http://ejournal2.undip.ac.id/index.php/agrisocionomics Jurnal Sosial Ekonomi dan Kebijakan Pertanian

Vol 7 (3): 563-571, November 2023

ISSN 2580-0566; E-ISSN 2621-9778

DEVELOPMENT STRATEGY FOR PALM SUGAR (CASE STUDY OF THE BUHUNG LALI FOREST FARMER GROUP, IN BUKIT HARAPAN VILLAGE, GANTARANG DISTRICT, BULUKUMBA REGENCY, SOUTH SULAWESI)

# Rusli M. Rukka\*, Achmad Amiruddin, and Husnul Khatima

Agribusiness, Faculty of Agriculture, Hasanuddin University, Makassar, South Sulawesi, Indonesia

\*Correspondence Email: ruslimrukka@unhas.ac.id

Submitted 22 December 2022; Approved 03 May 2023

### **ABSTRACT**

This research was conducted in Bukit Harapan Village, Gantarang District, Bulukumba Regency with a case agrosystem, namely the ant sugar business managed by KTH Buhung Lali, this ant sugar is experiencing a few problems, namely very little local demand. This study aims to: 1) analyze the problems of the case agrosystem; 2) Analyze various solutions to problems in the context of business development; 3) Formulate actions in the target objectives; 4) Analyze the potential problems of each selected actions. Data and information obtained form informant the chairman of the farmer group and in this study were processed using the APPAS method (Agrosystem Design and Development Analysis). The results of the analysis show that the ant sugar business has a main problem, namely low sales, the main problem is caused by the low production volume and unattractive packaging. This major problem then results in low net income. To solve this problem, the main goal is to increase sales, the main target will be achieved if the amount of production increases and the packaging is more attractive, the main target efforts will have an impact on increasing sales of ant sugar, the action needed to achieve the main target is by submitting an application for investment capital assistance, buying a drying machine, procuring production space, adding manpower and designing costume packaging. The action aims to increase the net income of the ant sugar business.

**Keywords**: strategy, business development, palm sugar, APPAS

### **BACKGROUND**

Community forestry (HKm) is a program from the government that aims to empower the community and increase the economic value of the community to improve their welfare without disrupting forest sustainability (Kaskoyo et al., 2014). It is stated in the Regulation of the Minister of Forestry No. P.88/Menhut-II/2014 that HKm is a state forest whose main utilization is intended to empower local communities. The people who manage the HKm then form a group called the forest farmer group which according to the Minister of Forestry Regulation No. P.57/Menhut-II/2014 concerning Guidelines for Fostering Forest Farmers Groups, KTH is a group of Indonesian farmers or individual citizens and their families who manage businesses in the forestry sector inside and outside forest areas which include business of timber forest products, non-wood forest products wood and services. KTH Buhung Lali has a land area of 78 HA. With 49 members (Tangngareng & Ridha, 2016).

ISSN 2580-0566; E-ISSN 2621-9778 http://ejournal2.undip.ac.id/index.php/agrisocionomics Vol 7 (3): 563-571, November 2023

Non-timber forest products (NTFPs) have been used for a long time, Aren is one of the nontimber forest products, HKm located in Bukit Harapan Village is one of the areas that manage sugar palms (Mokuna et al., 2017). Ants Sugar or commonly known as Palm Sugar is a product of palm sap in the form of crystalline brown sugar which is very superior for use as a food ingredient and has functional effects on health. The calorie content of Ant Sugar and a lower glycemic index is 35, while granulated sugar has a glycemic index of 58, so it is not dangerous for diabetics to consume palm sugar and is also healthier because it does not contain chemicals and preservatives (Herlina et al., 2021 and Sonya & Lydia, 2021)

Palm sugar is a product of the agro-industrial sector with good development potential and considerable export potential. In the ant sugar business, demand for ant sugar comes from within the country and abroad. The market demand for ant sugar reaches 200 tons/month which is mainly for export to countries such as Singapore, Germany, Japan, America, the Middle East and Australia. The results of a survey of a small industry in a month can obtain orders of 15-25 tons. Ant sugar has a rough shape and has a longer shelf life compared to brown sugar, but the marketing of ant sugar is experiencing a few problems, namely very little local demand, due to the high selling value so that consumers prefer palm sugar at prices that are still affordable(Surya & Scabra, 2020).

Another thing that causes people to pay less attention to ant sugar is due to the significant price difference so that people prefer to use granulated sugar compared to ant sugar. It is hoped that public awareness will increase to consume sugar without chemicals such as ant sugar so that it can nourish the residents and will increase economic independence for palm farmers. There are several studies related to the development of ant sugar business (Efendi et al., 2018; Budiyanto, 2019; Irmawati & Syam, 2018) which is to determine the strategy for developing ant sugar business using SWOT analysis with the formulation of research results only up to strategy, while in this study produce a clearer strategy in the form of action using the Agrosystem Development Design Analysis Method (APPAS) which is still rarely used.

The development of this ant sugar business, it has problems that are often experienced by other businesses, such as the length of the production process, drying which is constrained because it depends on sunlight, and product promotion which is not optimal which then has an impact on the amount of production resulting in low sales and net income also come down. Then research was carried out with the aim of identifying the problems faced by this ant sugar business, formulating actions in the framework of business development.

# RESEARCH METHODS

This research was conducted on ant sugar business in the Buhung Lali Forest Farmer Group, Bukit Harapan Village, Gantarang District, Bulukumba Regency, South Sulawesi from March to April 2022. This research used the agrosystem planning and development analysis (APPAS) method which focuses on researchers involved in processes that occur in the business so that researchers are able to find out the problems in depth related to the ant sugar business.

Respondents in this study were ant sugar business entrepreneurs in the Buhung Lali Forest Farmer Group, Bukit Harapan Village, Gantarang District, Bulukumba Regency, South Sulawesi from March to April 2022. This study used agrosystem planning and development analysis (APPAS) and used qualitative data with method depth interviews with key informant is the head of

the farmer group. This research focuses on those involved in the processes that occur in the business so that researchers are able to find out the problems in depth related to the ant sugar business.

The results of the study become the basis for identifying problems which are then analyzed based on the causality (causality) between problems. Based on the problems that have been identified, objectives are formulated which become the basis for carrying out actions in the context of solving the problem.

### RESULT AND DISCUSSION

KTH Buhung Lali is a Forest Farmer Group that has been established since 2009 and the ant sugar business has been started in 2014, this business started with the awareness of the group leader because previously the results of Aren were used to become alcohol which only resulted in negative results and low selling prices. processing ant sugar was initially processed into coconut sugar/brown sugar and not a few processed it into alcohol. Due to the use of palm products that were distorted, the head of the farmer group got the idea to make ant sugar accompanied by SCF (Sulawesi Community Foundation) and armed with knowledge from ant sugar farmers from Banten, namely brown sugar in the form of crystals resembling granulated sugar.

KTH Buhung Lali's vision is "Creating product innovations that are useful, healthy and sustainable" and the business mission is: Forming responsible, creative and innovative personnel, Producing quality products, and preserving forests. This business temporarily has 15 permanent workers who are tasked with collecting palm sap in the forest, processing palm sugar into ant sugar, drying, packaging and marketing the ant sugar. This business is managed with legal permits, namely SITU, SIUP, NPWP, PIRT and UMKM.

### **Study of Problematization**

Problem Learning is learning that uses unstructured and open-ended problems to develop problem-solving skills and critical thinking and at the same time builds new knowledge, then identifies relevant information and strategies and conducts investigations to solve the problem (Saputra, 2021). Problem identification is a follow-up activity from business development problem analysis. There are several problems in the running of all activities in the Ant Sugar business which can be identified based on Table 1 of the gap between facts and expectations.

Table 1. Gaps of Facts and Expectations of Ant Sugar Business, 2022

Facts (Reality)	Problem	Expectation (Ideal)
General Aspect		
Land and Building		
Resources		
Production and storage are carried out at the group leader's house	Don't have their own production room yet	Production is carried out in a separate production location
<b>Human Resources</b>		
Workforce tapper 10 people	The number of tapping workers is still lacking	The workforce of tappers is 16 people

http://ejournal2.undip.ac.id/index.php/agrisocionomics Vol 7 (3): 563-571, November 2023

<b>Production Aspect</b>		
Production process for ± 6 hours	Long production process: The ant sugar production process takes ± 6 hours when the sap is processed into ant sugar to maximize production results. The production process should not take a long time, namely ± 4 hours.	Production process for ± 4 hours
Sun drying	Drying using sunlight	Drying using a dryer/oven
Production of ± 1400 kg	Low production volume: The average net income is Rp 4,000,000/month due to low sales so as to increase net income.	Production of ± 2,000 kg
Marketing Aspect		
The packaging label uses a sticker	Simple packaging label	Using costume packaging does not require packaging stickers with more attractive designs
Product promotion is done directly	Product promotion is still lacking	Promotion through online shop
Average sales of 1,300 kg/month	Low sales: Sales that have been successfully marketed average 1,300 kg/month	Sales reach 1,800 kg / month
Finansial Aspect		
Average net income Rp 4,000,000/month	Low net income: The average net income is Rp 4,000,000/month due to low sales so as to increase net income.	Average net income Rp 6,000,000/month

Source: Primary Data, 2022

Based on Table 1 it can be seen that the ant sugar business has several problems after identifying the problems including

- 1. The production process is carried out at the private house of the group leader who is also the secretariat of KTH Buhung lali who does not only process ant sugar, there are several other commodities as well so to expedite production it is better to have a separate production room.
- 2. The number of tappers currently working is 10 people which is still considered insufficient because of the large number of palm trees spread across the land managed by this farmer group so that additional tappers are needed to increase production.
- 3. The ant sugar production process takes  $\pm$  6 hours when the sap is processed into ant sugar to maximize production results. The production process should not take a long time, namely  $\pm$  4 hours.

http://ejournal2.undip.ac.id/index.php/agrisocionomics Vol 7 (3): 563-571, November 2023

- 4. Drying of ant sugar depends on available sunlight so the process is often hampered if the weather is not favorable, so to speed up production results it is better to use a dryer for a faster process.
- 5. The amount of ant sugar production that can be produced is  $\pm 1,400$  kg/month which comes from the results brought from members who carry out wiretapping.
- 6. The label for the ant sugar packaging used is a sticker which is then printed so that it looks unattractive, so it is necessary to use a new packaging that does not require stickers and a new design so that the packaging looks more attractive.
- 7. Promotions carried out still use direct promotions, so to increase demand, it is better to carry out product promotions through online shops such as WhatsApp, Instagram, Shopee, and other media to market products.
- 8. Sales that have been successfully marketed average 1300 kg/month so to increase sales it is necessary to have product promotions that reach more people.
- 9. The average net income is Rp 4,000,000/month due to low sales so as to increase net income.

A problem tree is a technique for identifying all the problems in a given situation and displaying this information as a series of causal relationships. The problem tree starts with the main problem. As a result of the situation analysis in the work unit, the causes of the problem were analyzed in a brainstorming forum (Sartono & Sutrismi, 2020). Basically the problem has a relationship with other problems or problems that arise as a result of one or the previous problem. Based on the identification of the problems that have been described earlier, the main problem faced by this ant sugar business is low sales caused by low production quantities caused by the length of the production process which is caused by the drying process which relies on sunlight and the absence of its own production room. The lack of tapping results is caused by the lack of a tapping workforce, then packaging that still uses stickers that are printed first as packaging labels is less attractive to consumers. The following is Figure 1 of a causal relationship or structuring of the problem of the Ant Sugar Business:

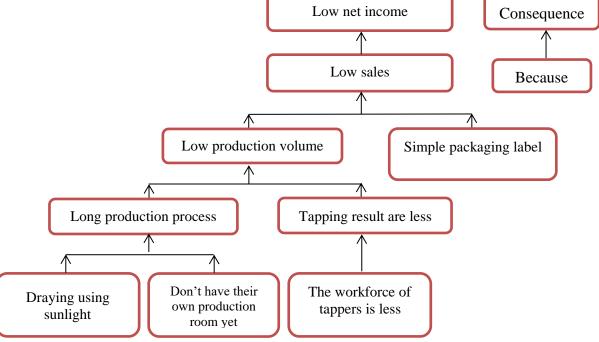


Figure 1. Problem Chart Structure

# Analysis of Development Goals

Goals are clear measurements of the goals to be achieved, because only with clear measures can we make reasonable choices. Setting goals is done after setting the goals of the decision and agreeing on the actions to be achieved. This target analysis is carried out to solve a problem with the results to be obtained from the action. To overcome the main problem that this ant sugar business has is to increase sales of products that can be realized with the basic target of increasing the tapping workforce, having their own production space and using drying machines which save more time, so that the intermediate targets achieved by tapping yields increase and the production process is relatively faster which can increase the amount of production, and new packaging with new designs, with the achievement of the main target it will affect the target impact. For more details on the structuring of targets in the ant sugar business, it can be seen in Figure 2.

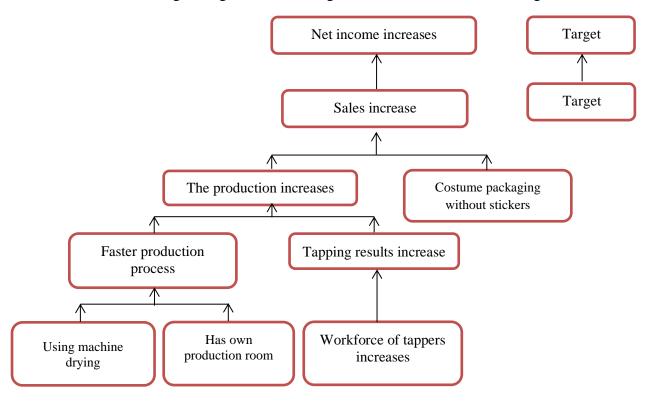


Figure 2. Target Chart Structure

### **Selected Actions**

After setting targets for each business unit, the next step is to determine actions to achieve business development goals. The focus at this stage is the goals that are in the target causes and intermediate targets. Among these targets, not all are within the authority of the business owner. The targets that will be analyzed for determining the action plan are targets that are within the authority of the business owner. The results of the decision analysis of several alternative actions, the best action decision has been selected, namely with the highest value compared to other alternatives in each agrosystem problem. The selected action decision is expected to assist the company in business development. The selected alternative actions include:

1. Apply for investment capital assistance to the Office of Cooperatives and SMEs

- 2. Provision of production space for own production in unused buildings
- 3. Buying a dryer
- 4. Increase the workforce of tappers
- 5. Design a new packaging for the costume

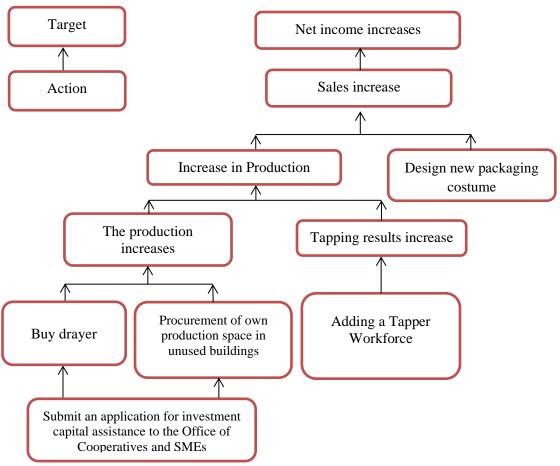


Figure 3. Action Chart Structure

### **Development Planning Matrix**

The case agrosystem development planning matrix is an attempt to develop the project design in the form of a matrix. The matrix will describe how the actions taken to meet the intermediate goals and main goals as well as the targets and costs required to realize these actions. The planning matrix for the ant sugar business is in Table 2.

**Table 2.** Ant Sugar Business Development Project Planning Matrix, 2022

ISSN 2580-0566; E-ISSN 2621-9778 http://ejournal2.undip.ac.id/index.php/agrisocionomics Vol 7 (3): 563-571, November 2023

Description of Goals According to Action	Goal Attainment Measures	Information Control System
Impact		
Net income increases	Net income/profit increased from Rp. 4,000,000. up to Rp. 6,000,000/month	Financial reports
Main Target	Product sales increased from 1300	
Sales increases	kg/month to 1800 kg/month	Monthly sales report
Intermediate Target		<b>J</b>
The production increases	Production increased from 1500	Production report
Faster production process	kg/month to 2,000 kg/month Faster production process from $\pm$ 6 hours to $\pm$ 4 hours	Production report
Tapping result increase	Production of tapping increased from 1,500 kg/month to 2,000 kg/month	Production report
Special Measures	Required Means	Cost (Rp)
a. Apply for investment capital assistance to the Office of Cooperatives and SMEs		200,000
b. Provision of production space for own production in unused buildings	b. Fund	5,000,000
c. Buying a dryer	c. Fund	15,000,000
d. Increase the workforce of tappers	d. Fund	200,000
e. Design a new packaging for the costume	e. Administration	500,000
	Total Cost	20,900,000

Source: Primary Data, 2022

### **CONCLUSION AND SUGGESTION**

Based on the results of the analysis of the problems identified is submitting an application for investment capital assistance to the Cooperatives and UMKM Office, Procurement of production space for self-production in unused buildings, buy dryers, add tappers' workforce, design new packaging for costumes and provide funds to be allocated for business development. The problem agrosystem pays attention to and uses the action analysis that we have designed and recommended so that it will have an impact on improving performance which will maximize business production volume and increase business income. The suggestion of this research is that the case agrosystem pays attention to and uses the action analysis that we have designed and recommended so that it will have an impact on improving performance which will maximize business production volume and increase business income.

## REFERENCES

### ISSN 2580-0566; E-ISSN 2621-9778

 $http:/\!/ejournal 2. undip. ac. id/index.php/agrisocionomics$ 

Vol 7 (3): 563-571, November 2023

Jurnal Sosial Ekonomi dan Kebijakan Pertanian

- Budiyanto, B. 2019. Strategi Pegembangan Industri Gula Semut Kopwan Srikandi Di Desa Keseneng Kecamatan Loano Kabupaten Purworejo. Incontecss| 9(2): 204–209.
- Efendi, A., S. Budiningsih, and R. H. Putri. 2018. Pengembangan Kewirausahaan Gula Semut Di Kecamatan Wadaslintang Kabupaten Wonosobo. Agritech: Jurnal Fakultas Pertanian Universitas Muhammadiyah Purwokerto 19(2): 89–98.
- Herlina, N., A. Husin, and M. Nurfahasdi. 2021. Strategi Peningkatan Mutu Gula Merah Aren Menjadi Gula Semut Di Lingkungan Lomban Lobu, Kecamatan Arse, Kabupaten Tapanuli Selatan. In Talenta Conference Series: Local Wisdom, Social, And Arts (Lwsa) 4(1): 137-141. https://doi.org/10.32734/lwsa.v4i1.1182
- Irmawati, I. and H. Syam. 2018. Analisis Kelayakan Finansial Dan Strategi Pengembangan Usaha Industri Rumahan Gula Semut (Palm Sugar) Dari Nira Nipah Di Kelurahan Pallantikang. Jurnal Pendidikan Teknologi Pertanian 1(1): 76–94. https://doi.org/10.26858/jptp.v1i1.5147
- Kaskoyo, H., A. J. Mohammed, and M. Inoue. 2014. Present State Of Community Forestry (Hutan Kemasyarakatan/Hkm) Program In A Protection Forest And Its Challenges: Case Study In Lampung Province, Indonesia. Journal Of Forest And Environmental Science 30(1): 15–29. https://doi.org/10.7747/JFS.2014.30.1.15
- Mokuna, A. C., M. Makkarennu, and R. Ridwan. 2017. Sistem Pemasaran Gula Semut Kelompok Tani Hutan (Kth) Buhung Lali Pada Hutan Kemasyarakatan (Hkm) Bangkeng Bukit Di Desa Bukit Harapan Kecamatan Gantarang, Kabupaten Bulukumba. Jurnal Hutan Dan Masyarakat, 9(2): 83–92. https://doi.org/10.24259/jhm.v9i2.2329
- Saputra, H. 2021. Pembelajaran berbasis masalah (problem based learning). Jurnal Pendidikan Inovatif 5(2): 1–7.
- Sonya, N. T. and S. H. R. Lydia. 2021. Analisis Kandungan Gula Reduksi Pada Gula Semut Dari Nira Aren Yang Dipengaruhi Ph Dan Kadar Air. Bioedukasi (Jurnal Pendidikan Biologi), 12(1): 101–108. https://doi.org/10.24127/bioedukasi.v12i1.3760
- Surya, L. P., and A. R. Scabra. 2020. Optimalisasi Aren Menjadi Produk Olahan Gula Semut Guna Meningkatkan Nilai Jual Dan Pendapatan Masyarakat Desa Pusuk LestarI. Jurnal PEPADU, 1(4): 515–522. https://doi.org/10.29303/jurnalpepadu.v1i4.144
- Tangngareng, T. and M. Ridha. 2016. Pelaksanaan Pengelolaan Hutan Kemasyarakatan (HKM) di Desa Bukit Indah, Bulukumba: Batasan dan Kemungkinan. BHUMI: Jurnal Agraria Dan Pertanahan 2(2): 194–208. https://doi.org/10.31292/jb.v2i2.71