



PRACTICAL WORK - KS 184721

**ANALYSIS OF BIOGAS POTENTIAL UTILIZATION IN
EAST JAVA PROVINCE**

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**INTERNATIONAL UNDERGRADUATE PROGRAMME
DEPARTMENT OF STATISTICS
FACULTY OF SCIENCE AND DATA ANALYTICS
INSTITUT TEKNOLOGI SEPULUH NOPEMBER
SURABAYA
2023**

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VALIDITY SHEET I
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PRACTICAL WORK REPORT
Statistics Department International Undergraduate
Programme
Faculty of Science and Data Analytics
Institut Teknologi Sepuluh Nopember

Surabaya, July 2023
Approved,

Supervisor I

Supervisor II



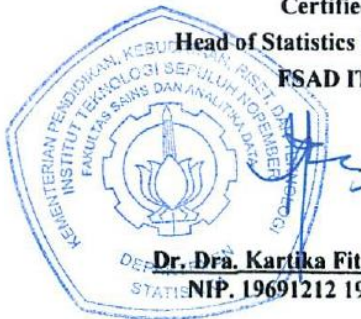
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FOREWORD

Praise be to God, the authors thanks to the presence of God Almighty who has bestowed all His grace and guidance, so that with His permission this Practical Work Report at the Livestock Service Office of East Java Province can be completed properly. This report would not have been possible without the assistance, guidance, and support of various parties. Therefore, the author would like to express his deepest gratitude to:

1. Badan Pusat Statistik (BPS) of East Java Province for facilitating practical work through a collaborative program with Pojok Statistik ITS in order to support Satu Data Jawa Timur 2022.
2. Dr. Dra. Kartika Fithriasari, M.Si. as the Head of the Department of Statistics FSAD ITS.
3. Dr. Santi Wulan Purnami, S.Si., M.Si. as Secretary I of the Department of Statistics FSAD ITS.
4. Dr. Dra. Kartika Fitsriashari, M.Si. and Prof.Dr.rer.pol. Heri Kuswanto, S.Si., M.Si. as a Practical Work Advisor and Supervisor.
5. The academic community of Department of Statistics ITS.
6. Muhammad Nuril Musyaffi, as field supervisor.
7. Citra Kusumaningtyas S.Si, as BPS supervisor.
8. Halida Nur Ainun, S.Si, as Kominfo supervisor.
9. Family and friends of S1 Statistics ITS 2019 and all parties who have helped a lot in completing this Practical Work Report.

The author hopes that this Practical Work Report can provide benefits for society and for science. The author realizes that in writing and compiling this Practical Work Report there are still many shortcomings and weaknesses. Therefore, the authors expect constructive suggestions and criticism.

Surabaya, 14 June 2023
Authors

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CHAPTER I

INTRODUCTION

1.1 Background

FSAD Statistics is one of the majors at the Sepuluh Nopember Institute of Technology (ITS) Surabaya. Statistics is a compilation of concepts and methods for collecting, presenting, and analyzing data and concluding in certain situations where there is uncertainty and variation (Bhattacharya and Johnson, 1977). In their studies, the ITS Statistics Department requires its students to take practical work courses so that students can learn to work and are able to apply statistical methods in the world of work.

The Central Bureau of Statistics (BPS) is a non-departmental government agency that is directly responsible to the President. BPS has the authority to carry out statistical activities such as censuses and surveys, to produce data and statistics needed by both the government, the private sector, and the general public. The main objective of infrastructure development information technology at the Central Bureau of Statistics, namely to keep abreast of developments in demand and needs in processing statistical data, to make updates or innovations in terms of better work methods and to make it easy for the public to obtain statistical information. BPS produces data obtained using a standard data collection methodology and in accordance with science so that the quality of the data is guaranteed and its accuracy can be accounted for. To produce data and statistics needed by the government, the private sector and the general public, BPS acts as a supervisor of sectoral statistical data which is obliged to provide guidance to the Dinas/OPD as producers of sectoral statistical data. With BPS as data supervisor, it is expected that perceptions regarding sectoral statistics and their role in the National Statistics System (SNN) can be aligned.

As a data producer, the Government Office itself consists of various fields, one of which is the Livestock Service. The focus of Practical Work in this report is the East Java Livestock Service. The Livestock Service is an implementing element of government affairs in the agricultural sector. The Livestock Service is led by a Service Head who is under and responsible to the Governor through the Provincial Secretary. The Livestock Service has the task of assisting the Governor in carrying out government affairs which fall under the authority of the provincial government in the agricultural sector and supporting duties. The Livestock Service has four divisions, namely Breeding, Feed and Livestock Production, Animal Health, Veterinary Public Health and Processing and Marketing of Marketing Products.

One Data Indonesia (SDI) is a government data governance policy that aims to create quality data that is easy to access and can be shared between Central and Regional Agencies. Through the One Data Indonesia policy, the Presidential Staff Office (KSP) together with the Ministry of National Development Planning (PPN)/Bappenas and supported by the Central Statistics Agency (BPS) and the Geospatial Information Agency (BIG) are making full efforts to make improvements to data management in the government. Through the One Data Indonesia Portal, we are making full efforts to improve data governance in order to realize government transparency and accountability, as well as support national development. In order to support the One Data Indonesia program by BPS, students from the Department of Statistics of the Sepuluh Nopember Institute of Technology carried out practical work at the Livestock Service Office of East Java Province. By participating in practical work at one of the institutions in Indonesia, students of the Department of Statistics Department of Statistics of the ITS are expected to be able to apply the knowledge of statistics obtained during their lectures in the real world of work.

1.2 Practical Work Objectives

Based on the educational goals of the Statistics Study Program at the Institut Teknologi Sepuluh Nopember (ITS) Surabaya, namely to form graduates who have expertise in statistics with creative, innovative, and independent abilities, the objectives of this practical work are as follows.

1.2.1 General Objectives

Some general goals to be achieved through the implementation of practical work are as follows.

1. Students gain insight and experience about the world of work in the field of Statistics.
2. Students package OPD sectoral data in an attractive form, and/or produce research sourced from OPD sectoral data.
3. Improving the application of SDI principles to sectoral statistics in government circles.

1.2.2 Specific Objectives

The specific objectives to be achieved or aimed at through this practical work are as follows:

1. Students gain experience in doing governmental tasks in the field of statistics.
2. Students are able to apply the knowledge gained from campus to apply to the world of work, as well as be creative in completing assignments.
3. Students are able to make infographics based on sectoral statistical data in their respective practical workplaces.
4. Students are able to learn to adapt and organize within their respective OPD bureaucratic structures.

5. Availability of infographics and/or videographs with sectoral statistical themes for each OPD.
6. IKU/IKD data and/or other data from OPD are identified.
7. Identification of statistical activities carried out by OPD, as well as compilation of recommendation requests and statistical metadata.

1.3 Practical Work Benefit

The benefits of practical work for ITS Department of Statistics students are as follows.

1.3.1 Benefits for East Java Livestock Service

The benefits of the ITS Department of Statistics students practical work for the Livestock Service are as follows.

1. There is direct collaboration between the Livestock Service and the world of education, especially the ITS Statistics Department.
2. Problems that exist in the Livestock Service can be resolved on special assignments given based on the discipline of statistics.
3. The Livestock Service obtains input from the results of processing and interpretation using statistical methods regarding the conditions and problems that exist in the Livestock Service.

1.3.2 Benefits for Students

The benefits of ITS Department of Statistics student practical work for students are as follows.

1. Provide opportunities for students to know and get to know the fields in the Livestock Service, especially OPD management which is engaged in program preparation.

2. Can add experience and knowledge about the world of work and be able to apply statistics in the world of work in certain fields, especially in livestock.

CHAPTER II

GENERAL DESCRIPTION OF EAST JAVA PROVINCE OF LIVESTOCK DEPARTMENT

2.1 History

The East Java Livestock Service was established on May 11, 1960 with the initial name namely the East Java Province Veterinary Service and then changed its name on June 12, 1974 in accordance with the Decree of the Governor of the Regional Head of East Java Province Number HK/296/62/SK. Five years after the establishment of the Animal Husbandry Service, the Governor of East Java issued another Regional Regulation No. 5 of 1979 concerning the Livestock Service Office of East Java. The organizational structure of the Animal Husbandry Service consists of: Leadership elements, namely the Head of the Regional Livestock Service; Elements of Assistant Leaders, namely Sections and Sub-Divisions consisting of: Administrative Section; Program Development Sub-Office; Production Sub-Office; Farming Business Sub-Office; Animal Health Sub-Office; and the Extension Sub-Department.

To adapt to government developments, especially with regard to autonomy, a reorganization and work arrangement of the Livestock Service Office of East Java Province was carried out. This arrangement is outlined in the Regional Regulation of East Java Province Number 29 of 2000 concerning the Livestock Service Office of East Java Province. In carrying out his duties and functions, the Head of Service is assisted by a Deputy Head of Service, a Head of Administration, four Heads of Sub-Agency, Functional Position Groups, and Service Technical Implementation Units.

As one of the instruments in the Regional Government, the Livestock Service is also determined to improve the quality of its

service to the community. Therefore, the Livestock Service is one of 20 agencies whose organization needs to be reorganized to make it more efficient and effective. This arrangement is based on Regional Regulation Number 9 of 2008 concerning the Organization and Work Procedure of the Regional Offices of East Java Province.

2.2 Organizational Structure

The organizational structure of the East Java Livestock Services, as per East Java Governor Regulation Number 103 of 2021, is as shown below:

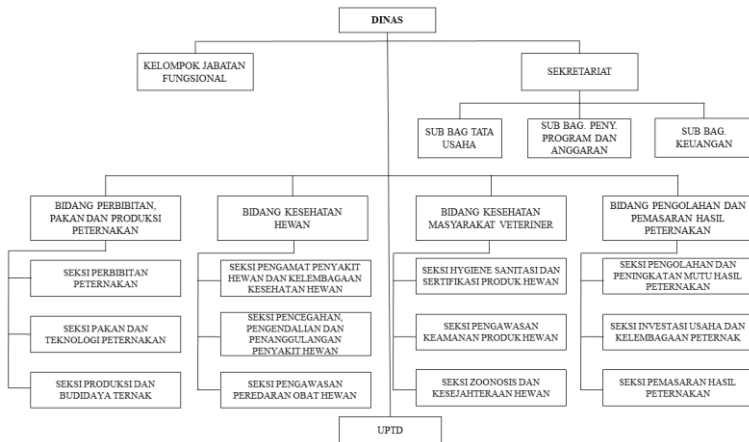


Figure 2.1 Organizational Structure of East Java Livestock Services

2.3 Functions

The functions of the East Java Livestock Service Province are as follows:

1. Formulation of policies in agriculture;
2. Implementation of policies in agriculture;

3. Implementation of evaluation and reporting in the agricultural sector;
4. Implementation of service administration in the agricultural sector; and
5. Implementation of other functions given by the Governor in accordance with the duties and functions.

2.4 Production Activities

The programs and activities carried out by the East Java Livestock Service are as follows:

1. Secretarial Service Program
 - a) Activities to prepare planning documents and regional apparatus budget
 - b) Financial Administration Management Activities
 - c) Administrative and Personnel Activities
2. Breeding Optimization Program, Feed and Livestock Production
 - a) Livestock Production and Cultivation Activities
 - b) Livestock Breeding Control and Supervision Activities
 - c) Arrangement of East Java agropolitan/minapolitan areas
 - d) Development activities and supervision of feed quality and application of food technology
3. Program processing and marketing of livestock products
 - a) Activities of fostering the processing of livestock products
 - b) Livestock Product Marketing Promotion Activities
 - c) Investment activities for institutional strengthening of breeder groups

- d) Activities of the anti-poverty program (Anti Poverty Program) in the Livestock Sector
- 4. Animal Health Guarantee Program
 - a) Animal disease monitoring activities and animal health institutions
 - b) Strategic prevention, control and management of infectious animal diseases
 - c) Control over the distribution of veterinary drugs
- 5. KESMAVET Standard Animal Product Improvement Program
 - a) Implementation of Sanitary Hygiene and Animal Product Certification
 - b) Supervision of safety and traffic control activities for the distribution of animal products
 - c) Zoonoses Control Supervision Activities and Animal Welfare
- 6. Domestic Chicken Breeding Program at UPT PT and HMT Magetan
 - a) Activities to produce domestic chicken seeds and livestock feed for UPT PT and HMT Magetan
 - b) Services and marketing activities of domestic chicken livestock products of UPT PT and HMT Magetan
 - c) Administrative implementation activities of UPT PT and HMT Magetan
- 7. Mojosari Duck Breeding Program at UPT PT and HMT Kediri
 - a) Production of mojosari ducklings and forage forage
 - b) Service activities and marketing of Mojosari duck livestock products
 - c) Administrative implementation activities of UPT PT and HMT Kediri

8. Sapudi Sheep Breeding Program at UPT PT and HMT Jember
 - a) Production activities of sweeper sheep seeds and forage fodder
 - b) Services and marketing activities for the products of domesticated sheep
 - c) Administrative implementation activities of UPT PT and HMT Jember
9. Goat Breeding Program at UPT PT and HMT Malang
 - a) Production of goat seeds and forage fodder
 - b) Service activities and marketing of goat livestock products
 - c) Administrative implementation activities of UPT PT and HMT Malang
10. Dairy Cattle Breeding Program at UPT PT and HMT Batu
 - a) Production of dairy cows and forage livestock
 - b) Service activities and marketing of dairy cattle products
 - c) Administrative implementation activities of UPT PT and HMT Batu
11. PO Cattle Breeding Program at UPT PT and HMT Tuban
 - a) Production of PO cattle seeds and forage forage
 - b) Service activities and marketing of PO cattle products
 - c) Administrative implementation activities of UPT PT and HMT Tuban
12. Madura Cattle Breeding Program and Animal Health Services
 - a) Production of Madura cattle and forage livestock
 - b) Activities of animal health and veterinary community health services

- c) Administrative Implementation Activities of UPT PT and Keswan Madura
13. Artificial Insemination Birth Improvement Program
- a) Artificial Insemination Service Activities (INTAN SELAKSA)
 - b) Reproductive biotechnology activities
 - c) Administrative implementation activities of UPT Artificial Insemination
14. Malang Animal Health Laboratory Service Program
- a) Service Activities of the Malang Veterinary Public Health Laboratory
 - b) Health Service of Malang Animal Health Laboratory
 - c) Administrative implementation activities of UPT Keswan Malang Laboratory
15. Tuban Animal Health Laboratory Service Program
- a) Tuban Veterinary Public Health Laboratory Service Activities
 - b) Animal health laboratory service activities in Tuban
 - c) Administrative implementation activities of UPT Kewan Kewan Laboratory in Tuban
16. Dairy Agribusiness Improvement Program
- a) Activities to Strengthen Dairy Cattle Breeding
 - b) Strengthening activities for dairy farming centers

CHAPTER III

IMPLEMENTATION OF PRACTICAL WORK

Implementation of Practical Work consists of Time and Place of Practical Work; Methodology for Completion of Special Tasks consisting of a literature review, data sources and research variables, and analysis steps.

3.1 Time and Place of Practical work

The Practical Work lasts for one month at the East Java Livestock Services. Practical work was carried out from 6 July 2022 to 12 August 2022.

Place : The East Java Livestock Services
Address : Jl. Ahmad Yani No. 202, Gayungan, Kec. Gayungan, Kota SBY, Jawa Timur 60235
Division : Preparation of Programs and Budgets

Practical Work Activities are carried out Work from Office. Students are given the task of obtaining data from the relevant ODP, as well as making an analysis using descriptive statistics and graphical visualization as well as providing an interpretation of the processed data. By knowing the statistical activities in OPD, it is hoped that practical work students can assist in preparing recommendations for statistical activities and inputting recommendations. The statistical recommendations submitted will receive an evaluation from the BPS of East Java Province as the data supervisor. After the BPS approves the statistical recommendations, practical work students can assist OPD in compiling statistical metadata, both MS-Activities, MS Indicators, and MS-Variables. In the final stage of practical work, students are given a project to make articles and infographics using sectoral data obtained from OPD.

Articles and infographics are then submitted to supervisors from BPS. After that, it is followed by writing reports on the results of practical work as a complement to reports for the benefit of related subjects.

Table 3.1 Schedule details of Practical Work Activities

No	Date	Activity
1	4-5 July	Activity preparation (overview and technical briefing)
2	6 July	General introduction to OPD
3	7 - 12 July	Identify statistical activities
4	11 - 22 July	Develop recommendations for statistical activities
5	14- 22 July	Enter recommendations
6	22 July	Perform evaluation of statistical recommendations
7	18 - 29 July	Compile statistical metadata (MS-Keg, MS-Ind and MS-Var)
8	25 July -3 August	OPD sectoral data collection (starting in 2019)
9	3 August	Submit the KP results to the companion
10	4-9 August	Create sectoral data infographics

3.2 Methodology for Completion of Tasks

The following are the stages of the research and the methods used to carry out clustering analysis on the potential of biogas producing areas in East Java.

3.2.1 Preliminary Stage

A. Literature Study

Literature study aims to obtain information to support the research conducted. The literature study used to support this research comes from previous research reports, the internet, journals and other library materials related to the research topic. This literature study includes understanding concepts, theories, and methods related to clustering methods.

B. Problem Identification

The purpose of identifying the problem is to know and understand the problem being studied. After conducting a field study and getting a clear picture of the problems that occur, the researchers were able to identify the problem, namely regarding the clustering analysis of potential biogas producing areas that can be used to supply independent energy in East Java.

C. Formulation of the Problem

After identifying the problem, then proceed to the problem formulation stage. Formula the problem is the details of the problem being studied and shows the purpose of the problem put forward in this study.

D. Research Purposes

Research objectives are things to be achieved. This stage is carried out based on the formulation of the problem that has been described previously. Setting goals is intended so that researchers can focus on the problem to be studied, so that research can be carried out systematically and does not deviate from the problems to be studied. In addition to the research objectives needed to measure the success of a study.

3.2.2 Data Source

Data collection is the process of recording things or information or descriptions or characteristics of some or all elements of the population that support and support research. The data collection stage was carried out to collect all the data representative of the actual condition of the system as well as related to problems and the purpose of the research conducted.

The data collected in this study were obtained from secondary data. Secondary data used in this study include data on the number of livestock populations in all districts and cities in East Java in 2021, data on the amount of cattle and chicken waste produced per day, data on the amount of gas production from cattle and chicken waste and average data -the average use of lpg fuel in one household in East Java.

3.2.3 Data Processing and Analysis

The data that has been collected will then be processed and analyzed, the steps and processing as follows :

1. Biogas Potential Data Processing Using Cluster Analysis

This stage aims to group 38 biogas producing potential areas in the East Java region into 3 clusters namely high potential clusters, medium potential clusters, and low potential clusters. The cluster analysis method used is the non-hierarchical method (K-Means) with the help of SPSS software.

2. Analysis and Discussion

The analysis and discussion phase are carried out after the data processing stage has been completed. The analysis and discussion stage are carried out by

interpreting the results of the cluster analysis which contains which districts and cities have the potential to produce biogas which of course can become recommendations and input for related parties for subsequent decision making.

CHAPTER IV

PRACTICAL WORK RESULT

4.1 Livestock Population in the Province of East Java

Livestock is the cultivation of livestock with all life support facilities. Livestock is one of the main components in the analysis of the potential of biogas as a new renewable fuel source. The biogas technology which will later be used as fuel comes from processed livestock waste. Logically, the more livestock population, the more livestock waste that will be produced. Livestock population is the number of livestock living in an area during a year. The livestock population in East Java Province is fluctuating with an increasing and decreasing trend from year to year. Based on data compiled by the Central Bureau of Statistics for East Java Province, livestock populations, especially chicken and cattle populations, in 38

districts and cities spread across the province of East Java vary greatly from one district/city to another.

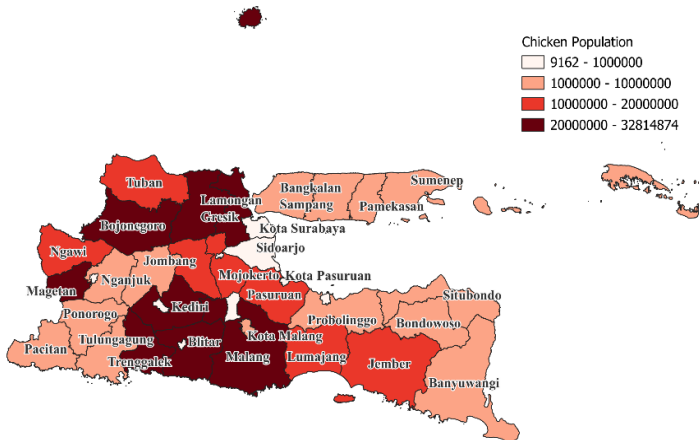


Figure 4.1 Cartogram of Chicken Population

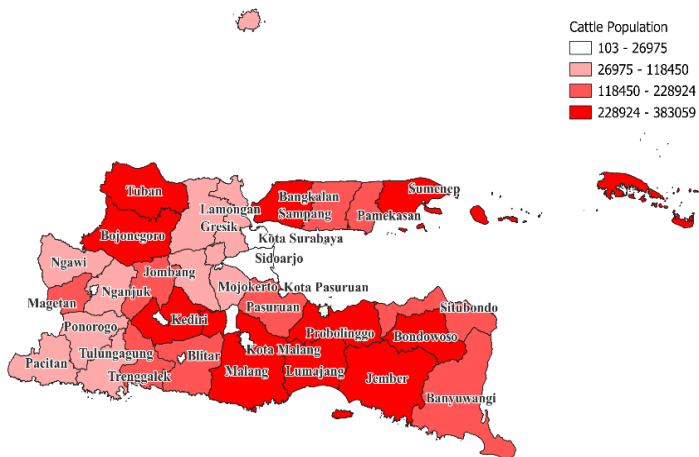


Figure 4.2 Cartogram of Cattle Population

From the figure above, several districts/cities have both high populations on cattle and chicken, such as Malang District, Malang City, Kediri District, and Bojonegoro District. Several districts/cities have both low populations on cattle and chicken, such as Surabaya City and Sidoarjo District, they might be low in population of livestock because those two areas have lots of buildings and being the center of life in East Java Province.

4.2 Analysis of Biogas Potential Level in East Java Province

Biogas is a natural gas fuel produced from the breakdown of organic materials including animal and human waste, and household organic waste by anaerobic bacteria and used in energy production. In this analysis, biogas is produced by livestock waste of cattle and chickens. The formation of biogas begins with the collection of livestock feces into an airtight tank called a digester. Inside the digester, the dirt is digested and fermented by bacteria which produces methane gas and other gasses. The gas arising from this process is accommodated in the digester. This buildup of gas is called biogas, a gas that can be used as a new fuel.

In a biogas installation, there is always a reactor or digester. The reactor is a closed room that is used as a storage medium for manure for several days to produce gas which is stored with the manure which is then called biogas. Of the several types of biogas digesters that are often used are the fixed-dome type and the floating drum type. Biogas production systems are distinguished according to the method of filling the raw materials, namely bulk filling and raw materials, namely bulk filling and continuous filling. What is meant by a bulk filling system is a way of replacing digested material from the digester

tank after biogas production has stopped, and then filling in new raw materials. Meanwhile, what is meant by continuous filling is that the filling of raw materials into the digestive tank is carried out continuously (every day) three to four weeks after the initial filling, without having to remove the digested material.

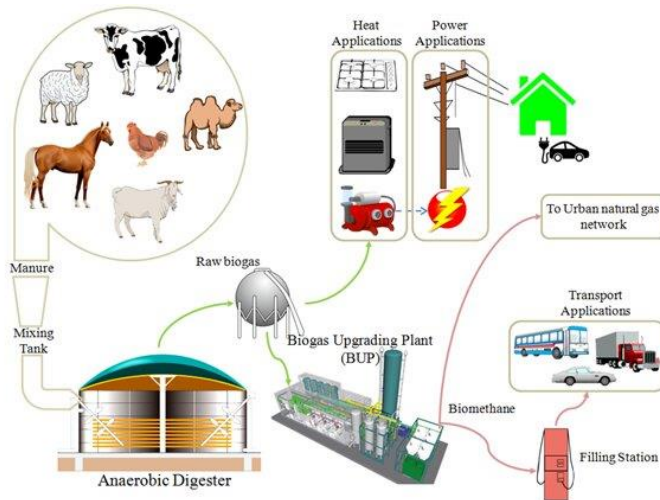


Figure 4.3 Scheme of Utilization of Biogas from Livestock Waste

In the picture above, the scheme for utilizing biogas from cattle and chicken waste, both for use in household, agriculture and as a source of electrical energy.

The first step to calculate the potential of biogas in each district/city in East Java Province is to find out the average amount of animal waste that can be produced by cattle and chickens in 1 day. The data was obtained from research entitled Biogas by Wahyuni (2009) in the following Table 4.1.

Table 4.1 The Average Amount of Animal Waste

Livestock	Solid Waste (kg/day)	Liquid Waste (Liter/day)
Cattle	25	9.07
Chicken	0.05	-

According to research conducted by Wahyuni (2009), one cattle will produce 25 kg of solid waste/day. Of the 25 kg of waste, if it is converted into biogas, it will be able to produce biogas of approximately 1 m³/day with full details in the following Table 4.2.

Table 4.2 The Biogas Production of Animal Waste per Kg

Livestock	Biogas Production per Kg waste (m ³)	Biogas Production per Kg waste (m ³)	Median Value
Cattle	0.023	0.04	0.0315
Chicken	0.065	0.116	0.0905

After knowing the amount of biogas potential in each district/city per day (m³), then we can proceed the analysis to understand which district/city in East Java Province are included in areas with very high, high, medium, or low potential of biogas.

4.3 Cattle and Chicken Waste in East Java Province

After knowing the total livestock population in 38 districts/cities spread across the province of East Java which is described in Attachment 1 and the amount of waste produced by cattle and chicken per day which is described in Table 4.1, the next step is to calculate the total volume of cattle and chickens' waste in East Java Province for one year by multiplying the total livestock population by the amount of waste produced by livestock per day and the number of days in one year. For example, to get the value of the volume of cattle waste in Pacitan District, it is obtained from 96,793 (total population) x 25 (amount of cattle waste per day) x 365 (number of days in one year) and the results of the volume of cattle waste in Pacitan District are 883,236.125 kgs. This calculation also applies to other districts/cities with the full information is in Attachment 2.

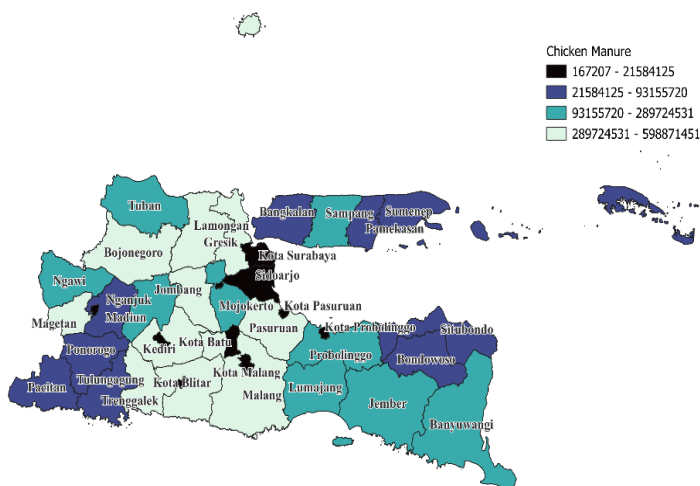


Figure 4.3 Cartogram of Chicken Waste

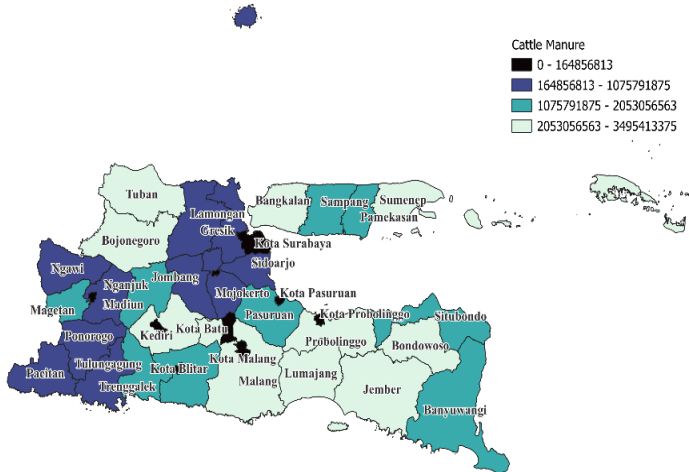


Figure 4.4 Cartogram of Cattle Waste

4.4 Biogas Potential from Cattle and Chicken Waste in East Java Province

After the livestock waste has been identified, the amount of cattle and chicken waste in each district which is still in kg units is converted into m^3 units of biogas to determine the biogas potential in each area of East Java Province. The conversion value used is the median value of each type of waste which can be seen in Table 4.2. The full information of the total biogas production potential for each area in East Java Province can be seen in Attachment 3.

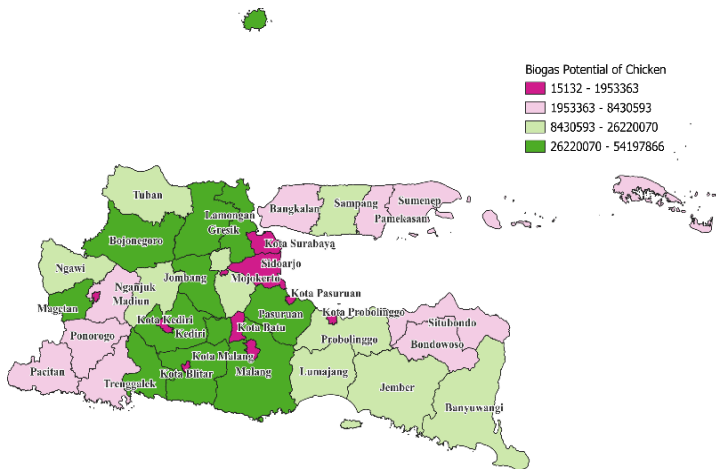


Figure 4.6 Cartogram of Biogas Potential from Chicken Waste (m^3)

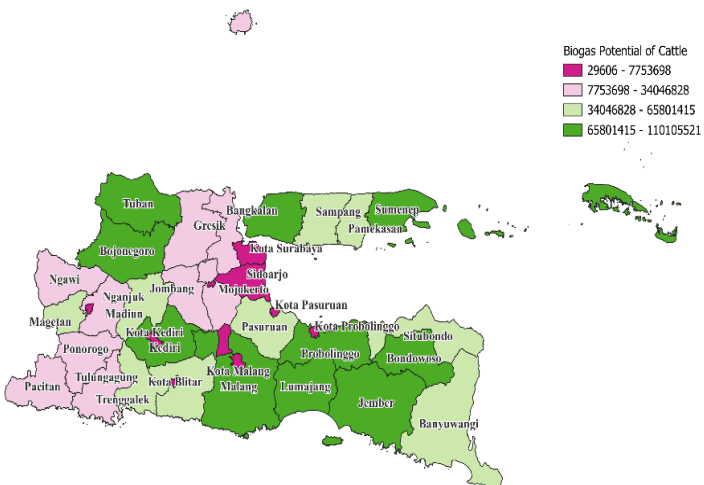


Figure 4.5 Cartogram of Biogas Potential from Cattle Waste (m^3)

4.5 Converting the Biogas Production Potential into Electrical Energy

The potential electrical energy is obtained from each chicken and cattle biogas potential. Based on Department of Agriculture sources, to find out the conversion of biogas into other energy, as in electrical energy, can be seen in the following table:

Table 4.3 The Usage of 1 m³ Biogas

Usage	1 m ³ Biogas
Description	Lamp 60-100 W for 6 hours
Cooking	Cook 3 types of meals for 5-6 people
Power	Running a 1 hp motor for 2 hours
Electricity	4.7 kWh of electrical energy

Source: Abderezzak (2017)

After the conversion of biogas potential into electrical energy, the full information is in Attachment 4, now we can understand which district/city has the most potential of biogas with the largest electric energy can be produced. The top five districts/cities with the most potential of biogas and the largest electric energy can be produced from cattle waste are Sumenep District, Tuban District, Malang District, Probolinggo District, and Bangkalan District. These districts can produce electrical energy in average for around 452,925,915.4 kWh per day. The top five districts/cities with the most potential of biogas and the largest electric energy can be produced from chicken waste are Malang District, Bojonegoro District, Lamongan District, Blitar District, and Magetan District. These districts can

produce electrical energy in average for around 219,264,263.1 kWh per day. The top five districts/cities with the most potential of biogas and the largest electric energy can be produced from the total of cattle waste and chicken waste are Malang District, Tuban District, Bojonegoro District, Sumenep District, and Kediri District. These districts can produce electrical energy in average for around 583,984,887.8 kWh per day. The least five districts/cities with the least potential of biogas and the smallest electric energy can be produced from the total of cattle waste and chicken waste are Mojokerto City, Surabaya City, Madiun City, Pasuruan City, and Kediri City. These districts can only produce electrical energy in average for around 2,104,077.961 kWh per day.

CHAPTER V

CONCLUSION & RECOMMENDATIONS

5.1 Conclusion

The conclusions drawn from the discussion in this report are as follows:

1. The results of the project while undergoing KP at the Livestock Service Office of East Java Province helped the author to gain direct work experience and adapt to the world of work in an OPD.
2. The handling of all problems or projects at the Livestock Service Office of East Java Province is carried out jointly through the existing team with the aim that everything goes well and smoothly.
3. The internship activity lasts for one month from 4 July – 12 August 2022. This activity is carried out offline at the Livestock Service Office of East Java Province in Surabaya. The author's contribution to this KP is to collect the required data, analyze and visualize it. In its implementation, input from mentors and other apprentices is taken into consideration by the author for the implementation of the KP analysis results.
4. In implementing the Practical Work program, the authors gained a lot of real knowledge in applying the knowledge gained in college, so that it can be applied optimally and optimally when carrying out internships. In addition, this program is a means for students to get to know the real world of work as well as get to know the environment and working conditions that students will face after graduating from college. This Practical Work activity teaches that in the world of work it takes responsibility, thoroughness, high patience for all the

work done and discipline in following work regulations and time discipline is our responsibility so that the tasks given can be completed properly and on time.

5. The top five districts/cities with the most potential of biogas and the largest electric energy can be produced from cattle waste are Sumenep District, Tuban District, Malang District, Probolinggo District, and Bangkalan District. These districts can produce electrical energy in average for around 452,925,915.4 kWh per day. The top five districts/cities with the most potential of biogas and the largest electric energy can be produced from chicken waste are Malang District, Bojonegoro District, Lamongan District, Blitar District, and Magetan District. These districts can produce electrical energy in average for around 219,264,263.1 kWh per day. The top five districts/cities with the most potential of biogas and the largest electric energy can be produced from the total of cattle waste and chicken waste are Malang District, Tuban District, Bojonegoro District, Sumenep District, and Kediri District. These districts can produce electrical energy in average for around 583,984,887.8 kWh per day. The least five districts/cities with the least potential of biogas and the smallest electric energy can be produced from the total of cattle waste and chicken waste are Mojokerto City, Surabaya City, Madiun City, Pasuruan City, and Kediri City. These districts can only produce electrical energy in average for around 2,104,077.961 kWh per day.

5.2 Recommendation

The advice that we can give, both for partners and apprentices, is as follows, namely for the next position in the next Practical

Work, it is hoped that it will improve and develop what the author has done by taking into account the good synergy with apprentices in other fields and the Livestock Service Office of East Java Province in Surabaya as partners so that it can create better performance results and provide added value to stakeholders so that the targets that have been set are achieved. Biogas power plants using cattle and chicken waste are feasible to be developed in districts that have high biogas potential in East Java Province so that they can add new sources of energy for electricity.

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ATTACHMENT

Attachment 1. The Livestock Population in East Java Province in 2021.

No	District/City	Cattle Population	Chicken Population
1	Kab. Pacitan	96,793	2,263,917
2	Kab.Ponorogo	95,064	4,830,095
3	Kab.Trenggalek	45,459	3,858,696
4	Kab.Tulungagung	170,300	23,497,159
5	Kab.Blitar	173,469	26,310,760
6	Kab.Kediri	244,990	22,646,068
7	Kab.Malang	334,677	32,814,874
8	Kab.Lumajang	232,856	14,301,871
9	Kab.Jember	275,699	15,858,762
10	Kab.Banyuwangi	135,018	7,044,406
11	Kab.Bondowoso	237,420	3,262,546
12	Kab.Situbondo	182,140	1,674,787
13	Kab.Probolinggo	327,412	5,622,423
14	Kab.Pasuruan	214,780	19,404,839
15	Kab.Sidoarjo	20,814	801,175

16	Kab.Mojokerto	52,640	12,039,863
17	Kab.Jombang	79,727	15,880,835
18	Kab.Nganjuk	143,700	6,742,837
19	Kab.Madiun	65,890	4,648,923
20	Kab.Magetan	119,004	25,421,663
21	Kab.Ngawi	85,922	12,068,248
22	Kab.Bojonegoro	258,585	28,865,384
23	Kab.Tuban	354,681	15,783,687
24	Kab.Lamongan	117,895	27,817,837
25	Kab.Gresik	59,758	25,241,429
26	Kab.Bangkalan	276,487	2,018,449
27	Kab.Sampang	217,129	5,378,751
28	Kab.Pamekasan	194,308	2,039,203
29	Kab.Sumenep	383,059	1,766,211
30	Kota Kediri	4,196	282,861
31	Kota Blitar	4,252	770,028
32	Kota Malang	2,918	1,018,660
33	Kota Probolinggo	11,169	186,137
34	Kota Pasuruan	472	56,205

35	Kota Mojokerto	103	15,700
36	Kota Madiun	219	58,340
37	Kota Surabaya	371	9,162
38	Kota Batu	15,319	645,185

Attachment 2. The Total Volume of Cattle and Chicken Waste

No	District/City	Cattle Waste Volume in a Year (kg)	Chicken Waste Volume in a Year (kg)
1	Kab. Pacitan	883,236,125.00	41,316,485.25
2	Kab.Ponorogo	867,459,000.00	88,149,233.75
3	Kab.Trenggalek	414,813,375.00	70,421,202.00
4	Kab.Tulungagung	1,553,987,500.00	428,823,151.75
5	Kab.Blitar	1,582,904,625.00	480,171,370.00
6	Kab.Kediri	2,235,533,750.00	413,290,741.00
7	Kab.Malang	3,053,927,625.00	598,871,450.50
8	Kab.Lumajang	2,124,811,000.00	261,009,145.75
9	Kab.Jember	2,515,753,375.00	289,422,406.50
10	Kab.Banyuwangi	1,232,039,250.00	128,560,409.50
11	Kab.Bondowoso	2,166,457,500.00	59,541,464.50

12	Kab.Situbondo	1,662,027,500.00	30,564,862.75
13	Kab.Probolinggo	2,987,634,500.00	102,609,219.75
14	Kab.Pasuruan	1,959,867,500.00	354,138,311.75
15	Kab.Sidoarjo	189,927,750.00	14,621,443.75
16	Kab.Mojokerto	480,340,000.00	219,727,499.75
17	Kab.Jombang	727,508,875.00	289,825,238.75
18	Kab.Nganjuk	1,311,262,500.00	123,056,775.25
19	Kab.Madiun	601,246,250.00	84,842,844.75
20	Kab.Magetan	1,085,911,500.00	463,945,349.75
21	Kab.Ngawi	784,038,250.00	220,245,526.00
22	Kab.Bojonegoro	2,359,588,125.00	526,793,258.00
23	Kab.Tuban	3,236,464,125.00	288,052,287.75
24	Kab.Lamongan	1,075,791,875.00	507,675,525.25
25	Kab.Gresik	545,291,750.00	460,656,079.25
26	Kab.Bangkalan	2,522,943,875.00	36,836,694.25
27	Kab.Sampang	1,981,302,125.00	98,162,205.75
28	Kab.Pamekasan	1,773,060,500.00	37,215,454.75
29	Kab.Sumenep	3,495,413,375.00	32,233,350.75
30	Kota Kediri	38,288,500.00	5,162,213.25

31	Kota Blitar	38,799,500.00	14,053,011.00
32	Kota Malang	26,626,750.00	18,590,545.00
33	Kota Probolinggo	101,917,125.00	3,397,000.25
34	Kota Pasuruan	4,307,000.00	1,025,741.25
35	Kota Mojokerto	939,875.00	286,525.00
36	Kota Madiun	1,998,375.00	1,064,705.00
37	Kota Surabaya	3,385,375.00	167,206.50
38	Kota Batu	139,785,875.00	11,774,626.25

Attachment 3. The Conversion of Livestock Waste into Biogas

District/City	Total Biogas Potential from Cattle Waste (m ³)	Total Biogas Potential from Chicken Waste (m ³)
Kab. Pacitan	27,821,937.94	3,739,141.92
Kab.Ponorogo	27,324,958.50	7,977,505.65
Kab.Trenggalek	13,066,621.31	6,373,118.78
Kab.Tulungagung	48,950,606.25	38,808,495.23
Kab.Blitar	49,861,495.69	43,455,508.99
Kab.Kediri	70,419,313.13	37,402,812.06

Kab.Malang	96,198,720.19	54,197,866.27
Kab.Lumajang	66,931,546.50	23,621,327.69
Kab.Jember	79,246,231.31	26,192,727.79
Kab.Banyuwangi	38,809,236.38	11,634,717.06
Kab.Bondowoso	68,243,411.25	5,388,502.54
Kab.Situbondo	52,353,866.25	2,766,120.08
Kab.Probolinggo	94,110,486.75	9,286,134.39
Kab.Pasuruan	61,735,826.25	32,049,517.21
Kab.Sidoarjo	5,982,724.13	1,323,240.66
Kab.Mojokerto	15,130,710.00	19,885,338.73
Kab.Jombang	22,916,529.56	26,229,184.11
Kab.Nganjuk	41,304,768.75	11,136,638.16
Kab.Madiun	18,939,256.88	7,678,277.45
Kab.Magetan	34,206,212.25	41,987,054.15
Kab.Ngawi	24,697,204.88	19,932,220.10
Kab.Bojonegoro	74,327,025.94	47,674,789.85
Kab.Tuban	101,948,619.94	26,068,732.04
Kab.Lamongan	33,887,444.06	45,944,635.04
Kab.Gresik	17,176,690.13	41,689,375.17

Kab.Bangkalan	79,472,732.06	3,333,720.83
Kab.Sampang	62,411,016.94	8,883,679.62
Kab.Pamekasan	55,851,405.75	3,367,998.65
Kab.Sumenep	110,105,521.31	2,917,118.24
Kota Kediri	1,206,087.75	467,180.30
Kota Blitar	1,222,184.25	1,271,797.50
Kota Malang	838,742.63	1,682,444.32
Kota Probolinggo	3,210,389.44	307,428.52
Kota Pasuruan	135,670.50	92,829.58
Kota Mojokerto	29,606.06	25,930.51
Kota Madiun	62,948.81	96,355.80
Kota Surabaya	106,639.31	15,132.19
Kota Batu	4,403,255.06	1,065,603.68

Attachment 4. Converting the Biogas Potential into Electrical Energy

District/City	Potential electricity generated from cattle waste biogas (kWh/day)	Potential electricity generated from chicken waste biogas (kWh/day)	Total Potential electricity generated from chicken waste biogas (kWh/day)
Kab. Pacitan	130763108.3	17573967.02	148337075.3

Kab.Ponorogo	128427305	37494276.56	165921581.6
Kab.Trenggalek	61413120.16	29953658.27	91366778.43
Kab.Tulungagung	230067849.4	182399927.6	412467777
Kab.Blitar	234349029.7	204240892.3	438589922
Kab.Kediri	330970771.7	175793216.7	506763988.4
Kab.Malang	452133984.9	254729971.5	706863956.4
Kab.Lumajang	314578268.6	111020240.1	425598508.7
Kab.Jember	372457287.2	123105820.6	495563107.8
Kab.Banyuwangi	182403411	54683170.18	237086581.2
Kab.Bondowoso	320744032.9	25325961.94	346069994.8
Kab.Situbondo	246063171.4	13000764.38	259063935.8
Kab.Probolinggo	442319287.7	43644831.63	485964119.3
Kab.Pasuruan	290158383.4	150632730.9	440791114.3
Kab.Sidoarjo	28118803.41	6219231.102	34338034.51
Kab.Mojokerto	71114337	93461092.03	164575429
Kab.Jombang	107707688.9	123277165.3	230984854.2
Kab.Nganjuk	194132413.1	52342199.35	246474612.5
Kab.Madiun	89014507.34	36087904.02	125102411.4

Kab.Magetan	160769197.6	197339154.5	358108352.1
Kab.Ngawi	116076862.9	93681434.47	209758297.4
Kab.Bojonegoro	349337021.9	224071512.3	573408534.2
Kab.Tuban	479158513.7	122523040.6	601681554.3
Kab.Lamongan	159270987.1	215939784.7	375210771.8
Kab.Gresik	80730443.61	195940063.3	276670506.9
Kab.Banghalan	373521840.7	15668487.9	389190328.6
Kab.Sampang	293331779.6	41753294.21	335085073.8
Kab.Pamekasan	262501607	15829593.66	278331200.7
Kab.Sumenep	517495950.2	13710455.73	531206405.9
Kota Kediri	5668612.425	2195747.41	7864359.835
Kota Blitar	5744265.975	5977448.25	11721714.23
Kota Malang	3942090.361	7907488.304	11849578.67
Kota Probolinggo	15088830.37	1444914.044	16533744.41
Kota Pasuruan	637651.35	436299.026	1073950.376
Kota Mojokerto	139148.482	121873.397	261021.879
Kota Madiun	295859.407	452872.26	748731.667
Kota Surabaya	501204.757	71121.293	572326.05
Kota Batu	20695298.78	5008337.296	25703636.08

Attachment 5 Letter of Acceptance of Practical Work



PEMERINTAH PROVINSI JAWA TIMUR
DINAS KOMUNIKASI DAN INFORMATIKA
Jl.A.Yani No. 242 – 244 Surabaya, Telp.(031)8294608; Fax. (031) 8294517
Website : kominfo.jatimprov.go.id
Email : kominfo@jatimprov.go.id
SURABAYA 60235

SURAT PERINTAH TUGAS

Nomor : 094/ 1363 /114.6/2022

- Dasar :
1. Peraturan Daerah Provinsi Jawa Timur Nomor 5 tahun 2021 tanggal 31 Desember 2021 tentang Anggaran Pendapatan dan Belanja Daerah Provinsi Jawa Timur Tahun Anggaran 2022;
 2. Peraturan Gubernur Jawa Timur Nomor 55 Tahun 2021 tentang Pedoman Kerja dan Pelaksanaan Tugas Pemerintah Daerah Provinsi Jawa Timur Tahun 2022;
 3. Peraturan Gubernur Jawa Timur Nomor 116 Tahun 2021 tanggal 31 Desember 2021 tentang Penjabaran Anggaran Pendapatan dan Belanja Daerah Provinsi Jawa Timur Tahun Anggaran 2022;
 4. Keputusan Gubernur Jawa Timur Nomor A.1/2.16.2.20.2.21.04.0000/001/2022 tanggal 1 Januari 2022 tentang Penetapan Dokumen Pelaksanaan Anggaran Satuan Kerja Perangkat Daerah (DPA-SKPD) Dinas Komunikasi dan Informatika Provinsi Jawa Timur Tahun Anggaran 2022.

MEMERINTAHKAN :

- Kepada :
- | | | | |
|-------------------|---|---|------------------|
| 1. Nama Staf | : | } | Daftar terlampir |
| NIP | : | | |
| Pangkat/Gol | : | | |
| 2. Nama Mahasiswa | : | | |
| NRP | : | | |

- Untuk : Melaksanakan Pendampingan Kegiatan Kerja Praktik Mahasiswa Institut Teknologi Sepuluh Nopember (ITS) Surabaya kepada Perangkat Daerah di Lingkungan Pemerintah Provinsi Jawa Timur, pada tanggal 6 Juli s.d. 12 Agustus 2022.

Surabaya, 5 Juli 2022

KEPALA DINAS KOMUNIKASI DAN INFORMATIKA
PROVINSI JAWA TIMUR

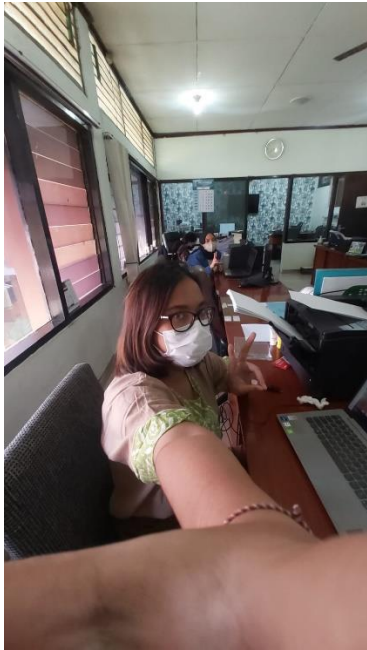


Dr. H. HUDIYONO, M.Si
Pembina Utama Muda
NIP. 19640323 198503 1 010

**DAFTAR NAMA MAHASISWA KEGIATAN KERJA PRAKTIK
INSTITUT TEKNOLOGI SEPULUH NOPEMBER (ITS) SURABAYA**

Team	No	Nama	NRP	Keterangan
1	1	Hafez Afghan	06211940000018	Inspektorat
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2	3	Dewi Musaani Oihu	06211940000015	Sekretariat DPRD
	4	Gannisa Sekar Adiya	06211940000040	
3	5	Adhista Widya Nandasari	06211940000030	Dinas Pemberdayaan Perempuan, Perlindungan Anak dan Kependudukan Provinsi Jawa Timur
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4	7	Edwina Maheswari Paramesti	06211940000058	Dinas Kesehatan Prov. Jawa Timur
	8	Salsabila Naqiyah	06211940000044	
5	9	Farhan Aula Rahman	06211940000043	Dinas Kepemudaan dan Olahraga Provinsi Jawa Timur
	10	Ivana Irma Defi	06211940000114	
6	11	Denny Firmansyah	06211940000093	Dinas Pemberdayaan Masyarakat dan Desa Provinsi Jawa Timur
	12	Puspa Arum Sari	06211940000101	
7	13	Evika Aisyah Yasmin	06211940000137	Dinas Tenaga Kerja dan Transmigrasi Prov. Jawa Timur
	14	Reka Manika Insani	06211940000143	
8	15	Prasasti Arika Widya	06211940000150	Dinas Pendidikan Provinsi Jawa Timur
	16	Nur Addawiah D. Rabbah	06211940007004	
9	17	Natasya Shantika Azhami	06211940000053	Dinas Perumahan Rakyat, Kawasan Permukiman dan Cipta Karya Prov. Jawa Timur
	18	Nur Farahizam Sari Harahap	06211940007003	
10	19	Sayyid Nur Cahyo Abdul Jalil	06211940000089	Dinas Kehutanan Provinsi Jawa Timur
	20	Adani Nauval Prijantoro	06211940000111	
11	21	Dinda Nuranisa Rahmadanty	06211940000033	Dinas Energi dan Sumber Daya Milenial Provinsi Jawa Timur
	22	Adelia Nur Asmaria	06211940000081	
12	23	Firyal Almasah Kamilia Sartono	06211942000005	Dinas Kelautan dan Perikanan Provinsi Jawa Timur
	24	Safitri Paras Shadira	06211942000009	
13	25	Megawati R. Sitorus	06211940000050	Dinas Perkebunan Provinsi Jawa Timur
	26	Ovid First Own Damanik	06211940000031	
14	27	Adhelia Karenina	06211942000004	Dinas Peternakan Prov. Jawa Timur
	28	Rachel Gracia Simatupang	06211942000002	
15	29	Wedho Genosis	06211940000077	Dinas Pertanian dan Ketahanan Pangan Provinsi Jawa Timur
	30	Aliisa Novitasari	06211940000134	
16	31	Jonathan Mangasi Sitorus	06211940000126	Dinas Pekerjaan Umum dan Bina Marga Provinsi Jawa Timur
	32	Yohanes Kristianto Pratisto	06211940000133	
17	33	Surotin Najikhah	06211940000097	Dinas Pekerjaan Umum Sumber Daya Air Provinsi Jawa Timur
	34	Salsa Salsabila	06211940000072	
18	35	Shinta Nuriyah Arief	06211940000138	Dinas Kebudayaan dan Pariwisata Provinsi Jawa Timur
	36	Fimadasa Blesofi Fikansa	06211940000142	
19	37	Latifatuz Zulfa	06211940000144	Dinas Perhubungan Provinsi Jawa Timur
	38	Natasya	06211940000104	
20	39	Yanuar Dwi Aunurrofiki	06211940000010	Dinas Perindustrian dan Perdagangan Prov Jawa Timur
	40	Irfan Nur Hanif Khoinullah	06211940000061	

Attachment 6 Evidence of Practical Work Activity Adhelia Karenina





Attachment 7 Evidence of Practical Work Activity Adhelia Karenina

Rekomendasi Kompromin Rekomendasi Saya

Daftar Rekomendasi Yang Saya Ajukan

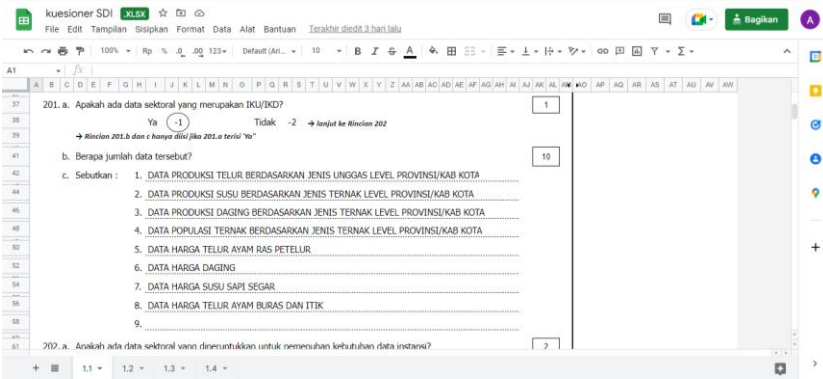
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No	Judul	Waktu Pengajuan	Status Rekomendasi	Nomor Rekomendasi	Surat Rekomendasi	Surat Ketidaklayakan	Waktu Divalidasi	File pendukung	Aksi
1	Pengumpulan Data Pokok Ternak Level Provinsi/Kab Kota Jawa Timur	08 Agustus 2022 Pukul 12:06	BELUM DIVALIDASI	--	--	--	--	 File pendukung	

Attachment 8 Evidence of Practical Work Activity Rachel Gracia S.



Attachment 9 Evidence of Practical Work Activity Rachel Gracia S.



Attachment 10 Evidence of Activity in the Company Adhelia Karenina

	PROGRAM STUDI SI STATISTIKA FSAD-ITS			F-A
	<i>Undergraduate Program Department Of Statistics FSAD -ITS</i>			
Bukti Kegiatan di Perusahaan <i>Evidence of Activity in the Company</i>				
KP-S1-07	Curriculum 2018 , May 2019 Ed	Revision Number : 01	Code/sks : KS184721 / (0/0/2)	Page : 1 of 1

Nama Mahasiswa / Student Name	: Adhelia Karenina
NRP / Student Identity Number	: 06211942000004
Nama Perusahaan/ Company Name	: Dinas Peternakan Provinsi Jawa Timur
Unit Kerja/Work Unit	: Subsubstansi Penyusunan Program dan Anggaran
Nama Pembimbing / Supervisor Name	: M. Nuril Musyaffi
Waktu Kerja Praktek/ Practical Work time	: 08.00 – 16.00
Waktu Pelaksanaan/ Execution Time	: 6 Juli – 12 Agustus 2022

No	Tanggal Date	Waktu /Time		Kegiatan Activity	TT PL /CSS ¹⁾
		Start	Finish		
1	6 Juli 2022	08.00	16.00	Melapor ke bagian TU di OPD Dinas Peternakan Provinsi Jatim	8
2	11 Juli 2022	08.00	16.00	Pengenalan OPD dan mulai mengidentifikasi data kegiatan statistik sektoral di Dinas Peternakan Provinsi Jatim	8
3	12-15 Juli 2022	08.00	16.00	Mengidentifikasi data kegiatan sektoral di Dinas Peternakan Provinsi Jatim	8
4	18-21 Juli 2022	08.00	16.00	Menyusun Kuesioner SDI	8
5	25-29 Juli 2022	08.00	16.00	Menyusun Formulir Pemberitahuan Kompilasi Produk Administrasi (FP-KPA)	8
6	1-8 Agustus 2022	08.00	16.00	Mengisi ROMANTIK Online	8
7	9-12 Agustus 2022	08.00	16.00	Menyusun infografis dari data sektoral yang tersedia	8
8					
9					
10					

**1) Setiap paraf harus disertai stempel perusahaan/ Each initials must be accompanied by the company stamp*
 TTPL= Tanda tangan pembimbing Lapangan/Company Supervisor Signature (CSS)

Form F-A merupakan bukti bahwa mahasiswa telah mengikuti kegiatan di perusahaan tempat KP. Formulir ini diampirkan di laporan Kerja Praktek sebagai bukti telah melaksanakan Kerja Praktek.
 F-A Form is evidence that the student has attended activities at the company of PW. This form is attached in report as evidence has been carrying out Practical Work

Surabaya, 26 Juni 2023
 Mengetahui
 Subkoordinator Subsubstansi Penyusunan Program dan Anggaran¹⁾

(Siti Asiyah, S.H., M.M.)
 NIP. 19660320 199503 2 002

D-1	D-2	F-1	F-2	F-3	F-4	F-A ✓	F-B	F-C	F-D	F-E
SOP of PW	Practical Work Report Writing Form	Formulir filing request letter PW	Letter of PW request to the Company	Letter reply from the company	PW proposal supervising form	Activity form in the Company	PW supervising form	PW Company Assessment form	Assessment of Report Form	Poster Assessment



Attachment 11 Evidence of Activity in the Company Rachel Gracia S.





	PROGRAM STUDI SI STATISTIKA FSAD-ITS <i>Undergraduate Program Department Of Statistics FSAD -ITS</i>			F-A
	Bukti Kegiatan di Perusahaan <i>Evidence of Activity in the Company</i>			
KP-S1-07	Curriculum 2018 , May 2019 Ed	Revision Number : 01	Code/sks : KS184721 / (0/0/2)	Page :1 of 2

Nama Mahasiswa / Student Name	: Rachel Gracia Simatupang
NRP / Student Identity Number	: 0621194200002
Nama Perusahaan / Company Name	: Dinas Peternakan Provinsi Jawa Timur
Unit Kerja / Work Unit	: Penyusunan Program dan Anggaran
Nama Pembimbing / Supervisor Name	: M. Nuril Musyaffi
Waktu Kerja Praktek / Practical Work time	: 08.00 – 16.00
Waktu Pelaksanaan / Execution Time	: 6 Juli 2022 s.d. 12 Agustus 2022


No	Tanggal Date	Waktu /Time		Kegiatan Activity	TT PL /CSS ^{*)}
		Start	Finish		
1	6 Juli 2022	08.00	16.00	Melapor ke bagian TU di OPD Dinas Peternakan Provinsi Jawa Timur	A
2	11 Juli 2022	08.00	16.00	Pengenalan OPD dan mulai mengidentifikasi data kegiatan statistik sektoral di Dinas Peternakan Provinsi Jawa Timur	A
3	12-15 Juli 2022	08.00	16.00	Mengidentifikasi data kegiatan sektoral di Dinas Peternakan Provinsi Jawa Timur	A
4	19-21 Juli 2022	08.00	16.00	Menyusun Kuesioner SDI	A
5	25-29 Juli 2022	08.00	16.00	Menyusun Formulir Pemberitahuan Kompilasi Produk Administrasi (FP-KPA).	A
6	1-8 Agustus 2022	08.00	16.00	Mengisi ROMANTIK Online	A
7	9-12 Agustus 2022	08.00	16.00	Menyusun infografis dari data sektoral yang tersedia	A
8					
9					
10					
11					

<p>*) Setiap paraf harus disertai stempel perusahaan/ Each initials must be accompanied by the company stamp TTPL= Tanda tangan pembimbing Lapangan/Company Supervisor-Signature (CSS)</p> <p>Form F-A merupakan bukti bahwa mahasiswa telah mengikuti kegiatan di perusahaan tempat KP. Formulir ini dilampirkan di laporan Kerja Praktek sebagai bukti telah melaksanakan Kerja Praktek. F-A Form is evidence that the student has attended activities at the company of PW. This form is attached in report as evidence has been carrying out Practical Work.</p>		<p>Surabaya, 26 Juni 2023 Mengetahui Subkordinator Subsubstansi Penyusunan Program dan Anggaran</p> <p>(Siti Asiyah, S.H., M.M.) NIP. 196800320 199503 2 002</p>									
<p>Proses pembelajaran di Jurusan Statistika ITS meliputi Lecture, Practical Work (PW) dan Final Project (FP). Ada 11 dokumen dalam proses Kerja Praktek, yaitu: 1) SOP (1 D1.3), Pedoman (D2), 2) Formulir pengisian Surat permohonan KP (F1), 4) Surat permohonan KP di Perusahaan (F2), 5) Surat bimbingan dari perusahaan (F3), 5) Formulir rekaman kegiatan (FA,FA,FB), 6) Formulir penilaian (F-C-D dan F-4). The learning process in the Department Statistika ITS covers Lecture, Practical Work (PW) and Final Project (FP). There are 11 documents in the process of PW, ie: 1) SOP (D1), 2) Manual (D2), 3) Form filling request letter PW (F1), 4) Letter of PW request to the Company (F2), 5) Letter reply from the company (F3), 5) Form filling recording activities (FA, FA, FB), 6) Form filling assessment (F-C, FD and FE).</p>											
D-1	D-2	F-1	F-2	F-3	F-4	F-A	✓	F-B	F-C	F-D	F-E



Attachment 12 Evidence of Practical Work Supervising Adhelia Karenina

	PROGRAM STUDI SI STATISTIKA FSAD-ITS <i>Undergraduate Program Department Of Statistics FSAD -ITS</i>			F-B						
	Bukti Pembimbingan Kerja Praktek <i>Evidence of Practical Work Supervising</i>									
KP-S1-08	Curriculum 2018 , May 2019 Ed	Revision Number : 01	Code/sks : KS184721 / (0/0/2)	Page :1 of 1						
Nama Mahasiswa /Student Name : Adhelia Karenina NRP/ Student Identity Number : 06211942000004 Nama Perusahaan/ Company Name : Dinas Peternakan Provinsi Jawa Timur Unit Kerja/Work Unit : Penyusunan Program dan Anggaran Nama Pembimbing / Supervisor Name : Prof. Dr.rer.pol. Heri Kuswanto, S.Si., M.Si. Waktu Kerja Praktek/ Practical Work time : 08.00 – 16.00										
No	Tanggal Date	Materi yang dibahas Component Discussions	TT Pembimbing Supervisor Sign							
1	9th of June, 2023	Submission of the idea and topic of practical work to be discussed								
2	23rd of June, 2023	Adding a revision which is how biogas conversion works								
3										
4										
5										
6										
7										
Form-FB merupakan bukti bahwa mahasiswa telah melakukan pembimbingan selama pembuatan Laporan KP. Formulir ini dilampirkan di laporan Kerja Praktek. Bimbingan KP Minimal 5 kali. FB Form is evidence that the student has been supervising for report drafting of PW. This form is attached in PW report. PW guidance least 5 times.			Surabaya, 23rd of June 2023 Dosen Pembimbing KP/PW Supervisor  (Prof. Dr.rer.pol. Heri Kuswanto, S.Si., M.Si.) NIP. 19820326 200312 1 004							
Proses pembelajaran di jurusan Statistika- ITS meliputi Lecture, Practical Work (PW) dan Final Project (FP). Ada 11 Dokumen dalam proses Kerja Praktek, yaitu : 1) SOP (D1), 2) Pedoman (D2), 3) Formulir pengajuan Surat permohonan KP (F1), 4) Surat permohonan KP di Perusahaan (F2), 5) Surat balasan dari perusahaan (F3), 5) Formulir rekaman kegiatan (FA, FA, FB), 6) Formulir penilaian (F-C, F-D dan F-E). The learning process in the Department Statistika- ITS covers Lecture, Practical Work (PW) and Final Project (FP). There are 11 documents in the process of PW, ie: 1) SOP (D1), 2) Manual (D2), 3) Formulir filing request letter PW (F1), 4) Letter of PW request to the Company (F2), 5) Letter reply from the company (F3), 5) Formulir recording activities (FA, FA, FB), 6) Formulir assessment (F-C, F-D and F-E).										
D-1	D-2	F-1	F-2	F-3	F-4	F-A	F-B ✓	F-C	F-D	F-E
SOP of PW	Practical Work Report Writing Form	Formulir filing request letter PW	Letter of PW request to the Company	Letter reply from the company	PW proposal supervising form	Activity form in the Company	PW supervising form	PW Company Assessment form	Assessment of Report Form	Potter Assessment form

Attachment 13 Evidence of Practical Work Supervising Rachel Gracia S.


	PROGRAM STUDI SI STATISTIKA FSAD-ITS <i>Undergraduate Program Department Of Statistics FSAD -ITS</i>	F-B
KP-S1-08	Curriculum 2018 , May 2019 Ed	Revision Number : 01 Code/sks : KS184721 / (0/0/2)
Bukti Pembimbingan Kerja Praktek <i>Evidence of Practical Work Supervising</i>		Page :1 of 1

Nama Mahasiswa /Student Name	: Rachel Gracia simatupang
NRP/ Student Identity Number	: 0621194200002
Nama Perusahaan/ Company Name	: Dinas Peternakan Jawa timur
Unit Kerja/Work Unit	: Substansi penyusunan program dan anggaran
Nama Pembimbing / Supervisor Name	: Dr. Dra. Kartika Fithriasari, M.Si
Waktu Kerja Praktek/ Practical Work time	: 08.00 - 16.00

No	Tanggal Date	Materi yang dibahas Component Discussions	TT Pembimbing Supervisor Sign
1	12 April 2023	Bab 1 - 5 Laporan KP	
2	6 Juni 2023	Revisi bab 1 & 5 : Peng	
3			
4			
5			
6			
7			

Form-FB merupakan bukti bahwa mahasiswa telah melakukan pembimbingan selama pembuatan Laporan KP. Formulir ini dilampirkan di laporan Kerja Praktek. Bimbingan KP Minimal 5 kali.
FB Form is evidence that the student has been supervising for report drafting of PW. This form is attached in PW report. PW guidance least 5 times.

Surabaya, 5 JULI 2023
 Dosen Pembimbing KP/PW Supervisor


 (Dr. Dra. Kartika Fithriasari Msi)
 NIP. 19661212 199303 2 002

D-1	D-2	F-1	F-2	F-3	F-4	F-A	F-B ✓	F-C	F-D	F-E
SOP of PW	Practical Work Report Writing Form	Formulir filing request letter PW	Letter of PW request to the Company	Letter reply from the company	PW proposal supervising Form	Activity Form in the Company	PW supervising Form	PW Company Assessment Form	Assessment of Report Form	Poster Assessment Form