**PAESTA Podcast Series – You Asked, We Answered!**

**Episode 22 -- Is the Mississippi River delta really sinking?**

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Hello, and welcome to Episode 22, Is the Mississippi River Delta really sinking? My name is Joseph Opdenaker. In this podcast I would like to tell you about the Mississippi river delta, what troubles the delta and we as the people are facing, and finally we will find out if the delta is really sinking, and why if it really is sinking.

First and foremost, [1] the Mississippi River Delta covers about 40% of the coastal wetlands in about 48 states, which most is in the state of the Louisiana. [1] Many people, and animals truly depend on this delta. Without this delta, the animals would start to die off, and they would end up becoming extinct. For the people, especially the ones that live in the city of New Orleans, they really depend on this for many reasons. The first reason is that there are animals there, that the people in the city of New Orleans hunt and fish. This is important for restaurants, and also for people who need to consume food. The second reason is that this delta brings in many tourists. With these tourists, it brings in more people, and that is more money for the city of New Orleans. The third reason that this delta is very important is that this delta is huge for navigation. The fourth and final reason is the plants. There are many different plants that depend on this delta in order to survive. Now, we all know that plants are not exactly like humans, but humans truly depend on plants. Not only do plants provide a food source, but plants provide oxygen and many other great sources that we need in order to survive. Also, animals eat this vegetation, and going back to the animals, if they do not have to option to eat this vegetation, then they either A have to become carnivores… YUCK, or option B is that they starve to death and end up becoming extinct. Many ships and boats go up, down, and through this delta. Without this delta a lot of imported and exported goods could be either delayed or end up not going through at all. The New Orleans economy and the places that surround this deltas’ economy in essence depend on this delta to thrive.

There are many issues that the delta is facing right now. A couple of these issues that are being faced is [1] wetland loss, global warming, gas and [2] oil infrastructure, dams that are upriver, sea level rise, subsidence, oil spill, and invasive species. The first issue that I will discuss is the wetland loss. [1] Costal Louisiana is losing 24 square miles of wetlands each year. If you put that in perspective, that is like losing one football field every thirty minutes. That is incredible and very scary. By the year 2040, if we do not stop what we are doing to these wetlands, they will disappear, like they were never here. The causes of wetland loss are from natural causes, subsidence (which we will get into), wave erosion, and human causes. We are part of the problem. Another issue that is hurting the delta is subsidence. [2] Subsidence is land formed by river sediments that naturally subsides and sinks over time. What this means is that as soil, dirt, and other particles start to lay in one certain spot, and hill, and possibly land will be made from this. At some point this will go away. With subsidence, this will make sea levels and water rise, which can cause flooding and that is no good. Another issue that the delta faces is oil spills. With the oil spills that have occurred in the Gulf of Mexico, the oil will spread for miles and miles. The issue with this is that when that happens, animals, people, and plants are affected. Animals are effected especially when the oil gets on their skin or fur. For people oil spills in the water affect the economy because of the lack of food supply coming from the ocean and the delta. For plants, they will wither and die because of the oil, it is not good for them to consume. The last issue that I will discuss that has to do with the delta is the invasive species. Invasive species are animals, rodents, plants, etc. that are disastrous for a certain piece of land or an area. The issue is that if the delta gets infested with these insects or rodents, it will drive out or kill wildlife that has always been there, and they will destroy plants, and infect the water there.

The final question that we have been all anticipating is whether or not the Mississippi river delta is really sinking. To answer your question, yes, the [3] Mississippi river delta is sinking or another way to put it is that the delta is drowning. [3] Michael Blum of LSU in Baton Rouge said that there is not enough sediment to sustain the delta plain. Since the 1950’s, about 70% of the sediment has been trapped within the delta. With this, that means that the delta has started eroding. With the sea level rise and the trapping of the sediment which has caused erosion, the delta is bound to drown or “sink” by the year 2100. This is significant because if we start to try and restore the delta now, we can slow down this process. But, because we have waited too long to try and restore the delta, at some point maybe not in our lifetime the delta will sink completely. I think this has a part to do with the life cycle and with the end of the worlds we deal with. Like the ice age, things will die and it will take time but it will restore. The delta will be back one day but putting a time frame on it is almost impossible. The only thing that I can tell you is that the delta will sink.

*(This audio file was authored by Melanie Kempf and recorded by Joseph Opdenaker in March 2016.)*

**Works Cited**

[1] National Wildlife Federation. (2016). Mississippi River Delta. Retrieved from <https://www.nwf.org/Wildlife/Wild-Places/Mississippi-River-Delta.aspx>

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[3] Carroll, R. (2009, June 29). Mississippi River Delta to “drown” by 2100? [National Geographic]. Retrieved from <http://news.nationalgeographic.com/news/2009/06/090629-mississippi-river-sea-levels.html>