

Commons, Conservation, and Livelihoods

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Different strategies to govern resource commons produce effects that can be assessed along different dimensions – in terms of the ecological or social sustainability of the resource system, contributions to the livelihoods of those who rely on these resources, or equity in the allocation of benefits. These different characteristics of outcomes are generated simultaneously. But they are not systematically related to each other positively (or negatively) across different contexts. Sometimes greater sustainability may be associated with improvements in livelihoods, or equity. At other times, these three outcomes may not be associated with each other, or may have a negative association. We simply do not have a theory, or robust empirical evidence on whether improvements in resource conservation are likely also to improve equity or levels of livelihoods benefits to those depending on a given natural resource. The above also holds for additional dimensions of outcomes that maybe relevant for specific resource commons – eg., biodiversity in the case of forest commons.

More systematic understanding of the relationships among these different outcomes on the commons can show both the extent and limits of existing knowledge about how multiple outcomes are related to each other, the factors and processes that explain these relationship patterns, and avenues along which further work is necessary to understand outcome patterns. Although an important beginning has been made in documenting multiple ecosystem services and outcomes by scholars of ecosystems and those interested in conservation and poverty, scholars of commons need to undertake far more work to assess how commons outcomes relate to each other and to the underlying causes of multiple outcomes.

My paper will use reviews of secondary literature as well as analysis of original data from the International Forestry Resources and Institutions database to examine patterns of relationships between livelihoods, forest conditions, carbon, and biodiversity as these outcomes are generated on the commons. The analysis will examine variations in the observed relationship between some of the most commonly used explanatory factors (enforcement, objectives, participation in rule making, size of forest commons, autonomy in establishing a close fit between resource capacity and user needs, and ownership of the land on which forest commons are located) and relevant outcomes.

The analysis of multiple outcomes through reviews and statistical analyses suggest that a research program focusing on explaining more than a single outcome related to forest commons is likely to encompass at least five tasks: (a) the selection and characterization of outcomes to be examined; (b) the choice, development, and

construction of measures of different simultaneously occurring outcomes that the intersection of social and social–ecological processes generates; (c) the identification of patterns in the relationships among selected multiple outcomes; (d) the specification of the drivers of multiple outcomes, including whether these drivers relate to individual or multiple outcomes of interest; and (e) the estimation of the strength of relationships among identified drivers and the relevant outcomes, including feedback, non-linearity and hierarchy in such relationships.

Accomplishing these tasks will require the development of novel analytical frameworks to think about joint outcomes, methods to understand their interactions and drivers, and integrated datasets on multiple outcomes and their causes. Such a focus on multiple outcomes has the potential to marry spatial and network approaches and data with more conventional social science approaches so as to improve the understanding and knowledge of relationships among different factors and processes. Doing so will require as well a move away from easy assumptions that tradeoffs or synergies are the universal pattern of relationship among selected outcomes of interest. Whether tradeoffs or synergies characterize the patterns of relationships among observed outcomes of interest depends on the number of outcomes deemed to be of interest, and the contextual conditions under which social–ecological systems produce these outcomes.