

## **ANALYSIS OF SOCIAL FORESTRY BUSINESS MANAGEMENT IN FOREST MANAGEMENT UNIT (FMU) REGION I STABAT LANGKAT REGENCY**

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### **Abstract**

Social forestry is a program that provides legal access for communities to manage forests in a sustainable manner to improve economic welfare while maintaining environmental sustainability. Forest Management Unit (FMU) Region I Stabat, Langkat Regency has Social Forestry Group (SFG) that successfully rehabilitated 3436 ha of mangrove forest in 2021 [1], but business development has not been managed optimally [2], [3]. This study aims to analyze the business model of social forestry business development with the Business Model Canvas (BMC) approach and analyze the business development strategies needed in developing social forestry businesses in FMU Region I Stabat [4]. The study was conducted on four SFG: KSU Bahagia Keluarga Bahari, KTH Mekar, KT Peduli Pesisir and LPHD Pasar Rawa. Data were obtained through observations, interviews, and literature studies with an analytical descriptive approach [5]. The results showed that BMC at the blue level Social Forestry Business Group (SFBG) needs to create a value proposition so that the business has marketable products through improving the elements of key activities, key resources and cooperation with key partners [3]. Improvement at the gold level SFBG requires efforts to increase the customer segment element which is done by increasing the value proposition, customer relationship, and channels elements so that business products can be marketed to national, regional, and international consumers [3], [6]. Business development strategies are carried out with product diversification strategies, strengthening partnerships, and optimizing digital marketing to improve business efficiency and sustainability [7]. Thus, social forestry business in FMU Region I Stabat has good prospects, but requires further support in terms of capital, market access, and human resource capacity development [8].

**Keyword: *Business Development, Business Model Canvas (BMC), Forest, Forest Management Unit Region I Stabat, Social Forestry***

### **1. Introduction**

Forest institutions are organizational systems responsible for forest management. Forest institutions include the government, communities and the private sector. The government has an important role in forest management through policies and regulations [9]. Communities also have an important role in forest management through participation in decision-making and implementation of forest management activities [10]. Institutions can be defined as the rules of the game agreed upon by a group of people or organizations to manage certain resources, which determine who may manage what resources, where, when and how [6].

Social forestry is a government policy in providing legal access to communities to manage forests sustainably (KLHK, 2021). This program aims to improve community welfare while preserving the environment [2]. Based on the Minister of Environment and Forestry Regulation [11] Permen LHK No. 9 of 2021, social forestry is a forest management system carried out by the community to improve economic welfare, ecological balance, and socio-cultural dynamics [12]. One of the areas implementing this program is FMU Region I Stabat, Langkat Regency, which has several Social Forestry Business Groups (SFBG) engaged in the non-timber forest products and ecotourism sectors. Despite having obtained a forest management license since 2016, the development of social forestry businesses in this area is still slow [2]. The implementation of social forestry businesses in this area faces various obstacles, such as limited market access, lack of business capital, and lack of technical assistance in business management [3]. This research will focus on analyzing social forestry business management and social forestry business development strategies in FMU Region I Stabat. Based on these problems, this study aims to analyze the management of social forestry businesses in FMU Region I Stabat using the Business Model Canvas

(BMC) approach and examine business development strategies that need to be carried out to improve the SFBG level based on shortcomings in the business BMC elements.

## **2. Research Method**

### **2.1 Research Location**

The research was conducted in FMU Region I Stabat, Langkat Regency, which has the largest social forestry forest area in North Sumatra. FMU Region I Stabat, located in Langkat District, has 29 social forestry groups (SFG) that manage forest areas with an area of 5,654.34 hectares [13]. Based on data from the official website of the Ministry of Environment and Forestry [1], of the 17 SFBG in FMU Region I Stabat, 7 are at the blue level, while 10 are at the gold level, and none have reached the platinum level. The blue level is the initial category in the classification of Social Forestry Business Groups (SFBG), where these groups have been recognized as SFBG but are still in the early development stage with newly identified business potential. The gold level indicates that the SFBG has developed business units, marketed products, access to capital, and a wider market that is more financially and economically sustainable. Data collection was conducted from January to June 2024. This study used a qualitative approach to obtain more comprehensive results in analyzing social forestry business management [5]. Data were collected through interviews with SFBG managers, field observations, and literature studies. The research was conducted in FMU Region I Stabat, Langkat Regency, with the research subjects being four SFBG, namely:

SFG KSU Bahagia Keluarga Bahari (stone shells cultivation business) - blue level

SFG KTH Mekar (mangrove ecotourism business) - blue level

SFG KT Peduli Pesisir (mangrove ecotourism business) - gold level

SFG LPHD Pasar Rawa (coconut plantation business) - gold level

### **2.2 Data Analysis**

This research used descriptive analysis method to describe the business development model and business development strategy of social forestry. Data were collected through in-depth interviews with SFG managers to understand business strategies and business constraints. Interviews were conducted using semi-structured guidelines to obtain more flexible and in-depth information. Field observations to directly observe social forestry business activities, including production processes, marketing, and constraints faced. Document analysis including financial reports, business development reports, and policy documents relevant to the social forestry program.

Data were analyzed using the Business Model Canvas (BMC) method to map the business model of each SFBG, identify their strengths and weaknesses, and determine business development strategies.

## **3. Result and Discussion.**

This study aims to analyze the management of social forestry businesses in FMU Region I Stabat, Langkat Regency, especially in the Green White Sand SFBG in KSU Bahagia Keluarga Bahari SFG, and Mangrove Ecotourism SFBG in KTH Mekar SFG with blue SFBG level and, SFBG Pasir Lah Gay Yay in KT Peduli Pesisir SFG and Agroforestry SFBG in SFG LPHD Pasar Rawa with gold SFBG level. Analysis was conducted using the Business Model Canvas (BMC) framework to identify factors influencing social forestry business development, including institutional aspects, human resources (HR), access to capital, and marketing strategies. In addition, this study evaluates the effectiveness of business management by SFG in achieving business sustainability and improving community welfare. Thus, strategies for institutional strengthening and business capacity building are needed so that SFG can be more independent and develop sustainably [3].

### **3.1 Business Model Canvas (BMC) Analysis of Social Forestry Group**

BMC helps companies to understand how they create, deliver, and capture value from their customers. With BMC, companies can identify the strengths and weaknesses of their business models and develop strategies to improve their performance [14]. BMC also helps companies to adapt to market changes and changing technologies [15]. This model helps identify key elements in business management, such as key partners, resources, and marketing strategies. By knowing the applied business structure, more effective modifications can be designed to improve the competitiveness and sustainability of social forestry enterprises.

#### **3.1.1. BMC of Stone Shell Cultivation Business Development in SFG KSU Bahagia Keluarga Bahari**

KSU Bahagia Keluarga Bahari Social Forestry Group is located in Brandan Barat District, Langkat Regency. KSU Bahagia Keluarga Bahari obtained a forest management license in 2012 through the HTR scheme with a land management license of 503 ha. The number of members registered with the group is 50 households. KSU Bahagia Keluarga Bahari currently has two SFBG units, namely Pasir Putih Hijau SFBG and Tunas Baru SFBG with the level of both SFBG being blue. Based on the interview with the group leader, the type of business to be developed is stone shells cultivation which will be developed at SFBG Pasir Putih Hijau.

Based on the results of the interview with the group leader, the BMC of the stone shells cultivation business development that will be carried out by SFG KSU Bahagia Keluarga Bahari is presented in table 1.

**Table 1. BMC Stone Shells Cultivation Business at KSU Bahagia Keluarga Bahari SFG**

<b>1. Key partners</b> <ul style="list-style-type: none"> <li>– FMU Region I Stabat</li> <li>– BPSKL Sumatera Region</li> <li>– LHK Provsu Department</li> <li>– Marine and Fisheries Service of Langkat Regency</li> <li>– Brandan Police Sector</li> <li>– Langkat Police Water and Air Police Unit</li> <li>– A business Exporter of Stone Shells</li> <li>– Seafood Culinary entrepreneurs Kab. Langkat, Medan, Kab Deli Serdang</li> <li>– Freight service</li> <li>– Investor</li> </ul>	<b>2. Key activities</b> <ul style="list-style-type: none"> <li>– Carry out maintenance and safeguarding of Stone Shells</li> <li>– Procurement of stone shells seedlings</li> <li>– Marketing and selling stone shells</li> </ul> <b>6. Key resources</b> <ul style="list-style-type: none"> <li>– Natural Resources (Mangrove Ecosystem)</li> <li>– Facilities and Infrastructure</li> <li>– Human Resource (SFG Keluarga Bahari members as maintenance, security, and marketing labor)</li> <li>– Capital Resource</li> </ul>	<b>3. Value proposition</b> <ul style="list-style-type: none"> <li>– Fresh/ Live Shell</li> <li>– Low Price</li> <li>– Small-Large scale purchasing</li> <li>– Ease of selfish delivery</li> <li>– Ease Payment</li> </ul>	<b>4. Customer relationship</b> <ul style="list-style-type: none"> <li>– Online and offline Ordering</li> <li>– Sameday Delivery</li> <li>– Cash and non-cash Payment</li> </ul> <b>7. Channels</b> <ul style="list-style-type: none"> <li>– Direct Marketing</li> <li>– Social Media Advertising</li> <li>– Online buying and Selling platform</li> </ul>	<b>5. Customer segment</b> <ul style="list-style-type: none"> <li>– Stone shell seller (wholesale and retail)</li> <li>– Exporters of Stone Shells</li> <li>– Seafood Culinary entrepreneur</li> <li>– Domicile Kab. Langkat and surrounding areas</li> </ul>
<b>8. Cost structure</b> <ul style="list-style-type: none"> <li>– Costs of Stone Shells maintenance and harvesting facilities</li> <li>– Costs of procuring Stone Shells seeding</li> <li>– Costs of maintaining and safeguarding Stone Shells</li> </ul>			<b>9. Revenue stream</b> <ul style="list-style-type: none"> <li>– Sales of Stone Shells</li> </ul>	

### 3.1.2. BMC of Mangrove Ecotourism Business Development in SFG KTH Mekar

KTH Mekar Social Forestry Group is located in Lubuk Kertang Village, Brandan Barat District, Langkat Regency. KTH Mekar obtained a forest management license in 2018 through the Forestry Partnership Recognition and Protection scheme (Kulin KK) with a land management license of 60 ha. The number of members registered with the group is 33 households. SFG KTH Mekar currently has four SFBG units with the level of four SFBG being blue. Based on the results of interviews with the group leader, the type of business to be developed is mangrove ecotourism which will be developed at the Lubuk Kertang Mangrove Ecotourism SFBG. BMC of mangrove ecotourism business development that will be carried out by SFG KTH Mekar is presented in table 2.

**Table 2.** BMC Mangrove Ecotourism Business at KTH Mekar

<b>1. Key partners</b> FMU Region I Stabat PT. Pertamina EP Pangkalan Susu BPSKL Sumatera Region LHK Provsu Department Langkat Regency Tourism Department Brandan Police Sector Langkat Police Water and Air Police Unit Yagasu NGO	<b>2. Key activities</b> Provide supporting facilities for tourism activities Carry out maintenance of tourist areas and facilities Marketing and selling tourism products  <b>6. Key resources</b> Natural Resources (Mangrove Ecosystem) Tourism Infrastructure Human Resource (maintenance, security, and marketing labor) Facilities and infrastructure Capital Resources	<b>3. Value proposition</b> Affordable Price Beautiful natural scenery Clean and comfortable tourist attractions Attractive photo spot Reasonable food and beverage prices Short distance traveled	<b>4. Customer relationship</b> Online and offline communication Serve visitors in friendly manner Special holiday events  <b>7. Channels</b> Direct marketing Social media advertising	<b>5. Customer segment</b> Age ≥ 15 years old Photo hobby Nature hobby Domicile Kab. Langkat and surrounding areas Nature lovers community
<b>8. Cost structure</b> Costs of procuring tourist facilities Maintenance and cleaning of costs tourist facilities Operational costs of tourist facilities Costs of Marketing			<b>9. Revenue stream</b> Visitor admission Food and baverage sales Tent rental Carpet/ mat rental	

### 3.1.3. BMC of Mangrove Ecotourism Business Development in SFG KT Peduli Pesisir

The KT Peduli Pesisir Social Forestry Group is located in Beras Basah Village, Pangkalan Susu District, Langkat Regency. KT Peduli Pesisir obtained a forest management license in 2021 through the HKm scheme with a land management license of 38 ha. The number of members registered with the group totals 18 households. KT Peduli Pesisir currently has three SFBG units with the third SFBG level being gold. Based on the results of interviews with the head of SFG, the types of businesses to be developed are mangrove ecotourism, fisheries and kelulut honey production which will be developed in the three SFBG owned. Based on the results of the BMC analysis, it is known that the problems that are/ may be experienced by SFG KT Peduli Pesisir in running the mangrove ecotourism business are low group member participation, business security, and marketing. To overcome these problems, modify the BMC model on key partners, customer relationships, customer segments, channels and cost structures. The mangrove ecotourism business development business model by SFG KT Peduli Pesisir is presented in Table 3.

**Table 3.** BMC Mangrove Ecotourism Business at SFG KT Peduli Pesisir

<b>1. Key partners</b> FMU Region I Stabat BPSKL Sumatera Region Provsu LHK Service University of North Sumatra Langkat Regency Tourism Office Brandan Police Sector Langkat Police Water and Air Police Unit	<b>2. Key activities</b> Provide supporting facilities for tourism activities Carry out maintenance of tourist areas and facilities Organizing honeybees and bumblebees Making a fish pond Perform honey care and harvesting Carry out fish maintenance and harvesting Marketing and selling tourism products  <b>6. Key resources</b> Natural resources (mangrove forest)	<b>3. Value proposition</b> Affordable price Beautiful natural scenery Clean and comfortable tourist attractions Attractive photo spots Reasonable food and beverage prices Short distance traveled	<b>4. Customer relationship</b> Friendly service Share experiences, criticisms and suggestions on social media Special holiday events  <b>7. Channels</b> Direct marketing	<b>5. Customer segment</b> Ecotourism Age ≥ 15 years old Photo hobby Nature hobby Nature honey lovers community Sick People Health-conscious people fish People who like eat fish Domicile Kab. Langkat surrounding areas
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	ecosystem, honey bees, siakap fish) –HR (maintenance, security and marketing labor) –Tourist support facilities –Capital Resources	–Social media advertising
<b>8. Cost structure</b> –Cost of procuring tourist facilities –Maintenance and cleaning costs of tourist facilities –Operational costs of tourist facilities –Bee maintenance and harvesting costs –Fish maintenance and harvesting costs –Marketing costs		<b>9. Revenue stream</b> –Visitor admission –Food and beverage sales –Honey sales –Sale of young coconuts –Fish sales –Cottage rental –Lodging rental –Boat rental

### 3.1.4. BMC of Coconut Plantation Development in SFG LPHD Pasar Rawa

LPHD Pasar Rawa Social Forestry Group is located in Pasar Rawa Village, Gebang District, Langkat Regency. LPHD Pasar Rawa obtained a forest management license in 2019 through the HKm scheme with a land management license of 138 ha. The number of members registered in the group totals 890 family heads. LPHD Pasar Rawa currently has three SFBG units with the third SFBG level being gold. Based on the interview with the head of SFG, the type of business to be developed is coconut plantation which will be developed in SFBG Agroforestry. The BMC of coconut plantation business development by SFG LPHD Pasar Rawa is presented in Table 4.

**Table 4.** BMC of Coconut Plantation Business at SFG LPHD Pasar Rawa

<b>1. Key partners</b> –FMU Region I Stabat –Pasar Rawa Village –Government –BPSKL Sumatra Region –Provsu LHK Service –Agriculture and Food Security Office of Langkat Regency –Gebang Police Sector –BRGM	<b>2. Key activities</b> –Preparing coconut planting land –Procurement of coconut seedlings –Performing coconut plant maintenance –Marketing and selling coconut	<b>3. Value proposition</b> –Real young coconut –Low price –Ease of coconut delivery –Ease of payment –Small-large scale purchasing	<b>4. Customer relationship</b> –Good service –Maintain coconut fruit quality –Maintain coconut fruit availability	<b>5. Customer segment</b> – Sick people – People who maintain a healthy body – Young coconut seller – Domicile Kab. Langkat and surrounding areas
<b>6. Key resources</b> –Coconut plant –HR (maintenance, security and marketing labor) –Facilities and infrastructure –Capital Resources		<b>7. Channels</b> – Direct marketing – Social media advertising – Online buying and selling platform		
<b>8. Cost structure</b> – Facilities and infrastructure costs for coconut maintenance and harvesting – Coconut seedling procurement cost – Coconut plant maintenance and security costs – Operational vehicle and transportation costs – Marketing Costs			<b>9. Revenue stream</b> –Sale of young coconuts	

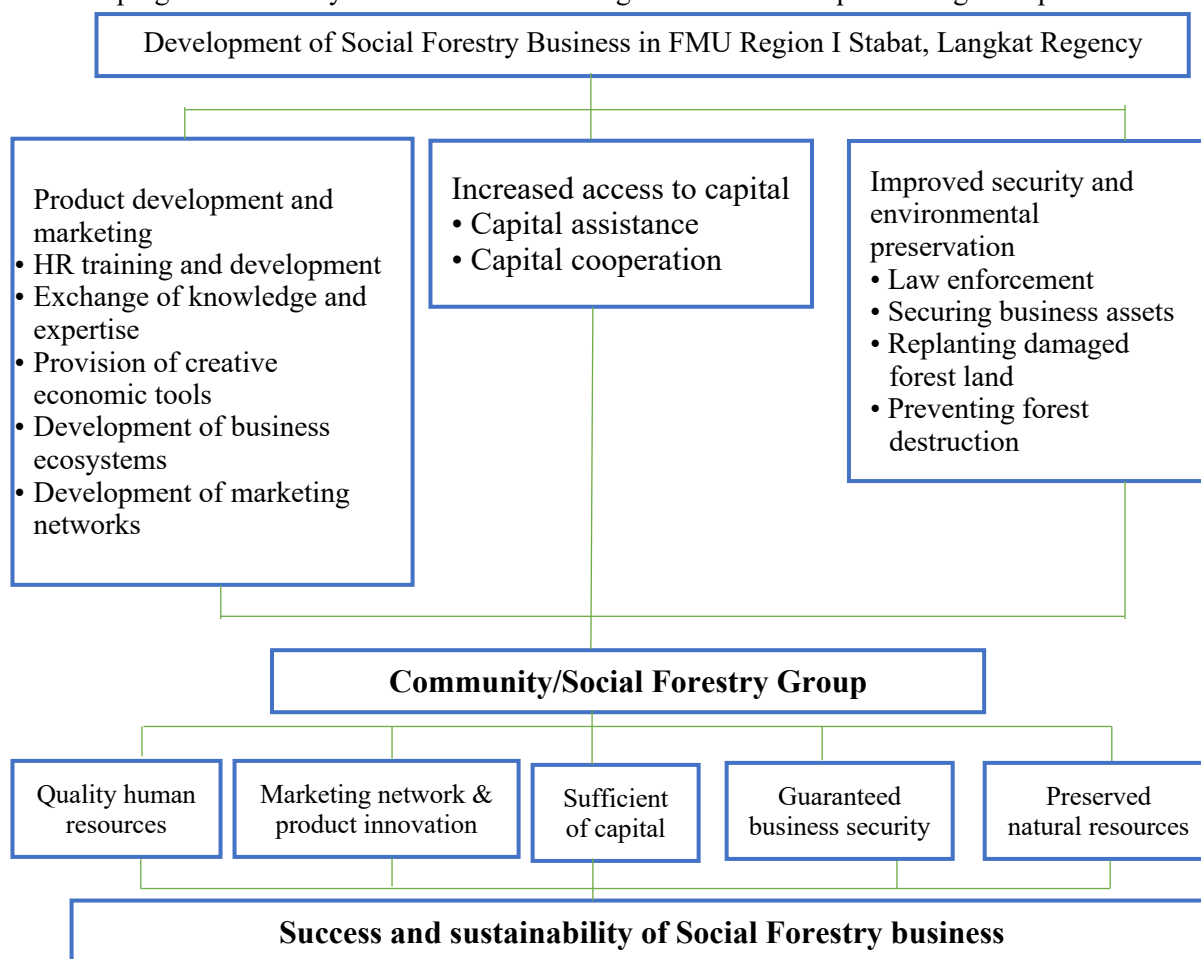
Based on the results of the Business Model Canvas (BMC) analysis of social forestry businesses in FMU Region I Stabat, Langkat Regency, the development strategies that need to be implemented include institutional strengthening, improving human resource capacity through training, product diversification, and market expansion to national and international scales. In addition, cooperation with strategic partners such as the forestry department and academics is needed to accelerate the improvement of the SFBG level.

### 3.2 Social Forestry Business Development Strategy in FMU Region I Stabat, Langkat Regency



The social forestry business development strategy in FMU Region I Stabat, Langkat Regency aims to improve the effectiveness of social forestry business management in economic, social and environmental aspects. Based on the results of the analysis of the Business Model Canvas (BMC) tables, business development is focused on improving key resources and key activities elements that still face various obstacles in their implementation. The Social Forestry Business Group (SFBG) in FMU Region I Stabat still experiences various obstacles in its management, including the low level of participation of group members, limited business capital, lack of human resource skills, and limited access to marketing. In addition, the challenge of improving SFBG classification is also a factor affecting the sustainability of social forestry businesses in this Region.

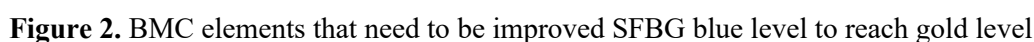
To overcome these obstacles, the strategies implemented include increasing human resource capacity through training and technical assistance, providing access to capital for business groups, and strengthening marketing and product distribution networks. In addition, business security is also a major concern to ensure the protection of group assets and the sustainability of the business [16]. By applying this strategy, social forestry businesses in FMU Region I Stabat, Langkat Regency are expected to develop optimally, provide greater economic benefits to the surrounding community, and support sustainable environmental conservation efforts. The strategy for developing social forestry businesses in FMU Region I Stabat Kabupaten Langkat is presented in Figure 1.



**Figure 1.** Business development strategy SFG in FMU Region I Stabat Kab. Langkat

### 3.3 Strategy for Increasing Blue Level SFBG in FMU Region I Stabat, Langkat Regency

The strategy for increasing SFBG from the blue level to the gold level can be seen in Figure 2.



This strategy was applied to Pasir Putih Hijau SFBG in KSU Bahagia Keluarga Bahari and Mangrove Ecotourism SFBG in SFG KTH Mekar. Efforts made include preparing a Social Forestry Management Work Plan (RSFG), establishing business units, and strengthening the elements in the Business Model Canvas (BMC). In addition, human resource capacity building and capital support are the main steps in business development. To reach the gold level, SFBG needs to collaborate with FMU Region I Stabat, BPSKL Sumatera Region, the North Sumatera Province LHK Office, and other business partners.

The strategy for increasing SFBG from the gold level to the platinum level can be seen in Figure 3.

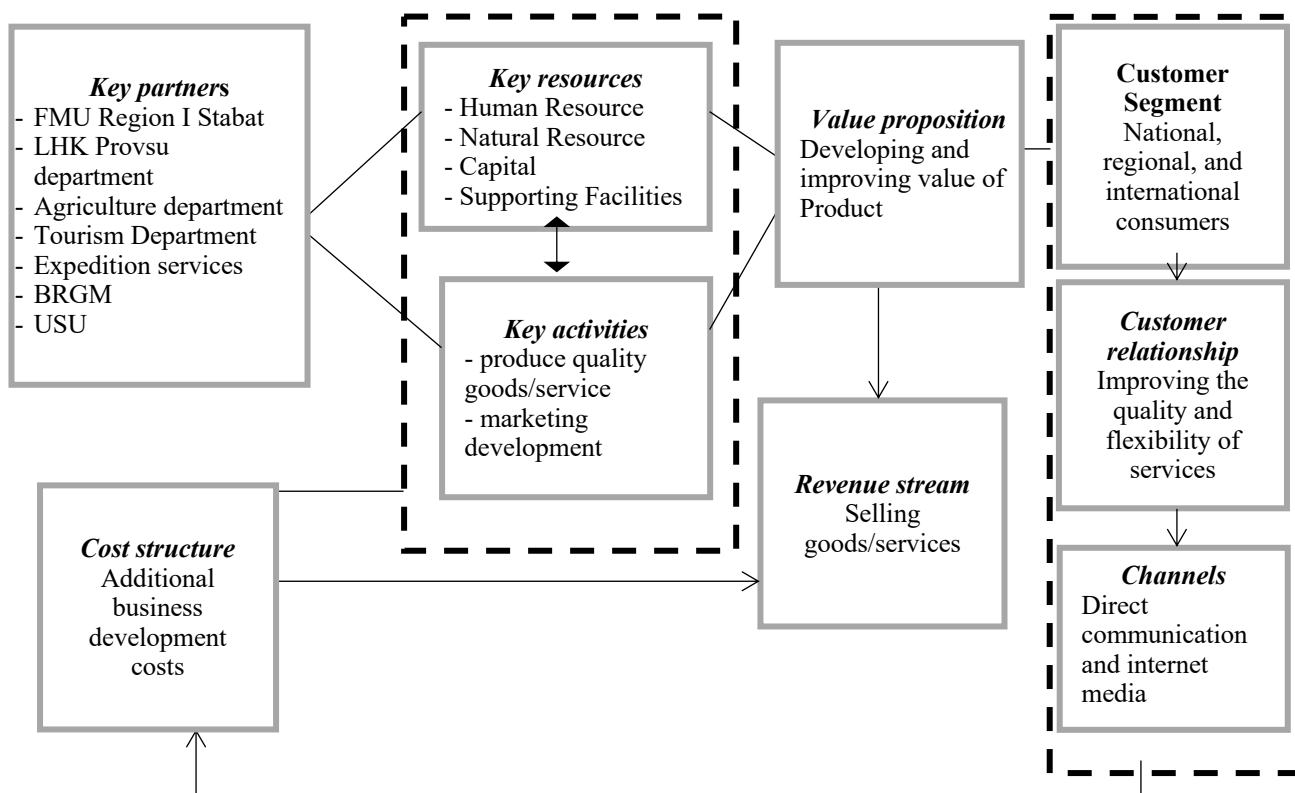


Figure 3. BMC elements that need to be improved SFBG gold level to reach platinum level.

Gold-level SFBG are business groups that already have a local market and run business activities. To reach the platinum level, SFBG must expand market segmentation to a national and international scale and improve the quality of products and services. The strategies implemented include strengthening Business Model Canvas (BMC) elements, such as improving customer segments, value propositions, customer relationships, and channels. SFBG needs to expand its marketing network by collaborating with exporters, the Tourism Office, freight forwarding services, and academic institutions such as the University of North Sumatra (USU). Gold-level SFBG must also improve human resource capacity through training, maintain product availability, and optimize digital marketing strategies. To support business development, access to capital can be obtained through grants, loans, or cooperation with investors. By implementing this strategy, gold-level SFBG is expected to reach the platinum level and increase competitiveness in national and international markets.

#### 4. Conclusion

Based on the research results, it can be concluded that social forestry business management in FMU Region I Stabat still faces various obstacles, especially in the aspects of marketing, capital, and institutional management [2]. Gold-level SFBG has better sustainability than blue-level SFBG, which still requires business capacity building (KLHK, 2021). The main factors that influence the success of SFBG are access to capital, institutional support, and innovation in business diversification [5]. SFBG at the gold level have been able to develop their business sustainably by utilizing a wider market and improving their business management system. Meanwhile, SFBG that are still at the blue level require further assistance in terms of improving management skills, marketing, and access to capital in order to move to a higher level. Overall, the social forestry program in FMU Region I Stabat has great potential to improve community welfare and preserve the environment (KLHK, 2021). However, support from various parties, including the government, NGOs, and the private sector, is still needed to ensure that social forestry businesses can develop optimally [2].



## REFERENCES

- [1] Dinas Lingkungan Hidup dan Kehutanan Provinsi Sumatera Utara, “Perkembangan Kegiatan Rehabilitasi Mangrove, Tahun 2020-2021,” Open Data Sumatera Utara.
- [2] O. Affandi, “Kelembagaan dan Inovasi Daerah dalam Tata Kelola Hutan Setelah Implementasi UU no. 23/2014 di Provinsi Sumatera Utara,” *IPB University*, 2020.
- [3] M. ; Jossy and P. Moeis, “Dampak program perhutanan sosial terhadap pertumbuhan usaha dan deforestasi: bukti empiris dari Indonesia,” 2022.
- [4] A. Osterwalder and Y. Pigneur, *Value Proposition Design*. Newyork: John Wiley & Sons Inc., 2014.
- [5] Sugiyono, *Metode Penelitian Kuantitatif Kualitatif dan R&D*. Bandung: Alfabeta, 2013.
- [6] E. W. Astuti, “Dampak Ekonomi Kebijakan Perhutanan Sosial di Kabupaten Lombok Tengah, Nusa Tenggara Barat,” *IPB University*, 2020.
- [7] S. A. Puspitasari, H. J. R. Saragih, R. Djoko, and A. Navalino, “Perhutanan Sosial dalam Mendukung Pemberdayaan Masyarakat Dari Perspektif Ekonomi Pertahanan (Studi Pada Desa Pantai Bakti Kecamatan Muara Gembong Kabupaten Bekasi.” [Online]. Available: [www.un.org/sustainabledevelopment](http://www.un.org/sustainabledevelopment),
- [8] A. Salsiah, Alisjahbana and Endah. Murniningtyas, *Tujuan pembangunan berkelanjutan di Indonesia : konsep, target, dan strategi implementasi*. Unpad Press, 2018.
- [9] R. Siburian, “Kebijakan Kehutanan dan Akibatnya Bagi Masyarakat Lokal,” *Jurnal Masyarakat dan Budaya*, 2004.
- [10] N. S. Tanjung, “Tingkat Partisipasi Masyarakat dalam Pengelolaan Hutan Nagari di Sumatera Barat,” *Jurnal Penyuluhan*, 2017.
- [11] “Permen LHK 9 2021”.
- [12] A. Agrawal *et al.*, “Enchantment and Disenchantment: The Role of Community in Natural Resource Conservation,” 1999.
- [13] M. T. Rahmadi, A. Suciani, and N. Auliani, “Analisis Perubahan Luasan Hutan Mangrove Menggunakan Citra Landsat 8 OLI di Desa Lubuk Kertang Langkat,” 2020, doi: 10.23887/mkg.v2i12.24197.
- [14] D. J. Teece, “Business models, business strategy and innovation,” *Long Range Plann*, vol. 43, no. 2–3, pp. 172–194, Apr. 2010, doi: 10.1016/j.lrp.2009.07.003.
- [15] C. Zott, R. Amit, and L. Massa, “The business model: Recent developments and future research,” Jul. 2011. doi: 10.1177/0149206311406265.
- [16] I. Hombokau, J. Tasirin, and H. Walangitan, “Strategi Pengembangan Hutan Kemasyarakatan Dalam Program Perhutanan Sosial Di Kawasan Hutan Lindung Gunung Lembean Region Kesatuan Pengelolaan Hutan Unit V,” *Agri-SosioEkonomi Untrat*, 2023.