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- **Gugatan Cerai Istri terhadap Suami yang Mengidap Penyakit Berbahaya (Studi Analisis terhadap Putusan Pengadilan Agama Tulungagung No. 2846/Pdt.G/2021/PA.TA)** — Muhammad Indra Munandar, Akhmad Husaini
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- **Nalar Hukum Isbat Nikah di Pengadilan Agama Kediri** — Pujo Pangestu, Habibi Al Amin
- **Mapping of Divorce-Prone Areas Based on Geographic Information System** — Moch Tohet, Muhammad Zainuddin Sunarto

Fakultas Agama Islam - Universitas Nurul Jadid
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MAPPING OF DIVORCE-PRONE AREAS BASED ON GEOGRAPHIC INFORMATION SYSTEM

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ABSTRACT

The research aims to determine the location points prone to divorce in the Kraksaan District Court with the Geographic Information System application so that it can make it easier for the Kraksaan Religious Court officers to make decisions and make it easier for all people and admins in particular. The research method used in this study combines qualitative and quantitative methods. Qualitative methods are used in data collection using literature studies and observations. At the same time, the quantitative method is tested to obtain conclusions in developing this research system, namely using the waterfall method with the stages of analysis, design and coding. The study results show that: the geographic information system-based mapping application of divorce-prone areas is very effective in identifying areas that require special attention in resolving divorce cases. The information obtained from this application helps the court to direct prevention, counselling and mediation efforts in areas prone to divorce, as well as to optimize the allocation of resources and support programs accordingly.

Keywords : *Divorce, Geographic Information System, Religious Courts*

ABSTRAK

Penelitian bertujuan untuk menentukan titik lokasi rawan perceraian di pengadilan negeri kraksaan dengan aplikasi Geographic Information System agar supaya bisa memudahkan petugas Pengadilan Agama kraksaan dalam memutuskan sebuah keputusan dan memudahkan semua kalangan masyarakat dan bagi admin khususnya. Metode penelitian yang dipakai didalam penelitian ini adalah memakai metode gabungan antara metode kualitatif dan kuantitatif. Metode kualitatif digunakan dalam pengumpulan data yang dilakukan dengan studi literature dan observasi. Sedangkan metode kuantitatif dilakukan dalam pengujian untuk memperoleh kesimpulan. Pada pengembangan sistem penelitian ini yakni menggunakan metode waterfall dengan tahapan analisis, desain dan pengkodean. Hasil penelitian menunjukkan bahwa : aplikasi pemetaan daerah rawan perceraian berbasis geographic information system sangat efektif dalam mengidentifikasi daerah-daerah yang membutuhkan perhatian khusus dalam penyelesaian kasus perceraian. Informasi yang diperoleh dari aplikasi ini membantu pengadilan untuk mengarahkan upaya pencegahan, penyuluhan, dan mediasi pada daerah-daerah yang rawan perceraian, serta mengoptimalkan alokasi sumber daya dan program-program pendukung yang sesuai.

Kata Kunci: *Perceraian, Geographic Information System, Pengadilan Agama*

INTRODUCTION

Family life during the Covid-19 Pandemic underwent very significant changes. The spread of Covid-19 can be stopped if there is a policy from the government to impose restrictions on large-scale community movements. The Large-Scale Social Restrictions Policy forces all learning, worship and work activities to be done only from home. Because of this condition, each family spends time away from home (Hidayati, 2021).

Various family members are addressing this condition. Some family members think this condition is very positive, such as strengthening the bonds of togetherness between husband and wife and strengthening the bond between children and their parents (Sholeh, 2021). Even family members often have conflicts at this time because they react negatively to this condition. The main factor that causes conflict between families, especially husbands and wives, is due to economic factors (Suaib & Qashlim, 2016).

The Covid-19 pandemic has made the economy unstable, so some family members cannot handle it. One of the causes of conflict is that many family members need more savings during an emergency. Carrying out the wishes and ideas that differ between family members, especially husbands and wives, is very difficult because each family member has different expectations.

Husbands and wives find it difficult to stem recognition and high egos. Many couples cannot find a solution to the problems that occur, so they can make the conflict even worse. Family resilience and divorce will occur if it is not addressed immediately. However, there are also family members who can handle the problems they are experiencing well.

Family and disaster resilience are made into an inseparable unit. The negative impact of the disaster was the household's integrity. If in the family there is harmony physically and spiritually, then the life he lives tends to have a positive mentality, and vice versa. If harmony is not obtained, then his life tends to have a defeatist mentality. Based on data obtained from the East Java Religious Court from 2018 to 2020, the Probolinggo district is one of the areas that has experienced a significant increase in the divorce rate.

In June 2020, when the government implemented the new normal, it was recorded at the Kraksaan Religious Court, Probolinggo Regency, 633 cases of broken households ending in divorce. In March 2020, there were 231 divorce cases, consisting of 77 talk divorces and 154 lawsuits. Then there were 90 divorce cases, 30 in detail and 60 sued divorces.

In May 2020, there were 80 divorce cases, out of the details of 28 divorces and 52 contested divorces. Entering June, the number of divorces has increased. In there were 232 divorce cases out of the details of 83 talk divorces and 149 lawsuits. "Divorces from women's lawsuits are more dominant than divorces by the husband," there were 232 recorded divorces due to economic problems; in March, there were 103, April 52, May 44, and June 33 cases. Meanwhile, there were 401 cases of separation due to disputes. With details of 105 cases in March, April 87, May 53 and 86 cases in June 2020.

The large-scale social restrictions imposed by the government during the Covid 19 pandemic impacted divorce rate data collected at one time. From 2020 March to May 2020, divorce cases were very significant compared to 2019 in the same month. Many strategies have been carried out by the government so that the divorce rate has decreased. One of them is limiting the age of marriage for both men and women who must be over nineteen. Whereas to the National Planning Family or BKKBN, the marriage limit for men is 25 years old, while for women, it is 21 years old because the reproductive organs owned by women over twenty are appropriate and suitable for fertilization. Another consideration is from an economic

perspective; when a man is over 24, he also has a significant enough opportunity to generate income to support his family.

The government does not stop conducting counselling even though large-scale restrictions are imposed while still adhering to the health protocols set by the government. Counselling is carried out through family planning extension workers who have blended in with the surrounding community so that the predetermined planning goes well. One of the plans is organizing rural communities, the second is strengthening through cadres from the local RT or RW, and the last is mobilizing cadres to reach the surrounding community or the wider community. When social distancing was enforced, the organization was carried out through group wads and telegrams in order to prevent divorce from happening.

One of the obstacles during the counselling process was the inaccuracy of the targets carried out by officers because it was related to the data obtained that needed to match the mapping of areas prone to divorce. Another thing is also because many people are less enthusiastic about attending extension activities carried out by the local government due to geographical factors.

The method that can be used to solve the problem above is the Geographic Information System. Geographic Information System is a computer application system that can be used as input, data manipulation, storing and displaying data related to the earth's surface. Mann and Sault (Mann & Saultz, 2019) expressed their opinion about a geographic information system, namely a computer system that can manipulate and display information related to geographic data.

We will be invited to a specific location according to our choice of the digital map provided. Geographic Information system (Yuan, 2020) can also be interpreted as a computer system that can display location characteristics used to manipulate, store and display data related to geographic information. It has even been supported by several computer devices in the form of WAN and LAN computer network connections. Based on this phenomenon, a Geographic Information System application is needed to map Divorce Prone Areas at the Kraksaan Religious Court, Probolinggo, East Java.

RESEARCH METHOD

Research using mixed methods means quantitative and qualitative methods. Quantitative methods focus more on numerical data with specific instruments or measuring instruments in testing to obtain conclusions (Sugiyono, 2017). At the same time, the qualitative method collects data through direct observation, interviews and literature review.

Research using mixed methods aims to analyze and describe phenomena, events and perceptions of one's thoughts, both individually and in groups, about the Geographic Information System-Based Divorce Prone Mapping in the Kraksaan Religious Court. In this case, researchers are vital instruments in research, meaning that researchers are planners and implementers in the field to collect, analyse, and interpret data (Abida et al., 2019).

A purposive sampling technique was used to determine the informants in this study. Appointment of several informants because; 1) the informant has an understanding of the information the researcher wants and needs, 2) the informant has a relatively long working period and is still actively involved in the religious court, 3) the informant has time to be asked for information by the researcher. Geographic Information System-Based Mapping of Divorce-Prone Areas at the Kraksaan Religious Court using observation, interviews and literature studies. The research and development used is the waterfall model, which can analyze, design, code, test and maintain.

FINDINGS AND DISCUSSION

The stages of data collection used two methods, namely interviews and observations related to the Mapping of Divorce-Prone Areas Based on the Geographic Information System at the Kraksaan Religious Court. Some of the results from interviews and observations are as follows:

1. Mapping using GIS (Geographical Information System Based), where the framework used is leaftet.js as a mapping medium on the website.
2. The input system uses Latitude and Longitude taken from Google Maps and input into the application according to the required form.
3. There are categories for mapping input: existing, moderate, many and critical. Where is symbolized by The colour of emergency mapping represented by red colour?
4. Application based on multiple logins, so users can be added as desired. So if there are 32 regions, access rights can be added according to the number of areas.
5. Website link for Mapping of Divorce-Prone Areas Based on the Geographic Information System at the Kraksaan Religious Court. is https://giskraksaan.000webhostapp.com/

Geographic Information System-Based Divorce Prone Results in the Kraksaan Religious Court, which was created using the Codeigniter framework PHP programming language with leftlet.js as a GIS as follows:

Figure 1 Main homepage view

System testing or testing is carried out using the black-box testing method. This test is intended to find out whether the output generated from system processing really matches the output expected by the user. Centralized E-Commerce Development From Creativity Results To Improve Santripreneurs. The results of testing on several processes give the following results:

a. Internal testing

Internal testing is carried out by observing the execution results through test data and checking the functionality of the software. From an internal test conducted with Mr.

Andi Setiawan with nine questions related to the use of application functions, nine answers were appropriate and zero was inappropriate. The proof of testing is contained in the internal testing attachment.

b. External testing

External testing is done by testing the program directly on the user. This test aims to find out whether the system is running well or not, including the advantages and disadvantages of the system. Including the following:

Table 1. External test results

No	User	Question Answers to					Total
		Q1	Q2	Q3	Q4	Q5	
1	Respondent 1	4	4	4	3	3	18
2	Respondent 2	4	4	4	4	4	20
3	Respondent 3	4	3	3	4	4	18
4	Respondent 4	4	4	3	4	3	18
5	Respondent 5	4	4	3	4	3	18
6	Respondent 6	4	4	4	3	3	18
7	Respondent 7	4	3	4	4	3	18
8	Respondent 8	4	3	3	4	3	17

The test results of eight users and five questions obtained the following data:

a. The number of respondents at each response point and the total score

- Respondents who answered Strongly Agree (27) = 27 x 4 = 108
- Respondents who answered Agree (12) = 12 x 3 = 36
- Respondents who answered Enough (0) = 0 x 2 = 0
- Respondents who answered Disagree (0) = 0 x 1 = 0

Total Score = 108 + 36 + 0 + 0 = 144

b. Total highest score (Y)

Y = 4 x 5 x 8 = 160

c. The total score of the respondent is 144, then the respondent's interpretation is:

Index% = Total Score / Y x 100
= (144/160)x 100
= 90% Very Good Category

From the results above, it can be concluded that the respondent is very good, the application is feasible to use. After testing the newly created system, the next step is system maintenance. When it is run, there may still be errors that were not found before, or there

are additional features in the software that was created. Therefore there is a need for system maintenance and development, data validation and data updating.

Follow-up Mapping of Divorce-Prone Areas Based on the Geographic Information System at the Kraksaan Religious Court to improve performance and will be proposed for further research. The development features are as follows:

1. Mobile-based applications to be more flexible in the data input process and location.
2. There is validation of the accuracy of the mapping so that it is right on target and certain what it is.
3. GIS (Geographic Information System) uses real time routes so that it can go to locations according to MAP directions.
4. There is a written report in PDF format, so that regular indictments can be carried out and can see community developments in locations prone to divorce.
5. There is a graph of the development of Prone to divorce as monitoring and fast in making decisions regarding the follow-up of divorce cases.

CONCLUSION

Applying a geographic information system (GIS)-based mapping application for divorce-prone areas in the Religious Courts is an innovative step that provides significant benefits in understanding and handling divorce cases. Through the integration of GIS technology, courts can visually map areas with a high potential for divorce. GIS allows it to analyze and visualize relevant geographic data, such as social, economic, and demographic factors that affect the divorce rate in an area. This provides a better understanding of divorce patterns and trends and their contributing factors.

This application also allows agencies to identify areas requiring special attention in resolving divorce cases. With precise mapping, the court can direct prevention, counselling and mediation efforts in areas prone to divorce and optimize the allocation of resources and appropriate support programs. Overall, this application is helpful to help improve the understanding, monitoring, and handling of divorce cases. With a more targeted and targeted approach, it is hoped that the courts will be able to provide better services and contribute to efforts to prevent and resolve divorce problems in the area.

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