

## Fire Mitigation in Densely Populated Settlements in Banjarmasin

---

**Bambang Subiyakto**

bambangsb@ulm.ac.id

Social Studies Education Department, FKIP Lambung Mangkurat University

**Muhammad Rezky Noor Handy**

rezky.handy@ulm.ac.id

Social Studies Education Department, FKIP Lambung Mangkurat University

**Ahmad Maulana**

ahmadmaulana98334@gmail.com

Social Studies Education Department, FKIP Lambung Mangkurat University

**Nurul Azizah**

nurulazizahe08@gmail.com

Social Studies Education Department, FKIP Lambung Mangkurat University

**Risna Putra Pradana**

putradkc12@gmail.com

Social Studies Education Department, FKIP Lambung Mangkurat University

---

### *Article History*

Received: 15/07/21 Review: 05/08/21 Revision: 30/08/21 Available Online: 15/10/21

---

### **Abstrak**

Banjarmasin yang padat penduduk menjadikan sangat rawan akan terjadi berbagai ancaman yang membahayakan lingkungan masyarakat, salah satunya adalah kejadian kebakaran yang tercatat dari tahun 2020 hingga 2021 ini seringkali kejadian kebakaran pada pemukiman penduduk di Kota Banjarmasin, menjadikan pentingnya meningkatkan kewaspadaan terhadap berbagai sumber kebakaran. Artikel ini bertujuan untuk menjelaskan kegiatan mitigasi dari penyebab kebakaran yang biasanya terjadi di lingkungan sekitar pemukiman masyarakat dan memberikan pemahaman kepada masyarakat mengenai mitigasi dan kewaspadaan tentang bahaya kebakaran pada pemukiman padat penduduk. Artikel ini disusun dari hasil pengabdian kepada masyarakat yang dilaksanakan pada tanggal 28 Juni 2021. Pada bagian analisis hasil, penulis menggunakan berbagai sumber lainnya seperti artikel berita, artikel jurnal, penelitian dan lainnya. Hasil diskusi mendeskripsikan bahwa banyak dari masyarakat belum mengetahui berbagai sumber-sumber dari penyebab kebakaran pada pemukiman atau rumah mereka seperti kelalaian manusia dalam instalasi listrik rumah, kelalaian manusia dalam mengawasi penggunaan alat-alat listrik rumah tangga ataupun biasanya juga dari tabung gas yang bocor ataupun meledak juga menjadi penyebab terjadinya kebakaran pada pemukiman penduduk. Selain itu juga penyampaian tentang kerjasama antara pemerintah kota Banjarmasin dengan BPK dalam penanggulangan kebakaran, juga pengembangan dari relawan pemadam kebakaran yang langsung dibawah binaan pemerintah kota Banjarmasin.

**Kata Kunci:** Mitigasi, kebakaran pemukiman, dan Sumber penyebab kebakaran.

### **Abstract**

The densely populated city of Banjarmasin makes it very vulnerable to various threats that endanger the community environment, one of which is the fire incident which was recorded from 2020 to 2021. Often fires occur in residential areas in Banjarmasin City, making it important to increase awareness of various sources of fire. This article aims to explain mitigation activities from the causes of fires that usually occur in the environment around community settlements and provide understanding to the public regarding mitigation and awareness about the dangers of fire in densely populated settlements.. This article was compiled from the results of community service, which was carried out on June 28, 2021. In analyzing the results, the authors used various other sources such as news articles, journal articles, research, and others. The results of the discussion describe that many people do not know the

various sources of the causes of fires in their settlements or homes, such as human negligence in the electrical installation of homes, human negligence in supervising the use of household electrical appliances, or usually from gas cylinders that leak or explode. It is also the cause of fires in residential areas. In addition, there is also a presentation about the collaboration between the Banjarmasin city government and the BPK in fire prevention,

**Keywords:** Mitigation, residential fires, and sources of fire causes.

## **PRELIMINARY**

Banjarmasin is one of the most populated cities in the province of South Kalimantan; its population density in 2020 reaches 715,703 people, which is increasing rapidly every year so that with an area of 98.46 Km<sup>2</sup>, the population density of Banjarmasin City reaches 7,196 inhabitants/km<sup>2</sup>. From this figure, the population of Banjarmasin City is the most populous compared to all regencies/cities in South Kalimantan Province. Furthermore, when viewed from previous years, the population density of Banjarmasin City has constantly increased; this is in line with the occurrence of population growth which always increases from year to year (BPS Banjarmasin City, 2020).

Making the city of Banjarmasin very prone to various kinds of threats that endanger the lives of both individuals and communities, based on Law Number 24 of 2007 concerning Disaster Management, fires are classified as natural disasters as well as non-natural disasters based on the causes of occurrence, such as house fires or settlements, flooding of the Martapura river, hurricanes and others. So to minimize the occurrence of these things, disaster mitigation is needed that must be known and can be practiced by the community to reduce the risk of severe damage and population decline, one of which is fire disaster mitigation (Asiri, 2020). So the focus of mitigation is to eliminate or limit the possibility of disaster events and reduce the population's vulnerability.

Based on data from the Central Statistics Agency (2020), the number of fire incidents in 2019 was 67 incidents. As for the number of firefighting units, there are as many as 279 units. However, although the Banjarmasin city government still registers many official firefighters, there are still frequent fires. In 2019 alone, in the East Banjarmasin sub-district, there were 20 fire incidents, so that on average, it reached 1.67 times per month, almost 2 times. This is a high number, so to reduce the number of fires, training and education are usually held to the community regarding preventing the spread of fires, knowing the causes of fires which usually also come from electric voltages, gas leaks,

Collaborating with the Civil Service Police Unit and the Banjarmasin City Fire Department to provide counseling and training to the community in Banua Anyar Village, East Banjarmasin District, Banjarmasin City, is also one step in increasing public awareness of the dangers of fire disasters and the losses caused by fire. By him, besides the importance of the

role of the community in disaster preparedness (Fatmah, 2009; Subiyakto et al., 2021). This article aims to explain mitigation activities from the causes of fires that usually occur in the environment around community settlements and provide understanding to the public regarding mitigation and awareness about the dangers of fire in densely populated settlements., especially in the Banua Anyar Village areas.

## **METHOD**

This article is the result of community service. The activity was carried out in Banua Anyar Village, East Banjarmasin District, Banjarmasin City. The implementation time is on June 28, 2021, with a full-day implementation design. The main activities carried out were conducting counseling to the community and collaborating with the Banjarmasin City Civil Service Police Unit and Fire Department in Banua Anyar Village, which was attended by elements of the leadership of Banua Anyar Village, Community Leaders, BPK members in the Banua Anyar neighborhood and Public. To sharpen the results obtained from service activities, the authors conducted a relevant literature study. The literature study is understood as a theoretical study based on references, books, and journals (Sarman, 2004; Zed, 2004). In addition, in writing this article also uses the author's empirical approach. Based on that, it is hoped that the series of activities can complete the writing of the service results scientifically and rationally because they are described based on experience and theoretical reviews.

## **RESULTS AND DISCUSSION**

Looking from the historical journey in the Banjarmasin from time to time, especially in various incidents of fires, it has been "hot" since the colonial era of the Dutch East Indies in the early 20<sup>th</sup> century and the formation of brandweer or what we know today as the Barisan Pemadam Api (BPK) and those under the command the Banjarmasin City government, several major events regarding fires that occurred in Banjarmasin City itself such as the Pekauman big fire in 1972 and other incidents so that there were many formations of various BPK in each region by the community (Mansyur, 2018; Sanusi, 2018).

The formation of most of the BPK itself and even then, there are still many residents who do not care about the state of their environment, especially in alertness to fires that usually occur, more actions when a fire occurs than prevention of namely extinguishing fires. Still, it becomes ineffective because as many BPK are scrambling to extinguish fires because of these prestige battles, they do not override the spirit of the residents of Banjarmasin. On the contrary, they help each other instead of preventing and minimizing redundant things when extinguishing these fires in people's homes (Syaharuddin et al., 2020).

Presentation from the Banjarmasin City Civil Service Police Unit and Fire Department in 2020 yesterday the total number of fires that occurred was 46 times, but this has increased sharply in 2021 until this June there have been 49 fires, this shows an increase of 2 times from the previous year, so it is crucial to provide counseling to community members, the East Banjarmasin area itself, especially the Banua Anyar village is an area that is generally seen as quite dense settlements and many houses are made of wooden buildings so that if a fire occurs, it is straightforward to spread and enlarge (BPS Banjarmasin City, 2020).

**Figure 1. Counseling about Fire Mitigation from Banjarmasin City Civil Service Police Unit and Fire Department Collaboration with Social Studies Education Department FKIP Lambung Mangkurat University and Kelurahan Banua Anyar.**



Source: Community Service Activities (2021).

So it is necessary to have this activity in providing counseling on how to increase early awareness in the community and collaboration with BPK in their area. In addition, it prevents the expansion of fires in the neighborhood around residential areas and community complaints about the surrounding environment after the fire becomes a problem. This community service activity was carried out by the Social Sciences Education Study Program FKIP ULM in collaboration with the Banjarmasin City Civil Service Police Unit and Banua Anyar Village as the host for the implementation of this activity:

1. An explanation of the various causes of fires in residents' homes.

In this outreach activity, the speaker from Mr. Misranuddin (KASI for the Development of Voluntary Fire Brigades from the Banjarmasin City Satpol PP & Fire Service), he explained that, in general, the cause of fires in people's houses in Banjarmasin city was negligence on the part of the residents themselves, usually electricity caused by electricity. For example, cables that are not of Indonesian national standard (SNI), cables that are not maintained by homeowners so that the strength of the cable is no longer able to withstand electric currents anymore and makes it easier

for short electric currents to occur, damaged electrical cables are bitten by rodents such as mice so that the cable is damaged. Moreover, there is no insulator (the electric current barrier is in the form of plastic or similar material so that there is no friction of fire from electricity), other than that; another cause is from gas cylinders that leak and explode so that this is also the cause of fires in houses in residential areas, in addition to the raw materials for residents' houses which are still mostly made of wood.

Ignorance of the public when installing electricity in their homes. We know that some household appliances are plugged in for 24 hours, such as televisions and refrigerators, or the number of plugs piled up is also the cause of electrical short circuits, this is the riskiest. In addition, many people do not know that there is a yellow sign when installing a new electrical installation, this sign usually indicates the electrical capacity of the house.

2. Mitigation measures in early awareness in the community when dealing with the causes of fires in residences. The presenter explained that the steps for early awareness to the community related to handling fires in residential areas such as houses or shops/kiosks are:

Preparation of APAR or *Alat Pemadam Api Ringan*, or Light Fire Extinguisher in English, is a tool used to extinguish or control small fires. Then in terms of Occupational Health and Safety (K3), APAR is a piece of mandatory equipment that must be in every company in preventing the occurrence the fire became widespread; the APAR itself, which was widely used by the community, was Foam type with an APAR weighing 3 kilograms, from the information given by the Lurah and Secretary of the Banua Anyar Lurah in 2019-2021 yesterday, this type of Foam APAR was distributed to several RTs so that with hope when there is a small fire can respond quickly in extinguishing it. Quoting Otosia (2021) that this Foam APAR is AFFF (Aqueous Film Forming Foam), Foam is sprayed out and will cover the burning material. So that oxygen cannot enter the firing process. This type of fire extinguisher effectively extinguishes fires from Class A Fires or Class B Fires caused by liquid materials, such as oil (gas oil or gasoline), alcohol, solvents, and other materials.

In addition to the availability of the APAR itself, it is the supervision of the power lines, both the electrical cables that are now used in home electrical installations, also subsequently replacing the home electrical equipment, namely: 1. Power Outlets; 2. Switch; 3. Plug; 4. Light Fittings; 5. Electrical Safety; 6. Power Cable; 7. Electrical Thermal Protection; 8. Fused Protection; 9. Electricity Meter; 10. Electric Multi plugin;

11. An electricity meter, with an SNI standard (Indonesian National Standard), so that it is more secure, for example, most residents still use electricity cables that are not SNI standard, in the future with this counseling the community in the city of Banjarmasin, especially the Banua Anyar Village area itself as a pioneer in minimizing the occurrence of fires in homes.

The next effort is developing a program regarding Redkar (Volunteer Firefighters) from the Civil Service Police Unit Service and the Banjarmasin City Fire Department throughout the Banjarmasin City area with the Mapping itself. It is hoped that fire extinguishers will be made from the community for the community in the future. Fires are not disasters such as floods, landslides, tsunamis but are human negligence.

It is hoped that the firefighters will come when there is a big fire, not small fires that local residents can handle in the future. Any equipment must have standards, so it is hoped that there will be no more fires in Banjarmasin. Usually, when there is a big fire, the BPK does come, but the surrounding area becomes congested because it is filled with residents watching and the small BPK who do not bring water tanks. In addition, it also provides training, counseling, and legal basis for its members who are at least 19 years old and are physically and mentally healthy.

3. Based on the formation of Volunteer Firefighters (Redkar) in the city of Banjarmasin to strengthen the Environmental Fire Resilience System (SKKL), Mr. Misranuddin as the mitigation instructor in this activity, explained in this counseling that the vital role of the BPK themselves in the future is that they will be united and membership data, then coaching, training, counseling, and others are held. The area from Kelurahan Banua Anyar will be merged with Kelurahan Sungai Lulut, Sungai Bilu, and surrounding areas for these Redkars to focus on extinguishing. All members are registered have the same uniform from Sabang to Merauke. So that with this Redkar they can focus on helping the people in their area to extinguish fires, with this Redkar being able to focus on helping the people in their area in extinguishing fires, this is also supported by the Regional Regulation Number 13 of 2008 concerning Fire Disaster Management in the city of Banjarmasin. Now there is an e-damkar in the city of Banjarmasin where this reporting system made to report fires that have occurred in various areas of the city of Banjarmasin so that it becomes a record and evaluation which the Banjarmasin City Government will carry out in the future in reducing the risk of fires in densely populated settlements (Raharjo et al., 2020).

So from the explanation above, both in terms of exposure to various sources of causes of fires in residential areas, the residents themselves must help each other so that in dealing with fires in densely populated environments, especially in the city of Banjarmasin itself requires cooperation between communities, not blaming each other and cornering, besides that, in further connection with the existence of fire mitigation counseling in the community itself, it becomes the development of their soft skills in supervising and increasing awareness of the sources that cause fires themselves in the future (Syaharuddin & Handy, 2021; Subiyakto et al., 2021).

**Figure 2. Together with Speakers, Bhabinkamtibmas, Community Leaders of Banua Anyar and community representatives in the Counseling Mitigation**



Source: Community Service Activities (2021).

## CONCLUSION

This community service activity provides Fire Mitigation Counseling to the broader community, especially Banua Anyar Village, East Banjarmasin District, Banjarmasin City. By focusing on delivering information that must be known by all regarding the causes of fires in homes/residences, such as human negligence in home electrical installations, human negligence in supervising the use of household electrical appliances, or usually from gas cylinders that are leaking or exploding. It is also the cause of fires in residential areas.

This counseling also provides steps for preparedness and alertness from the community in dealing with fires, such as the availability of APAR (light fire extinguishers) that are easily accessible by the community, replacing household electrical appliances with SNI standards, or leaving cheap but inexpensive household appliances. The poor quality, which is easy to cause short electric currents that can cause fire, and the existence of a development plan for Volunteer Firefighters (Redkar) in all areas in Banjarmasin City, including the Banua Anyar Village area

so that members from BPK will be recorded and selected for those who meet the requirements. The condition will be to get an education, training, coaching, and legal status of their membership in Redkar, which is clear from the government.

## **BIBLIOGRAPHY**

- Asiri, L. (2020). Pelaksanaan Mitigasi Bencana Kebakaran Pada Dinas Pemadam Kebakaran Kabupaten Buton. *Kybernan: Jurnal Studi Pemerintahan*, 3(2), 28-40.
- Badan Pusat Statistik Kota Banjarmasin. (2020). *Kota Banjarmasin Dalam Angka 2020*. BPS Kota Banjarmasin.
- Fatmah, F. (2009). Model Mitigasi Kebakaran Berbasis Masyarakat: Kajian Kualitatif pada Aparat Pemerintah dan LSM. *Kesmas: Jurnal Kesehatan Masyarakat Nasional (National Public Health Journal)*, 4(3), 99-108.
- Lestari, D. P., Pramono, R., & Nefianto, T. (2017). Analisis Partisipasi Masyarakat Melalui Barisan Pemadam Kebakaran Swadaya Dalam Menghadapi Risiko Kebakaran Permukiman di Kota Banjarmasin. *Jurnal Manajemen Bencana (JMB)*, 3(2).
- Mansyur, M. (2018). *Bandjarmasin Tempo Doeloe: Sketsa Kecil dari Bingkai Masa Lalu*. Pustaka Kaji.
- Maryani, E. (2008). Model Sosialisasi Mitigasi pada Masyarakat Daerah Rawan Bencana di Jawa Barat. *Bandung: Penelitian HIBAH DIKTI*. Diperoleh di [http://file.upi.edu/Direktori/FPIPS/JUR.\\_PEND.\\_GEOGRAFI/196001211985032-ENOK\\_MARYANI/mITIGASIArtikel.pdf](http://file.upi.edu/Direktori/FPIPS/JUR._PEND._GEOGRAFI/196001211985032-ENOK_MARYANI/mITIGASIArtikel.pdf).
- Peraturan Daerah Kota Banjarmasin Tahun 2013 Tentang Penanggulangan Bencana Kebakaran di kota Banjarmasin.
- Raharjo, M. R., Ridho, I. I., & Ikhwan, Y. (2020). E-LAPOR DAN SISTEM PENDATAAN DAMKAR ATAU BARISAN PEMADAM KEBAKARAN (BPK) KOTA BANJARMASIN. *Technologia: Jurnal Ilmiah*, 11(3), 139-146.
- Sanusi, D., G. (2018, Maret 09). Hikayat Brandweer dalam Pergulatan Bencana Kebakaran Banjarmasin. (Didi G. Sanusi, Ed.) Banjarmasin, Kalimantan Selatan, Indonesia. Retrieved from <http://jejakrekam.com/2018/03/09/hikayat-brandweer-dalam-pergulatan-bencana-kebakaran-banjarmasin/>
- Sarman, M. (2004). Pengantar Metodologi Penelitian Sosial. Pustaka FISIP UNLAM.
- Subiyakto, B., Handy, M. R. N., Maulana, A., Azizah, N. (2021). *Penyuluhan Mitigasi Bencana Kebakaran Pada Pemukiman Padat Penduduk Di Kelurahan Banua Anyar Kota Banjarmasin*. Program Studi Pendidikan IPS FKIP ULM.
- Syahrudin, S., & Handy, M. R. N. (2021). PENGUATAN NILAI SOSIAL MELALUI AKTIVITAS BPK DI KOTA BANJARMASIN SEBAGAI SUMBER BELAJAR IPS. In *PROSIDING SEMINAR NASIONAL LINGKUNGAN LAHAN BASAH* (Vol. 6, No. 2).
- Syahrudin, S., Handy, M. R. N., Jumriani, J., Faisal, M., & Maulana, I. (2020). The Values of Gotong Royong on BPK (Fire Brigade) Social Activities in Banjarmasin. *The Kalimantan Social Studies Journal*, 2(1), 62-68.
- Undang-Undang Republik Indonesia Nomor 24 Tahun 2007 Tentang Penanggulangan Bencana.