

# Teaching Tips/Notes



## Visioning Future Scenarios

Practical agronomists and other applied specialists in agriculture become experts in their narrow disciplines through academic courses and research for advanced degrees. Fulfilling this role as experts, they often follow careers in research, education, public sector extension, or private advising where they are expected to provide appropriate advice to farmers based on their experience and training. Although this “expert-client” relationship is an established norm and comfort zone for both parties, it may not help them explore the range of potential solutions that could emerge from a more holistic, systems-oriented strategy that leads to future visions and scenarios (Barker, J., 2001; Parker, M., 1991).

**Learning objectives** in agroecology courses are to: 1) examine multiple alternatives or “scenarios” that could be adopted by farmers to solve their production challenges, 2) evaluate the potential influence of any change in practices on total crop, animal, or crop/animal system performance, and 3) assess *a priori* the possible and likely production, economic, environmental, and social impacts of such changes. Our experience has led to development and refinement of visioning sessions as a robust method for reaching their objectives.

**Methods** we have used over several years have included virtually driving through or taking a balloon ride across the landscape, drawing rich pictures to illustrate major farming system components and connections, and discussing future goals and aspirations with clients who will be the ones to implement any effective change. Often we ask students to observe, to visualize, to imagine, and especially to suspend judgment as they think about what an ideal system could be, especially unencumbered by current constraints.

**Observed learning outcomes** have been accumulated over the past decade of conducting visioning exercises in a number of educational venues. Evaluation of the visioning process puts this into context as one important step toward describing future scenarios. Students imagining a future desirable situation on the farm that will meet the farmer’s and family’s goals try to think beyond the current systems and constraints to consider what is possible in the future.

We have found that students who view the farm from a small distance are better able to focus on the entire operation, and not on the specific weeds, nutrient deficiencies, and fungus diseases on the leaves of the crop that often get in the way of observing the larger picture. From a position looking down on the farm, it is possible to see where the various crops and animal enterprises are located, and how major interactions may be possible because of the physical juxtaposition of the elements. From above, it is also possible to see how this farm fits into the surrounding rural landscape and how its key elements impact the farm. Also in this slightly detached mode, they can better envision possible changes or scenarios for the future that could help the client better meet his or her goals.

We do urge students to suspend judgment in their visioning, and not to jump to obvious solutions or recommendations, since these too often seem to represent their own disciplines or some pre-formed ideas about what should be. Observing from a small distance it is possible to envision new elements, innovative connections, and potential emergent properties from a reorganized or more diversified system.

Finally, we insist that the student teams come up with a series of potential future scenarios to present to the clients, rather than specific recommendations. In this way, there are multiple and creative ideas presented, and the clients can pick and choose the elements that they consider most useful to help them meet their goals. As a part of the evaluation, student groups try to calculate or at least imagine the impacts that any change in one component or addition of an enterprise will have on whole system performance – in production, economics, environmental, and social dimensions – and not only in the short term. Sustainability is a long-term concept, and we need to imagine and project the impacts of changes in systems into at least the medium-term future.

**References**

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Parker M (1991) Creating shared vision. Dialogue Int., Ltd., Cambridge, U.K.

**Submitted by:**

Geir Lieblein, Tor Arvid Breland, Suzanne Morse, and Charles Francis  
University of Nebraska-Lincoln