One:

One characteristic that can cause a species to be threatened to go extinct is having a small population of the species, whether the population has always been small (they could only live in certain parts of the world) or it has shrunk. This can be a risk because if they aren't reproducing enough or living long enough the population can shrink even more or faster causing them to eventually go extinct. An example of this is the Borneo pygmy elephants which are endangered and have a very small population left.

A second characteristic is being able to only survive in certain conditions, the more specific the less likely they are to survive since they cant move anywhere and have multiple populated areas, and if the environment changes or there is a large amount of habitat loss they are at risk. An example of this is the polar bear, which can only survive in northern Arctic areas. Since ice is melting they are at risk and there is isn't a large population of them in general since they only live in one part of the world. Species like this are called endemic species- meaning they only live in one part of the world.

My final example of a characteristic is loss of genetic variation. inbreeding can cause a lack of genetic variation, this can cause species to be more suseptable to disease and effect evolution. Cheetahs are an example of a species with little genetic variation, due to this they cannot adjust to environmental change as fast.

Two:

My first example of an ecosystem service is pollination. Pollination is the transfer of pollen from one plant to another to allow fertilization to grow more flowers, it's how plants like flowers reproduce, and they rely on winds and certain insect species to do so. Plant reproduction is important for plant and animal life and promotes biodiversity.

My second example is decomposition. Decomposition is the decay of organic waste. This process can break down dead plants and animals and use it for nutrients in the soil and is also very important for the life of plants and animals.

My final example is water regulation. Water regulation is where plants filter and regulate water around (plants in the water) this is very important to water life health of plants and animals that live within and the ones that rely on it for other things like drinking.

Three:
Conspicuous consumption is the purchase of items not for use or convenience but just for the purpose of portraying wealth or a certain financial status. An example of this is the purchase of a Birkin bag. This designer bag costs more than some cars (usually 20-40k) and is simply a symbol of wealth and status since to get one, you need to be on a "list" meaning you are already a consumer of a product of this kind. Many people barely fill the bag and keep it perfectly intact

with little use of it just to show they have this bad. A running joke is that the creator Jane Birkin doesn't want people using the bags this way, though they are some of the most exclusive and expensive bags around; the designer wanted people to break it in and use it around. She herself would pack the purse full of her things, though many don't do this since the bags are extremely valuable. Things like this are unsustainable considering bags are meant to carry personal items and hold what you need when you go out so to waste a large amount of money on a bag you do not intend on using for its purpose just to show you can afford it is frivolous and wasteful. Conspicuous consumption is not a sustainable way of being a consumer and needs to be addressed and fixed so people can make purchases sustainably and not buy things they will not use.

Four:

I believe the thing that impacts the environment the most and does the most damage on the environment is population size> Manty studies have shown that the population on earth is likely the leading cause to many of these environmental issues, this is because the other issues are individual acts (for group) where the more individuals that do this the more damage it causes, if the human population was cut down 15% then the consumption and damage of things would likely also cut down 15% since 15% of these users are gone, and if it rises 15% we should expect for the use of these things to go up, lowering the number of kids per family and reducing human reproduction can have an extremely beneficial impact on the environment, and for those who want a lot of kids should consider adoption, not only would that help not contribute to population growth but also impact the lives of children who go through foster care their entire childhood. Lowering the population would likely help the environment and use products slower.

Five:

A deontological argument would imply that the person arguing this would be saying that the correct action is not determined right or wrong solely by its consequence. For example, if you want to clear an area to create a farm, the consequence to that may seem wrong since you are taking out the habitat to animals and clearing a piece of land for your own business, but maybe the species you are growing on the land will benefit the environment and bring more animals and pollinators around, and if treated healthily it will benefit the environment in that area overall. A consequentialist argument is where the action is defined by its consequence, this side would argue that the land is perfectly fine how it is and should be how it was created on this planet and no matter what species may be benefited others can be harmed and that this farm is wrong.

Six:

Three steps needed to be taken to help the US transition to 100% renewable energy are the proper funding, available locations, and peoples overall acceptance of this. There are both steps and challenges. First, getting people on board with this is a huge thing and may require sacrifices, and just change overall is difficult for many, and for some things like nuclear may be scary. Second, finding available locations. Finding available locations is harder than you may think, and depending on the location, only certain types of renewable energy may be possible or convenient. Wind power will need wind turbines which need fields and a large area to put enough to power the necessary amount of people. Hydropower can mainly only be located near moving bodies of water, which eliminates many places in the US, solar power needs to be in locations with a lot of solar radiation and needs a lot of space as well, and nuclear can be risky and may not be accepted as the power source in many places and can also take up a lot of space. Finally, cost; the cost of all of these things, especially countrywide, will be extremely expensive, and some more than others due to many factors. Taxes may rise as well, which can affect many too. Though all their problems are significant, they aren't impossible to overcome, and with acceptance from people and the proper minds in place to find which energy is right for each town across the US then, this is a very realistic possibility and would be an amazing step the US could take towards the future.

Seven:

One piece of scientific evidence that the climate is changing is sea level rise. The areas of land on the shore are experiencing sea level rise, and land is being lost. This is because ice on land is melting into the ocean and causing it to rise. Just a small temperature change causes enough ice to melt to impact the sea level to a noticeable amount for locals.

A second piece of evidence is the migration of animals and plant species. Though it's hard to tell, many animal species and tree species (like maple trees) are migrating north or even south due to the change in conditions and to find survivable areas, and also because of where the food they eat is moving to. Maple trees need certain conditions and because of the temperature change more are growing more north and dying in their more southern areas.

Eight:

I strongly disagree with the statement, "Plastics are not the problem ...it's our lack of recycling that is the problem." Though people have a responsibility to recycle, the lack thereof is not the issue. The production of single-use plastics due to convenience and money-saving is a huge problem that needs to be addressed. Plastics and a lot of other types of trash are contributing to

CO_2 emissions just from them sitting in landfills. Though it may not be as cost-efficient or convenient, there needs to be a large change in single-use plastic production, and the production of plastic materials needs to lessen. Many unnecessary items come in plastic form for "convenience" or are simply used out of laziness for not wanting to wash dishes. At least if single-use materials are being made, they should be made with a more eco-friendly material since they are used for such a short period of time typically, these companies producing these materials are still responsible and still are the ones creating these plastic items will full knowledge that much of it won't be recycled therefore they have a responsibility to do what's right and try their best at least to adjust their product to not rely on the consumer recycling it.

Nine:

One piece of evidence that is likely driving scientists to believe we are in the sixth mega-extinction is habitat destruction. Some causes of habitat destruction are urbanization and deforestation. Both of these are taking away the homes of the native species and causing many animals to lose their shelter, food, etc. Along with this, it's harming the ecosystem and affects the amount of biodiversity and health of soil and plant species overall (specifically certain types of farming). All of this is crucial to animal health and is a reason many species may not be able to survive since they can't adapt to their new environments quickly enough, are susceptible to foreign diseases, etc, which can all lead to endangerment and unbalanced ecosystems.

The second driving cause of this event to this, I believe, is (clearly) climate change. The main reason I think this is an issue is due to the increasing number of natural disasters and extreme events, these destructive natural events. Even though they are natural, are on the rise and a lot more destructive, especially since many ecosystems can't recover fast enough before a new event. And similar to the last reason as well species are being pushed out of their homes or hurt and can't evolve fast enough to these changes causing them to lose a lot of their population.

Rising temperatures and changes in climate are the main pieces of evidence that can be used to determine why many species are going extinct, since with climate change, there is also going to be loss of life since the rapid pace is too fast for most species to adapt, also rise or poaching animals and overfishing can also add to this causing these species to be eliminated faster. Finally, urbanization is non-animal/plant friendly and is a large reason many animals are being pushed away from their homes which likely will result in death is another example scientists can use as evidence that species are going extinct at a fast rate due to new human activities likely caused by industrial capitalism which is still on a rise and also a more recent event.

Ten:

A circular economy, to my understanding, is an economy that is somewhat regenerative, an economy that meets all needs of humans and the environment and is kind of like a loop where it restores and reuses the resources put in originally. For example, a company could use plastics to create their product, then that product is reused once disposed of either to that company or

another and reused again, constantly reusing and recycling these products for new things needed. It saves money and eliminates waste. This type of economy is very sustainable and should be more influential/common in today's day. Though there can also be some limitations to this type of economy which may restrict it from being realistic for many producers. For example, if this company uses recycled plastic to create a product, some consumers may not want to but products made with plastic or from recycled materials, which may seem selfish and unimportant, but consumers still have a choice, and many may choose not to buy these products whether it's right or wrong. Second, the company may have a difficult time getting all these recycled plastic products to use. Though I'm not familiar with recycled plastic use for products, I would assume there are some limitations to the type and condition of plastic they can use for certain materials they are manufacturing, and if the demand for this product rises, there may not be enough plastic from the provider to create the product fast enough. Though this idea seems ideal, the cost of all of this may be too difficult for many companies to justify, and the production prices may skyrocket and cause an originally cheap item to go up in price, also making it less desirable to their target market.