



About the Author - Megan Roy

Shrewsbury High School, Shrewsbury, MA



"The Panic of 2020"

Megan Roy is a sophomore at Shrewsbury High School, also known as her second home. She is a member of the varsity girls volleyball and lacrosse teams, and also plays her trombone in every possible ensemble at school, even in the pit orchestra for the school musicals, and has been a member of the Sr. District Jazz Ensemble. Music is her passion; she also plays the piano. This year, Megan also started a campus ministries club at her high school. Outside of school, she plays on the Special Olympics Jr. Basketball team and works

with the children at her church.

Megan enjoys writing in her spare time, especially poetry. She likes to travel and experience different countries while on missions trips—she has already been to Poland and Ecuador. Her family is very supportive in all that she does; she loves them and thanks them very much!

In her Afterword Megan Writes:

"I learned a lot through this study... In researching this topic, I found that biogas digesters were found to be an environmental friendly and cheap source of energy; they have been used for many years in countries around the world, but seldom in the United States.

Biogas digesters give off methane through anaerobic respiration. The methane that is then given off is able to be burned or converted into electricity. Since it comes from waste, methane is an especially renewable resource that is easy to come by.

Although carbon dioxide is produced, harnessing methane energy is the ultimate form of recycling. This is because, when methane is burned, the amount of carbon dioxide that is released is the same amount taken in by the plants that had been decomposing. So, in a sense, the carbon dioxide that was already in the atmosphere and was taken by the plants is returning to the atmosphere, keeping the original balance that was created on Earth for a reason. Besides just the recycling of carbon dioxide, biogas digesters have another helpful byproduct. After all of the methane is extracted from the waste, the nutrients are left behind...resulting in a highly effective fertilizer."