

# **PEEKING THROUGH PEOPLE'S PERCEPTION: AN ANALYSIS OF SOUTH CAROLINA RESIDENT'S PERCEPTION TOWARDS CONSERVATION**

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Increasing demand for goods and services has resulted to rapid decline of natural resources and ecosystem services (ES) across the globe. Hence, conservation practices became critical measures to ensure continuous provision of goods and services while preserving sustained and integral part of ecosystem services for future generations. One of the best management practices of watershed and natural resource management is to develop a sustainable financing mechanism for priority conservation programs. This mechanism is widely known as "Payments for Ecosystem Services" (PES). Basically, ES "Providers" ensure continuous provision of the ecosystem service products by maintaining healthy ecosystems through conservation practices. While on the other hand, ES "Beneficiaries" supports the ES Providers by compensating their efforts in exchange for ensuring continuous provision of ecosystem services. This effectively creates a "pseudo-market" of ES allowing a continuous flow of financial resources to fuel programs directed towards strategic key conservation areas and practices, hence ensuring a continuous flow of good quality ecosystem services. However, creation of markets involve fundamental activities such as understanding preferences and priorities of stakeholders as market elements. These information is eventually used for quantification and valuation of key ecosystem services, leading to an effectively designed pseudo-market initiative and sustainable financing mechanism.

Therefore, as part of a series of studies for developing PES in Santee River Basin of South Carolina, this research focused on analyzing the stakeholders' perception towards conservation program as requisites in laying the fundamentals towards creating a viable sustainable financing mechanism. We analyzed the perception responses of 1500 South Carolina residents towards conservation to elicit their priority ecosystem service which will be the subject for developing the PES scheme. Furthermore, the respondents' choices were subjected to a statistical analysis to determine the factors influencing their decision. Also, as the analysis was also broken down to a county level assessment, one particular aspect that the study looked at is if there is a "neighbor's effect" towards the stakeholders' responses. This investigated for statistical evidence if there is indication that the average perception of stakeholders in one county is being affected by the average perception of neighboring counties. The study used a Rank analysis method to determine the priority ecosystem, logistic regression model for analyzing the factors that affect their prioritization, and a spatial lag model to understand if there is a "neighbor's effect" towards their responses.

Preliminary results of the study shows a low satisfaction rating of residents towards the current state of the environment in the state. Furthermore, results also show that water related ecosystem services, particularly good water quality, is the priority ecosystem service by the residents. The regression model showed that this prioritization and satisfaction rating is influenced by: familiarity to natural resource conservation concept, professional education of the respondents, income level, and number of household members. In the assessment of "neighbor's effect", the spatial lag model suggests that, the neighboring counties' characteristics and preferences, indeed, has an effect to the average rating of another county's satisfaction and perception. This result is particularly helpful in preparing and designing for policies towards conservation programs.

Subsequently, the secondary ecosystem service that residents prioritize is the abundance of water. This is particularly interesting since many policies, monitoring processes, and water management plans focus on abundance of water rather than on its quality while the residents' perception focuses otherwise.

Ultimately, the results suggest that both water quality and water quantity has to be simultaneously addressed as these are the main concerns of stakeholders. Hence, conservation programs directed towards improvement of water related ecosystem services should be of utmost importance in watershed management. Finally, the integrated results of these new techniques in understanding stakeholder perceptions could provide better decision-support and decision-making tools particularly for policy makers. It could be used as an argument to consider adjustments to policies towards the current water management strategies.