

"Widening the participation for students learning during the digital and pandemic era."

# Remove Smoke from Elementary School

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**Abstract:** Large fires cause thick smog. The smog is considered much harm to the community, including blocking visibility and disturbing health, for example, disrupting the respiratory system. Because living things need oxygen that goes into the lungs while the smoke contains carbon dioxide, smoke should be avoided. Not only fire smoke, cigarette smoke, factory smoke, or vehicle smoke can also interfere with a person's respiratory system. Smog is a collection of heavy air pollution smoke that can last for days to months. Smog is another form of air pollution. Smog can interfere with visibility because it can block the sun's rays.

Keywords: Fire, Smoke, Green Environment

## Introduction

The importance of this ideal condition can affect students so that students avoid respiratory disorders. With these ideal conditions, schools can create smoke-safe schools. So that students can avoid the interference of smoke that can interfere with teaching and learning activities at school. In order to avoid this smoke disturbance, it is necessary for the role of teachers and students to create environmentally friendly schools. Students are also expected to behave in a clean and healthy life.

Only this ideal condition affects students. Namely, students are affected by upper respiratory infections, asthma, chronic obstructive pulmonary disease, heart disease, and irritation. In addition, it can also lead to visual disturbances that result in limited visibility. So that many activities outside the home have been temporarily suspended due to this limited wine. Many agencies have laid off employees to maintain their health at home. Schools have also dismissed students as long as the smog still interferes with visibility, as a form of antipasti various diseases.

The reality on the ground (problems) that there is still much land burned. So that forest fires cause damage to infrastructure and loss of agricultural, plantation, and forestry assets. Which has an impact on the economy of the surrounding community to decline, as the need for food and clothing in the community in the area is not met. In addition, it also resulted in the spread of fire smoke, and students were temporarily closed. Furthermore, teaching and learning activities were transferred to their respective homes until a time limit was not determined because students were disturbed.

Field data show that the smoke spreads in Jambi, Riau, South Sumatra, West Kalimantan, South Kalimantan. This is the area with the most forest fires. In Indonesia, 99% of forest fires are caused by human activities, which intentionally burn the forest to open up new land. Many people also smoke indiscriminately in public places, causing air pollution in the area. It is known that in 2015, more than 20,000 schools were affected by smog, cigarette smoke, factory smoke, and waste burning smoke (Kemendikbud, 2015).

In the news it is also said that there are about 25,000 schools and170,000 classrooms are still at risk of being exposed to smoke, this makes Anis



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Baswedan intervene in the administration of smoke safe schools (Kompas, 2015), in 2008 Indonesia also ranked 3rd out of 10 countries that consume the most cigarettes in the world after China (WHO, 2008) and in other field data it is also said that 8.4% of smokers aged 10 years and over smoke in any place (Riskesdas, 2007).

Purpose; [1] To formulate the idea of removing smog from elementary schools. [2] To formulate relevant parties in an effort to expel the smog.[3] To formulate steps for making new ideas.

Benefits; [1] Provide alternative smoke reduction., [2] Cultivate a caring spirit.[3] Reduce the level of smoke hazard.

## **Result and Discussion**

#### The Latest Condition

The prolonged dry season resulted in many plants becoming dry so that when the dry plants were exposed to a small fire, the fire had spread and grew, causing a large fire as well. Especially when the fire is accompanied by strong winds causing the flaming fire to spread to other dry plants, causing the fire to get bigger. When there is a big fire in the dry season, the fire is very difficult to extinguish due to the difficulty of accessing water to reach the fire hotspots, so artificial rain or the spread of saltwater using helicopters is needed to facilitate fire fighting.

Large fires cause thick smog, the smog is considered to be a lot of harm to the community, including blocking visibility and disturbing health, for example, disrupting the respiratory system. Because basically living things need oxygen that goes into the lungs while the smoke itself contains carbon dioxide, therefore smoke should be avoided. Not only fire smoke, cigarette smoke, factory smoke, or vehicle fumes can also interfere with a person's respiratory system.

Moreover, what is often found around schools is cigarette smoke. Not a few teachers openly use cigarettes in the school environment, causing students around them to become passive smokers. Whereas in health science, passive smoking is more dangerous than active smokers themselves. Therefore, it is better for schools to implement a smoking ban for their teachers.

#### Solutions Ever Applied

Be how many ways have been done as a means of reducing the impact of smoke on humans, including: First, there are various ways to protect disasters from smog from a legal perspective, namely by enforcing laws related to forest burning, factory construction and the use of vehicles (Yurianto, 2016). Both planting sansevieria or often referred to as mother-in-law's tongue as an ornamental plant that can help in tackling the dangers of smoke (Hearani, 2016). Third, by planting smoke-absorbing trees that can reduce air pollution caused by smoke (Dermawan, 2009). Fourth, neutralize the air using sansevieria by placing it in the corners of the room (Adawiyah, 2013). The fifth reforestation aims to replace plants that have been burned due to forest fires (Sulistina, 2006). The six neutralizers of cigarette smoke in the room use the Corona Discharge method. That is a tool made to neutralize the room from smoke (Marzuamar & Nur Faizi, 2018). Seventh, planting blanceng plants as smoke-absorbing plants (Dwi, 2017). Eighth, making artificial rain by sprinkling salt in the clouds so that it rains to extinguish forest fires (Nugroho, 2000). The ninth made efforts to handle the smoke haze due to fires (Suryani, 2012).



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#### Weakness of Old Ideas

From the existing ideas, it seems that the school is still lacking in dealing with the haze disaster, including: First of all, not all schools have the cost to make schools smoke safe because at the time of making schools safe for smoke it costs money is needed not a little. Second, it is difficult if students are not careful, making smoke-safe schools requires very careful accuracy. Third, the lack of public awareness can cause the impact of forest fires because the lack of public awareness causes people to do damage so that the chance of forest fires is very large. The fourth is less well known by many people. Plants that can absorb this smoke, almost the surrounding community cannot recognize it and cultivate the plant. The fifth process of making smokehouses can be done 1-2 days or even months. The construction of this smoke safe house is not only done in one day, but it takes days and even months because the construction of a smoke safe school. Sixth feeling lazy someone to make this tool. The manufacture of the tools used to facilitate the manufacture of smoke safe schools takes a very long time. Seventh, it is difficult if the individual does not understand, the lack of understanding of each individual on how to deal with smoke. The eight blanceng plants can only absorb pollutants containing heavy lead. Therefore, the old idea of using blanceng plants cannot be used. The nine limitations of the tool. With the limited tools provided, people are reluctant to make tools that can be used to absorb the smoke that is exposed. Tenth the lack of strict sanctions for environmental violations. The lack of firmness of sanctions given to the community makes people act arbitrarily against the emergence of smoke around.

#### New ideas on offer

In this paper, the author wants to create a new idea that is to expel the smog from elementary schools. Removing the smog from elementary schools is one solution so that schools can always run well.

Smog is a collection of heavy air pollution smoke that can last for days to months. Smog is another form of air pollution. Smog can interfere with visibility, because it can block the sun's rays.

Fog is formed when air saturated with water vapor cools below its melting point, causing a person to cough. In big cities, car exhaust fumes and other pollutants containing hydrogen and nitrogen oxides are converted into a smog of chemicals by sunlight.

Bethe running of the school well also supports the potential of children's intelligence and increases the potential of children in school. Removing smog from primary schools is something that can be used in all schools because it does not require too much money. The smog that must be eliminated in schools is smog that disturbs children both in terms of vision or in terms of breathing. Smoke that must be avoided from children, such as smoke from a fire that occurred a few months ago outside Java, cigarette smoke that is often inhaled by adults even though it is not good for the inhaler, factory smoke which always makes the affected residents restless, and burning smoke. waste by residents who do not know how to process waste properly.

#### Problems Can Be Fixed with new Ideas

One problem that can be fixed with this new idea is that the school level is safe from smog. The school-level safe from smog is the dream of schools in Indonesia, especially schools that are affected by the smog which can result in school holidays. The level of safe school from smog can be measured by looking at whether the child is in school, whether the child is disturbed by the existing situation, and whether the child can learn.

The second problem that can be fixed is the attitude of concern for the haze disaster. With this new idea, everyone can care about the haze disaster. Smog is



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a disaster that is underestimated by people, because sometimes it is not without it that makes it underestimated. Whereas smog is one of the serious disasters that can cause people to get eye and respiratory diseases that interfere with one's activities and activities.

And the last problem that can be solved is the green environment and the Go Green movement. This problem is a problem that is difficult to solve in Indonesia because the population does not pay attention to the surrounding environment. In this new idea, it is one of the efforts for someone to be able to create a green and go green environment because in this idea, one of the solutions to eliminate smog is to do so.

## Steps to Generate New Idea

1. Reading books protects from smog

Rare beginning by reading, understanding the book protect yourself from this smoke as a guide for teachers and students in carrying out projects, in order to avoid mistakes when doing projects.

2. Reduce activities outside the home.

By reducing activities outside the home can reduce the danger of smoke generated. Activities should be done at home only once, given the dangers of smoke.

3. Use a mask when leaving the house.

This is a good step to do, masks can reduce exposure to smoke that is directly in the nose

4. Drink more water

SIt's no stranger that the benefits of drinking water can maintain body stamina, nourish skin and hair and maintain body stability.

5. School is temporarily closed.

By taking this vacation to reduce outside activities, holidays should be replaced by giving assignments or homework so that students can optimize holiday activities well.

6. Read the guidebook to make a cigarette smoke neutralizing device using the Corona Discharge method.

By reading the manual in order to be able to carry out the corona discharge method properly without any mistakes that occur. The corona discharge method reduces smoke in the environment.

7. How to do re-greening in urban areas.

Doing reforestation in urban areas is very good to do, in addition to adding aesthetics, it can also reduce existing smoke and pollution

8. Provide an anti-smoking room.

By providing an anti-smoking room, it is very good, considering that smokers smoke a lot everywhere. This is especially good for those who cannot be exposed to cigarette smoke, such as small children and pregnant women.

9. Planting Sansevieria in the corner of the room

Sansevieriacertainly reduces cigarette smoke, because this plant can absorb cigarette smoke, with planting in every corner of the room adds to the beauty of the room itself.

10. Land greening.

Greening the land can be done by planting vines on the roof, so that at least we can breathe oxygen in the environment. In addition, planting moss is very well done.

11. Enforcement of a just law.

By providing an anti-smoking room, giving no smoking writings in areas that are not allowed to smoke. For smokers do not smoke in any place because it can disturb the people around them.



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## **Who Can Help Implement New Ideas**

In realizing new ideas, it is necessary to have assistance and support from several parties, including:

- 1. Office of Education: In this idea, the role of the education office is very important, namely facilitating the needs that exist in schools such as facilities and infrastructure needed by schools.
- Forestry Service: The forestry office here contributes to providing plant seeds that are given to schools and surrounding communities.
- 3. Principal: The success of this application lies in the role of the principal in carrying out the project that will be carried out at the school.
- 4. Teacher: Here as a facilitator in carrying out projects that will be directed to students to run optimal
- 5. Student: Students here have a role, namely running an existing project, in this project, students participate directly so that students know how to handle and cope with the haze disaster.
- Community: The community as citizens fully supports the policies implemented by the government by participating directly in dealing with the haze disaster.
- 7. Parents: Parents play a role in providing direct examples to children as well as providing material and theoretical understanding of the impact and overcoming the haze disaster.

## Conclusion

The new idea offered by the author is to expel smog from schools, smog is a collection of heavy air pollution smoke that can occur for days to months. Smog is another form of air pollution.

Parties who help implement new ideas include the education office, forestry office, school principals, teachers, students, communities, and parents.

Step-the steps for making new ideas are reading books to protect from smog, reducing activities outside the home, using masks when leaving the house, drinking more water, schools being temporarily closed, reading guidebooks for making cigarette smoke neutralizing devices using the Corona Discharge method, re-greening in urban areas, providing anti-smoking rooms, planting mother-in-law's tongue in the corners of the room, reforesting land, and enforcing fair laws. And Hopefully with this new idea, schools in Indonesia, which are mainly affected by smog, can use this new idea.

This new idea can be used to make schools safe from smog and avoid smog that is not good for children. And this new idea makes it easier for schools to run and create learning that goes well. In addition, self-awareness is also needed in keeping the environment green

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