

## **Deer and Littering in Nara**

### 1. Motivation behind Research Paper

In recent years, humans have built a society of mass production and mass consumption. This society feeds us, but it also drains our resources. As a result, problems such as environmental destruction and global warming are happening. To solve these problems, my group members and I studied the 17 Sustainable Development Goals (SDGs). At first, we looked for ways high school students could help our hometown of Nara. Many tourists visit Nara, because there is a lot of nature and historical landmarks. According to the Protection of Deer in Nara Park Agency, littering is increasing due to the influence of tourists. This research essay aims to focus on how we can solve these environmental issues and protect the deer in Nara prefecture.

### 2. Introduction

The aim is to solve the negative effects of littering on deer and the environment by making questions. A study conducted by the Protection of Deer in Nara Park Agency states that Deer have a problem eating plastic bags that smell of food. The data collected for this study will include online sources, surveys and questionnaires.

### 3. Results and Analysis

According to the Protection of Deer in Nara Park Agency, the reason why Nara Park has a lot of littering is because there are no trash cans in Nara Park. The picture below is a clump of plastic bags that came out of the stomach of some male deer on July 21, 2021.

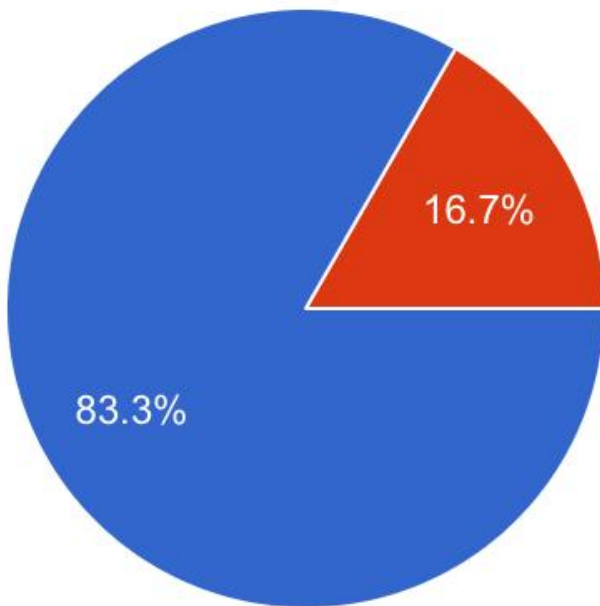


We called the Protection of Deer in Nara Park Agency and asked two questions about how we can reduce the damage in Nara. The Protection of Deer in Nara Park Agency protects the deer in Nara Park. We thought that it was the most reliable and asked them because they are experts on deer in Nara. The first question we asked was can you set up trash cans in Nara Park? We think setting up trash cans is most effective but they replied that trash cans cannot be installed. The reason is that there is a problem of human resources and labour costs to collect trash cans. The second question is what is the most effective countermeasure? We were advised that awareness-raising activities such as garbage pick-up campaigns, billboards, and posters would be most effective. We decided to make posters that anyone can understand to let more people know about this problem. Changing people's consciousness will lead to the solution of this problem. First, we thought about what kind of posters would attract people's attention so we made Picture-centred posters and text-centred posters and posted in front of the school entrance. A week later, we had people answer a questionnaire to which poster was easier to see.



Blue 83.3% • left poster

Red 16.7% • right poster



"Which one do you think would catch the eye of people who come to Nara Park?"

(66 Kokusai High School students June 17, 2021)

As a result, 80% of respondents answered that posters with a focus on pictures are easier to see. Opinions such as "colourful and conspicuous", "illustration

is easy to see" and "illustration is too cute" were given. However, there were opinions that "even foreigners can understand". It was also true that there were people who paid attention to the merits of letters alone, although the percentage was small.

Based on these, we decided to make a poster that includes the advantages of both and think of a place to stick a poster. We quickly decided on Kintetsu Nara Station. About 34,400 people use Kintetsu Nara Station a day, and many foreign tourists use this station. Based on this data, I thought that Kintetsu Nara Station would be a good place to be seen by more people and to be understood by future tourists. While we thought that Kintetsu Nara Station would be the best location for our poster to be seen, it would not matter if people did not see the poster. Therefore, we thought about which part of the station premises is most likely to be noticed by people. We thought the area around the ticket gate where everyone passes would be good. It is impossible for everyone to see the poster but the chances of it being seen would definitely increase.

#### 4. Conclusion and Future Problems

As mentioned above, I thought that enlightenment activities are the best way of protecting deers. We made posters to let many people know about the damage caused by deer in Nara Park, and put up posters centred on pictures and posters centred on text in front of the school entrance. After that, we conducted a questionnaire survey to the students which poster they thought was easier to see. The results of the survey showed that posters that focus on pictures are easy to catch the eye, posters that focus on text are easy to understand even for foreigners

and have an impact. We also found that the best place to display the posters is near the ticket gates of Kintetsu Nara Station, where there are many users. Based on these results, we thought that the most effective enlightenment activity is to put up posters that combines English and illustrations near the ticket gates but the inquiry activity ended before we could put these things into action.

## 5. Reflection

All the solutions we came up with had problems. At first, we thought it would be an easy problem to solve but this garbage problem is very difficult and there is a long road to resolution. The coexistence of deer and people in Nara is different from the coexistence with common wild animals. Nara's deer respect people and are animals that have achieved coexistence with humans early on. I think humans should respect the deer of Nara and change their consciousness. We thought that awareness-raising activities such as putting up posters were the best way to protect the deer in Nara Park but this problem should be easily solved if humans are conscious and can take garbage home with them. It is easy to have the awareness of taking garbage home, but people who try to take action are few. We are always aware of this and want to act. Through this research project, we were able to do little and may not have taken a big step toward solving the problem, but our consciousness has certainly changed. I have no plans to continue my research activities in the future but I would like to be conscious of what I have learned in this inquiry. apply it in my daily life, and try to get closer to a sustainable earth.

## 6. Work Cited

The Protection of Deer in Nara Park Agency states's blog.22 July.2021. <https://naradeer.com/blog>