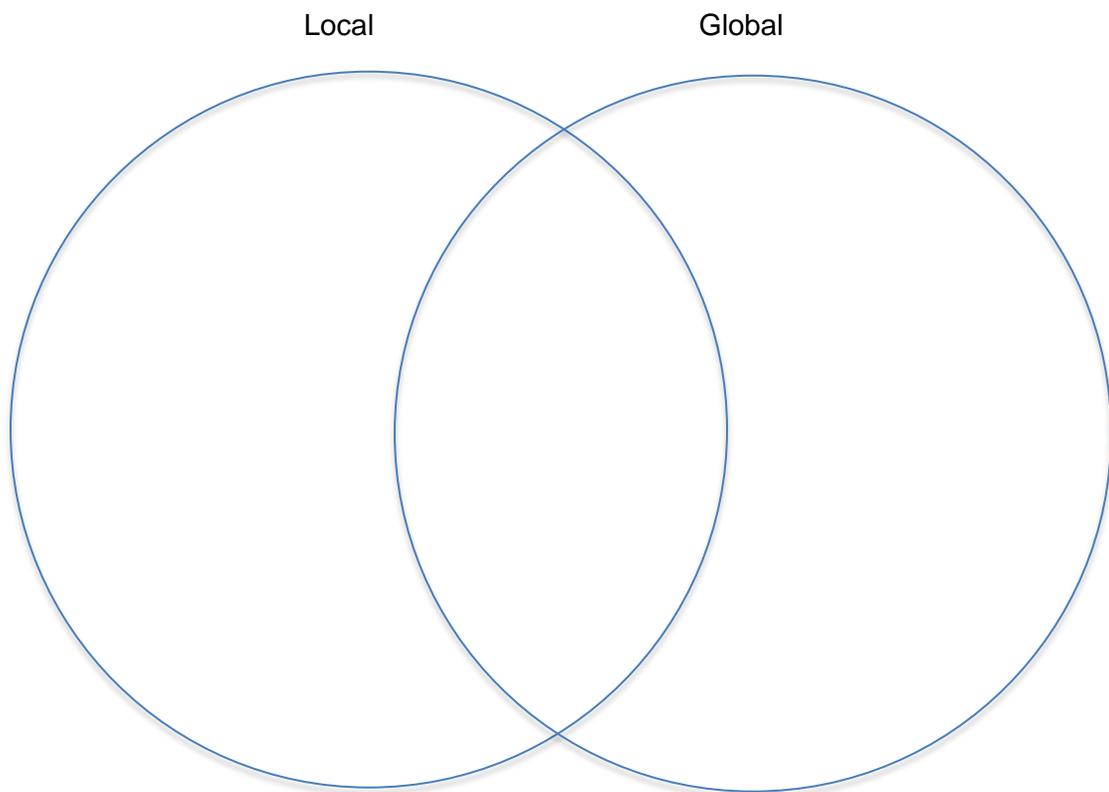# Student Sheet 8-1: Benefit to the Community

Solutions to scientific problems (simple and complex) benefit communities in some way (either locally or globally).

PART 1 DIRECTIONS: Place the letter (left column) that corresponds to the specific Scientific Problem Statement from the following chart into the appropriate circle of the Venn Diagram. Do not write anything in the right column until Part 2.

	Scientific Problem Statement	Who Benefits? Why?	Rating 1-10
A	Water runoff after storms shows high levels of pollutants in homes that are downstream.		
B	Coal and oil (made from dead plant and animal matter) are sources of energy that are quickly being depleted.		
C	Rice and grains grown near the Niger River are rapidly disappearing due to climate changes.		
D	Corn rootworm insecticides have been shown not to be as effective in reducing corn crop infestations.		
E	A greywater biofiltration system removes a significant amount of pollutants before they flow into the groundwater, river, or natural wetland.		
F	Deer-vehicle collisions are a common occurrence, resulting in human injury and death, damage to vehicles, and waste of deer as a wildlife resource.		
G	Aluminum [in landfills] takes 200-500 years to fully degrade in a landfill.		
H	An unfortunate consequence of the steep Andean terrain is a severe problem with soil erosion.		
I	Placing water in plastic bottles in direct sunlight for several hours takes advantage of UVA radiation's ability to kill pathogenic bacteria.		
J	Response times when driving distracted slow drastically.		

Venn Diagram:

Local   Global

PART 2 DIRECTIONS: In the "Who Benefits? Why?" column of the table (above the Venn Diagram), determine who would benefit if the problem in the left-hand column were investigated scientifically. Be specific in determining who benefits.

After completing, rate each "problem" (1-10) in terms of importance to you with 10 being the least important and 1 being the most important. Write your ratings in the "Rating" column. Discuss your ratings with your class.

How did **you** determine which communities would benefit from investigating each problem?

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