse consumer needs and applications across various industries such as dairy, bakery, snacks and bars, confectionaries, cereals, beverages, and cosmetics. The market showcases a wide range of product forms including whole, roasted, powder, paste, and splits, making cashews a versatile choice in both culinary and health-focused products. Strengthened by distribution channels like supermarkets and online stores, cashews are increasingly accessible globally, ensuring broad market penetration. Regionally, it spans across major areas including North America, Asia-Pacific, Europe, Latin America, and the Middle East and Africa, thereby contributing extensively to the global demand and supply chain of cashews. Particularly, the demand from the food and beverage sector highlights cashews as a key ingredient, aligning with the rising trend of health-conscious eating and the shift towards plant-based, nutrient-rich food options. This trend not only supports the cashew industry's growth but also positions it well within the competitive landscape where it remains a popular choice for consumers seeking health benefits like cholesterol reduction and heart disease prevention (Mordor Intelligence, 2024).

The Cashew Market size is estimated at USD 7.82 billion in 2024, and is expected to reach USD 9.20 billion by 2029, growing at a CAGR of 3.31% during the forecast period (2024-2029). The cashew market has been growing across the world due to the rising health consciousness and the inclination of people toward healthy food options. Cashew contains healthy carbohydrates, protein, and good fat. Likewise, the cashew is a nutritionally dense food providing a rich source of the B vitamin, vitamin K, and the essential minerals copper, iron, magnesium, manganese, phosphorus, and zinc, which support its consumption by health-conscious people across the world. Multiple benefits of nutrient-rich cashews are aiding the market growth over the forecast period (Mordor Intelligence, 2024).

The cashew tree is found worldwide, but it is mostly grown commercially in Northeastern Brazil, Southeast Venezuela, and India. Nowadays, cashew trees grow in other tropical and warm regions, such as Southeast Asia, Africa, and India. Thus, Asia-Pacific Dominates the Market, where more than 80% of cashew cultivation

is done by smallholding farms, ranging in size from 0.5 ha to 5 ha in countries of Asia. Medium- and large-scale commercial plantations produce 10-15% of the total production by employing hired labourers in the region. Further, Asia-Pacific has been a consistent importer of cashew kernels despite the presence of large cashew-producing countries, such as India and Vietnam, in the region. In terms of consumption, India is the leading country in the world. As Vietnam leads in the production of cashews worldwide, it is also a significant exporter of the same to other international markets (Mordor Intelligence, 2024).

Accounting for more than a third of total global imports, the European Union is the world's largest market for cashew nuts. As import volumes gradually increase, the region offers great opportunities for exporters based in developing countries aiming to expand their business. The European market for cashew nuts is predicted to grow at a steady rate of 5% to 6% per year in the medium to long term. Changes in European consumers' consumption patterns, such as a rise in demand for healthy snacking options and a desire to shift to vegetable proteins are anticipated to drive this growth. In 2020, 96% of all Cambodian cashew nuts exports were directed to Vietnam – the world's largest exporter of cashew nuts - which often processes and re-exports them. Cambodian producers and exporters have much to gain by cutting out intermediaries and directly approaching end markets in the European Union (Eurocham Cammbodia, 2022).

As for the export volume of Cambodian in-shell cashew nuts, it increased by a whopping 725% from 1,088 tons in 2018 to 8,981 tons in 2022, worth USD 12.5 million. Shelled cashew nuts have seen a similar trend, increasing from 671 tons in 2018 to 1,787 tons in 2022. The main destination for Cambodian inshell cashew nut exports is by far Vietnam (USD 10.8 million), whilst Thailand is the top destination for the shelled variety (USD 0.5 million). Other export markets are India, China, and South Korea. Cambodia's cashew nut exports have benefited from a number of factors, including the country's favorable climate for cashew nut cultivation, the increasing demand for cashew nuts in global markets, and the government's active involvement in promoting exports in this sector Union (Eurocham Cammbodia, 2023).

In 2017, MAFF signed a memorandum of understanding with the Vietnam Cashew Association that stipulated Cambodia exporting 1 million tonnes of RCN by 2028, to be achieved by expanding the cashew nut harvest area by 500,000 hectares. The most recent estimate from the Cashew Nut Association of Cambodia (CAC) reveals the harvested area of cashew nuts to be close to 500,000 hectares as of 2022. More importantly, the Government of Cambodia is committed to the expansion and growth of the cashew nut industry, with their support culminating in the aforementioned National Cashew Policy 2022–2027 (NCP), which seeks to increase cashew nut processing in Cambodia by 25 per cent by 2027 and by 50 per cent by 2032 (Cambodia, Government of Cambodia 2023b). The country only has approximately five large cashew nut processing facilities, which can only convert around 5 per cent of RCN production into processed cashew nuts due to inadequate processing technology, machinery and storage facilities (Thun et al., 2023).

According to the National Cashew Nut strategy, cashew nut processing is attracting both local and foreign investors, but the ability to control the quality, hygiene and processing of Cambodia's agricultural products is still limited. To boost production, Cambodia needs processing techniques and large-scale processing plants, which comply with quality and hygiene standards. Cambodia has the capacity to produce more than 200,000 tons of raw cashew nuts per year but is currently able to process only 5% of this, and most of the raw cashew nuts are exported to neighbouring countries for processing. This has meant that Cambodia has been losing opportunities in value-adding and job creation. It also means that Cambodia has been failing to capitalise on the reputation of its cashew nuts in terms of their delicious taste. In future, Cambodia will expand its cashew market beyond the existing neighbouring markets. However, the country still faces substantial challenges:

the supply chain of raw cashew nuts to local processors is not reliable because farmers are dependent on neighbouring markets, which can absorb most of the country's unprocessed cashew nuts. While the cashew products of the world's major producers remain static, Cambodia's cashew products could snatch market share from the United States, Germany, Netherlands, China, the United Kingdom, France, Australia, Canada, the United Arab Emirates, and Japan. Based on the growth in European consumption, Cambodia needs a long-term vision to promote and increase consumer awareness of the nutritional value of cashew kernels. European consumers prefer white and roasted cashew kernels, which are more tasty than other tree nuts. Consequently, to increase its economic competitiveness and diversification, and to ensure high economic growth and job creation, Cambodia needs to seize this opportunity by strengthening and expanding the processing of cashew products as much as possible - by establishing food safety standards and ensuring that it has the quantity and quality to supply local and international markets.

In order to assess the market positioning of the cashew nut value chain, the RESCO focus group analysed:

- The direct buyers of cashew nut main products
- The current market positioning of cashew nut main products
- The expected goals for cashew nut main products

They selected 3 main products: raw seeds, processed cashew seeds, cashew nut skin.

As for the buyers, the RESCO Focus Group shared the following information:

⇒ **Raw seeds**: The entire production is bought by middlemen (100%) who often in turn resell it to other intermediaries, who in most cases sell to Vietnam and Thailand. So, producers don't know where the production goes. Often there are multiple steps. The intermediaries are local people. They don't know who to turn to improve their conditions, they have no information on the matter. Unfortunately, although they are cooperatives, they do not sell together but individually as individual producers, therefore their bargaining power is extremely limited. Collective sales work with the processed product, thanks to the added value of the product, but the producers report that the plots are large, and the staff is small to guarantee the entire process of washing, boiling, peeling etc., so they only collect the fruit, and they sell the raw seed.

⇒ **Processed cashew seeds -** 100% sold to final individual consumers**:** The very small quantity of cashews produced in the cooperatives is sold directly to local buyers, contacted by telephone or online or via delivery shipments (informal methods).

⇒ **Cashew nut skin -** 100% sold through intermediaries: cashew nuts skin is stored for sale to traders for $ 90 a ton.

The figures 4 and 5 show the results:

**Figure 4. Positioning on current markets of the Cashew Nut value chain in the Ratanakiri Province**
(Source. ILS LEDA RESCO Focus Group, 2024)

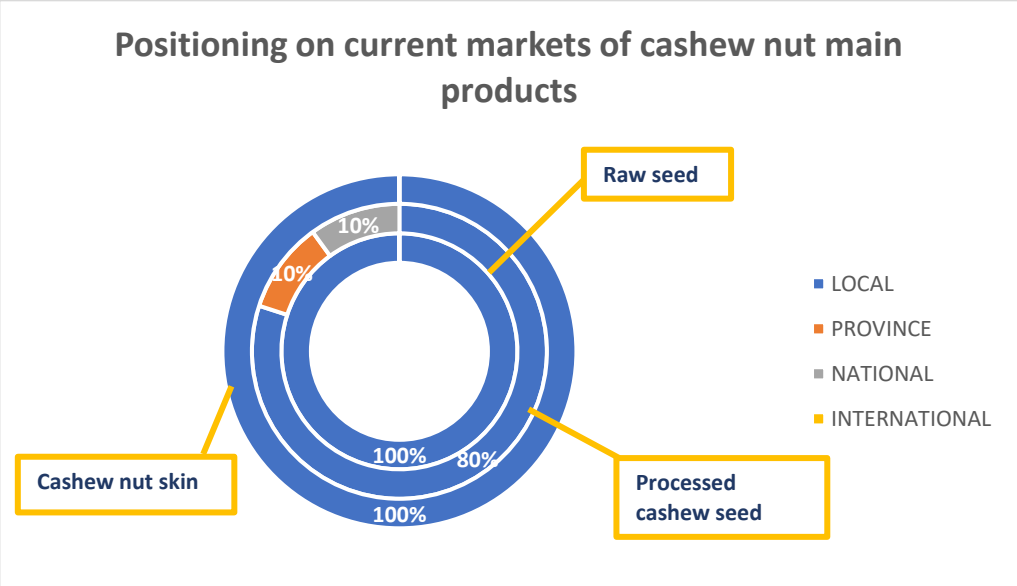
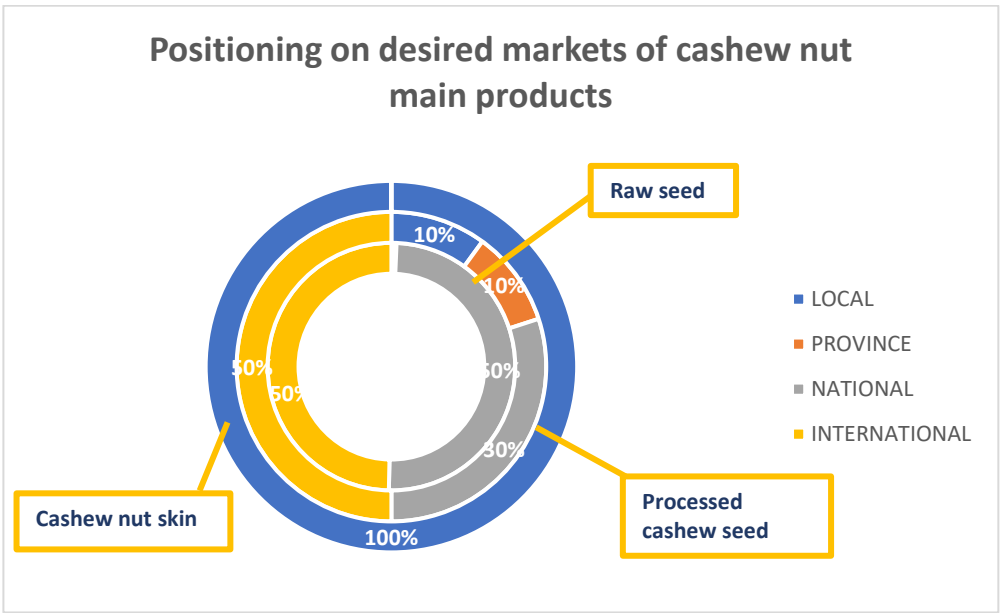



**Figure 5. Positioning on desired markets of the Cashew Nut value chain in the Ratanakiri Province**
(Source. ILS LEDA RESCO Focus Group, 2024)




In conclusion, the effort for sharing the national and international markets for raw seed and processed cashew seed should rely on:

- Reduction of the local market (from 100% to 10% for raw seeds and from 80% to 10% for processed cashew seed)
- Increase of raw seed markets at the province level by 30%
- Increase of national markets (up to 30% for both products)
- Increase of the international markets (up to 30% for raw seeds and to 50% for processed cashew seed).
- Whereas the cashew nut skin market should remain at local level.

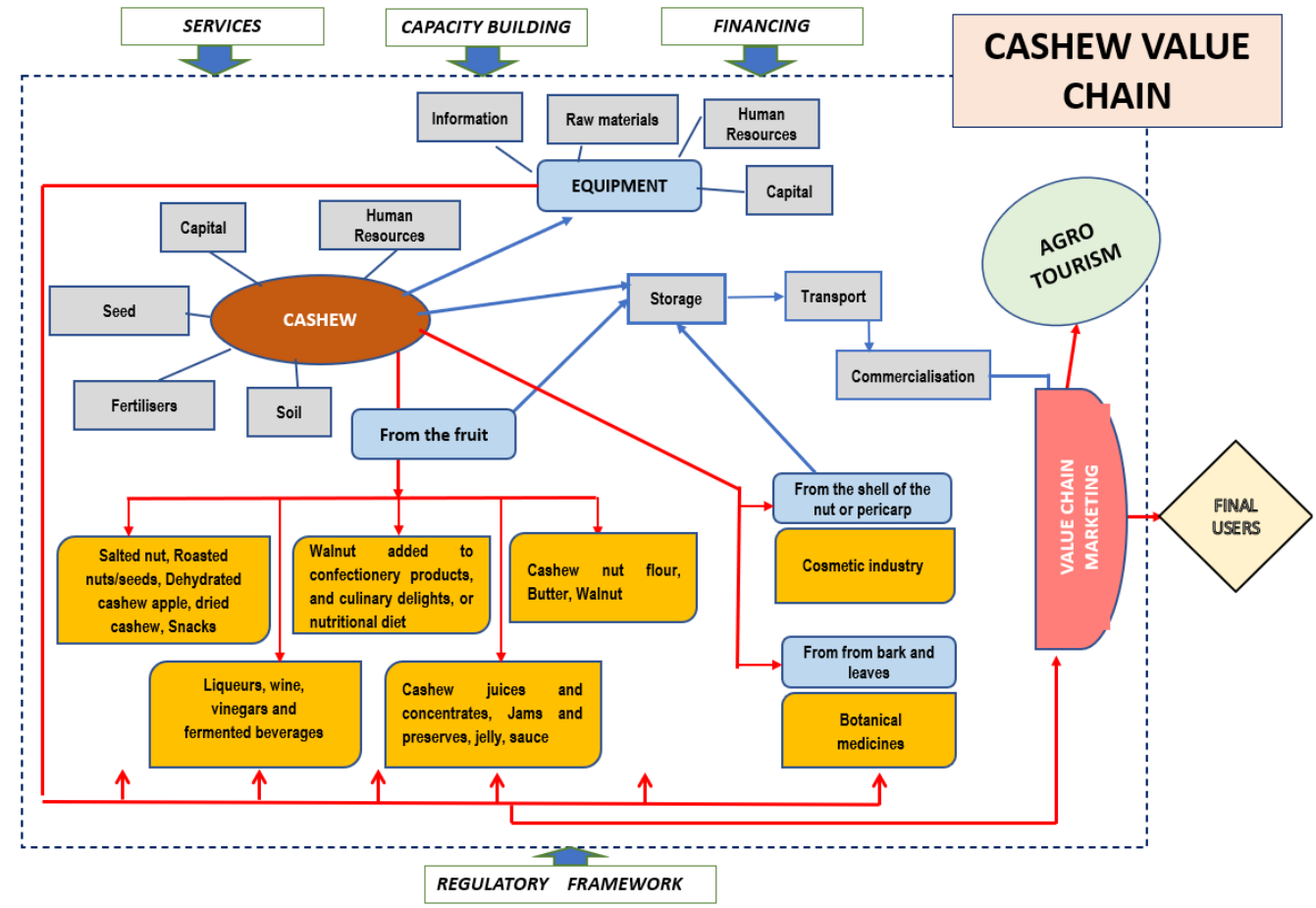
## *4.3. Cashew Nut value chain performance assessment*

The RESCO focus group assessed needs for the main components of the cashew nut value chain, and they are:

1. Productive inputs and general infrastructure
2. Human resources
3. Financial resources
4. Information
5. Equipment and supplies
6. Services
7. Additional activities
8. By-products

The following figure shows the components of the cashew nut value chain.

**Figure 6. The Cashew Nut Value components** (Source. ILS LEDA)




The main results about the value chain performance regarding high level and medium level needs are the following ones:

<u>Productive inputs and general infrastructure</u>

Production is carried out using two methods, depending on the variety grown: in the case of the native variety, the seed is used directly, in the case of the 09 and M-23 varieties, the germinated and transplanted

seed is used. In both cases it is easy to obtain the production input: For the native variety the seed is preserved and passed down locally, for the other varieties seedbeds are available to germinate the seeds, which are then transplanted, while the excess of seedlings is sold locally.

*Medium level*

- Soils: Due to the excessive of the mountainous terrain, in some areas of Ratanakiri it is more difficult to manage plantations, but in general the province enjoys good soil, also thanks to the limited use of pesticides. Few areas currently experience overproduction.
- Storage: The producers sell their production immediately, they don't even have the possibility of storing it, because as soon as they harvest it the intermediaries arrive to buy it.
- Transportation: In general, they do not transport the product, they leave production directly on the field. Sometimes the shape of the territory makes it more difficult to move and transport the product.

Human resources

*High level*

- According to the Focus Group, the following professional figures are lacking in the territory:
  - Administration,
  - Product procurement and marketing responsible,
  - Transporter,
  - Storing operator.

In general, the work is seasonal. In some cases, in the more isolated areas, it is more difficult to find people willing to work in the plantation and harvest and people come from other provinces. Due to the weak development of the value chain, which focuses only on production (planting and harvesting), many professional figures are not considered necessary, given the lack of the corresponding activities.

- As for the Human Resources of the future, there are very rare examples in the province of smart agriculture owned by large private companies. In particular, there are no:
  - Operator of new digital and remote sensing technologies
  - Technician specialized in robotics and automation
  - Technician specialist in Artificial Intelligence (IA)

Financial Resources

*Medium level*

- Own funds: There is little capital from individuals and cooperatives to invest in production.
- Resources from the banks: the requirements are overly strict
- Government programmes: there are no specific lines of credit.

Information

*High level*

There is a lack of support networks to research and obtain this information, which sometimes turns out to be incorrect, as it happens in:

- Market demand information
- Information on technology

Durable equipment and supplies

Given the current development of the value chain, which in Ratanakiri is concentrated almost exclusively in planting and harvesting, many machines are not needed, which are however easy to find in nearby provinces (the one that costs the most is the plowing machine). Since there is no transformation of the product, the processing tools are not covered by the manufacturers. The very small percentage of cooperatives that process the seed follows an almost exclusively manual process, due to lack of funds for the purchase of machinery.

Services

*High level*

The focus group considers as a high priority improve the following services:

- Technical, administrative, organisational services
- Marketing/Commercialisation
- Training: Among the training required: variety control; leadership skills; processing by-products from fresh fruit; reuse and recycling of peels, production waste and plant remains.
- Support in the development of Cooperatives, cooperation/networking
- Support in the development of alliances / associations
- Access to finance
- Soil quality monitoring
- Business start-up
- Services for introducing new technologies
- Bio Certification: the participants to the focus group don't know where to turn; none of them have certifications.

*Medium level*

Assistance services for sowing, time sowing method, irrigation, management, resilience against pests and diseases, harvest productivity, variety control, performance stability, etc. The FG mentioned that the Department of Agriculture (DoA) provides assistance, but the process is lengthy, and it intervenes late. Most producers have no information about this and do not know where to turn; they usually ask the NGOs working in the area for support. (CCA -CAMBONIA CASWNUTS ASSOCIATION is an entity that gives technical assistance)

Additional activities

As for the additional activities, such as fairs, festivals and cultural events, they don’t exist at provincial level.

By Products

*High level needs*

According to the Focus Group discussion, they only sell the nut of the fresh fruit to intermediaries; the only product they have is the seed. They do not do any sub-production: they claim they do not know how to process and have no knowledge of the techniques to do so. Cashew nut husks are stored to be sold to traders for $90 per tonne. So, there is a high need for training in cashew processing, such as:

- Salted nut
- Roasted nuts/seeds
- Dehydrated cashew apple

- Walnut added to confectionery products, in pastry to make candies, nougats and chocolates, and bakery for cakes, breads and cookies; wine companion; in the manufacture of ice cream and breakfast cereal mixes;
- for the preparation of culinary delights, being recommended in some cases as a diet nutritional
- dried cashew
- Fresh false fruits (cashew apple)
- Liqueurs, wine, vinegars and fermented beverages
- Cashew juices and concentrates
- Jams and preserves, jelly, sauce
- Cashew nut flour
- Cashew Butter
- Walnut shell liquid
- Walnut shell oil
- Organic cashew seed
- Snacks and nut and dried fruit mixes for final consumption
- The shell of the nut or pericarp, with which they manufacture varnishes, printing inks, paints for insulating materials and to preserve humidity in boats and fishing equipment, for protection of wood, plastics, fittings brakes and clutches, among others.
- Almond for industrial use in the manufacture of cosmetics
- The cashew seed shell used in process as fuel for cooking of the nut.
- Bark and leaves used in botanical medicine

## *4.4. Sustainability*

The Cashew nut focus groups assessed 4 types of sustainability:

1. The economic sustainability
2. The social sustainability
3. The institutional sustainability
4. The financial sustainability

Large space will be given to environmental sustainability and resilient economy in the next chapters.

The following tables show the results of the assessment

**Table 2. The sustainability of the Cashew Nut value chain in the Ratanakiri Province**

(Source. ILS LEDA RESCO Focus Group, 2024)

| Economic sustainability | | | |
|---|---|---|---|
| **Variables** | **Values** | | |
| | **Low** | **Medium** | **High** |
| Number of hectares of land available | | | |
| Is the of sales of the local cashew nut value chain in the first 5 sold products of the area? (sign HIGH) Is it among the 5 least sold products in the area? (Sign Low), Sign Medium in the other cases | | | |
| No. Of Micro, Small, and medium enterprises in the value chain (collective and individual) (1) | | | |
| Level of formal employment (collective and individual) | | | |

| | | | |
|---|---|---|---|
| Level of women employment (2) | | | |

(1) Cooperatives are the only formal collective entities in the sector. There are few individual, formalised enterprises in Ratanakiri.

(2) It depends on the different functions: usually women are dedicated to harvesting; boiling and peel removal.

| Social sustainability | | | |
|---|---|---|---|
| Variables | Values | | |
| | Low | Medium | High |
| Ability to create jobs for individuals with different physical and mental abilities (1) | | | |
| Ability to create jobs for people with low skill and training level | | | |
| Companies run by youth (persons under 35) / total number of companies | | | |
| Socially responsible enterprises that invest in the development of the social sphere | | | |

(1) Having them as members in the cooperatives is not a problem, but it is difficult to employ them because of the kind of work that requires physical effort.

| Institutional sustainability | | | |
|---|---|---|---|
| | Values | | |
| | Low | Medium | High |
| Level of execution of government plans for the value chain development in the territory | | | |
| Level of attention of the official government for the development of the value chain in the territory/area | | | |
| Attention of government to social needs | | | |

| Financial sustainability | | | |
|---|---|---|---|
| Variables | Values | | |
| | Low | Medium | High |
| Potential to secure loans for the business sector | | | |
| Presence of specific financial mechanisms for the value chain (loans facilities etc.) (1) | | | |
| Availability of incentives/programmes supporting the livelihoods of specific groups in the community? | | | |
| Availability of incentives to citizens for the differentiated collection | | | |
| Availability of incentives to cooperatives for the differentiated collection | | | |

(1) There are general credit lines for agriculture, in particular sponsored by the DoA, but not specifically for cashew. Some microfinance companies (e.g. AMR) give credit without requiring collateral at low interest rates or some NGOs have such programmes running at the moment. There is the possibility of credit as a group (at least 3 people) up to a maximum of USD 2000, starting from 1 hectare of land.

In conclusion sustainability is a severe gap for the province economy, and strategies shall be addressed for responding to its need, the main one being[4]:

*Economic sustainability:*

- Increase the level of formal employment (HP)

[4] HP refers to high priority needs while MP refers to medium priority ones.

- Increase the number of Micro, Small, and medium enterprises in the value chain (collective and individual) (MP)
- Increase the level of women's employment (MP)

Social sustainability

- Create jobs for individuals with different physical and mental abilities (HP)
- Increase the number of SMEs managed by young people under 35 years of age / total SMEs (HP)
- Enhance responsible enterprises that invest in the development of the social sphere (HP)

Institutional sustainability

- Direct the attention of the government towards social needs (HP)
- Improve the level of attention and execution of the official government for the development of the value chain in the territory (MP)

Financial sustainability

- Provide opportunities to secure loans for the business sector
- Provide specific financing mechanisms for the value chain
- Provide incentives/programmes supporting the livelihoods of specific groups in the community
- Provide incentive to citizens and cooperatives for the differentiated collection

## *4.5. Green economy*

The focus group assessed the green economy associated to the cashew nut value chain, according to the following components:

- Public Regulations
- Contamination and risks
- People and organization commitment
- Contamination caused by the value chain activities
- Access to environmental resources
- Best practices

The following table shows the results:

**Table 3. Green economy aspects related to the Cashew Nut value chain in the Ratanakiri Province**

(Source. ILS LEDA RESCO Focus Group, 2024)

| Public regulations | | | | | |
|---|---|---|---|---|---|
| **Variable** | **Indicators for variable** | | **Indicator for the variable effectiveness** | | |
| | **NO** | **Yes** | **Low** | **Medium** | **High** |
| Are environmental sustainability, the reduction of pollution, the limitation of gas emissions, and the polluting use of energy sources included in public policies and regulations? | | | | | |
| Is the government implementing policies that favour the transition to a clean environment? Are they effective? | | | | | |

| | | | | | |
|---|---|---|---|---|---|
| Is the government working to achieve the United Nations Sustainable Development Goals? | | | | | |
| Is there an incentive system to stimulate the green economy and penalize the non-green economy? | | | | | |

| Contamination and risks | | | |
|---|---|---|---|
| **Variables** | **Indicators** | | |
| | **Low** | **Medium** | **High** |
| How would you consider soil contamination in your territory? | | | |
| How would you consider water pollution in your territory? | | | |
| How would you consider air pollution in your territory? | | | |
| Do you think people are aware of the risks of pollution and climate change? | | | |
| **Commitment of people** | | | |
| Are there organizations and/or institutions committed to environmental sustainability and the green economy? | | | |
| Do you think people have consistent behaviours to safeguard the environment? | | | |

| Contamination caused by the value chain activities | | | |
|---|---|---|---|
| **Variables** | **Indicators** | | |
| | **LOW** | **MEDIUM** | **HIGH** |
| Emission Co2 | | | |
| Use of diesel engine for energy | | | |
| Use of Waste management sustainable practices | | | |
| Audio noise | | | |
| Use of environment control devices | | | |
| Presence of enterprises for the solid waste recycling | | | |
| Presence of enterprises for the organic waste recycling | | | |
| Presence of enterprises for the liquid waste recycling | | | |
| Are the containers of liquid and powdered substances reused (refilling)? | | | |

| Access to environmental resources | | | |
|---|---|---|---|
| **Variable** | **Very Few** | **Some** | **Many** |
| How is the access to drinking water for the value chain actors? | | | |
| How is the access to irrigation water for the value chain actors? | | | |
| How is the access to electricity for the value chain actors? | | | |
| How is the access to public resources (like rivers, lands,…) for the value chain actors? | | | |
| How is the access to private resources (land properties) for the value chain actors? | | | |

| Green economy practices | | | |
|---|---|---|---|
| **Variables** | **Indicators** | | |
| | **LOW** | **MEDIUM** | **HIGH** |
| How many companies in the value chain practice solutions for environmentally friendly production? | | | |
| How many companies in the value chain provide recyclable material? | | | |

| | | | |
|---|---|---|---|
| How many companies in the value chain re-use internal waste to recycle it? | | | |
| How many companies in the value chain reuse wastewater to recycle it? | | | |

In conclusion, the assessment results suggest:

**Public regulations:**

*High priority needs*

- Make pressure on the government for improving the environmental sustainability, by improving the effectiveness of the regulations on environmental sustainability, the reduction of pollution, the limitation of gas emissions, and the polluting use of energy sources, the transition to a clean environment, and the achievement of the Sustainable Development Goals.
- Make pressure on government for establishing incentives to stimulate the green economy.

**Contamination and risks**

*High priority needs*

- Improve measures for reducing the soil pollution

*Medium priority needs*

- Improve measures for reducing the water and air pollution
- Realise initiatives for sensitizing people on the risks of water and air pollution and climate change

**Commitment of people and organizations**

*Medium priority needs*

- Sensitise, realise capacity building, and other initiatives for increasing the commitment on environmental sustainability and the green economy.

### Contamination caused by the value chain activities

*High priority needs*

- Sensitise, realise capacity building, and other initiatives for increasing the use of Waste management sustainable practices and environment control devices
- Promote the creation of enterprises for the solid waste recycling, the organic waste recycling and the liquid waste recycling
- Raise awareness on the reuse of containers of liquid and powdered substances

### Access to environmental resources

According to the FG participants, farmers do not really know how to use chemicals and pesticides, and the fruit also suffers. They have had training on how to make organic fertilisers, but it is still ongoing and in general they do not think they need them much because the cashew nuts they grow does not need chemicals. As a result, the water for cultivation gets contaminated. In some parts it is more contaminated and the fish, a staple in the local diet, are also affected, with the harmful effects this has on their health. Most of them are forced to boil their water or buy it bottled in plastic. In addition, deforestation is advancing wildly in the area; however, some in the communities have received training and awareness-raising on the issue (60-70% of people).

*High priority needs*

- Improve the access to irrigation water

*Medium priority needs*

- Improve the access to drinking water
- Improve the access to electricity, because the service does not extend to all areas of the province.
- Improve the access to land property: cooperatives manage to protect their collective property. However, years ago the government leased land for rubber tree cultivation to private companies. According to the FG participants, this has had positive and negative effects at the same time, because while it has taken land away from communities, it has generated local labour, reducing migration (they earn about 300 dollars per month).

### Green economy practices

*High priority needs*

- Increase the number of enterprises that practice solutions for environmentally friendly production
- Increase the number of enterprises of the value chain that provide recyclable material, re-use and recycle internal waste and wastewater.

## *4.6. Circular economy*

The focus group assessed circular economy needs for the cashew nut value chain, through the following components

- Waste management
- Services
- Business performance

**Table 4. Circular economy needs related to the Cashew Nut value chain in the Ratanakiri Province**

(Source. ILS LEDA RESCO Focus Group, 2024)

| Waste management | | | |
|---|---|---|---|
| **Variables** | **Indicators** | | |
| | **No** | **Weak** | **Yes** |
| Are there companies that selectively collect waste for reuse it within the companies in the value chain? (1) | | | |
| Are there companies for the storage of this waste? | | | |
| Are there companies that sell this waste? (2) | | | |
| Are there companies that make products from cashew nut production waste? | | | |

(1) They do not separate the garbage, which is generally collected together and burned. Recycling is very low

(2) Only aluminium is recycled, individual and informal people collect aluminium and sell it.

| Services | | | |
|---|---|---|---|
| **Variables** | **Indicators** | | |
| | **No** | **Weak** | **Yes** |
| Is there research to find innovative solutions for the circular economy of the cashew nut value chain? | | | |
| Are there university courses in the field of circular economy? | | | |

| | | | |
|---|---|---|---|
| Are there professional training courses in the field of circular economy? | | | |
| **Business performance** | | | |
| **Variables** | **Indicators** | | |
| | **No** | **Weak** | **Yes** |
| In your opinion, what is the cost of energy consumption over total production costs for company of the cashew nut value chain? | | | |
| In your opinion, how is the cost of water consumption compared to the total production costs for a company of the cashew nut value chain? | | | |
| In your opinion, what is the participation of renewable energies in the total energy consumption of companies in the value chain? (3) | | | |
| In your opinion, how many companies of the value chain adequately treat wastewater from renewable sources? | | | |
| In your opinion, how many companies do nitrogen and/or phosphorus balances? | | | |

(3) Only solar panels, mainly for domestic use, the rest of renewable energy is not used because it is expensive to install and maintain and the government does not give incentives of this type.

In conclusion, circular economy practices are very much ignored in the province, with rare exceptions. Accordingly, the Focus Group assessment came out with the following needs:

**Waste management**

*High priority needs*

- Enhance the creation of companies that collect waste selectively, store it, and sell it
- Enhance the creation of companies that make products from cashew nut production waste

**Services**

*High priority needs*

- Stimulate the research to find innovative solutions for the circular economy
- Stimulate universities, and professional school to introduce education on circular economy

**Business performance**

*High priority needs*

- Stimulate and educate enterprises to make plans for reducing the energy, and the water consumption
- Stimulate and educate enterprises to increase the use of alternative energy sources
- Stimulate, educate, and support enterprises to reuse renewables resources (especially water)

*Medium priority needs*

- Reduce the cost of energy and water consumption over total production costs.

## *4.7. Resilient economy*

The focus group assessed resilient economy opportunities and needs for the cashew nut value chain, through the following components:

- Vulnerability risks
- Risk prevention

- Resilient recovery post catastrophe opportunities
- Long-term environmental sustainability opportunities (contribution to the mitigation of climate change impact)

**Vulnerability risks**

- They are mainly risks of excessive temperature during dry seasons, pandemic and plant pests. According to the participants to the Focus Group, until recently they did not have so many problems with disasters and environmental catastrophes, but lately they are increasing. ***In the event of a major disaster, it takes five years for native seeds to resume production and three years for other 09-M23 plantations***. In the last five years, they have mainly experienced a period of excessive heat during the dry season, which particularly affected the fruit, damaging production. In addition, a plague occurred locally, whose worm affected production by eating the leaves and fruit.

Thus, the main damages caused by catastrophes occurred are:

a) people left without job
b) damage to economic infrastructure, in particular, agriculture

**Risk prevention**

The measures foreseen for facing the abovementioned catastrophes that need to be improved are:

⇒ Effective information advice system (WhatsApp, social, mobile cars, radio, TV, etc.)
⇒ Previous tests on individual and collective behaviours
⇒ Disposal of public funds for emergency situations
⇒ Disposal of insurance mechanisms
⇒ Organisation of mutual aid organisation
⇒ Presence of civil protection voluntary trained ed equipped groups
⇒ Disposal of Health Care emergency support
⇒ Disposal of medicines
⇒ Disposal of lodging, and temporary housing

The Focus Group result accordingly relies on the following needs and opportunities for facing catastrophes:

**Resilient recovery post catastrophe opportunities** from the cashew value chain, that can provide

- Ability to produce goods needed in food emergencies after catastrophes;
- Possibility of using workers to support other productions.

**Long-term environmental sustainability measures**

- Abating polluting waste (chemical products, products containing non-convertible waste)
- Reduction of energy from non-renewable sources and CO2 emissions
- Organic and agroecological cultivation models based on diversification

## *4.8. Gender equality*

The focus group assessed gender equality needs for the cashew nut value chain, through the following components

- Women participation to the value chain
- Access to resources
- State regulations: legislation and measures

The following table show the result of this assessment:

**Table 5. Gender equality assessment in the cashew nut value chain** (Source. ILS LEDA RESCO Focus Group meeting, 2024)

| Women participation to the value chain | | | |
|---|---|---|---|
| | **LOW** | **MEDIUM** | **HIGH** |
| Female working level in the value chain? (1) | | | |
| Level of woman involved in local government with respect to the value chain development? | | | |
| Level of women in leadership positions and in representative bodies (e.g.: workers' groups, trade unions, etc.) in the value chain? | | | |
| Last year, how many women were promoted in the value chain? | | | |
| In the past year, how many women have benefited from training in the value chain? | | | |

(1) Usually, half the members of the cooperatives are women, also because there are pink quotas to be respected; nevertheless, there are cases where women experience restrictions in the domestic sphere, due to their husbands' opposition.

| Access to resources | | | |
|---|---|---|---|
| | **NO** | **PARTIALLY** | **YES** |
| Is the access to labour in the value chain the same for men and women? (2) | | | |
| Is the access to finance in the value chain the same for men and women? | | | |
| Is the access to business services in the value chain the same for men and women? | | | |
| Within the framework of the value chain, is the access to the resources produced (and the choice on how to use of these resources) the same for men and women? | | | |

(2) Women are especially involved in some special activities: harvesting, cleaning, washing and boiling seeds.

| State regulations: legislation and measures | | | |
|---|---|---|---|
| | **NO** | **PARTIALLY** | **YES** |
| Do you think the Gender Equality National Strategy /measures/services is being properly implemented | | | |
| Do you think that sufficient measures for gender equality are taken at company level? | | | |
| Do you think that reconciliation measures and facilities between family and work responsibilities are properly implemented? | | | |
| Do you think that public care facilities for children and elderly are sufficient and covering the demand? | | | |
| Do you think that the issues of sexual harassment, abuse and exploitation at work are sufficiently taken into account in the | | | |

| | | | |
|---|---|---|---|
| value chain (understanding of the issue, support for victims, measures against perpetrators, etc.)? (3) | | | |
| Do you think that the violence suffered by women in the private sphere (e.g. domestic violence, forced marriages, etc.) is sufficiently taken into account in the value chain (understanding of the problem, care for victims, support in pursuit of the perpetrators…)? | | | |

(3) In the case of domestic violence, the community sends a warning to the perpetrator, trying to resolve and contain the issue internally within the community; in serious cases, we report it to the relevant authorities.

In conclusion women are quite discriminated, and they need:
As for women participation to the value chain:

- Strong support for accessing the labour market in the value chain
- Strong support to be involved in local government with respect to the value chain development.

As for access to assets:

- Some support for accessing leadership positions and in representative bodies (e.g.: workers' groups, trade unions, etc.) in the value chain;
- Some support for accessing finance, business services and resources related to the value chain.

As for state regulations:

- Strong support to implement reconciliation measures and facilities between family and work responsibilities and to increase public care facilities for children and elderly in order to cover the demand
- Some support to proper implement Gender Equality National Strategy, and to properly consider issues of sexual harassment, abuse and exploitation at work and violence suffered by women in the private sphere (e.g. domestic violence, forced marriages, etc.) in the value chain.

## *4.9. Obstacles*

In general, the **National Cashew Policy 2022-2027** recognises the following obstacles to the full development of the cashew value chain:

- **Cashew production:**
  - Low production yield and quality, due to limited knowledge of farmers and lack of access on social media by organising platform to gain information and participation in sharing experience with the latest technology
  - High cost of productive value chain, because the management of agro-input use remains limited.
  - Techniques for using fertilisers and agro-chemicals are still limited, also due to the lack of full implementation of regulations and measures.
  - Lack of management on cashew origin, because the identification and establishment of collective producer groups is not yet clearly set.
  - A specific standard has not yet been set for cashew products, due to the low quality of inputs in cashew production.
  - Lack of investment in the cashew production chain
  - Lack of irrigation systems; thus, cultivation of cashew crops depends on nature or conventional production.

- The geographical location of the plantations is in remote and eishy areas, were mines and unexploded ordnance have not been cleared.
- Lack of infrastructure to connect to cashew plantations.

- **Cashew processing:**
  - The capacity of processing factories is not competitive in terms of diversification and value-added, also due to lack of capital investment in cashew processing.
  - Quality of cashew products does not meet technical specifications and standards.
  - Production cost is still high, so it is difficult to compete in the market and unregistered processing plants have not been given incentives to register.
  - There are not enough warehousesfor storage during and after post-harvesting.
  - Electricity cost is still high and the electricity distribution network is insufficient.
- **Cashew Market and Export:**
  - Lack of information about the cashew market, there is not a systematic market analysis service and/or a mechanism to share information about the market situation.
  - No legal Cashew Trade Federation, because there is a lack of management to gather cashew business operators and stakeholders together to form an association or federation for the cashew business.
  - Commercial barriers, due to the fact that there are not enough trade agreements with export target countries.
  - Products are not properly labelled, packaged or branded, due to the lack of aawareness about the benefits of branding and packaging and lack of understanding about the value of establishing a brand.
  - No specific recognition of the quality of cashew products, also due to the lack of laboratories that operate in line with international standards.
  - The use of new technologies for electronic business operations is still limited, because of a lack of human resources and techniques relating to the establishment of digital mechanisms.
  - Lack of market diversification in respect of cashew products.
  - Limited connectivity of infrastructure, in fact the cost of transport is high and time-consuming.
  - The process to request export documents is still not easily navigated.

In addition, according to Thun et al. (2024), Farmers face a range of challenges and constraints, including soil fertility depletion, high prices for fertilizer, limited bargaining power, volatile prices, limited market information and land scarcity; in particular, the major challenges of the cashew nut value chain are:

**RISKS FOR FARMERS**

- **Crop failure from weather.**
- **Pests and disease.**
- **Volatile market prices:** specifically the risk that prices drop suddenly after harvest or right before the farmer sells their crop. This problem is exacerbated because farmers have minimal bargaining power, as noted above.
- **It takes several years after planting to yield the first harvest:** the other biggest challenge cited by farmers interviewed by ILO concerns the nature of cultivating cashew trees themselves, namely the time required to grow cashews and the cost-intensive process of planting. It takes a cashew tree three to five years to reach sufficient maturity in order to yield fruit, and even then, the maximum

yield will not be reached for another several years (although the M23 variety of cashew commonly found in Cambodia can yield fruit in as little as two years). This waiting necessitates a period of scarcity for the farmer and their family. Although crop diversification can help subsidize income until the trees yield fruit, the farmer still must divert significant resources such as time, land and money to ensure that the trees remain healthy. On top of this, there are external risks of crop loss due to a lack of rain, fire or pests.

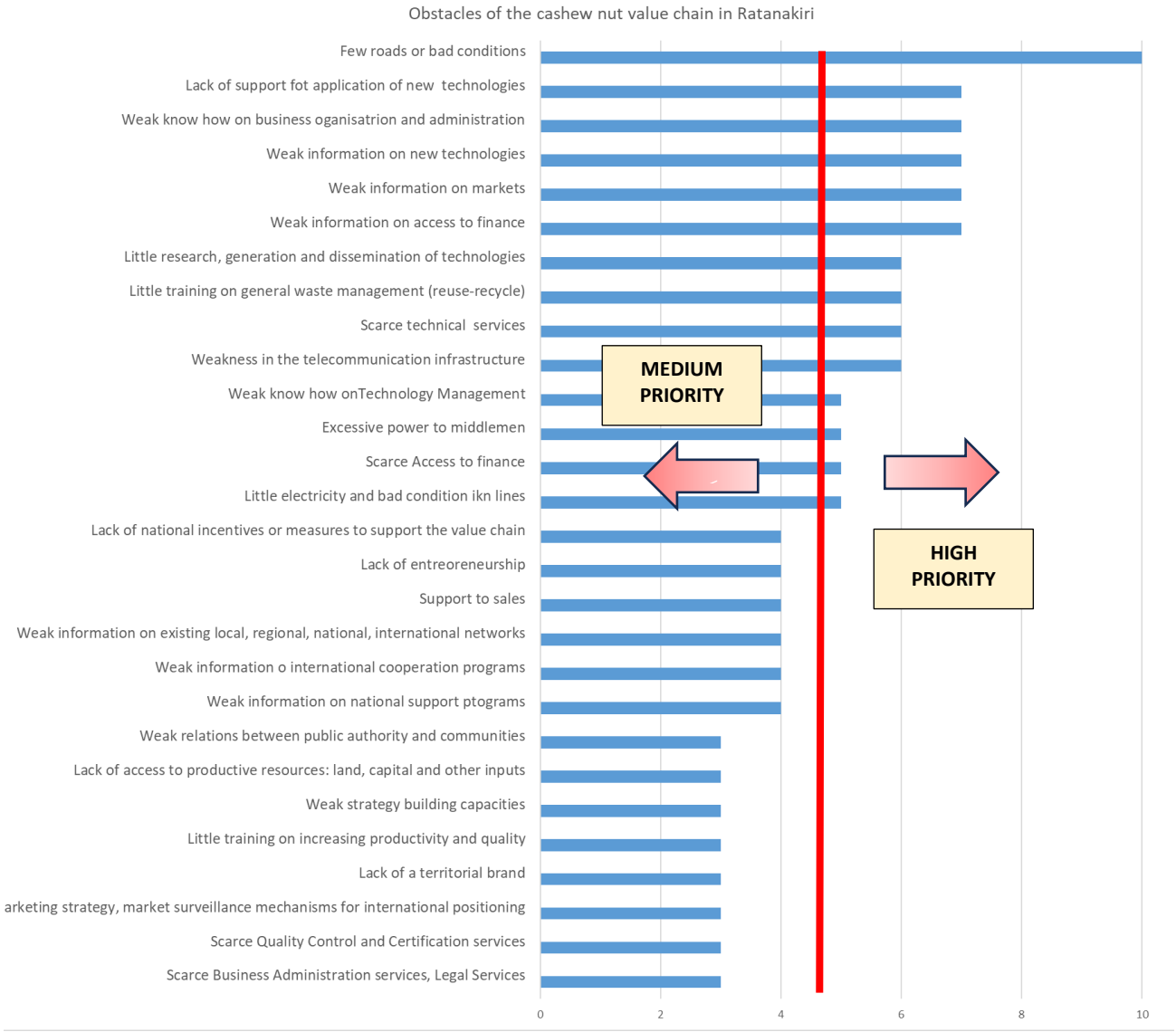
- **Expensive inputs for both cultivation and processing**
- **Limited post-harvest handling skills**
- **Capital constraints**
- **Cashew nut quality can be damaged from wet and humid transport and storage**
- **Cashew farming requires significant technical knowledge and there is a lack of competences among farmers:** Farmers are compelled to spend more money on pesticides and herbicides to reduce the production risks, harming soil quality. Often, using excess pesticides will not contribute to better results, but farmers are not always aware of optimal product usage and are not familiar with other options for improving their productivity. Farmers' incomes are constrained by external climate events over which they have limited to no control, demonstrating a need for safety nets in the face of increasingly frequent extreme weather events driven by a changing climate
- **It is difficult to find a collector to sell the cashews to.**

**RISKS FOR COLLECTORS**

- **Farmers do not always store their cashew nuts in dry conditions,** and when cashews become too moist or if the humidity level is too high, they cannot be processed successfully. Consequently, the cashew nut loses its value, making this a major problem for collectors if they had already bought the raw cashew nuts. Collectors often do a quick visual inspection at the top of the bag, but the wet nuts often lie at the bottom of the sack. When collectors then go to sell the nuts, they may be faced with a much smaller revenue than anticipated.
- **Competition with other collectors, reducing their profit margins**. This low margin coupled with market volatility limits their profitability and increases their risk.
- The traders or exporters who buy from collectors reportedly set the price, so both collectors and farmers have **limited bargaining power when it comes to setting their own prices.** If in a given season the cashew yield is low due to weather, pests or other risks, then the competition among collectors to buy cashews will be even greater.
- **Stringent capital constraints** that can hinder collectors' capacity to buy raw cashew nuts. Some collectors receive an advance from their buyer that enables them to purchase the cashews; however, these advances generally do not cover all of the cashews that the collector hopes to buy. The resulting lack of capital can limit how many cashews collectors are able to buy and sell**.**
- The risk of their buyers not going through with the purchase after the collector has already paid money to meet the buyer's previous demand for cashews. In such cases, the collector will have bought a specified amount of cashews based on a verbal agreement with their buyer, but the lack of a written contract would enable the buyer to back out of the transaction at the last moment, leaving the collector with the need to quickly find a new buyer for the cashews**.**

As for the obstacles faced in the cashew value chain in the Ratanakiri province, the following table shows the results of the RESCO assessment conducted through the focus group meeting.

**Table 6. Obstacles to the cashew nut value chain in Ratanakiri, Cambodia** (Source. ILS LEDA RESCO Focus Group meeting, 2024)




To sum up, the main obstacles, that need to be removed, regard the following categories[5]:

- **Infrastructure:** Few roads or bad conditions (HP); Little electricity and bad condition in lines (HP); Weakness in the telecommunication infrastructure (HP).
- **Access to information:** Weak information on access to finance (HP); Weak information on markets (HP); Weak information on new technologies (HP); Weak information on national support programmes (MP); Weak information on international cooperation programs (MP); Weak information on existing local, regional, national, international networks (MP).
- **Business services:** Scarce technical services (HP); Scarce Access to finance (HP); Scarce Business Administration services, Legal Services (MP); Scarce Quality Control and Certification services (MP).
- **Commercial services:** Excessive power to middlemen (HP); Support to sales (MP); Weak marketing strategy, market surveillance mechanisms for international positioning (MP); Lack of a territorial brand (MP).

[5] HP refers to high priority obstacles while MP refers to medium priority ones.

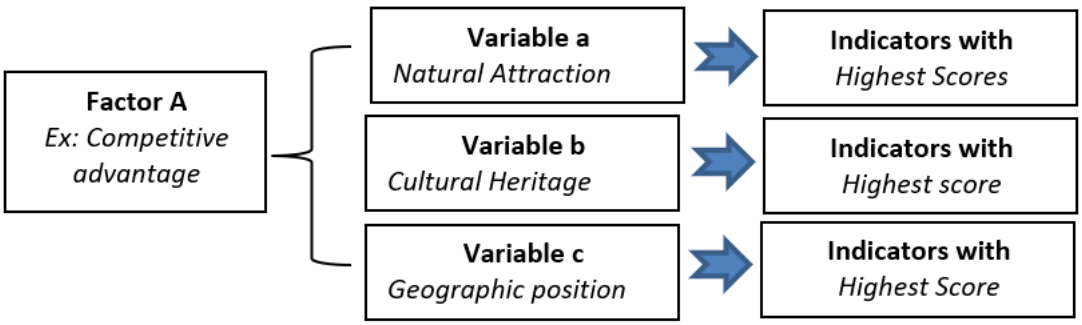
- **Access to knowledge:** Weak know how on business organisation and administration (HP); Weak know how on Technology Management (HP); Little training on general waste management (reuse-recycle) (HP); Lack of entrepreneurship (MP); Little training on increasing productivity, quality, including reduction of production losses and traceability (MP); Weak strategy building capacities (MP).
- **Access to technology:** Little research, generation and dissemination of technologies (HP); Lack of support for application of new technologies (HP).
- **Social Inclusion:** Lack of access to productive resources: land, capital and other inputs (MP).
- **Regulatory Framework:** Lack of national incentives or measures to support the value chain (MP); Weak relations between public authority and communities (MP).

# Chapter 5. THE STRATEGIC GUIDELINES FOR COMPETITIVE AND INCLUSIVE DEVELOPMENT

## *5.1. The methodology for the elaboration of the Strategic Guidelines for the cashew nut value chain development*

The RESCO methodology for the elaboration of the Strategic Guidelines for the beef and dairy cattle value chain development uses the inputs proceeding from the RESCO assessment (interviews), from the analysis of the secondary literature, and from the consultations with experts, and classifies all these findings in a number of fields of intervention.

The inputs refer to the impact indicators of each variable corresponding to each factor either if it is positive (points of strengths), or negative (points of weaknesses), as illustrated in the following example.




The correspondent strategic actions should be addressed in order to:

a. Maintain the points of strengths in the long term;

b. Remove the points of weaknesses, as they represent obstacles to the development of the value chain.

RESCO, finally, uses a simple algorithm for deriving the strategic actions for each one of the “variables” corresponding to the different "factors".

In particular, the formula is, as follows:

**Sa= f($V_{ij}$, $Fa_n$)**

*Sa= Strategic Actions*

*$V_{ij}$= Variable “i” of the Component “j”*

*$Fa_n$= Factor “n”*

## *5.2. From potential and needs to action*

The main potential and needs referred to each factor and correspondent variable of the cashew nut value chain were illustrated in Chapter 5.

The process from addressing strategic action to the abovementioned needs foresaw:

1. Identifying individual action for each variable

2. Clustering complementary actions
3. Eliminating duplications
4. Including each action in correspondence of “strategic fields”

Accordingly, the RESCO assessment has also provided at least three strategic fields of action, such as

a) Governance
b) Capacity Building
c) Service System

Considering the priorities emerged from the analysis of the cashew nut value chain status and potential, and the CLESIDRA Project goals, these strategic actions are clustered according to three levels of priorities:

- ***Priority No. 1****: Actions correspondent to the objectives and proposals of the CLESIDRA Project Work Plan (See Box 1), and, at the same time, correspondent to the “High Priorities (HP)” indicated by the RESCO group*
- ***Priority No. 2****: Actions correspondent to the “High Priorities (HP)” indicated by the RESCO group, but not explicitly foreseen by the CLESIDRA Project, and that will orientate the three years plans of the dialogue platforms (PLASED, Value Chain Committees, and Coss)*
- ***Priority No. 3:*** *Actions correspondent to the “Medium Priorities (MP)” indicated by the RESCO group*

**BOX 1. CLESIDRA WORKPLAN**

**WP1 - Improving the skills of CSOs, producers and LAs on multi-stakeholder dialogue, integrated socio-economic development**

A1.1 Capacity building workshops for CSOs on active participation in decision-making processes and multi-stakeholder dialogue.

A1.2 Capacity building workshops on inclusive socio-economic development and value chain competitiveness and sustainability.

A1.3 Capacity building workshops and support to upgrade CSOs’ organisational capacity (internal governance, impact, human and financial resource management, advocacy, project formulation and management)

A.1.4 Capacity building workshops and technical assistance to CSOs on sustainable production techniques/methods, preservation of natural resources and security of smallholder farmers (incl. rights to tenure)

**WP2 - Establishment of the multi-stakeholder PLASED platform**

A2.1: Delivery of technical assistance in the PLASED platform’s design and start-up

A2.2: Inception of the PLASED platform and implementation of strategic actions

A2.3: Development, publication and circulation of a booklet on the PLASED experience

**WP3 - Participatory elaboration of the Strategies (STRAT) for the competitive, inclusive, sustainable and resilient value chains’ development**

**WP4 - Establishment of a Comprehensive Service System (COSS)**

A4.1 Mapping and analysis of the service providers/infrastructure in the Ratanakiri Province

A4.2 Technical assistance for designing the COSS

A4.3 Capacity building and technical assistance to the COSS start up

A4.4 Capacity building workshops to improve skills of the single service providers and address service system gaps

A4.5 COSS start up and provision of financial support to selected COSS users (Financial support to Third Parties)

**The strategic vision for the Cashew development.**

The first result of the RESCO assessment is the identification of a Strategic Vision for the Cashew Nut Value Chain development to be achieved in 2030 and consists of "Increasing cashew nut sales on national and international markets up to 30% through boosting the production of cashew nut products and by-products, counting on its competitive advantages, such as organoleptic characteristics and environment-friendly production". As a matter of fact, the Ratanakiri cashew can be appreciated for its unique taste -creamy, milky and juicy with aromatic scent- giving the feeling of wanting to eat more and more-, whose quality is guaranteed by the care and the attention provided by the wise manual work of the farmers, and the absence of chemical fertilisers.

To sum up, much of the cashew production in Ratanakiri does not use chemicals, thanks to the good quality of the soil; in particular, the traditional variety is grown without the use of chemical fertilizer, the product is therefore healthier.

In the case of the 09 and M-23 varieties it is not possible to guarantee 100% free production from the use of chemicals and fertilisers. This depends on the nature of the terrain. For those areas where the soil is not fertile enough then the farmer needs to use both natural and chemical fertilisers.

The work is predominantly manual, carried out locally, which allows, on the one hand, to have more care and attention to the quality of the product; and, on the other, to minimize the environmental impact. Furthermore, there is an increase in the adoption of environmental-friendly practices, based mainly on the recycling of production waste.

## *5.3. The Strategic Guidelines and Action Plans in details*

The strategic guidelines for action are described with reference to:

- the priorities, as previously defined,
- the strategic field: Governance, Services, and Capacity Building

and they are divided into:

⇒ Actions at multi value chain level (AM), which includes actions that are common to all the value chains

⇒ Actions at Value Chain level, that are specific of the CASSAVA value chain

**PRIORITY No. 1**

## AM MULTI LEVEL VALUE CHAINS

**AM1.1: GOVERNANCE**

**AM1.11:** Establish a PLASED (Platform for Sustainable Development), a mechanism for enhancing social dialogue and maintaining competitive advantage and creating jobs, through delivering technical assistance in the PLASED platform's design and start-up

*This Activity corresponds to the CLESIDRA actions of the work plan WP2 (A.21)*

**AM.12**: Supporting priority actions, such as

a) Drafting a territorial marketing strategy

b) Lobbying with government for improving the execution of government plans, and supporting SMMEs which want to growth, and be formal
c) Supporting building of alliances with other relevant national and international actors

*This Activity corresponds to the CLESIDRA actions of the work plan WP2 (A.22)*

**AM1.13**: Publication and circulation of a booklet on the PLASED experience

*This Activity corresponds to the CLESIDRA actions of the work plan WP2 (A.23)*

**AM1.2: SERVICES**

**AM1.21** Establish a COSS (Coordinates Service system) for delivering socio-economic services in an effective and efficient way, through Mapping and analysis of the service providers/infrastructure in the Ratanakiri Province

*This Activity corresponds to the CLESIDRA actions of the work plan WP4 (A4.1)*

**AM1.22**: Technical assistance for designing the COSS

*This Activity corresponds to the CLESIDRA actions of the work plan WP4 (A4.2)*

**AM1.23**. Support to the COSS start up

*This Activity corresponds to the CLESIDRA actions of the work plan WP4 (A4.3)*

**AM1.24**: Provision of financial support to selected COSS users (Financial support to Third Parties)

*This Activity corresponds to the CLESIDRA actions of the work plan WP4 (A4.5)*

**AM1.25**: Improve business services, and access to them, with priority to the following ones:

- Technical, administrative, organisational services
- Marketing/Commercialisation
- Support in the development of Cooperatives, cooperation/networking
- Support in the development of alliances / associations

*This Activity corresponds to the CLESIDRA actions of the work plan WP4 (A44)*

**AM1.3: CAPACITY BUILDING**

**AM1.31**: Build capacities on business administration, and plans, useful also for addressing request of funds and credit

*This Activity corresponds to the CLESIDRA actions of the work plan WP1 (A14)*

## A1 – CASHEW NUT VALUE CHAIN

### A1.1 GOVERNANCE

**A1.11**: Establish a Cashew Development Committee, on the base of the focus group participants, and as a PLASED sub-groups, with the following tasks:

(a) taking common initiatives, for preserving the ecosystem, mainly regarding the soil fertility (regeneration practices, such (a): its structure (chemical composition of soil and mineral nutrients; physical structure of soil), its compaction (water infiltration rate, stability of soil aggregates);

Duration (bare or without cover crop during the year); Percentage of fields with minimum tillage crops

(b) Facilitating commercialization (possibly through outsourcing a specialised co-operative) through
- a value chain marketing strategy including brand policy, advertising
- Promoting the collective purchase and use of expensive machinery to reduce costs (washing, boiling, skinning etc.);
- Increasing negotiating capacity with Wholesalers, Shops, Market places, Supermarkets, Commercial Chains

(c) Lobbying with local and national authorities for realising an accessible information system on the national measures in favour of the value chain and introducing national incentives or measures to support the value chain with particular reference to business start-up, and specific financing mechanisms

(d) Linking the actors of the cashew nut value chain with international networks related to technologies for exposure to new technologies

*This Activity corresponds to the CLESIDRA actions of the work plan WP2 (A2.2)*

**A1.2: CAPACITY BUILDING**

**A1.21:** Build technical and entrepreneurial capacities to boost soil regeneration practices, and maintaining control of the healthy environment to use certain organic fertilisers and their most appropriate use

*This Activity corresponds to the CLESIDRA actions of the work plan WP1 (A1.4)*

**A1.23**: Improve entrepreneurial capacities on:
- marketing and commercialisation, also collectively
- maintaining the traditional know how on local varieties production

*This Activity corresponds to the CLESIDRA actions of the work plan WP4 (A4.3)*

**A1.24:** Improve service providers capacities, with particular reference to
- support to business startup, in particular addressed to women and young people
- project financing, for example capacities for allowing the achievements of the condition for eligibility and access to use the opportunities of funding from national and international private and public entities
- Technical, administrative, organisational services
- Commercial and marketing services
- Supporting transfer of new technologies

*This Activity corresponds to the CLESIDRA actions of the work plan WP4 (A4.3)*

**A1.3 SERVICES**

**A1.31** Improve business services and access to them (also via training), also through coordinating service providers, with priority to the following ones:

(a) Marketing/Commercialisation (promoting the traditional/local varieties through a brand policy, proper advertising, labelling, traceability, and geographical recognition); also through proper information services on markets (trends, competitors, opportunities)
(b) technical, administrative, organisational services
(c) information and support services related to new technologies
(d) information and support related to financial services
(e) support services to create cooperatives, networks, alliances / associations

*This Activity corresponds to the CLESIDRA actions of the work plan WP4 (A4.4)*

**A.1.32**: Provide business start-up services, in particular for the startup of new enterprises for producing cashew nut products and by-products, such as:

- Salted nut; Roasted nuts/seeds; Dehydrated cashew apple; and other food products
- Cashew juices and concentrates;
- Jams and preserves, jelly, sauce; Cashew nut flour; Cashew Butter; Walnut shell liquid; Walnut shell oil; Organic cashew seed; Snacks and nut and dried fruit mixes for final consumption;
- Products from the shell of the nut or pericarp, for manufacture varnishes, printing inks, paints for insulating materials and to preserve humidity in boats and fishing equipment, for protection of wood, plastics, fittings brakes and clutches, among others; Almond for industrial use in the manufacture of cosmetics;
- Products from the cashew seed, used in process as fuel for cooking of the nut; Bark and leaves used in botanical medicine.

*This Activity corresponds to the CLESIDRA actions of the work plan WP4 (A4.5)*

**PRIORITY No. 2**

## AM MULTI LEVEL VALUE CHAINS

**AM2.2: SERVICES**

**AM2.21**: Realise a service facilitating matching between labour demand and supply

## CASHEW NUT VALUE CHAINS

**A2.1: GOVERNANCE**

**A2.11**: Prioritising the achievement of the United Nations Sustainable Development Goals

**A2.12**: Support social inclusion, through lobbying with national government for:

(a) improving gender equality, through
- introducing reconciliation measures and facilities between family and work responsibilities;
- increasing public care facilities for children and elderly so that they are sufficient and covering the demand;

(b) facilitating access to the labour force for people with different physical and mental abilities;

(c) introducing/improving incentives/programmes supporting the livelihoods of specific groups in the community;

(d) introducing incentives for the formalisation of collective and individual employment and regulation to combat informal employment

**A2.13**: Improving the roads, the electricity and telecommunication supply and infrastructures;

**A2.14**: Lobbying with the government to improve:

(a) the effectiveness of public policies and regulations on environmental sustainability and green economy, with particular regard to

- the reduction of pollution (air, water, soil and audio),
- the limitation of gas emissions, organic production,
- the use of alternative energies,
- the transition to a clean environment and waste management sustainable practices

(b) Improving response mechanisms for facing emergencies, including:

- Effective information advice system (WhatsApp, social, mobile cars, radio, TV, etc.)
- Previous tests on individual and collective behaviours;
- Disposal of public funds for emergency situations;
- Disposal of insurance mechanisms;
- Disposal of Health Care emergency support, and of medicines;
- Disposal of lodging, and temporary housing

**A2.15:** Organisation of mutual aid organization; Presence of civil protection voluntary trained ed equipped groups

**A2.16**: Facilitating commercialization (possibly through outsourcing a specialised co-operative) including:

- Sharing value chain marketing strategy including brand policy, advertising
- Reducing the power of intermediaries
- Formalise online and telephone purchasing channels
- Facilitate the organisation of at least 1 annual initiative (fairs, festival, cultural event, etc.) for promoting the cashew nut products supporting the fundraising opportunities (international agencies' opportunities, sponsorships, crowdfunding and business social responsibility)
- Promoting among public entities the purchase of local cashew nut products
- Facilitating the access to fair trade

**A2.17**: Promote cooperative entrepreneurship

**A2.18**: Making an agreement with universities and professional schools, for preparing new professional skills, with priority to variety control; leadership skills; processing of by-products from fresh fruit; re-use and recycling of peels, production from waste and plant remains.

**A2.19:** Support Environmental sustainability, green and circular economy through:

(a) establishing a Certification mechanism for organic cashew nut production

(b) boosting circular economy through:

- promoting linkages between producers and researchers to innovate circular economy practices;
- making agreements with universities and TVET centres for introducing professional training courses in the field of circular economy;

**A2.20**: Promote innovation in the cashew nut value chain, with particular reference to facilitating/improving research in the field of seed preservation, plant diseases in order to prevent damages to agriculture

**A2.21**: Training low skilled personnel on the whole cashew nut production process of washing, boiling, skinning, etc.

### A2.2 CAPACITY BUILDING

**A2.21**: Improve professional skills, possibly through initiatives such as the "University of professions" and exposure to innovative practices, with particular reference to

(a) Administration, Product procurement and marketing, transportation and storage.

(b) Operator of new digital and remote sensing technologies; robotics and automation; Technician specialist in Artificial Intelligence (IA)

- Facilitate training courses for Operator of new digital and remote sensing technologies; Technician specialized in robotics and automation; in Artificial Intelligence (IA)

**A2.22**: Improve entrepreneurial capacities with particular reference to:

- variety control;
- leadership skills;
- new technologies related to the cashew nut value chain
- circular economy, such as: practice solutions for environmentally friendly production; use of recyclable material; Waste management sustainable practices (re-use internal waste and wastewater reuse) and start businesses related to waste collection, selection, storing and recycling.

**A2.23**: Training to access the labour force addressed to people with different physical and mental abilities

**A2.24:** Increase capacities for entering in the international network of Fair Trade

**A2.25**: Provide specific capacity building for favouring women access to leadership position

**A2.26**: Realise awareness campaigns (possibly through a cycle of communitarian conferences) to

(a) Enhance environmental sustainability and reducing the climate change impact addressed to the population on the following issues:

- the importance of smart agriculture and its benefits
- the importance of circular economy, starting from waste management sustainable practices (such as reuse and recycle) and organic productions
- the improvement of environment control devices

(b) Enhance social sustainability, with particular reference to the following issues:

- The importance of women in participation to decision making process regarding the value chain development
- business and job opportunities, with priority to people with disabilities, women and young people, generated by the value chain development in all its components
- the importance to achieve the United Nations Sustainable Development Goals

### A2.3 SERVICES

**A2.31**: Improve services for social sustainability, with particular reference to:

- supporting enterprises that use their social responsibility for social investments,
- facilitating SMEs managed by young people under 35 years of age/total SMEs,
- generating employment for people with mental and/or physical disabilities,
- generating employment for people with low skills and professional curricula;

- promoting information services about the existing training opportunities

**A2.32**: Improve services for environmental sustainability, with particular reference to:

- promoting the creation of seed nurseries to preserve local cashew nut varieties;
- involving universities in order to include issues related to environmental protection in university curricula;
- facilitating pollution monitoring/control services in Ratanakiri province;
- increasing the number of Solid waste recycling companies, organic waste recycling companies and liquid waste recycling companies;
- creating links between the local academic world and international networks for learning from best practices;
- promoting installation and maintenance of alternative energies devices

**PRIORITY No. 3**

## CASHEW NUT VALUE CHAINS

**A3.1: GOVERNANCE**

**A3.11**: Lobbying with the government for:

- increasing its level of attention to social needs, with priority to improving Gender Equality National Strategy /measures/services; introduce measures and incentives for women employment;
- improving infrastructures related to the value chain, with particular regard to: water infrastructure and supply; extend the electricity infrastructure and supply in the whole province; allow access to public resources (rivers, lands, etc.) and access to private resources (land properties).
- introducing financial mechanisms for the production of cashew nut, including incentives for accessing to equipment, such as: the “autoclave” used to cook the seed; the ovens; cooling shelves; the tables where it is classified and packed; vacuum sealing machines; personal protective equipment; hydraulic presses; automatic capping machines through proper taxation and by reducing bureaucratic procedures.
- facilitating dissemination of information about national programs and regulatory measures.

**A3.12:** Make agreements with financial institutions that reduce obstacles (guarantees, interest, grace period, insurance, etc.) of access to credit.

**A3.13**: Promote gender equality, through:

- the constitution of a Union of worker women;
- the establishment a pink telephone where to report the harassment, managed by a women association;
- facilitating the formalisation of informal businesses, through making pressure to Government for reducing bureaucratic regulations, and providing incentives.

**A3.14**: Realise a Ratanakiri Cashew nut Brand or mechanism of recognition and assurance that products under the Cashew nut Label have certain reliable characteristics of quality, nutrition, healthy, social, ethical, environmental values, etc., through: Establishing the minimum performance required for the use of the label; The procedures for getting the label; The control system for evaluating, and monitoring the performance for maintaining the label

**A3.2: CAPACITY BUILDING**

**3.21**: Improving professional skills, with regard to:

- producers' capacities on sowing, time sowing method, irrigation, management, resilience against pests and diseases, harvest productivity, variety control, performance stability, etc.
- training on territorial branding and marketing strategies
- training on increasing productivity, quality, including reduction of production losses and traceability
- job training addressed to women on the cashew nut value chain;

**A3.22**: Improving entrepreneurial capacities, such as:

- training courses on Business Financing, including search for opportunities (national programs and international cooperation, enterprises with social responsibility), project setting-up, implementation techniques, access to bank credit, crowdfunding, etc.
- Capacity building on entrepreneurship

**A3.23:** Improve capacities of service providers, with regard to:

- equipment maintenance services;
- Capacity building of TVET services on strategies for building capacities of the actors of the cashew nut value chain

**A3.24**: Improve gender equality, through:

- Strengthening capacity of women for combating gender-based violence (recognising the phenomenon, reporting or denouncing it, verifying if it happens to other women, knowing the law and the women's rights)
- Realise exposure to best practices in Gender Equality National Strategy /measures/services

**A3.25**: Improve environmental sustainability, through:

- Training to the existing organisations and/or institutions committed to environmental sustainability and the green economy;
- Capacity building addressed to producers to reduce energy and water consumption, promote the use of alternative energies, and waste management best practices to avoid soil and water contamination;
- Capacity building on the resilient measures that can be taken to mitigate climate change effects, such as: Ability to produce goods needed in food emergencies after catastrophes; Possibility of using workers to support other productions; Abating polluting waste (chemical products, products containing non-convertible waste); Reduction of energy from non-renewable sources and CO2 emissions; Organic and agroecological cultivation models based on diversification.

**A3.26**: Promote social and environmental sustainability, through awareness campaigns on the following issues:

- gender equality and the importance of the access of women in the workforce;
- facilitating gender equality in the distribution of roles and activities within the value chain;
- Awareness campaign with the entrepreneurs, for including women harassment prohibited and persecuted as a company regulation
- the importance of preserving soil quality;
- Awareness campaign on efficient long-term use of water resources.

**A3.3 SERVICES**

**A3.31**: Improve business services, especially services addressed to entrepreneurs, to boost the competitiveness of the value chain, through:

- Promoting the creation of Quality Control and Certification services;
- promoting services for business and employment formalisation
- creating support services specialised in branding, marketing strategies, surveillance mechanisms and international positioning;
- promoting support services specialised in increasing productivity, quality, including reduction of production losses and traceability
- Improving TVET services;
- improving information services on national support programmes, international cooperation programmes and information on existing local, regional, national, international networks
- improving support services to sales.

**A3.32**: Facilitate gender equality, through:

(a) awareness campaigns for facilitating gender equality in the distribution of roles and activities within the value chain;

(b) strengthening capacity of women for combating harassment (recognising the phenomenon, reporting or denouncing it, verifying if it happens to other women, knowing the law and the women rights);

(c) supporting TVET in improving their offer of integrated professional training for women, including issues such as: Awareness, Self-esteem, Gender equality principles, Negotiation power; Defence against harassment; Information about job opportunities; Professional training for responding to the job opportunities; entrepreneurship

(d) Providing information about what services for SMME managed by women and young people are available and where to find them

(e) improve business services for women

# Chapter 6. CONCLUSIONS

Two important conclusions may be drafted:

1) Articulation of the governance mechanism for local economic development in Ratanakiri
2) The synthesis of the main strategic guidelines

***Articulation of the governance mechanism for local economic development in Ratanakiri***

The governance mechanism for local economic development in Ratanakiri is articulated in three components (see figure below)

A. The main management body, which is the Platform of Local Actors for Sustainable Economic Development (PLASED)

B. The functional subgroups, which are the VALUE CHAIN COMMITTEE (VAC)

C. The executive body, which is the Coordinated Service System (COSS)

The main tasks of the PLASED are

- Drafting a territorial marketing strategy
- Lobbying with government for improving the execution of government plans, regarding the Ratanakiri development
- Facilitating access to financial resources, through project financing, participation to tenders, use of companies' social responsibility, crowdfunding, etc.
- Support building of alliances with other relevant national and international actors

The VAC's main tasks are:

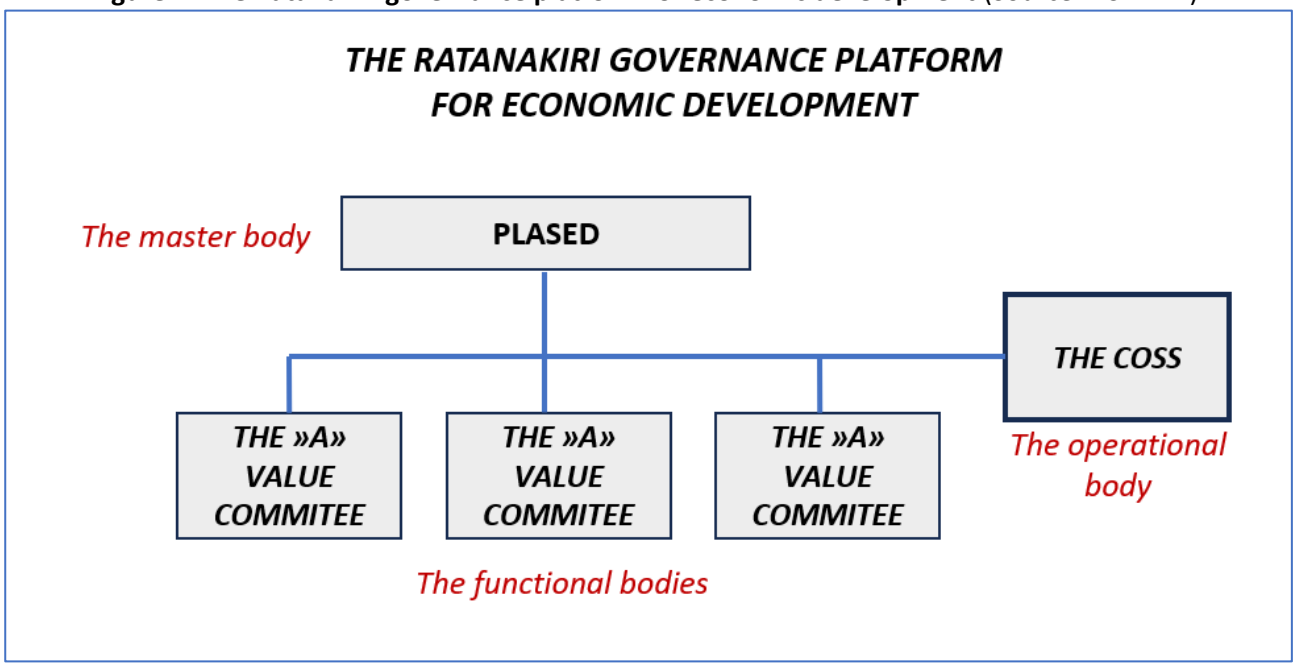
- Taking all the common initiatives, useful to the competitive, inclusive, sustainable and resilient value chain development
- Facilitating commercialization (possibly through outsourcing a specialised co-operative) through a brand policy, and advertising, promoting collective purchase and use of expensive machinery to reduce costs (washing, boiling, skinning etc.); negotiating capacity with wholesalers, shops, market places, supermarkets, commercial chains, etc.
- Lobbying with local and national authorities for realising an accessible information system on the national measures in favour of the value chain and introducing national incentives or measures to support the value chain with particular reference to business startup, and specific financing mechanisms
- Linking the actors of the cashew nut value chain with international similar networks related to technologies for exposure to new technologies

The COSS main tasks are:

- Improve business services, and access to them, with priority to the following ones:
- Technical, administrative, organisational services
- Marketing/Commercialisation
- Support in the development of Cooperatives, cooperation/networking
- Support in the development of alliances / associations
- support related to new technologies
- Services for environmental sustainability and reducing the climate change impact*, with priority to those related to circular economy*

- Facilitating access to loans

**Figure 7. The Ratanakiri governance platform for economic development** (Source. ILS LEDA)




***Synthesis of the main strategic guidelines***

The following box illustrated the synthesis of the Cashew nut value chain development strategic guidelines for **priority 1**

**Box 2. Synthesis of the Cashew nut value chain development guidelines for priority 1** (Source. ILS LEDA)

| | MULTI-VALUE LEVEL | VALUE CHAIN LEVEL |
|---|---|---|
| **GOVERNANCE** | Establish a PLASED (Platform for Sustainable Development), a mechanism for enhancing social dialogue and maintaining competitive advantage and creating jobs, | Establish a Cashew Development Committee, on the base of the focus group participants, and as a PLASED sub-groups, |
| | | Enhance environmental sustainability and reducing the climate change impact |
| **CAPACITY BUILDING** | | Build technical and entrepreneurial capacities to boost soil regeneration practices, and maintaining control of the healthy environment to use certain organic fertilisers |
| | | Improve entrepreneurial capacities (marketing, traditional know) |
| | | Improve service providers capacities (business startup, project financing, Technical, administrative, organisational services, marketing services, transfer of new technologies) |
| **SERVICES** | Establish a COSS (Coordinates Service system) for delivering socio- | Improve business services (Marketing, technical, administrative, organisational services, Business start-up |
| | | Provide support to create cooperatives, networks, alliances / associations |

| | | |
|---|---|---|
| | economic services in a effective and efficient way | Provide information and support related to financial services |
| | | Provide information and support services related to new technologies |

The following box illustrated the synthesis of the Cashew nut value chain development strategic guidelines for **priority 2**

**Box 3. Synthesis of the Cashew nut value chain development guidelines for priority 2** (Source. ILS LEDA)

| | MULTI-VALUE LEVEL | VALUE CHAIN LEVEL |
|---|---|---|
| **GOVERNANCE** | | Prioritising the achievement of the United Nations Sustainable Development Goals |
| | | Support social inclusion, through lobbying with national government (on gender equality, access to the labour force for people with different physical and mental abilities, livelihoods of specific groups in the community; formalisation of employment) |
| | | Improving infrastructure |
| | | Lobbying with the government to improve the effectiveness of public policies and regulations on environmental sustainability and green economy and response mechanisms for facing emergencies |
| | | Organisation of mutual aid organization; and civil protection voluntary groups; |
| | | Facilitating commercialization (marketing strategy, online and telephone sales, organisation of events, public entities, fair trade) |
| | | Agreement with specialised institutes for improvement of professional training |
| | | Support Environmental sustainability, green and circular economy. |
| | | Promote innovation in the cashew nut value chain, with particular reference to facilitating/improving research in the field of seed preservation, and plant diseases |
| **CAPACITY BUILDING** | | Improve professional skills, possibly (Administration, Product procurement, marketing, transportation and storage, digital and remote sensing technologies; robotics and automation; Artificial Intelligence (IA). |
| | | Training low skilled personnel |
| | | Improve entrepreneurial capacities (variety, leadership, circular economy, |
| **SERVICES** | Facilitating matching between labour demand and supply | Improve services for social sustainability, (social responsibility for social investments, young entrepreneurs, employment for people with mental and/or physical disabilities, and people with low skills and professional curricula |
| | | Improve services for environmental sustainability |

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Civil society Links and Empowerment for Socially Inclusive Development in Ratanakiri

This document was prepared within the framework of the CLESIDRA Project, funded by the European Union. The views of the authors expressed here do not necessarily reflect the position of the European Union and may not reflect the views of representatives of the European Union. The European Union is not responsible for the opinions of the authors.

This project is funded by the European Union