

# The Effects of Animal Agriculture on the Environment

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## ABSTRACT

The purpose of our children's book is to simplify the complex issues of climate change and present short and long-term solutions to our audiences, specifically young children.

The book utilizes visuals and language to convey the message of climate change to younger audiences. The use of multimodality allows the information to be portrayed in different ways that are comprehensible for a younger audience. We used detailed pictures and clear language to illustrate the harm of animal agriculture on a farm. The combination of illustrations and transparent wording allows young readers to match the issue from the outside world and connect it with visual representations.

Children's books are a great way to have younger readers begin to understand real life problems. The main character in the story, Franny, grows up on a farm and she sees how animal agriculture affects the environment around her. These detrimental impacts include deforestation, effects on the aquatic ecosystem, methane gas released from farm animals, water consumption and animal exploitation to produce animal products. All of these situations contribute to problems with the environment and are doing more harm than good. Based on our research, eating less meat and consuming less animal products, reduces the negative environmental impacts of animal agriculture.

In the end, Franny makes a personal decision to eat less meat and consume less animal products to minimize the harmful effects on the environment. Teaching children about complex environmental issues at a young age can help shape the future to be more environment-friendly.

## Background

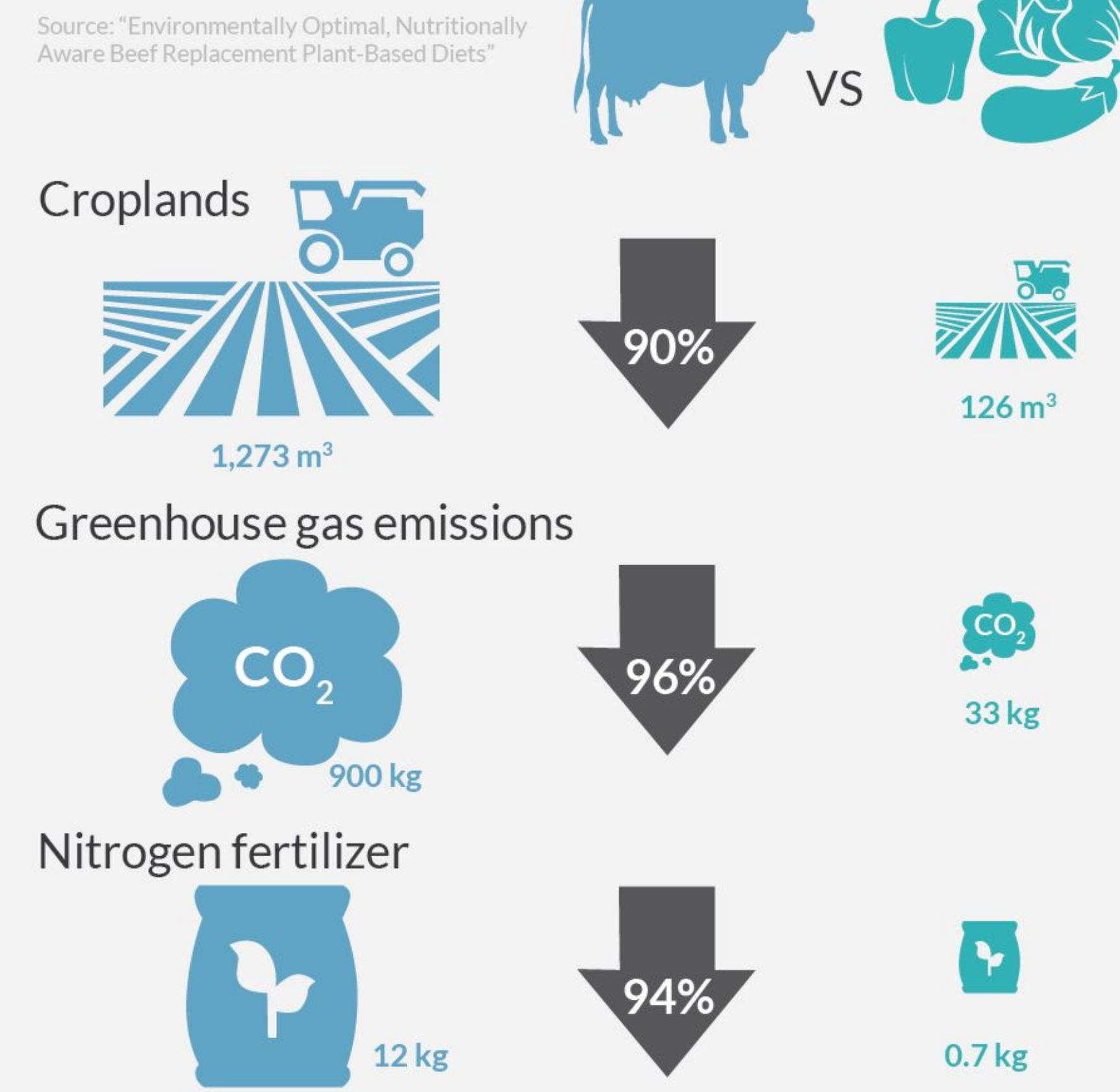
### What is animal agriculture?:

- In order to produce large quantities of food for billions of people around the globe, an enormous amount of water and land is needed to grow crops to feed animals, which are used to bulk up the animals for slaughter.
- Nearly half of all water used in the United States is allocated to animal agriculture, and 80% of land within the United States is dedicated to growing crops which are then fed to animals.

### Why is it a problem?

- Lots of environmental problems are rooted from the consumption of meat in America
- Many are misinformed on the meat industry, and the truth behind the consequence of animal products on the environment
- Animal agriculture is responsible for 30% of the world's global water consumption, occupies 45% of the world's land, is responsible for 91% of deforestation in the Amazon, is leading cause of ocean dead zones, and the leading cause of habitat destruction as well as the leading cause of species extinction (Cowspiracy Documentary).
- The billions of animals involved in animal agriculture produce vast amounts of methane gas
- Scientists estimate one pound of methane is 84% as effective as carbon dioxide in trapping heat within our atmosphere

In replacing beef with plants in the US (per person per year):



## DISCUSSION

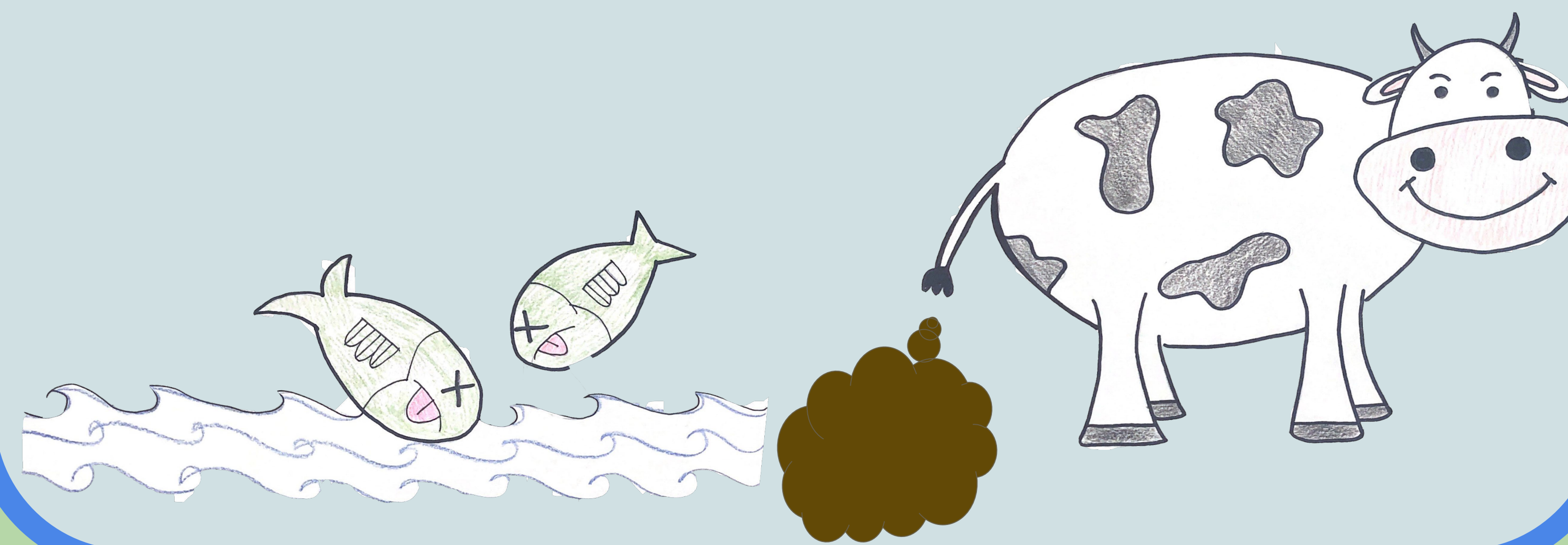
- By eating less meat, and contributing less support to the animal agriculture industry, we can effectively lower the emissions of greenhouse gasses and redirect fresh water and land resources elsewhere.
- If we continue to consume and produce animal products, climate change will increase and our environment will be in a more dangerous situation. Gases from animal agriculture are the leading contributor to climate change.
- Going vegan for just one day saves 45 pounds of grain, 30 square feet of forested land, 1,100 gallons of water and 1 animal's life.
- Nitrogen, phosphorus, and pathogens are the most common water pollutants from manure on farms

## METHODOLOGY

Based on our research, we took the complicated and dense information about animal agriculture and summarized it into simple and understandable sentences that make it easy to understand for a younger audience. We want to make the visuals clear but also stand out for our younger audience to enjoy. Using fun and bright colors is a component in the children's book to attract a younger audience, with the visual representation.

Although the subject of animal agriculture can be saddening, we used a optimistic tone to emphasize the positive changes that can be made.

All the fish in the local river are dying!! There is a lot of cow manure in the water! I can't believe the manure is causing the river fish to die!!



Excerpt from our children's book, "Franny the Farmers Saves the Failing Farm." Displays the complete issues in a more concise way. (Page 4)

## SOURCES

- "Climate Change and Animal Agriculture, Explained." *PETA*, 9 Dec. 2019, [www.peta.org/features/climate-change-animal-agriculture-explained/](http://www.peta.org/features/climate-change-animal-agriculture-explained/).
- *Cowspiracy*. [www.cowspiracy.com/about](http://www.cowspiracy.com/about)
- "For The Environment." *Jeffjuices*, [www.jeffjuices.com/copy-of-for-health](http://www.jeffjuices.com/copy-of-for-health).

## CONCLUSION

It was challenging to put the complex issues of the environment in a way that children could understand and comprehend. As a group, we wanted to make sure that our young audience could see the importance of the environment, and be more educated on this topic. To add to the book, we included visuals as a multimodality, so that the argument can become more clear. We hope that children will be inspired by this book to make a change in the environment, even if it is a small change.

A reduction in industrial agriculture, in addition to a better promotion of plant-based diets, would contribute to the fight against climate change, to help better the future.