The following are instructions modified from the original case study to be posted for a discussion board platform.

* Conservationists use data to determine how to allocate conservation funding. For this case study, you are representing an African country and applying for a conservation grant for one of your local elephant populations. You are given data for two elephant populations from your country and will have to do additional research to learn about each of these populations. From there, you will develop a grant application in the form of an infographic for one of the two elephant populations. Follow these steps to create the infographic:
  + Part of the population data were collected for the Great Elephant Census. [Click here](http://www.greatelephantcensus.com/) to learn more about the census and [click here](https://www.youtube.com/watch?v=imvehfydUpc) to watch a video on how data were collected (it’s a great example of the relationship between conservation and engineering!).
  + To ensure that several African countries are represented in this engagement task, coordinate with your team so that each team member is analyzing a different figure.
    1. Note that there are more possible countries than team members.
    2. Countries are Botswana, Jamalya, Mozambique, South Africa, Tanzania, Uganda, and Zimbabwe.
  + Your instructor will supply you with population growth data for two populations of each country. (*Note to instructors:* see end of teaching notes for this data.)
    1. Once you select your country, examine the population data (it might be helpful to quickly sketch population growth graphs) and do some quick online research on the two populations to determine which population to represent.
    2. Note that the amount of data for each population varies and selecting the one with the least amount of data may make graphing quicker but can make it more difficult to make an argument for that population- plan wisely.
  + Once you have decided on a population, do some online research to learn about density-dependent and independent factors specific to your country (and for your specific population, if available).
    1. Find density-dependent factors and density-independent factors.
    2. For instance, do not simply list “disease” as a density-dependent factor. Determine if there are any diseases prevalent in your country.
    3. Take notes on additional findings (e.g., is some of the area already protected?).
  + Next, create your infographic.
    1. An infographic is primarily visual with brief text- it is not an essay with images. One should be able to look at an infographic and obtain the main points in 30 seconds. Here is some more information on making infographics:
       - Here are couple examples of conservation infographics: one on [coyotes in Florida](https://www.baynews9.com/fl/tampa/news/2019/03/12/facts--tips--what-to-do-if-you-see-a-coyote) and another on [working lands for wildlife](https://commons.wikimedia.org/wiki/File:Working_Lands_for_Wildlife_InfoGraphic_(9788793604).jpg).
       - The final project will be an infographic and will require creating it using a program rather than hand-drawing. For this elephant activity, feel free to either hand-draw it or practice using an infographic program- go to the final week’s folder and see the “infographic instructions” for more information on infographics and free programs.
    2. Include the following information:
       - Name of the country and population/ecosystem
       - A population growth graph, which is a [line graph](https://sciencing.com/create-population-graph-5802262.html) (hand draw it or make it on the computer)
         * Label the axes
         * Describe if the graph represents an exponential or logistic curve or neither and how you know.
         * Estimate the carrying capacity and describe how confident you are in your answer (e.g., is there a consistent enough pattern to confidently estimate the carrying capacity?). Keep in mind that carrying capacity can change as the environment changes.
       - Size of area (given in the population data file)
       - Specific examples of density-dependent and density-independent factors
         * Do not list generic possibilities

Example: do not list “disease,” instead, do some research and find a possible disease that is impacting the area

* + - * + Label as density-dependent or –independent

Some are harder to determine (e.g., poaching could be either, depending on your argument)

* + - * Why the information presented in your infographic supports the need for conservation funding
      * Any other persuading information
  + Upload your infographic to the discussion board post by using the camera icon in the toolbar. If you hand-drew the infographic, then take a photo of it.
  + *Suggested peer responses*:
    1. Compare your infographic to another person’s infographic that represented a different country from you. Mentally “change” your role from grant applicant to grant reviewer. After reviewing your infographic and the other person’s infographic, which one should receive the conservation grant and provide a few reasons to support your conclusion.
    2. Mentally “change” your role from grant applicant to grant reviewer. Go through your peer’s infographics and choose one that you believe should receive the conservation grant. Provide a few reasons to support your conclusion.

Activity modified from Bierema, A. M.-K. (2019). Which elephant population would you protect? *National Center for Case Study Teaching in Science*.