**Group Discussion Questions**

Begin with a summary from each “expert” about what important factors are affecting this issue from their angle and how. Then discuss and answer the following questions.

1. Discuss with your group what is shown in the figure(s) on your worksheet. Provide captions for each that would help interpret them for a non-expert audience.
2. Is this agricultural system dominated by top-down, bottom-up, or a mixture of processes? Explain.
3. Based on your experience modeling predator-prey interactions using Lotka-Volterra’s model, how do you think modeling biological processes may help us predict outcomes of human interventions?
4. Draw a diagram that integrates all of the key components in this ecosystem -- including chemicals. Draw arrows between organisms and chemicals and label them with a process and symbol representing the relationship the process has ( + for positive, - for negative).
5. Provide a big-picture narrative of what exactly is happening in this system. Describe what your diagram from #3 is illustrating.
6. Given the detrimental effects that pesticides, cultivars, and fertilizer has had on rice agriculture, why do you think these are still being used?
7. Based on all of the problems that are associated with the way rice is grown, what solutions/recommendations do you have to solve the problem?