

A GUIDE TO UNDERSTANDING AND ASSESSING WELLBEING IN GRAZING SYSTEMS

Sarah Hubbard

hubba184@msu.edu

Dr. Jennifer Hodbod

jhodbod@msu.edu

*Department of Community Sustainability,
Michigan State University*



Introduction

As environmental concerns about agricultural practices increase, there has been a push for changes in management practices – specifically recommendations about sustainability. One way to understand sustainability is *continued wellbeing over time*. Therefore, wellbeing is essential to understanding sustainability in grazing systems. Given these are systems where humans are embedded in nature we need to assess ecological wellbeing, economic wellbeing, and social wellbeing. There are already established wellbeing indicators for the ecological and economic components, but the social component does not have the same agreed set of indicators. To fill this gap, we completed a literature review looking at how social wellbeing is used across multiple disciplines. We use the literature review to create a conceptual framework for understanding social wellbeing and a survey tool that contains all elements of the framework. This briefing note outlines the elements of each wellbeing component as well as our approach for studying each component.

Sustainability and Wellbeing

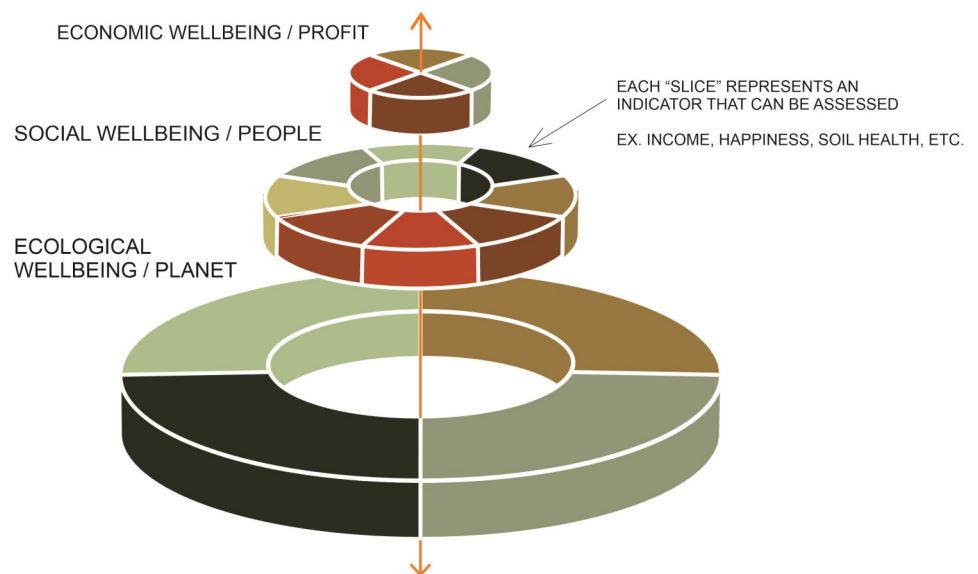
At its most basic, sustainability is the ability of a system to meet the needs of the present without compromising the ability of future generations to meet their needs. However, the ultimate goal of sustainability is to accomplish the former while also improving quality of life for those in the system – ideally, we want to support flourishing not just survival. If a system has reached stable wellbeing AND can maintain this wellbeing over time (or improve it), it can be considered sustainable.

Social-ecological systems (SES) are where human societies are embedded in nature – i.e., agricultural operations and grazing systems. Within an SES, there are three components that each must be accounted for when assessing wellbeing - environment, society, and economy (or informally planet, people, and profits):

- The planet component considers factors that influence the functioning of an ecosystem. The Earth's ecosystems are the basis for our societies, and thus at the base of our model below.
- The people component is concerned with maintaining or improving the quality of life of those individuals in the system.
- The profit component considers factors that allow a business or sector to remain productive.

When advocating for sustainable grazing techniques like regenerative grazing, there is often a focus on ecological wellbeing, but this is only one aspect of a flourishing social-ecological system. Social and economic wellbeing are necessary for stakeholders and managers to remain healthy and happy. Once we understand whether these grazing management styles are effective in achieving all three types of wellbeing, we can then consider whether they are effective in achieving sustainability.

SOCIAL-ECOLOGICAL-SYSTEM WELLBEING COMPONENTS



Our Approach

Wellbeing is a particularly difficult concept to study as it is used and defined differently in multiple scientific disciplines. Economists tend to understand and associate wellbeing with wealth or income, so they might only consider an individual's financial situation in their assessment. Similarly, physicians or psychologists might only associate wellbeing with physical or mental health.

As sustainability scientists, we think in systems and prefer to analyze systems in a holistic way – examining the interrelatedness of multiple components from multiple perspectives. We accept and embrace that wellbeing is a multi-dimensional concept that includes indicators like soil health, happiness, and financial security. This is not to say we are experts in all related disciplines, but that we choose to learn from multiple disciplines in order to draw connections that might have been left undetected or unexplored. Therefore, this project will collect data on all three components of wellbeing to create a holistic wellbeing and sustainability assessment tool.

Ecological wellbeing

Ecological wellbeing is primarily concerned with ecosystem function. Common indicators in this type of wellbeing are related to soil health, water quality, soil carbon, biodiversity, etc. To assess ecological wellbeing we will use the Ecological Outcomes Verification (EOV) Short-Term Monitoring tool, a practical and scalable soil and landscape assessment methodology that tracks annual outcomes in biodiversity, soil health, and ecosystem function (water cycle, mineral cycle, energy flow and community dynamics). EOV measures key indicators of ecosystem function resulting in an Ecological Health Index (EHI) score, which is created annually and indicates positive or negative trends in the overall health of a landscape over time.

Social wellbeing

Unlike in ecological wellbeing, researchers seeking to assess social wellbeing struggle due to a lack of consensus on the topic. However, without this component, it is impossible to accurately assess the sustainability of social-ecological systems – we don't want to advocate for management techniques that reduce greenhouse gases but that make people miserable. To effectively survey wellbeing in a holistic way, we have developed our own framework for understanding and assessing social wellbeing, to be used annually alongside EOV. This framework incorporates core ideas about wellbeing and related indicators from a variety of social science disciplines, including rural sociology, international development, economics, and psychology.

We see four main elements of social wellbeing and have designed a new survey to assess them in a comprehensive but time-efficient tool. Where available, we integrated well-accepted tools for specific sub-elements, i.e., life satisfaction. We will run through the 20-minute social wellbeing survey annually with you, to record any changes over the project lifetime.

Non-material wellbeing

- Non-material wellbeing is the piece we think about most often for social wellbeing as it refers to feelings and emotions like happiness, joy, and stress as well as life satisfaction. However, there are multiple other elements of wellbeing that influence those short- and long-term indicators. Non-material wellbeing also refers to the ability to set and achieve goals, as being able to determine this for yourself (related to self-efficacy and autonomy) can influence your satisfaction with life.

Material wellbeing

- Material wellbeing refers to the tangible assets an individual or household has, such as land, machinery, herd size. Although we know material indicators do not tell the whole story, they are essential to operation functionality and are therefore still important to recognize.

Health

- Health is a crucial indicator of social wellbeing, and our framework includes both physical and mental health, asking about indicators like sleep and capacity to do physical tasks on the farm.

Relational wellbeing

- Relational wellbeing recognizes that relationships provide us with both physical (financial support, loans of equipment) and non-physical (information) support. Asking about which groups you're a member of and the quality of relationships within these groups are indicators of relational wellbeing.

Economic wellbeing

Economic wellbeing is a synonym of present and future financial security and as such, it depends on two main variables: income and wealth. However, there is a subjective aspect to it: the degree of satisfaction or fulfillment. Thus, some indicators in this component are tangible like income or assets, and other indicators are intangible like perceived financial security or comfort level with finances in general. To assess this component we will help you to develop a financial analysis which explore the economic profitability of your beef enterprises, including opportunity costs (land, labor, capital). We will also ask about whether you have off-farm income and health insurance coverage, your perceived economic wellbeing, and your degree of comfort with finances in general.

Application

Many past sustainability assessments have chosen to study wellbeing using only one or two of these framings, but it is our opinion that wellbeing is much more complex and cannot be answered through only one or two questions. Our project as a whole will study all three components of wellbeing each year. Along with the social wellbeing survey, we will ask you to collect EOY and financial analysis data every year. The three elements will each inform a 'score', which will be used to look at which elements are flourishing and which can be improved.

Conclusion

It is essential for us to understand wellbeing holistically when we consider any change in farm management practice. If a management practice is good for the environment and bad for business or causing stress and health issues then it is not sustainable. It is our goal to provide you and your enterprise with the tools to be successful and sustainable.

