

Exploring Relationship between community Perception and landscape change in the Eastern Kentucky

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Kentucky's Appalachian Mountain Region has a history of coal-mining beginning in the 1800's, which has increased the scale of land used for coal extraction and has impacted people's life, local environment, and economy. Reclamation of surface mines, as mandated by the Surface Mine Control and Reclamation Act (SMCRA) of 1977, has not resulted in restoration of pre-mining hydrologic and ecological characteristics. Previous studies suggest that surface mining and reclamation efforts may be increasing risks of more environmental and flooding hazards. The conflict between mining activities and environmental protection has intensified over recent years, emphasizing the need for improved information on the dynamics of impacts at regional and local scales. Assessing cumulative environmental impacts is an important aspect of sustainable land management, and involves balancing benefits from resource exploitation against environmental degradation. Public knowledge of extent of mining and reclamation is critical to managing or mitigating the potential impacts of surface mining on socioeconomics and microclimate of downstream settlements. This study is sought to explore correlations among public perceptions of trajectory of surface-mining, community attachment, and reclamation effects for climate, human livelihood, and environment. The analysis of survey data and regression results suggest residents in eastern Kentucky have a strong sense of place and view mining as part of community identity. They perceive reclamation efforts have been successful and disagree that surface mining has negatively impacted their surroundings.