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Access to the Forest Ecosystem Services: Understanding the Interaction between Livelihood Capitals and Access

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Abstract: This study is aimed to understand the level of access and the influence of livelihood capitals in maintaining access and control of ecosystem services (ESS) in the Sundarbans, Bangladesh. Besides the villagers, we consider other stakeholders including the forest department, coast guard, police, merchants, pirates and villagers who 'controlled' or 'maintained' access to ESS (crab catching, shrimp fry, honey, shrimp, mixed fish, fuel wood) in this region. Villagers used human, physical, natural and social capitals to gain access to ESS. The highest level of access was observed in crab catching and the lowest was found in honey collection, both of which were done when balancing the costs and benefits of accessing one ESS against another. The outcomes of these ongoing access negotiations were determined by livelihood capitals of the households. In addition, it was often found that the certain variables could have a positive effect on one ESS and a negative effect on another. For instance, human, social and natural capitals (eldest daughter's education and No. of livelihood group membership and) had significant positive effects on honey collection while two components of human and social capitals including 'eldest son's education' and 'severity of pirate problem' had exactly the opposite impact. These complex interactions were also observed in access to other ESS. It thus seems that access to ESS is not anything which is provided, but rather it is achieved by using livelihood capitals. Protecting any ecosystem from over exploitation and improve wellbeing can be achieved by properly balancing the livelihood capital-access nexus.

Keywords: provisioning services, access level, livelihood capital, interaction, access gain

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